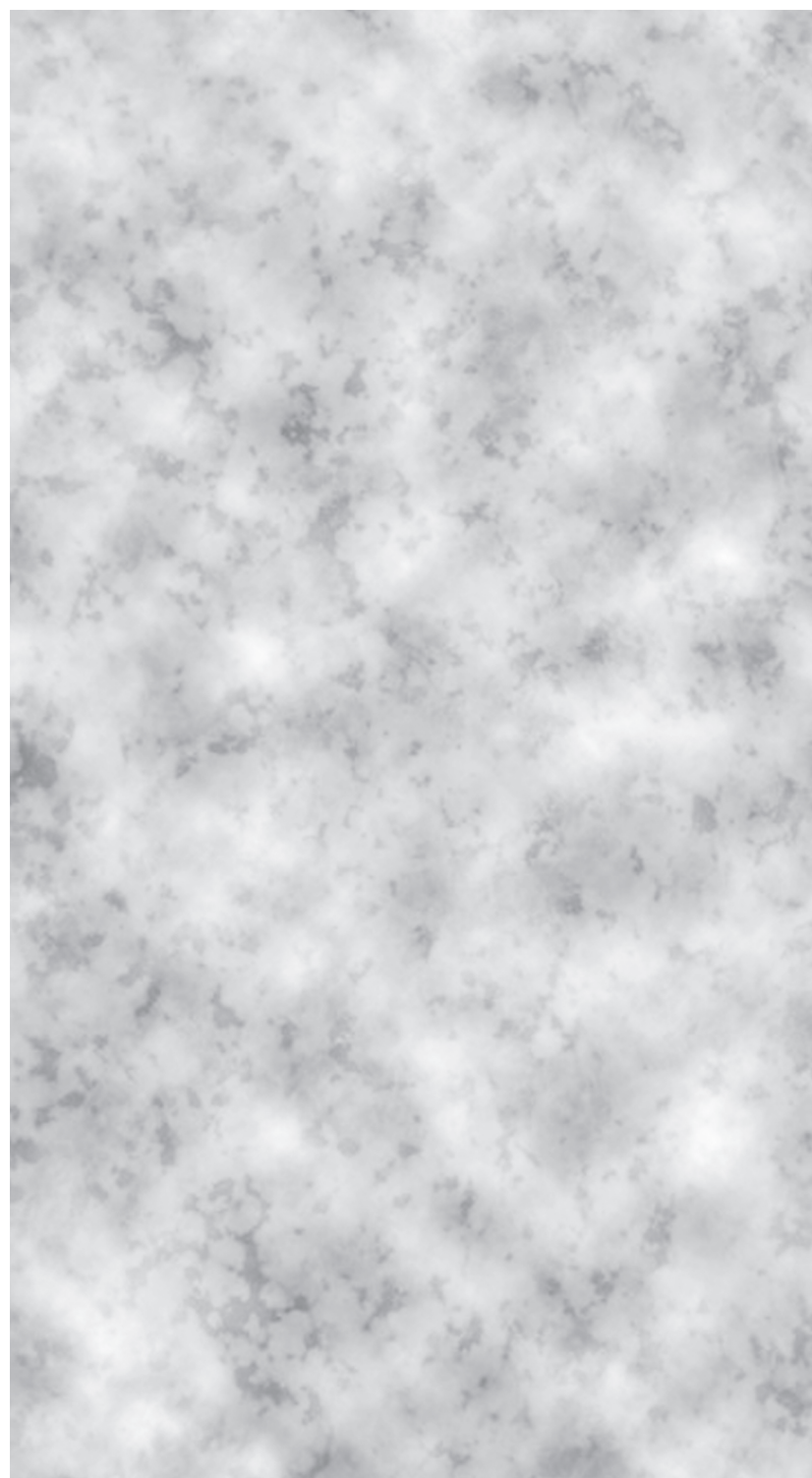
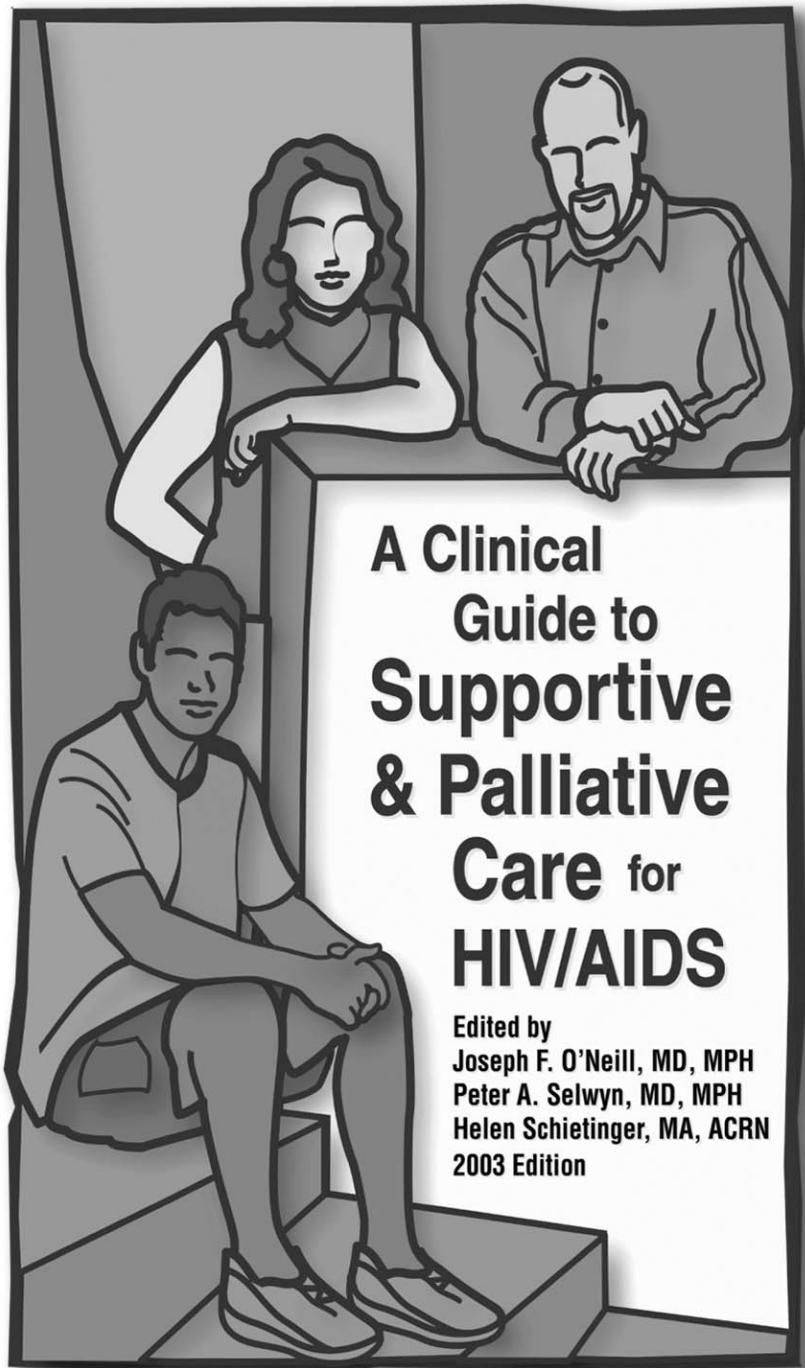


**A Clinical  
Guide to  
Supportive  
& Palliative  
Care for  
HIV/AIDS**

**Edited by**  
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2003 Edition





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# *Dedication*

## *A Clinical Guide to Supportive and Palliative Care for HIV/AIDS*

is dedicated to Belynda Dunn, an inspirational leader and beautiful role model, who brought hope, joy and love to so many people. Her faith was deep and powerful and sustained her throughout her life.



### **ACKNOWLEDGMENTS**

The contributions of many special people made this guide possible. Thanks go to Magda Barini-Garcia, MD, the Project Officer, who skillfully oversaw and managed the project's progress and quality, and Joan Holloway whose gift for art and innovation assured the guide's look and practicality. Credit is also due to Kim Dickerson, who designed and produced the guide, and Susan Lawrence, who was the copy editor.



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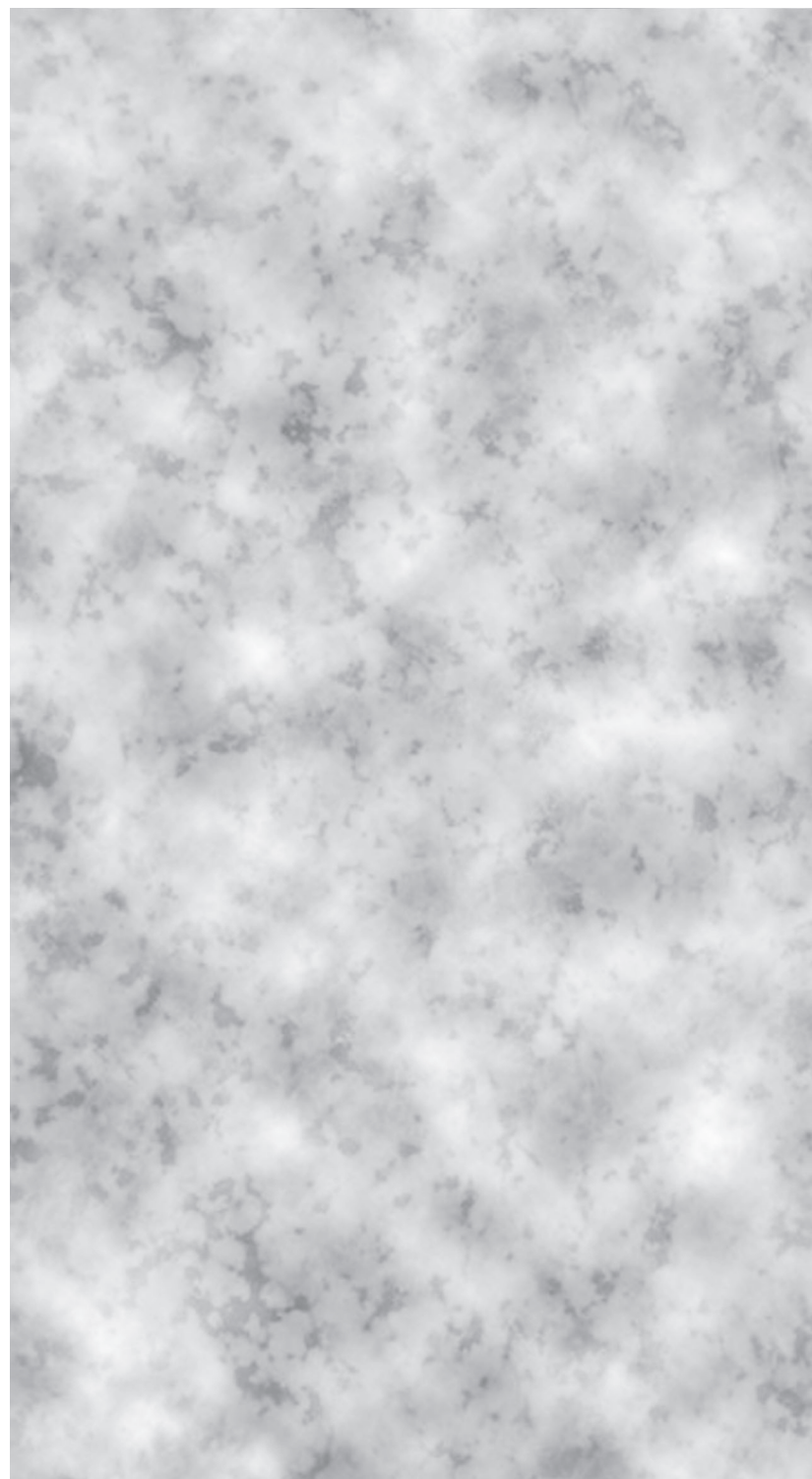
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## HIV and Palliative Care

Joseph F O'Neill, MD, MPH, and Magda Barini-García, MD, MPH

■ The Health Resources and Services Administration (HRSA) of the United States Department of Health and Human Services has as its mission the improvement of access to health care and services for underserved and vulnerable populations. HRSA accomplishes this mission by partnering with community-based organizations in the delivery of health and social services, with academic health centers in the education of health professionals, and with State and local health departments in the areas of prevention, public health promotion and health care delivery. Improved quality of care and quality of life are the goals of the programs and initiatives of HRSA. To that end HRSA's HIV/AIDS Bureau has embarked on the publication of *A Clinical Guide to Supportive and Palliative Care for HIV/AIDS*.

Through the work of visionaries in the fields of HIV/AIDS and palliative care, we conclude that excellent HIV care can be provided by integrating the principles and framework of palliative care into the delivery of care and services to people living with HIV/AIDS, throughout the continuum of illness. This integration of services holds the promise of patient and family-centered care that is proactive in addressing the multitude of issues with which patients are challenged. With this volume we seek to expand the definition of palliative care and to realize palliative care's full potential to improve the quality of care and the quality of life of those living with HIV/AIDS.

The HIV/AIDS Bureau, through its Working Group on Palliative Care in HIV, has set forth the following working definition:

*Palliative care is patient- and family-centered care. It optimizes quality of life by active anticipation, prevention, and treatment of suffering. It emphasizes use of an interdisciplinary team approach throughout the continuum of illness, placing critical importance on the building of respectful and trusting relationships. Palliative care addresses physical, intellectual, emotional, social, and spiritual needs. It facilitates patient autonomy, access to information, and choice.<sup>1</sup>*

Palliative care is *complementary* care, not *alternative* care, and therefore should not be provided only when disease-directed therapy fails or is unavailable. It is a mistake to adopt a palliative perspective and approach only at the last stages of illness. One need only reflect on the pain associated with receiving a first HIV diagnosis or upon the psychological and spiritual suffering

that are the substrates of substance abuse and other behaviors exposing individuals to HIV, to realize the importance of using palliative care principles at all points along the course of this illness. Providers should focus their attention on comfort, relief of suffering, and quality of life throughout the course of HIV disease.

Palliative care in HIV must be able to adapt to the fluctuating yet ultimately downward course of HIV disease. The central role of medication adherence is not to be underestimated in stabilizing the course of disease, but other factors can be equally important in optimizing clinical outcomes. These factors include a wide range of hard-to-control socioeconomic as well as personal characteristics: an understanding of the disease process; empowerment in relation to personal health; a safe place to live; freedom from pain and distressing symptoms; adequate nutrition; treatment for substance abuse, depression and other mental illness; hope; adequate help of friends, family and other caregivers, especially when functional status is diminished and disease progression is ongoing. These challenges can be met successfully by using a palliative care framework to approach the patient, providers, caregivers, family, loved ones, and the health care system.

This manual is organized to address the many aspects of palliative care that are key in caring for the person living with HIV and AIDS. A wealth of expertise and experience in the areas of HIV and palliative care has provided a unique document that expands the realms of both disciplines.

**Part I: Introduction** Provides our vision for the use of the guide and presents an overview of the key issues in HIV/AIDS and palliative care today.

**Part II: Management of Advanced HIV Disease** Addresses constitutional symptoms that cause much of the burden to patients in more advanced states of HIV disease. Special issues in the care of children and adolescents are covered in a chapter in this section. Psychiatric and substance use concerns are covered in this section as well.

**Part III: Psychosocial, Cultural and Ethical Issues** Focuses on the many other dimensions included in the palliative care approach, incorporating spirituality, care for the caregiver, special populations, and ethical and legal considerations. A special section highlights palliative care in resource-poor settings.

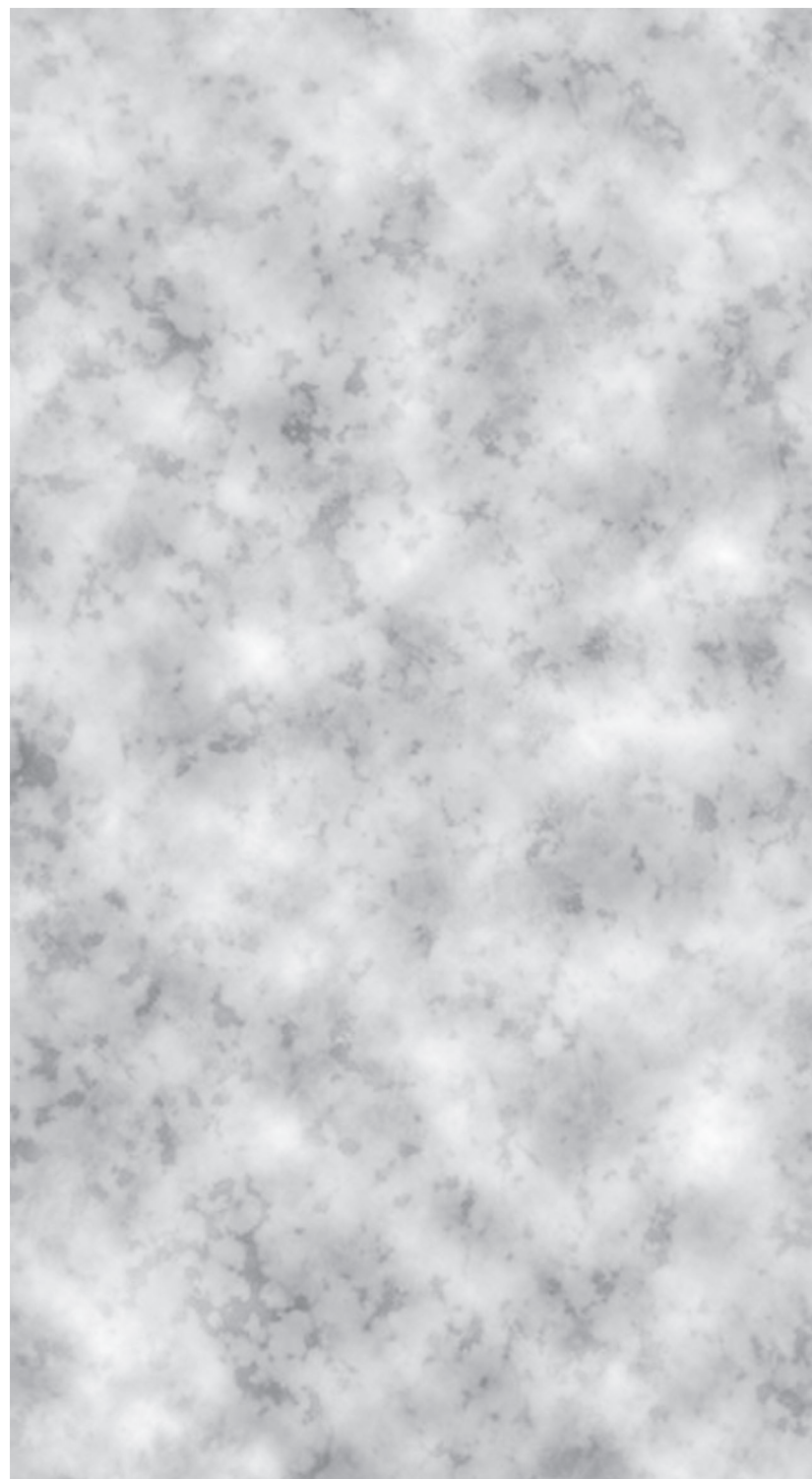
**Part IV: Care at the End of Life** Emphasizes the explicit aspects of care that are paramount when it has become clear that the patient is nearing the end of life. This section includes chapters on communication, the transition to home and hospice care, and a special section on skin breakdown.

**Part V: References for the Clinician** Provides a resource appendix highlighting web sites and sources for further reading and reference tools, and a comprehensive chapter about the pharmacologic considerations in using both HIV-related and palliative medications.

It is our sincere hope that you and your colleagues will find this guide useful as you integrate the principles and framework of palliative care into the practice of high quality HIV care.

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1. HRSA Working Group on HIV and Palliative Care. Palliative and Supportive Care. *HRSA Care ACTION*, July 2000. Available at [www.hab.hrsa.gov](http://www.hab.hrsa.gov)



# Overview of Clinical Issues

Peter A Selwyn, MD, MPH, and Mimi Rivard, ANP, MSN

## INTRODUCTION

■ The past two decades have seen both the emergence of AIDS as a new, life-threatening infectious disease and its conversion from a rapidly fatal illness into a manageable chronic disease. This pattern has been most marked in industrialized countries where the promise of HIV-specific therapies has been realized for many individuals living with HIV. However, even in the era of 'highly active antiretroviral therapy' (HAART), AIDS remains an important cause of morbidity and mortality in many young adult populations, and attention to palliative and end of life issues is an essential aspect of clinical care. In the early years of the AIDS epidemic, clinicians had to learn about palliative care by necessity, in the absence of any hope of curative therapy. With the advent of antiretroviral therapy and the ability to control HIV disease progression, it remains important to incorporate relevant aspects of palliative care in the comprehensive management of patients with AIDS. Rather than being 'either-or,' curative and palliative approaches to HIV care need to be 'both-and,' and one paradigm need never fully substitute for the other. This chapter will outline some of the important clinical issues in HIV palliative care, many of which will be addressed in greater detail in subsequent chapters.

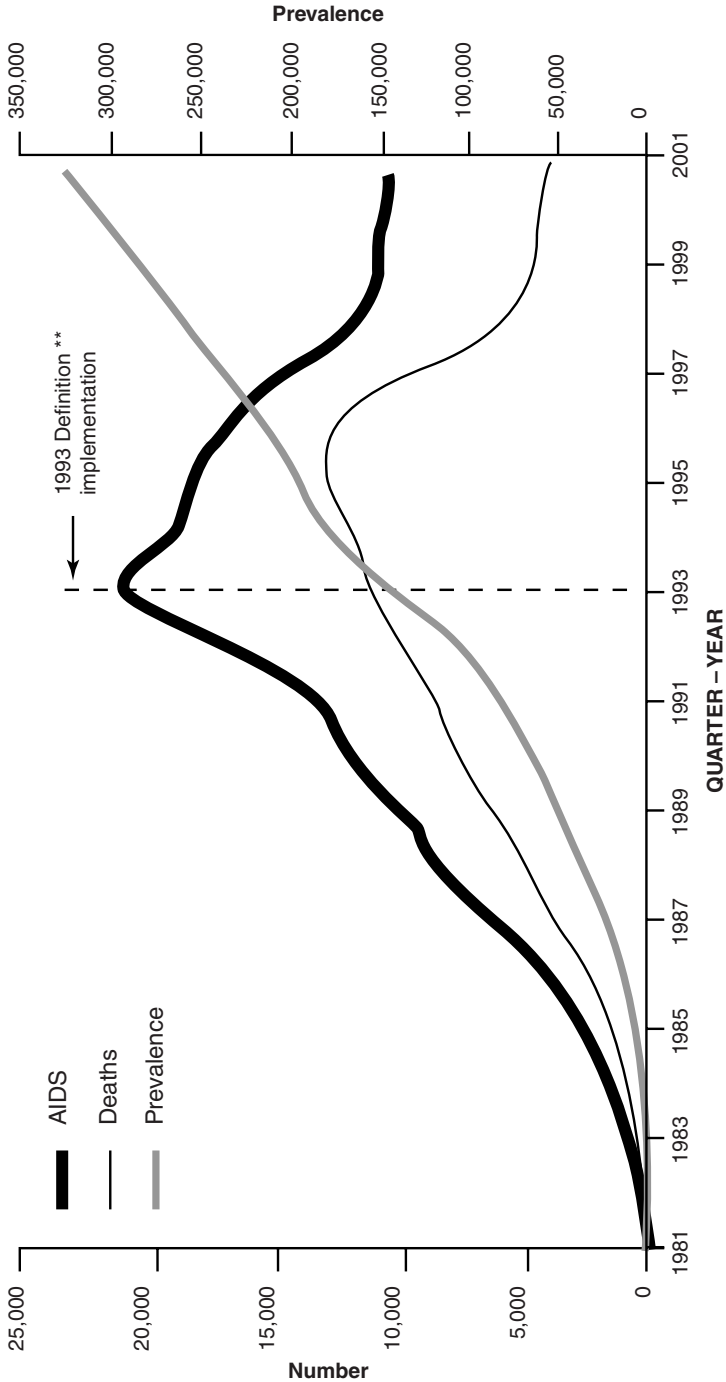
## EPIDEMIOLOGY

■ Starting in the early 1980's, AIDS rapidly became the leading cause of death for young adults in the United States.<sup>1</sup> With advances in AIDS care and HIV-specific therapy in the mid-1990's, mortality rates began to decline, and with the introduction of the protease inhibitors in 1996, the rates declined even more dramatically.<sup>2-7</sup> However, the decline in death rates has since plateaued, and there remain approximately 15,000 deaths per year from HIV/AIDS.<sup>4</sup> While the number of deaths from AIDS dropped by 25% and 42% from the preceding years in 1996 and 1997, respectively, these figures dropped to 17% and 8% for 1998 and 1999.<sup>4,6</sup> Moreover, the declines in death rates have not been uniform across all populations affected by HIV/AIDS, and decreasing mortality has not been as pronounced among African-Americans and Latinos as it has been among whites.<sup>4,8</sup> In addition, the incidence of new HIV infections is not believed to have decreased, and has remained stable at approximately 40,000 new cases per year.<sup>8</sup> As a result of these trends, AIDS-related mortality continues to be an important phenomenon, and the number of patients living with HIV (i.e., the prevalence of AIDS) has actually increased.<sup>4,8</sup> (Figure 2-1.)

---

A condensed version of this chapter was previously published in the online publication *Innovations in End-of-Life Care* as Selwyn PA, Rivard M. Palliative care for AIDS: Challenges and opportunities in the era of highly active anti-retroviral therapy. *Innovations in End-of-Life Care*. 4(3), 2002. [www.edc.org/lastacts](http://www.edc.org/lastacts)

Figure 2-1: Estimated AIDS Incidence,\* Deaths, and Prevalence, by Quarter-Year of Diagnosis/Death – United States, 1981 - 2000



\*Adjusted for reporting delays.

\*\*Due to the implementation of the expanded AIDS case definition in 1993, there was a disproportionate increase in AIDS cases reported during that year.

Source: CDC. HIV and AIDS - United States, 1981-2000. *MMWR* 50:430-4, 2001.



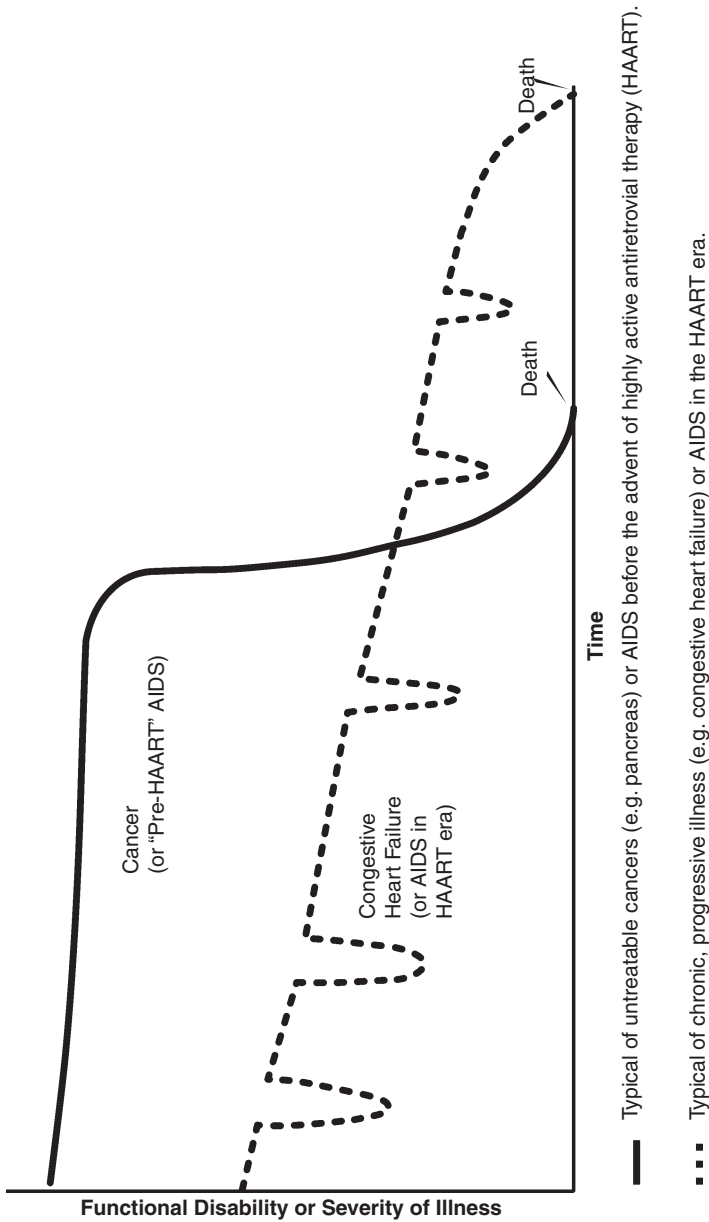
In the pre-HAART era, AIDS was a rapidly fatal, acute infectious disease, characterized by multiple typical opportunistic infections, swift decline, and death within months of diagnosis. The impact of disease-specific treatment on the natural history of HIV infection has now resulted in a much more variable trajectory of illness for many patients. For some, HAART has meant the possibility of full return of function and health, with AIDS experienced as a chronic condition that has little impact on daily quality of life. For others, treatment has meant the ‘conversion of death to disability,’ with the emergence of a chronic disease phase characterized by exacerbations, remissions, and eventual decline and death from the illness,<sup>9</sup> as the survival time from AIDS diagnosis to death has lengthened.<sup>10</sup> Thus, over a remarkably short period of time, the historical evolution of HIV disease—for which the rapid disease course from diagnosis to death once resembled that of untreatable fatal cancers—has shifted to a trajectory more typical of chronic, progressive illnesses such as congestive heart failure, chronic obstructive pulmonary disease, or hepatic cirrhosis, with much more variability in outcomes.<sup>11</sup> (Figure 2-2.) Clinical assessment of prognosis and outcomes is thus much more complex than was previously the case.

As AIDS-specific mortality has declined, surveillance data and clinical studies have indicated that mortality among patients with HIV has proportionally increased as a result of co-morbidities such as hepatitis B and C, co-occurring malignancies (both AIDS-defining and non-AIDS-defining cancers), and substance abuse-related deaths.<sup>9,12-16</sup> In addition, for certain patients, even the benefit of HAART is not always attainable, due to lack of access to care, inability to adhere to effective treatment regimens, active substance use or other psychiatric illness, progressive viral resistance despite therapy, serious other co-morbidities, or unmanageable drug toxicities. For all these reasons, comprehensive AIDS care must continue to encompass end-of-life issues even as treatment continues to advance. Just as we must advocate for timely access to HAART for all patients, so too must we be ready to provide needed and appropriate palliative care even after HAART is no longer a life-extending option. The need to incorporate both palliative and curative approaches in HIV care is even more important than it was in the pre-HAART era: the availability of treatment does not give clinicians the luxury of ignoring the important issues posed by a chronic progressive illness and its management over time.<sup>17</sup>

## CENTRALITY OF PALLIATIVE CARE IN HIV CARE

■ In the early years of the AIDS epidemic, a cohort of physicians and other care providers found themselves confronted with a disease that they could not understand, let alone cure. It was a time in which the narrow medical model of care—isolating specific elements of disease and then focusing on treating the pathology—was totally inadequate in the face of the enormity of this disease and its effects on patients and their families. Paradoxically, it was a time in which clinicians learned the importance of being present, of accompanying patients through illness and being with patients and families as they grappled with the critical issues of death and dying. Clinicians learned how to focus on the goals of care, helping to empower patients even in the context of a life-threatening illness and discussing treatment decisions in terms of quality of life and care preferences of patient and family, rather than making decisions for their patients (as occurs with the more one-sided and hierarchical model that often predominates in the medical encounter). When disease could not be prevented or even treated, it was important to provide relief by treating pain, other symptoms, and the overall suffering caused by progressive illness. Patients’ needs were understood to be multi-dimensional—medical, psychosocial, and spiritual—and they needed to be addressed in a multi-disciplinary model of care that did justice to the complexity of these needs, especially at the end of life. Families and significant others were

Figure 2-2: Trajectories of Illness over Time in Chronic, Fatal Diseases



Adapted, with permission, from J. Lynn. Serving patients who may die soon and their families. *JAMA* 285:425-32, 2001. (Copyright 2001, American Medical Association)

also central to the context of care for patients early in the AIDS epidemic, and it was common for providers to attend funerals and memorial services as well as provide formal and informal bereavement services for survivors.

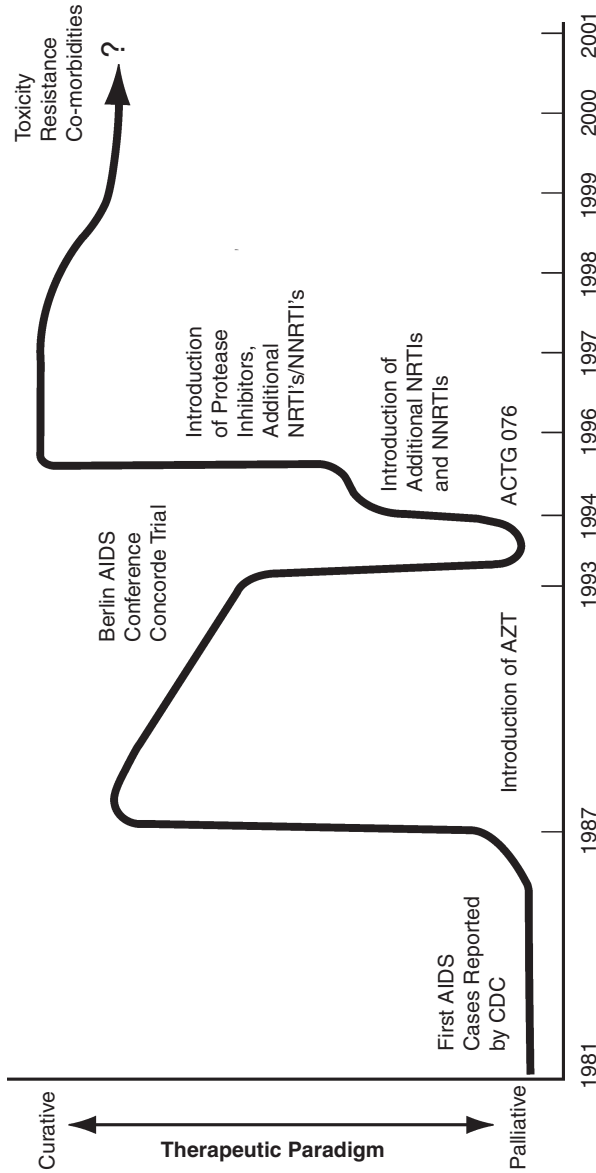
What is striking from this summary of salient clinical issues is that care for patients with AIDS in the pre-HAART era constituted comprehensive palliative care and that many of the elements of palliative care remain central to the routine care of patients with HIV even in the therapeutic era. Indeed, the widely used World Health Organization definition for palliative care serves as an appropriate and timely description of comprehensive care for patients with advanced HIV disease:

*“Palliative medicine is the study and management of patients with active, progressive, far advanced disease for whom the prognosis is limited and the focus of care is the quality of life. [It is] the active total care of patients whose disease is not responsive to curative treatment. Control of pain, of other symptoms, and of psychological, social, and spiritual problems, is paramount. The goal of palliative care is achievement of the best quality of life for patients and their families.”*<sup>18</sup>

What is also striking is the emergence of a new cohort of HIV care providers who did not live through that earlier era and who have learned about HIV care more within the therapeutic paradigm of HAART. Not surprisingly, this paradigm tends to be more strictly biomedical and less likely to incorporate end-of-life and palliative care issues since, thankfully, end-of-life issues are less inescapable than they previously had been. However, it is important to recognize that the curative vs. palliative dichotomy is a false one. HIV care has evolved over a short period of time with the rapid development of disease-specific therapy, although the tension between palliative and curative approaches has always been present. Since the early 1980’s there have been several mini-‘paradigm shifts’ in which the hope of cure for AIDS or the reality of the limitations of HIV therapy have led prematurely to extreme optimism or pessimism, respectively, as shown schematically in Figure 2-3. The overall direction has been toward more curative or disease-modifying therapy, but the curve has oscillated back and forth, and even after the heady optimism of the late 1990’s following the introduction of the protease inhibitors, few if any researchers are currently speculating about the likelihood of viral eradication or ‘cure’ for HIV infection.

In fact, perhaps a more sober assessment would lead one to conclude that AIDS is a chronic, progressive disease that may be effectively managed in some patients but may still cause considerable morbidity and mortality in others. As such, while we eagerly embrace and seek to extend any benefits of HAART and other disease-specific therapies, we must also be prepared to anticipate and address the important aspects of palliative and end-of-life care that many (if not all) of our patients will be facing at some point during the course of their illness. Otherwise, we run the risk of isolating or unconsciously abandoning our patients when our therapies are no longer effective or of being ill-prepared to help and accompany them through the later stages of their disease. The more we focus on the therapy, the less we tend to focus on the patient. Indeed, some providers experience growing frustration with patients who do not adhere to HAART, and the conflict over adherence may become the main platform for interaction – or avoidance – between provider and patient. This conflict can eventually become dysfunctional, especially for patients who refuse therapy outright, which may threaten the basis of the relationship unless

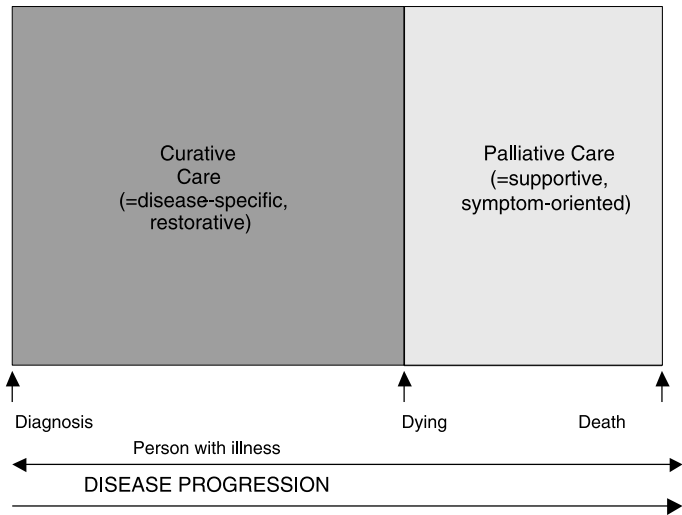
Figure 2-3: Evolution of HIV Treatment Paradigms 1981 - 2001



patient and provider can interact in ways that emphasize the totality of care and not merely adherence to recommended antiretroviral regimens.

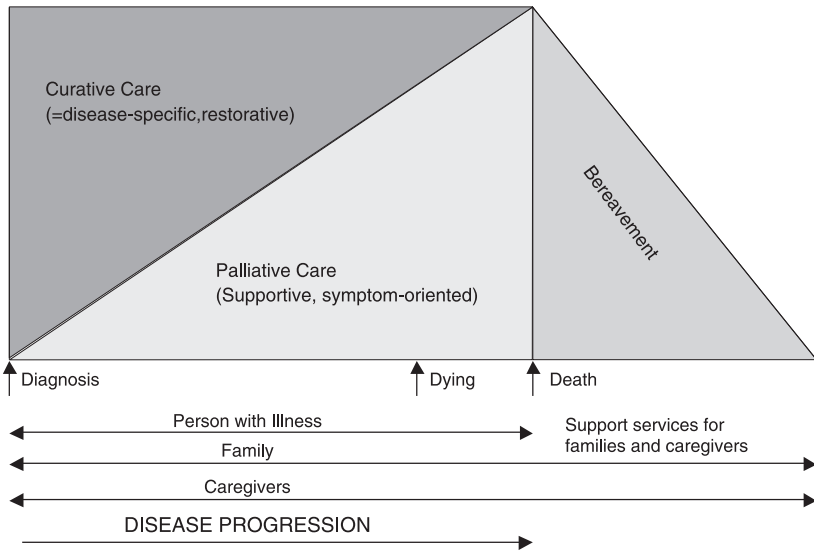
Rather than the false dichotomy of *either* curative *or* palliative care, this guide is suggesting that both approaches need to be considered *throughout* the course of HIV disease. This integrated approach is represented graphically in Figures 2-4a and 2-4b. Rather than the simple and

Figure 2-4a: Traditional Dichotomy of Curative and Palliative Care for Incurable Illness.



Source: World Health Organization. *Cancer Pain Relief and Palliative Care, Report of a WHO Expert Committee*. Publication #1100804. Geneva: World Health Organization, 1990.

Figure 2-4b: Integrated Model Including Both Curative and Palliative Care for Chronic Progressive Illness



Source: World Health Organization. *Cancer Pain Relief and Palliative Care, Report of a WHO Expert Committee*. Publication #1100804. Geneva: World Health Organization, 1990.

misleading framework of sequential curative and then palliative care (Figure 2-4a), a much more dynamic and integrated framework is required (Figure 2-4b)—one which accounts for the changing needs of the patient throughout the course of the illness but does not rigidly choose one or the other domains.<sup>17,18</sup>

Clearly, in the early phases of HIV infection, curative or disease-specific therapies may predominate (e.g., HAART, specific prophylactic regimens to prevent opportunistic infections), and in the later phases of AIDS, palliative approaches become more important (e.g., management of pain, symptoms, and quality-of-life issues in addition to prolongation of life when possible). However, as noted above, this is not simply ‘either-or,’ but rather ‘both-and.’ management of nausea and vomiting and gastrointestinal toxicity from HAART may be a key aspect of promoting good adherence with antiretroviral therapy, and treating CMV retinitis in a dying patient with daily intravenous ganciclovir or foscarnet may be an important quality-of-life issue even after HAART no longer has a role in reversing the course of illness. Thus, it is important to adopt an integrated model, which allows both curative and palliative elements to be incorporated in the comprehensive care of the patient.

As will also be emphasized throughout this guide, this integrated model of care is most fully realized when it encompasses all the contributions of an interdisciplinary team. The key role of the clinical team becomes even more important as patients approach the end of life. Once patients’ physical comfort needs have been addressed, important emotional and spiritual work can often be done. The team—including members from medicine, nursing, social work, and pastoral care—can become an integral part of the patient and family’s support system throughout the death and dying process. Patients and families experience the totality of illness (with medical, psychological, social, and spiritual dimensions), and the interdisciplinary team can best implement a biopsychosocial approach to care, regardless of which needs are expressed at any given time. The complexity of AIDS in all these dimensions requires this type of comprehensive, collaborative, and multi-leveled response.

For many clinicians involved in the first phase of the AIDS epidemic, it took a disease we could not cure to teach us the true meaning of healing. It is our hope that these lessons will not be lost as we strive to provide our patients with all the best that HIV therapy has to offer at the same time as we seek to help them and their loved ones navigate the complex trajectory of this disease and its changing impact on their lives.

## PAIN AND SYMPTOM MANAGEMENT

■ Since early in the epidemic, clinical studies have documented a high prevalence of pain and other symptoms in patients with AIDS.<sup>19,22</sup> Pain in AIDS has been attributed variously to:

1. The effects of specific opportunistic infections (e.g., headache with cryptococcal meningitis, visceral abdominal pain with disseminated *Mycobacterium Avium* complex [MAC] infection)
2. The effects of HIV itself or the body’s immune response to it (e.g., distal sensory polyneuropathy, HIV-related myopathy)
3. The effects of medications used to treat HIV disease (e.g., dideoxynucleoside-related peripheral neuropathy, zidovudine-related headache, protease inhibitor-related gastrointestinal distress)
4. The non-specific effects of chronic debilitating illness, along with other miscellaneous causes

Some of these findings on pain are from the pre-HAART era, and certainly the contribution of specific opportunistic infections to pain syndromes and other symptoms in AIDS has diminished over time as the incidence of such infections declined. However, it should be noted that in some instances the incidence and/or prevalence of pain may have actually increased over time. As is often the case with AIDS, the irony of decreased mortality rates is that by surviving longer some patients may thus be vulnerable to new complications and pain, as in the observed increasing prevalence of peripheral neuropathy which occurred with longer survival according to the Multi-Center AIDS Cohort Study.<sup>23</sup> Further, in a recent example of the potential overlap of palliative and disease-specific therapies in AIDS, analysis of data from an ongoing observational cohort study found that the severity of HIV-related neuropathy was associated with plasma viral load levels – suggesting that antiretroviral therapy itself might in fact be useful for treating or preventing this painful syndrome.<sup>24</sup> In addition, while pain due to opportunistic infections may have diminished with the advent of HAART and more effective prophylactic regimens, the medications themselves may cause pain and other symptoms, e.g. the antiretroviral side effects alluded to above, which may compromise effective treatment unless the symptoms are also effectively palliated.

Despite the high prevalence of pain in AIDS, several studies have also demonstrated that pain in patients with AIDS is likely to be under-diagnosed and under-treated.<sup>21,25</sup> This failure to diagnose and treat may reflect both the general under-recognition of pain by most physicians and/or the additional reluctance to consider seriously any self-report of pain in patients with a history of substance use problems. Moreover, recent reports have documented that non-white race/ethnicity may be a risk factor for inadequate analgesia in general in medical settings, and that even the physical availability of narcotic pain medication may be limited in pharmacies serving poor urban neighborhoods where HIV infection may also be concentrated.<sup>26,27</sup>

Regardless of the possible explanations for under-treatment of pain, the result is that patients with AIDS are at risk for significant pain and the resulting diminished quality of life—an outcome which in most cases could be prevented with adequate pain assessment and management. As described in Chapters 4 (Pain) and 11 (Substance Use Problems), the science of pain management has advanced considerably in recent years. It is now fully possible to assess and treat pain effectively in patients with AIDS, including substance users, using standard measurement techniques, rational decisionmaking, evidence-based practice, and common sense.<sup>28,29</sup> These pain management tools should be as much a part of the pharmaceutical inventory of HIV care providers as antiretrovirals and prophylactic agents.

In addition to pain, patients with AIDS have been found to have a high prevalence of other symptoms, particularly but not exclusively in the advanced stages of the disease.<sup>30-38</sup> Moreover, one recent study suggested that physicians frequently fail to identify and under-treat common symptoms reported by patients with AIDS.<sup>35</sup> Symptoms have included a mixture of physical and psychological conditions, such as fatigue, anorexia, weight loss, depression, agitation and anxiety, nausea and vomiting, diarrhea, cough, dyspnea, fever, sweats, pruritus, etc. Table 2-1 lists common symptoms in AIDS by organ system. Table 2-2 summarizes the findings of several key studies that have examined the symptom burden in patients with AIDS in different populations. It is striking that these studies, conducted in the United Kingdom, Canada, France, and Italy, showed a remarkable consistency of symptoms across populations even with different selection criteria, different time periods, and varying methods for determining the prevalence of symptoms.

In addition to these studies, which were conducted mostly in late-stage patients admitted to hospice or hospital with symptomatic disease, a symptom prevalence study was conducted using a large national probability sample of over 3000 patients with HIV infection in the United States receiving care in 1996.<sup>39</sup> For this sample, the prevalence of the most common ten symptoms for the preceding six months was as follows:

- Fever, sweats, or chills (51%)
- Diarrhea (51%)
- Nausea or anorexia (50%)
- Numbness, tingling, or pain in hands/feet (49%)
- Headache (39%)
- Weight loss (37%)
- Vaginal discharge, pain, or irritation (36%)
- Sinus infection or pain (35%)
- Visual problems (32%)
- Cough or dyspnea (30%)

Another study of AIDS outpatients receiving care in New York in the early 1990's found a mean of 16.7 current symptoms (using the Memorial Symptom Assessment Scale), of which the most common were worrying (86%), fatigue (85%), sadness (82%), and pain (76%).<sup>40</sup> With these populations as well, the concordance of symptom types with those in the previously published studies is noteworthy, as is the high prevalence of symptoms in relatively non-selected populations of patients with HIV.

Table 2-1: Common Symptoms in HIV / AIDS

<b>Pain</b>	<b>Constitutional</b>
<ul style="list-style-type: none"> <li>• Neuropathic</li> <li>• Nociceptive                             <ul style="list-style-type: none"> <li>– Somatic</li> <li>– Visceral</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Fatigue / weakness</li> <li>• Anorexia / weight loss</li> <li>• Fever</li> <li>• Sweats</li> </ul>
<b>Gastrointestinal</b>	<b>Neurologic</b>
<ul style="list-style-type: none"> <li>• Nausea / vomiting</li> <li>• Diarrhea</li> <li>• Constipation</li> </ul>	<ul style="list-style-type: none"> <li>• Delirium / agitation</li> <li>• Dementia</li> <li>• Depression</li> </ul>
<b>Respiratory</b>	<b>Dermatologic</b>
<ul style="list-style-type: none"> <li>• Dyspnea</li> <li>• Cough</li> <li>• Respiratory Secretions</li> </ul>	<ul style="list-style-type: none"> <li>• Dry Skin</li> <li>• Pruritis</li> <li>• Decubiti / skin breakdown</li> </ul>



Table 2-2: Prevalence of Current Symptoms in Different Patient Populations with HIV Infection

<b>PATIENT POPULATIONS</b>					
	<b>Moss (U.K.) (n=100) % (rank)</b>	<b>Foley (Canada) (n=100) % (rank)</b>	<b>Fantoni (Italy) (n=1128) % (rank)</b>	<b>LaRue (France) (n=314) % (rank)</b>	<b>Kelleher (U.K.) (n=118) % (rank)</b>
Weight loss	85%(1) <sup>∇</sup>	91%(1) <sup>§</sup>	—	31%(6)	58%(1)
Anorexia	44%(3)	—	34%(2)	—	38%(3)
Pain	71%(2)	63%(3)	29%(4)	52%(1)	55%(2)
Cough	30%(5)	34%(8)	32%(3)	27%(8)	19%(6)
Dyspnea / resp. symptoms	17%(11)	48%(5)	19%(6)	22%(12)	15%(9)
Fatigue	— <sup>**</sup>	77%(2)	55%(1)	50%(2)	—
Nausea / vomiting	24%(8)	35%(7)	22%(5)	28%(7)	17%(8)
Cognitive dysfunction	32%(4)	43%(6)	—	—	19%(7)
Depression	26%(7)	32%(9) <sup>*</sup>	—	26%(10)	10%(12) <sup>*</sup>
Anxiety	—	—	—	40%(3)	—
Diarrhea	23%(9)	—	11%(8)	24%(11)	14%(10)
Mouth sores	—	—	—	33%(5)	—
Fever / sweats	—	—	—	27%(9)	—
Pruritis / dry skin	27%(6)	24%(11)	17%(7)	23%(12)	—
Constipation	22%(10)	23%(12)	—	—	25%(4)
Visual loss	—	25%(10)	12%(9)	—	—
Headache	11%(12)	—	—	—	11%(11)
Hemiparesis / ataxia	—	—	—	—	23%(5)
Incontinence	—	55%(4)	—	—	—
Insomnia	—	—	—	37%(4)	—

∇ Includes fatigue

\* Includes anxiety

§ Includes anorexia

\*\* Indicates that the symptom was not included as a separate category for this study population

Sources: References 30, 31, 32, 33, 34.

As with the findings related to pain, symptoms in AIDS may result from the specific effects of opportunistic infections (e.g., sweats, fever, in disseminated MAC infection, dyspnea in *pneumocystis carinii* pneumonia), from the apparent effects of the progression of HIV infection itself (e.g., weight loss, fatigue), from medications (e.g., antiretroviral-induced nausea and vomiting), or from the non-specific manifestations of late-stage illness (e.g., depression, fatigue, malaise). As with studies of the prevalence of pain, much of the observational knowledge regarding symptom prevalence in AIDS was generated in the pre- or early HAART era, and the specific effects of certain opportunistic infections may have diminished as these entities have become less common.<sup>3, 7, 41</sup> Nevertheless, the challenges of symptom management have also grown with several factors:

1. The prolongation of the chronic disease phase in some patients, with the resulting more protracted late-stage course described above, requiring more sustained attention to complex symptom management in chronically ill patients;
2. The recognition of the wide cumulative range of drug toxicities and symptomatic sequelae which occur in patients on long-term antiretroviral therapy;
3. The assessment of the contribution of drug toxicities vs. the underlying effects of disease progression, raising important clinical issues regarding the competing effectiveness and toxicity of different therapeutic options (e.g., balancing short-term quality of life vs. long-term prolongation of life in a patient contemplating a potentially toxic antiretroviral regimen, deciding whether disease-specific therapy may also in fact have a palliative impact on symptoms in a given situation, etc.);
4. The emergence of co-existing co-morbid conditions that have complicated the management of patients with AIDS, including chronic viral hepatitis (especially but not limited to hepatitis C), and chronic co-morbid psychiatric illness and substance abuse in patients with AIDS.<sup>42-44</sup>

As with the management of pain, clinicians caring for patients with AIDS need to be familiar with the science and practice of palliative medicine, which has emerged as a fast-growing specialty receiving increased attention in the United States and elsewhere. Indeed, the United States is a relative newcomer to the field, with much of the scientific and professional contribution to palliative medicine having emanated first from the United Kingdom and Canada.<sup>29</sup> The literature of palliative medicine has documented impressive advances in recent years in the elucidation of pathophysiology and treatment of many of the common symptom syndromes listed above, such as nausea and vomiting, dyspnea, fatigue, and weight loss.<sup>29, 45</sup> Some of this work has included palliative care in the context of AIDS.<sup>46</sup> Much recent work has also been done in the psychopharmacologic treatment of depression and anxiety and other psychiatric illness, including the treatment of such conditions at the end of life,<sup>47</sup> and many treatment options exist for these conditions as well. These options will be discussed in more detail in Chapter 5, Constitutional Symptoms, and Chapter 10, Psychiatric Problems, respectively.

Although some complicated syndromes in symptom management, as in pain management, would benefit from the input of a palliative care specialist, in many cases primary HIV care providers can identify and treat a wide range of AIDS-related symptoms using standard palliative medicine strategies that will both enhance patients' quality of life and also maximize the likelihood of adherence to disease-specific therapy in cases in which this is still an option. Basic familiarity with both realms of care should be part of the clinical repertoire of all AIDS care providers. As is

now true for other areas of pharmacologic management in AIDS,<sup>48</sup> clinicians also need to be aware of and anticipate possible drug-drug interactions between antiretrovirals and other AIDS-related medications and the medications commonly used in palliative care, including opioids, benzodiazepines, anti-convulsants, and sedative-hypnotics (see Chapter 27 for more information on drug interactions).

As was noted in an editorial in the journal *Pain* in 1986:

*“Up to the 19<sup>th</sup> century, most medical care related to the amelioration of symptoms while the natural history of the disease took its course toward recovery or death. By 1900, doctors and patients alike had turned to a search for root cause and ultimate cure. In the course of this new direction, symptoms were placed on one side as sign posts along a highway, which was being driven toward the intended destination. Therapy directed at the signposts was denigrated and dismissed as merely symptomatic...[Yet] the immediate origins of misery and suffering need immediate attention while the long-term search for basic cure proceeds. The old methods of care and caring had to be rediscovered and the best of modern medicine has to be turned to the task of new study and therapy specifically directed at pain.”*<sup>49</sup>

The same combined strategy is no less relevant to HIV care than to medical care in general.

## STRATEGIES AND GOALS OF CARE

■ As defined above, palliative medicine seeks to provide the best quality of life for patients and families using a model in which the goals of care are collaboratively developed with care providers according to the wishes of patients and families. This model emphasizes communication, collaboration, and the willingness to accept patient-focused outcomes as paramount and to respect patients' wishes regarding such important issues as quality of life or cessation of therapy. Table 2-3 summarizes some of the key aspects of the philosophy of palliative medicine.<sup>50</sup> This palliative philosophy comes from a model of care that is distinctly different from the familiar, hierarchical, and physician-dominated model that characterizes much of contemporary medical care, especially for diseases that have potentially effective therapies.

The more collaborative palliative approach—one in which uncertainty is shared, in which patients and their care providers work through difficult decisions with an ultimate inability to control the outcome, and in which there are many ambiguities and nuances and no clear ‘right answer’—was one that defined much of AIDS care in the pre-HAART era. In this environment, clinicians learned to work together with patients and families to clarify goals of care, to determine the important issues related to quality of life and the end of life, and to be comfortable helping patients and families negotiate the complexities of progressive, incurable illness.

With the arrival of more effective disease-specific therapy, much of the focus has shifted to more curative or quasi-curative therapies for which the goals of treatment are more clear-cut, uniform, and physician-generated. This guide seeks to provide the rationale and the logic for incorporating the more collaborative palliative approach into the routine clinical decisionmaking

Table 2-3: Core Elements of Palliative Care

- Emphasizes comprehensive care of the whole patient, inclusive of medical, psychosocial, and spiritual concerns.
- Depends on effective communication and relationship building, within a model of diverse expertise and interdisciplinary teamwork, not an authoritative hierarchy.
- Goals of care include relief of suffering, control of symptoms, and restoration of functional capacity.
- Supports neither goal of cure nor the hastening or prolonging of death.
- Considers patients' subjective experience (e.g., pain, other symptoms) to be as important as objective clinical data.
- Diagnosis not predetermined goal: only pursued if conforms to patient-determined goals of care.
- Death not equated with defeat but rather is seen as natural conclusion of life; response of the clinician should be to comfort, not withdraw.
- Management plan tailored specifically to each patient, according to patient's values and preferences, not decided unilaterally by physician.

Source: Fox E. Predominance of the curative model of medical care. *JAMA* 278:761-3, 1997.

and interactions of clinicians and their patients. The intent is not to eschew therapy or to downplay the importance of achieving certain objectively measurable outcomes such as directing therapy to achieve an undetectable HIV viral load or a sustained rise in CD4+ cells, but rather to encourage care providers to recognize that above all it is the *patient* who must live with the illness, and that the goals of care are for the *patient* and not the physician. For instance, an overly narrow focus on antiretroviral treatment protocols and the technical details of HIV care will neither do justice to the patient's condition nor ultimately promote a meaningful patient-physician relationship.

Focusing on the patient- and family-centered goals of care ensures that decisions will be made which do not violate important concerns of the patient and family. Curative, palliative, or both types of interventions can be offered, not unilaterally and driven by diagnostic or treatment algorithms but rather collaboratively and driven by the priorities and values of the patient and family. Some of this work takes time and may be more open-ended than the narrow focus on test results and medication adherence that has come to dominate much of our attention in routine office visits with patients on HAART. This collaborative approach will also pose a particular challenge to busy primary care providers who already experience significant time pressure and possibly increased numbers of longer-surviving HIV-infected patients in their practices. Nevertheless, if we are to be effective as care providers for patients and families affected by HIV/AIDS, it is fundamentally important to work within this collaborative, comprehensive framework.

Specific examples of some common clinical scenarios involving decisions about palliative and/or disease-specific care—and the context for decision-making based on *goals of care* rather than on simple diagnosis-treatment algorithms—include the following:

1. The use of transfusion and/or psycho-stimulants (e.g., methylphenidate) and/or corticosteroids to treat fatigue in late-stage patients, with or without HAART;
2. Aggressive anti-emetic therapy for protease inhibitor-induced nausea and vomiting, or alternatively, revision or even discontinuation of antiretroviral therapy if such side effects are unable to be managed successfully;
3. Continued suppressive therapy with intravenous foscarnet or ganciclovir for CMV retinitis, or intravenous amphotericin B for azole-resistant candidiasis, even after the discontinuation of antiretroviral therapy and other prophylactic regimens in a dying patient;
4. Palliative treatment of disseminated MAC (e.g., with anti-pyretics, narcotic analgesics, and corticosteroids) in patients with advanced disease unwilling or unable to take anti-infectives;
5. Withdrawal of MAC or PCP prophylaxis in patients expected to die soon;
6. Withdrawal of HAART after evident treatment ‘failure,’ with assessment of risk-benefit as well as symbolic and emotional value;
7. Decisions to withdraw or forego artificial nutrition or hydration in a patient unable to maintain oral intake, involving assessment of patients’ wishes, functional and mental status, quality-of-life concerns, and social and cultural values;
8. Realistic vs. false hopes regarding decisions to initiate HAART or “salvage” regimens in late-stage patients (e.g., the possibility for a potentially disease-reversing course of antiretroviral therapy, vs. the possibility that the patient may not respond, with all the resulting therapeutic ambiguities and challenges for counseling patient/family about prognosis).

All of the scenarios above involve decisions that need to be informed both by medical evidence and risk-benefit analysis as well as by the priorities, values, and preferences of patients and families. In all these scenarios it should be clear that decisions must be based on the specific goals of care, including such factors as:

- The relative values of quality of life or prolongation of life
- The use of aggressive palliative care interventions to help mitigate side effects of other HIV-specific medications
- The use of certain disease-specific therapies primarily for palliative or quality-of-life intent
- The decision not to prolong life ‘no matter what,’ once a certain important threshold had been reached (e.g., progressive dementia or the inability to manage oral feedings or medications)

Clearly, this type of decisionmaking takes place in much more ambiguous and nuanced territory than the simple assessment of antiretroviral efficacy by measuring surrogate laboratory markers, but it is no less important and in many ways more challenging.

Table 2-4 lists common symptoms in AIDS along with their varied possible etiologies and examples of both disease-specific therapies and palliative interventions. One or the other or both types of approach might be appropriate in a given situation, depending on the patient’s disease stage, functional status, symptom burden, risk and potential benefit of therapy, and expressed care preferences and goals.

Table 2-4: Common Symptoms in Patients with AIDS and Possible Disease-Specific and Palliative Interventions

		Possible Causes	Disease-Specific Rx	Palliative Rx
Constitutional	Fatigue, weakness	AIDS Opportunistic Infections Anemia	HAART Treat specific infections Erythropoietin, transfusion	Corticosteroids (prednisone, dexamethasone) Psychostimulants (methylphenidate, pemoline, dextroamphetamine, modafinil)
	Weight loss, anorexia	HIV Malignancy	HAART Chemotherapy Nutritional support/ Enteral feedings	Corticosteroids Testosterone/ androgens Oxandrolone Megestrol acetate Dronabinol Recombinant growth hormone
	Fevers, sweats	MAC CMV HIV Lymphoma	Azithromycin, ethambutol Ganciclovir, foscarnet HAART Chemotherapy	NSAIDS (ibuprofen, indomethacin, cox-2 inhibitors) Corticosteroids Anti-cholinergics (hyoscine, thioridazine) H2-antagonists (cimetidine)
Pain	Nociceptive -Somatic -Visceral	Opportunistic infections, HIV-related malignancies, non-specific	Treat specific disease entities	NSAIDS Opioids Corticosteroids
	Neuropathic	HIV-related peripheral neuropathy CMV VZV  dideoxynucleosides (didanosine, zalcitabine, stavudine) other medications (isoniazid)	HAART Ganciclovir, foscarnet Acyclovir, famciclovir  Change antiretroviral or other regimen	NSAIDS Opioids (esp. methadone) and adjuvants - tricyclic anti-depressants (amitriptyline, imipramine) - benzodiazepines (clonazepam) - anti-convulsants (gabapentin, carbamazepine) Corticosteroids Acupuncture

Table 2-4: Common Symptoms in Patients with AIDS and Possible Disease-Specific and Palliative Interventions (continued)

<b>Gastrointestinal</b>	<b>Possible Causes</b>	<b>Disease-Specific Rx</b>	<b>Palliative Rx</b>
<p>Nausea/ Vomiting</p>	<p>Esophageal candidiasis CMV HAART</p>	<p>Fluconazole, amphotericin-B Ganciclovir, foscarnet Change antiretroviral regimen</p>	<p>Dopamine antagonists (haloperidol, prochlorperazine) Prokinetic agents (metaclopramide) Antihistamines (diphenhydramine, promethazine) Anticholinergics (hyoscine, scopolamine) Serotonin antagonists (granisetron, ondansetron, dolasetron) H2-antagonists (cimetidine) Proton pump inhibitors (omeprazole) Somatostatin analogues (octreotide) Benzodiazepines (lorazepam) Corticosteroids</p>
<p>Diarrhea</p>	<p>MAC Cryptosporidiosis CMV Microsporidiosis Other intestinal parasites Bacterial gastroenteritis Malabsorption</p>	<p>Azithromycin, ethambutol Paromomycin Ganciclovir, foscarnet Albendazole Other anti-parasitic agents Other antibiotics</p>	<p>Bismuth, methylcellulose, kaolin Diphenoxylate + atropine Loperamide Octreotide Tincture of opium (paregoric)</p>
<p>Constipation</p>	<p>Dehydration Malignancy Anticholinergics, opioids</p>	<p>Hydration Radiation/chemotherapy Medication adjustment</p>	<p>Activity/diet Prophylaxis on opioids Softening agents - surfactant laxatives (docusate) - bulk-forming agents (bran, methylcellulose) - osmotic laxatives (lactulose, sorbitol) - saline laxatives (magnesium hydroxide) Peristalsis-stimulating agents - anthracenes (senna) - polyphenolics (bisacodyl)</p>

Table 2-4: Common Symptoms in Patients with AIDS and Possible Disease-Specific and Palliative Interventions (continued)

		Possible Causes	Disease-Specific Rx	Palliative Rx
Respiratory	Dyspnea	PCP Bacterial pneumonia Anemia Pleural effusion/mass/ obstruction Decreased respiratory muscle function	Trimethoprim/sulfamethoxazole, pentamidine, atovaquone etc. Other antibiotics Erythropoietin, transfusion Drainage/radiation/surgery	Use of fan, open windows, oxygen Opioids Bronchodilators Methylxanthines Benzodiazepines (lorazepam)
	Cough	PCP, bacterial pneumonia TB	Anti-infective therapy (as above) Antituberculous chemotherapy	Cough suppressants (dextromethorphan, codeine, other opioids) Decongestants, expectorants (various)
	Increased secretions (‘death rattle’)	Fluid shifts, ineffective cough, sepsis, pneumonia	Antibiotics as indicated	Anticholinergics (atropine, hyoscine, scopolomine, glycopyrrolate) Fluid restriction Discontinue intravenous fluids
Dermatologic	Dry skin	Dehydration End-stage renal disease End-stage liver disease Malnutrition	Hydration Dialysis Nutritional support	Emollients +/- salicylates Lubricating ointments



Table 2-4: Common Symptoms in Patients with AIDS and Possible Disease-Specific and Palliative Interventions (continued)

	Possible Causes	Disease-Specific Rx	Palliative Rx
<b>Dermatologic</b> (continued)	Pruritis	Fungal infection End-stage renal disease End-stage liver disease Dehydration Eosinophilic folliculitis	Antifungals Dialysis  Hydration Steroids, antifungals
	Decubiti/Pressure Sores	Poor nutrition Decreased mobility Prolonged bed rest	Nutrition Increase mobility
<b>Neuropsychiatric</b>	Delirium/Agitation	Electrolyte imbalances Dehydration Toxoplasmosis Cryptococcal meningitis Sepsis	Correct imbalances Hydration Sulfadiazine/pyrimethamine, etc. Antifungals Antibiotics
	Dementia	AIDS-related dementia	HAART
	Depression	Chronic illness Reactive depression Major depression	Antidepressants (tricyclics, SSRIs, MAO inhibitors, other)

Topical agents (menthol, phenol, calamine, doxepin, capsaicin)  
Antihistamines (diphenhydramine)  
Corticosteroids  
Serotonin antagonists (ondansetron)  
Opioid antagonists (naloxone, naltrexone)  
Anti-depressants  
Anxiolytics  
Neuroleptics  
Thalidomide (?)

Prevention (nutrition, mobility, skin integrity)  
Wound protection (semi-permeable film/hydrocolloid dressing)  
Debridement (normal saline, enzymatic agents, alginates)

Neuroleptics (haloperidol, risperidone, chlorpromazine)  
Benzodiazepines (lorazepam, midazolam)

Psychostimulants (methylphenidate)  
Low dose neuroleptics (haloperidol)

Psychostimulants (methylphenidate, pemoline, dextroamphetamine, modafinil)  
Corticosteroids (prednisone, dexamethasone)

## ADVANCE CARE PLANNING

■ The focus on goals of care incorporates the concept of *advance care planning*, which includes both medical and psychosocial elements. Medical aspects may include:

- Decisionmaking about the risks and benefits of specific therapies (e.g., antiretroviral therapy, chemotherapeutic regimens, etc.)
- The importance of quality-of-life elements in these decisions (e.g., the choice of a potentially toxic, time-intensive intervention that might prolong life vs. more palliative measures that would improve short-term quality of life but not extend it)
- Decisions about particular medical interventions (e.g., cardiopulmonary resuscitation, artificial nutrition or hydration, re-hospitalization of a patient being cared for at home)

Psychosocial issues that need to be addressed may include:

- Family ambivalence or conflict about care plan decisions
- Guilt or other emotional ‘unfinished business’ that may affect decisions regarding care planning
- Concerns that any limitation on curative treatment interventions may represent abandonment of the patient or lack of commitment or concern on the part of the care provider

(Psychosocial issues will be discussed in more detail later.)

Discussions about advance care planning should be ongoing, anticipatory, and re-visited on multiple occasions as needed over time. These issues should be ‘normalized’ as much as possible and incorporated into routine care, rather than waiting until a crisis such as an acute life-threatening illness or the loss of decisional capacity to begin to address them. It may, in fact, be an indication of the discomfort that providers feel within the either-or framework of curative vs. palliative care that they may unconsciously defer these discussions until the patient is precipitously dying, implying that discussing goals of care and end-of-life decisionmaking is somehow inappropriate within the current therapeutic model. However, the approach to these issues needs to be positive, respectful, and focused on the values, concerns, cultural beliefs, and care preferences of the patient and family. The family and/or other involved individuals need to be included earlier rather than later in these discussions, and decisions about health care proxies and other surrogate decisionmakers need to be made clearly and communicated to the designated individuals.

Despite the complexity of these psychosocial issues in the setting of HIV/AIDS—that patients are often young adults who are faced with a life-threatening illness early in their lives, who may have young families, and who suffer from the stigma and social vulnerability still experienced by people with AIDS—patients have been found to be *unlikely* to have discussed these issues with their care providers.<sup>51, 52</sup> This finding was even more pronounced among African-Americans and Latinos than whites.<sup>51, 52</sup> The lack of discussions about advance care planning underscores the importance of clinicians pro-actively bringing up these issues—and sensitively addressing barriers to discussions<sup>53</sup>—before they emerge in the setting of an acute crisis requiring an immediate life-and-death decision. Rather than being a sign of withholding treatment or imposing values on patients, anticipatory advance care planning is a way to *empower* patients and families to make decisions that are true to their basic beliefs, values, and concerns. The most effective way to achieve this kind of decisionmaking is in the context of an interdisciplinary team (physician, nurse, social worker, chaplain, and other disciplines as appropriate) which can help the

patient and family process and act on information on many levels at once. It is not an accident that the philosophy and practice of hospice care explicitly incorporate an interdisciplinary team approach in the routine care of dying patients, and this framework should be no less essential for the comprehensive care of patients with HIV.

## PROGNOSTIC UNCERTAINTY AND PALLIATIVE CARE

■ Even as we have been emphasizing the importance of focusing on the goals of care in informing treatment decisions, it must be recognized that prognostication and the expectation of likely outcomes in the course of HIV disease are much less certain and uniform than they were in the pre-HAART era. Ironically, it is precisely as we are reminded of the importance of clarifying the goals of care—now that there *are* choices, we need to ensure that decisionmaking incorporates these choices—that we are also reminded that prognosis and the ‘natural history’ of HIV infection are much less clear-cut than they were previously. While CD4+ counts and viral load assays are excellent measures of response to therapy and indeed of prognosis in general, the possibility of effective antiretroviral therapy—or alternatively the lack of this possibility when there are no viable treatment options—can completely alter prognosis for people with AIDS.

The National Hospice Organization’s 1996 Guidelines for determining prognosis in certain non-cancer diagnoses attempted to generate criteria indicative of likely less-than-six months’ prognosis for patients with AIDS (see Table 2-5).<sup>54</sup> While some of these clinical conditions may be useful prognostic markers, none of them would likely override the potential positive impact of effective antiretroviral therapy if this were still an option. Indeed, some patients have been referred to hospice, received palliative care, and expected to die, only to surprise themselves and their care providers with their miraculous recoveries (the ‘Lazarus Syndrome’) from effective HAART. In these cases, forcing patients to choose an ‘*either-or*’ approach would clearly be unconscionable. We must both be able to prognosticate as best we can based on evidence and the patient’s specific treatment history and options, *and* be prepared to accept that our best estimates may be made irrelevant by the potential impact of therapy. This reality only makes the integration of palliative and curative approaches both more challenging *and* more necessary than ever before.

One issue that frequently arises related to the complexities of prognostication and clinical decisionmaking in the HAART era involves the discontinuation of antiretroviral therapy in a patient who is either not responding or felt to be unlikely to respond to treatment. Even though there is controversy about whether to stop therapy even in the face of apparent treatment failure (i.e., the concept of viral ‘*fitness*’ and possible benefit of antiretroviral selective pressure on viral replication dynamics even in the setting of high viral loads and low CD4+ counts),<sup>55,56</sup> we must recognize that the benefits of antiretroviral therapy, even when effective, are not immediate, and that they must be evaluated in light of potential favorable impact to prevent *future* decline. Thus, it is reasonable to question whether it makes therapeutic sense to continue antiretroviral therapy in a patient dying of lung cancer or end-stage liver failure—whether or not the medications could even be tolerated in this setting—or in the obvious end stages of progressive symptomatic HIV disease. In these instances, antiretroviral therapy will not be likely to have any meaningful benefit and will probably only add to the therapeutic confusion in a patient who is clearly dying yet for whom aggressive therapy is being continued. However, in some cases, the patient may have such a strong emotional investment in continuing therapy that it is completely reasonable to continue it, although it should be clear that this is as much a

Table 2-5: Conditions Suggestive of Less Than Six Months Prognosis in Patients with AIDS

LABORATORY MARKERS
CD4 + T-lymphocyte count < 25 cells / mm <sup>3</sup>
HIV RNA > 100,000 copies / ml
serum albumin < 2.5 gm / dl
CLINICAL CONDITIONS
CNS lymphoma
PML
cryptosporidiosis
severe wasting
disseminated MAC
visceral Kaposi's sarcoma
advanced AIDS dementia
toxoplasmosis
severe cardiomyopathy
chronic severe diarrhea
life-threatening malignancies
advanced end-organ failure (e.g., liver failure, congestive heart failure, COPD, renal failure not on dialysis)

*Note: All of these factors may potentially be over-ridden in the setting of effective antiretroviral therapy.*

Source: Adapted from National Hospice Organization. *Guidelines for Determining Prognosis for Selected Non-Cancer Diagnoses*. Alexandria, VA: National Hospice Organization, 1996.

psychosocial as a medical decision, if not more so. These examples underscore the importance of clarifying the goals of therapy, assessing the potential impact and likely risks and benefits of therapy, and working collaboratively with patients to determine priorities and treatment plans—all aspects of a good patient-provider relationship that become obscured if too much of the focus is on the *treatment* instead of on the *patient*.

## PSYCHOSOCIAL AND FAMILY ISSUES

■ AIDS has always presented unique psychosocial problems for patients, families, and care providers: a life-threatening illness affecting young adults, often with multiple infected family members, raising difficult issues of premature death, unfinished business, legacy, and survivorship. Guilt, shame, anger, and despair may compound the emotional challenges of coming to terms with this progressive, incurable infectious disease. Some of the behaviors linked to HIV infection remain socially unacceptable in certain contexts, and the association between AIDS,

poverty, and racial-ethnic minority populations in the United States further compounds the vulnerability of many patients living with HIV/AIDS. Despite some advances in public education and awareness about AIDS, there remains a significant degree of stigma, fear, and prejudice regarding AIDS within the society as a whole.

In addition to all of the challenges that AIDS has always posed, there are new issues that have arisen in the HAART era that are particularly relevant to palliative and end-of-life care. With the long awaited impact of HAART—beginning most notably in 1996—and the subsequent rapid decline in death rates from AIDS, the inevitability of short-term mortality has receded. This phenomenon has even resulted in the identification of new potential stressors due to a “second life” agenda” in patients who must now prepare to go on living instead of preparing to die.<sup>57</sup> While the decreased risk of death has clearly been a welcome relief for patients and their caregivers, it also has had the tendency in some cases to isolate those who are still dying with AIDS in the HAART era, at a time when people’s expectations have been so dramatically lifted by the promise of effective antiretroviral therapy.<sup>17</sup> As noted above, while death rates have decreased and the rate of decline has slowed, there are still over 15,000 people per year dying from AIDS in the United States, with the prospect that this number might continue to increase when the compounding co-morbidities of hepatitis B and C, substance abuse and its sequelae, co-occurring cancers, and other potentially fatal conditions are taken into account.

In the HAART era, the formerly grim scenario of AIDS as a uniformly and rapidly fatal disease is no longer the usual outcome—dying from AIDS has now passed from *‘fate’* to *‘tragedy.’* Although in the pre-HAART era death came swiftly to AIDS patients, the new drug therapies are now capable of extending life for many years—at least in some patients. Unfortunately, the patients who do not benefit from the new drugs may be blamed for their *‘failure’* to respond to treatment or to adhere to the treatment regimen. These dying patients are sometimes ostracized and seen as the *‘anomalies’* who are not able to benefit from the purported lifesaving effects of effective antiretroviral therapy. A new form of guilt may be seen in both patients and care providers, faulting poor therapy choices or poor adherence as the *‘cause’* of a patient’s death. With the advent of HAART, there are both greater possibilities for therapeutic success *and* greater opportunities for therapeutic failure, regret, and guilt over perceived bad decisions or missed opportunities.

Given the importance of adherence to HAART as a major factor in determining the likely success of a treatment regimen, it is not surprising that so much of the routine patient-provider clinical interaction has become focused on adherence to therapy and the close monitoring of laboratory tests such as CD4+ counts and HIV viral load assays. However, this focus on adherence has tended to reframe the patient-provider relationship in a new and more limited way, outside of the context of the experience of life-threatening illness and preparation for possible death. As with much of medicine in general, the more narrowly one operates within a biomedical model, the less comfortable one tends to be with end-of-life issues, since death in effect represents a *‘failure to cure.’* Consciously or not, HIV care providers in the current era may feel inadequate to help patients deal with impending death, since their role is understood as one of curing or fighting back the disease. Tragically, providers may feel so out of place that they may withdraw emotionally from patients and become less involved in their care as they approach death, so that patients experience both the losses imposed by the illness *and* the potential loss of a trusted long-term relationship with their care provider.

In addition, even prior to the end of life, providers need to develop a keen awareness of their own feelings regarding patient choices. Providers may actually feel anger at patients over failure to adhere to antiretroviral therapy or for active substance abuse and other self-destructive behaviors. Re-examining the goals of care, involving the interdisciplinary team, and continuing to engage and provide follow-up for patients—without judging their choices or inability to adhere with recommended therapy—will help to maintain and enhance the clinical relationship.

The fact that the new generation of HIV caregivers has not had the experience of their earlier colleagues—in which there was no avoidance of death and no immediate prospect of forestalling it with disease-specific therapy—may also be a contributing factor in the difficulty that providers experience in addressing end-of-life issues. While we would hope that the experience of the early years of the AIDS epidemic will never have to be repeated, we can also hope to retain the lessons that it brought regarding the importance of accompanying patients through illness until death, of not seeing death as an automatic failure of the clinician, of appreciating the profound importance of *'being there,'* and of understanding the role of the caregiver as *'caring'* and not necessarily *'curing.'*<sup>58</sup> As outlined above regarding palliative and disease-specific therapy, the strategy should not be *'either-or,'* but rather *'both-and,'* and providers need to be as skilled and competent in anticipating and addressing the end-of-life issues as they are in interpreting surrogate marker test results and recommending effective combination anti-retroviral treatment regimens.

Another area in which caregivers can have an invaluable impact is in the support and education of families as patients move through the last stages of their illness, especially for patients who remain at home. Ongoing visits by nursing and other staff, either at home or in an institutional setting, can be extremely helpful in addressing concrete concerns and questions about prognosis; the expected changes that occur toward the end of life; and some of the physical, emotional, and spiritual issues that families can expect. It may be helpful to describe these events in terms of the estimated prognostic timeframe covering the last months, weeks, and days of life, along with the responses that families may consider to help their loved ones through this process. Table 2-6 describes the guidance that the clinician can provide caregivers as the patient moves through the last stages of illness. As with other aspects of palliative care, a team approach and sustained, consistent interaction over time are key elements in a successful therapeutic relationship.

In addition to the myriad psychosocial issues outlined above, and the more clinical psychiatric issues dealt with in more detail in Chapter 10 (Psychiatric Problems), two other important psychosocial themes are (1) multiple loss and (2) grief and bereavement. While the phenomenon of multiple loss<sup>59</sup> in the AIDS epidemic has long been identified for patients, providers, and communities, this is compounded in the current era because of the long-term relationships that have been built up over years of patient-provider interaction. Even though the absolute number of deaths may be declining, the impact of each loss may be as great or greater. This can result in a cumulative burden of grief that can begin to have deleterious effects on providers over time. It is important to recognize, anticipate, and respond to these effects, and to appreciate that *'emotional health-maintenance'* and self-care are not signs of wasteful self-indulgence but rather important aspects of maintaining our perspective and effectiveness as HIV care providers.

Grief both anticipates the loss and follows the loss, with reverberations into the future for all those who have been affected. With the current chronic disease-type trajectory typical of HIV infection (see Figure 2-2), with many exacerbations and remissions in the declining stages,

Table 2-6: Clinical Issues and Family/Caregiver Support As Patients Approach the End of Life \*

PROGNOSTIC TIME-FRAME FOR APPROACHING END-OF-LIFE				
Clinical Issues	Months	Weeks	Days	Last 24-48 Hours
<b>Medical</b>	<ul style="list-style-type: none"> <li>Increased fatigue</li> <li>Increased sleep</li> <li>Decreased interest in eating</li> <li>Increased pain, other symptoms</li> </ul>	<ul style="list-style-type: none"> <li>Increased time in bed</li> <li>Insomnia</li> <li>Decreased interest in food &amp; drink</li> <li>Decreased energy</li> <li>Difficulty walking</li> </ul>	<ul style="list-style-type: none"> <li>Incontinence</li> <li>Sleep pattern reversal</li> <li>Sweats</li> <li>Confusion</li> <li>Cognitive failure</li> <li>Changes in skin (pallor)</li> <li>Respiratory changes</li> </ul>	<ul style="list-style-type: none"> <li>Somnolence</li> <li>Restlessness</li> <li>Agitation</li> <li>Gradual or sudden loss of consciousness</li> <li>Further changes in skin color</li> <li>Periodic breathing</li> <li>Gurgling</li> <li>Moaning</li> <li>Delirium</li> </ul>
<b>Emotional</b>	<ul style="list-style-type: none"> <li>Increased need for closeness, talking, physical contact</li> <li>Social withdrawal</li> <li>Increased sadness, crying</li> <li>Seeking closure, expressing feelings of love</li> </ul>	<ul style="list-style-type: none"> <li>May talk about funeral arrangements</li> <li>Periods of intense emotional expression</li> <li>“Bargaining”</li> <li>Life review, discussion of past events</li> <li>Reassuring family</li> <li>Fear of sleep</li> </ul>	<ul style="list-style-type: none"> <li>More peaceful, quiet</li> <li>Increased communication</li> <li>Signs of final closure/Saying “Goodbye”</li> <li>Increased anxiety</li> </ul>	<ul style="list-style-type: none"> <li>May be unresponsive or minimally responsive</li> <li>Confusion, delirium, inability to express emotions clearly</li> </ul>
<b>Spiritual</b>	<ul style="list-style-type: none"> <li>Increased interest in spiritual matters</li> <li>Prayer</li> <li>Contact with religious/spiritual leader</li> <li>Questioning faith</li> </ul>	<ul style="list-style-type: none"> <li>Dreams or visions of deceased loved ones</li> <li>Increased faith in God</li> <li>Periods of quiet reflection</li> </ul>	<ul style="list-style-type: none"> <li>Increased clarity in thinking &amp; emotions</li> <li>Increased sense of peace and transcendence</li> </ul>	<ul style="list-style-type: none"> <li>Perception of other dimensions of experience</li> <li>Increased sense of peace</li> <li>Deep peaceful sleep</li> </ul>

Table 2-6: Clinical Issues and Family/Caregiver Support As Patients Approach the End of Life\* (continued)

PROGNOSTIC TIME-FRAME FOR APPROACHING END-OF-LIFE				
Clinical Issues	Months	Weeks	Days	Last 24-48 Hours
<b>Family/Caregiver Support and Education</b> <ul style="list-style-type: none"> <li>• Allow patient to dictate food preferences</li> <li>• Offer &amp; encourage food/fluids (never pressure or force)</li> <li>• Offer assistance with walking</li> <li>• Help create a comfortable, safe environment</li> <li>• Work closely with treatment team &amp; report any new or worsening, symptoms or problems</li> <li>• Provide emotional support</li> <li>• Listen</li> <li>• Try not to deny patient's acceptance of illness by saying "everything will be OK"</li> <li>• Allow patient to cry &amp; vent emotions</li> <li>• Do not minimize sad feelings</li> <li>• Pray with patient if possible</li> <li>• Assist in contacting spiritual leader</li> </ul>	<ul style="list-style-type: none"> <li>• Support patient's choices to rest as needed</li> <li>• Continue to report any increase in pain or symptoms to the treatment team</li> <li>• Monitor any changes in sleep patterns, eating etc.</li> <li>• Support discussion of end-of-life wishes</li> <li>• Moderate visiting so patient can rest</li> <li>• Allow for life review discussion, reminiscing</li> <li>• Provide physical contact: back rub, foot massage</li> <li>• Communicate feelings of love, acceptance</li> <li>• Leave bedroom light on if fearful of the dark</li> <li>• Reassure frequently that loved ones will be present whenever possible</li> <li>• Participate in discussion of spiritual issues</li> </ul>	<ul style="list-style-type: none"> <li>• Keep patient clean &amp; dry</li> <li>• Reposition frequently if unable to move</li> <li>• Offer, don't force foods/fluids</li> <li>• Be aware of level of consciousness, ability to swallow prior to feeding</li> <li>• Provide physical contact</li> <li>• Moisten lips with ice chips, swabs</li> <li>• Continue verbal communication, play favorite or soothing music</li> <li>• Family may keep bedside vigil</li> <li>• Remember to rest &amp; eat whenever possible (for care providers)</li> <li>• Pray with patient</li> </ul>	<ul style="list-style-type: none"> <li>• Provide warm/cool compresses as needed if cold/sweating</li> <li>• Talk to patient (even if unresponsive)</li> <li>• Report changes in breathing to treatment team (and be reassured about "normal" breathing changes at end-of-life)</li> <li>• Notify team if patient appears uncomfortable (frowning, grimacing, furrowed brow)</li> <li>• Provide medications as needed/directed</li> <li>• Talk with patient &amp; express emotions</li> <li>• Provide verbal &amp; nonverbal support through words &amp; actions</li> <li>• Saying goodbye &amp; "giving permission" to go is also appropriate at this time</li> <li>• Reassure patient</li> <li>• Express love, acceptance</li> <li>• Participate in supportive rituals</li> </ul>	

\*This a listing of representative symptoms and signs that can occur as patients approach the end-of-life, along with specific suggestions for family/caregiver support and education at each stage. Not all findings may occur in all patients, and the final course of illness may differ significantly between patients. Each category also may include some or all of the symptoms and signs mentioned in the preceding categories as patients approach end-of-life.



families and caregivers frequently describe the sensation of being on a ‘roller coaster’ because it is exhausting and stressful not to know when death is going to occur. This uncertainty can also give rise to heightened anxiety, ambivalence within the family (wishing that it would just ‘be over with’ and then feeling guilt over this), and equally conflicted feelings of relief when the death finally does occur. These complex emotions require sensitive and skilled attention by both medical and mental health care providers, and are best addressed by the interdisciplinary team.

Bereavement is an important phase of the process of loss and recovery and is another area that unfortunately is rarely addressed by most care providers and by medicine as a profession. The loss of the patient that occurs upon death is also often accompanied by the family’s loss of the relationship with the care provider, which again may have developed over years of close interaction with both patient and family. The care provider’s involvement in follow-up and contact with the family during bereavement (ranging from writing a condolence letter to attending a funeral service to providing counseling or other clinical follow-up to family members) can be extremely helpful and healing for both the family and the clinician.<sup>60</sup> Some or all of these practices should be incorporated into routine follow-up care for families and additional significant others after the patient has died, whether or not the HIV care provider is also the primary care provider for other members of the family (see Figure 2-4b). Many clinical AIDS programs perform periodic memorial services for patients who have died, attended by both professional care providers and families/loved ones, which is both a powerful expression of remembrance and a part of the process of working through grief for the survivors. Chapter 16: Grief and Bereavement and Chapter 20: Care for the Caregiver address these issues in more detail.

## CONCLUSION

■ As we enter an era in which the therapeutic possibilities for AIDS continue to expand, it remains important not to lose sight of the critical issues in end-of-life and palliative care that remain central to the comprehensive care of patients and families affected by this disease. This book attempts to provide useful information regarding these issues in the hope that providers can move beyond the artificial distinctions between curative and palliative care and be able to provide optimal care to all patients throughout the course of the illness.

In the current system of medical care, primary care providers are best able to deliver integrated, comprehensive care over the continuum of illness in ways that combine biomedical and psychosocial approaches within an interdisciplinary model of care. The group of providers able to provide integrated care may include clinicians in primary care disciplines such as general internal medicine, family medicine, and pediatrics, or as has been evidenced in HIV care to date, subspecialists such as infectious disease physicians or oncologists who have been able to take on the full range of care required by the patient.

Regardless of the training, what is required is the willingness for us to go beyond the false dichotomies of curative vs. palliative care and recognize that the true role and responsibility of the physician and care provider are in accompanying the patient through the experience of illness, doing whatever can and should be done at each step along the way. Part of this task involves being familiar and current with the science of palliative medicine, just as with the science of HIV medicine. Part of it also involves acceptance of the physician’s inability to always defeat death and acknowledgement of our own limitations and vulnerabilities as well as our

patients' needs. As was written by Sheila Cassidy, a British hospice physician, in her memoir *Sharing the Darkness*:

*“Slowly, I learn about the importance of powerlessness. I experience it in my own life and I live with it in my work. The secret is not to be afraid of it – not to run away. The dying know we are not God. All they ask is that we do not desert them.”*<sup>61</sup>

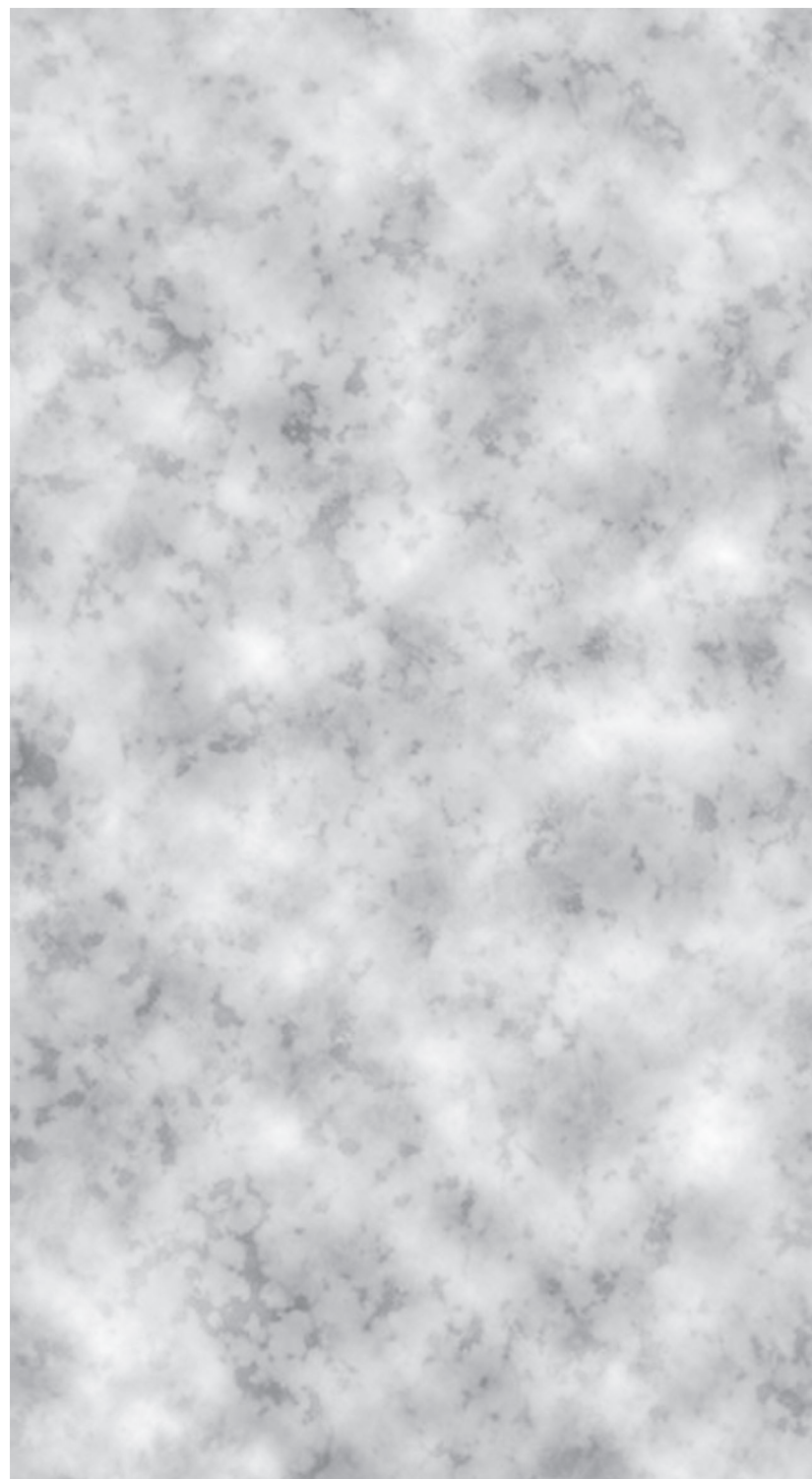
Or, as expressed in the often-cited phrase attributed to Edward Trudeau (the Canadian physician in the early 20<sup>th</sup> century credited with developing the sanitarium system for tuberculosis care long before the advent of disease-specific chemotherapy), the goal of the clinician for the patient with an incurable, progressive and terminal illness is: “To cure never, to treat sometimes, to comfort always.”

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## Chapter 3.

# Assessment of Physical Symptoms

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### INTRODUCTION

■ Health professionals caring for people living with HIV will encounter myriad symptoms ranging from minor and bothersome problems to problems that are associated with great distress. In caring for a patient who presents with a symptom, the health professional has two main roles. The first involves defining the etiology of the symptom and implementing an appropriate treatment strategy directed towards *eliminating or modulating the pathophysiologic process* responsible for triggering the symptom. The second role involves ensuring that a strategy is developed and implemented that provides *timely and effective relief of the distress* associated with the symptom. Usually, these two goals involve two closely interrelated, but different, treatment strategies and there may be times, especially towards the end of life, when the first goal is unattainable. At the core of the process required to achieve these goals is symptom assessment, the focus of this chapter.

To understand symptom assessment in HIV infection, health care providers must understand symptoms within the contexts of quality of life and of HIV infection itself. This chapter addresses the symptoms common in patients with advanced HIV disease, the principles of symptom assessment, and an approach to symptom assessment in advanced HIV including some clinically useful assessment instruments. Although this chapter frequently uses fatigue, pain, and the symptoms associated with fever as examples to illustrate the process of assessment, the same general process of assessment applies for all symptoms.

### Symptoms and Quality of Life in HIV

The overarching goal of palliative care is to relieve or reduce suffering and promote quality of life. A crucial component of quality of life is the component that relates to symptoms including fatigue and pain, among many others. Such symptoms can be present throughout the course of illness from diagnosis through the progression of disease and toward the end of life. Of note, these symptoms may be present even at times when disease markers are improving. The sometimes unpredictable and episodic course of HIV-related illness—especially in the early years of this illness when treatment strategies were less clearly outlined—made it difficult to estimate the likely course of HIV-related disease for an individual. This factor, along with patient advocacy and developments in the field of palliative medicine, prompted an increasing awareness of the importance of palliative medicine for those living with HIV infection. These and other factors have served to promote quality of life itself as an important outcome of all treatments for disease, regardless of the stage of illness.

Health-related quality of life is a multidimensional concept affected by a variety of positive and negative experiences from a variety of domains. A patient's health-related quality of life should not be thought of only as a research outcome; rather, in clinical practice it is a vitally important concept that reflects the global impact of disease and the impact of related medical interventions.

Broadly, quality of life can be assessed in three domains: physical, psychological, and social. Within the physical domain, the patient's symptoms and physical functioning must be assessed. However, problems that affect a patient's quality of life extend well beyond his or her physical symptoms into the other domains. Although the focus of this chapter is on the clinical assessment of physical symptoms of people with HIV-related illness, the interplay between the physical, psychological and social domains of quality of life must always be considered within the clinical assessment process. This especially includes the psychological and social problems and experiences that may occur in individual cases.

## COMMON SYMPTOMS IN ADVANCED HIV INFECTION

■ To set the stage for the process of symptom assessment, it is most helpful for health professionals to have an understanding of the common symptoms experienced by patients with advanced HIV infection and an understanding of quality of life in HIV-related disease. This section of the chapter will summarize some of the studies that have increased our understanding of the common symptoms that occur with HIV infection. Clearly, myriad symptoms can occur in the setting of HIV-related disease. In the palliative care setting, in patients with advanced HIV infection, a wide range of symptoms occurs, with fatigue, anorexia/weight loss, pain, insomnia and depression being the most commonly reported. Although the presence of a symptom may be related to the HIV infection directly, commonly a symptom will reflect an underlying pathologic process that is related to the HIV infection.

Most of the surveys that have sought to characterize symptoms associated with HIV infection and AIDS have focused on specific symptoms.<sup>1-3</sup> However, two broad symptom studies of outpatients with AIDS highlight the spectrum of symptoms experienced by this population.<sup>4,5</sup> Fantoni, et al. investigated the prevalence and intensity of symptoms and the use of medications for symptom control among 1128 HIV-infected patients reporting to the outpatient clinics or wards of 15 clinical centers in central Italy, recording clinical and epidemiological data on three consecutive days.<sup>4</sup> The most prevalent of 10 symptoms were asthenia (65%), anorexia (34%), cough (32%), pain (29%), and fever (29%). Opioid analgesics were used in 3% of these patients and non-opioid analgesics in 13%. Pain was present in less than one third of patients but the report nonetheless suggested that pain was undertreated.

Another survey, undertaken by Vogl, et al., explored the symptoms of 504 ambulatory patients with AIDS to assess symptom prevalence, characteristics, and distress.<sup>5</sup> In this group, of the 32 symptoms assessed using a validated symptom assessment instrument (the Memorial Symptom Assessment Short-Form),<sup>6,7</sup> the mean number of symptoms reported was 16.7 per patient. Twelve of the 32 symptoms had prevalence figures of greater than 60% and these included worrying (86%), fatigue (85%), sadness (82%), pain (76%), feeling irritable (75%), difficulty sleeping (73.8%), feeling nervous (68%), dry mouth (67%), difficulty concentrating (64.5%), shortness of breath (62.4%), feeling drowsy (61.9%), and cough (60.3%). More symptoms were reported in those patients with lower performance scores and in those for whom a history of intravenous drug use was reported as the mode of HIV transmission.

Neither of these studies clearly delineates the strategies used to treat the symptoms. In patients with HIV infection, as is the case in patients with cancer, pain and other symptoms are often undertreated and therefore prevalence figures should *not* be read as reflecting state of the art palliation for the symptoms associated with this condition. For example, in one study, 226 ambulatory AIDS patients were assessed regarding the type and frequency of analgesic medications



prescribed for pain.<sup>8</sup> Results indicated that nearly 85% of patients with pain were classified as receiving inadequate analgesic therapy and fewer than 8% of the 110 patients who reported “severe” pain were prescribed a “strong” opioid (e.g., morphine), as would usually be suggested in published guidelines for treatment of severe pain.<sup>8</sup>

Thus it is clear that many symptoms are prevalent in persons with HIV-related illness, especially in persons with advanced HIV-related disease. In addition, there is evidence to suggest that the higher the number of symptoms, the greater the experience of distress. It is common for many symptoms to be present concurrently. Finally, the distress from symptoms related to HIV infection is often undertreated. It is within this context that symptom assessment must be undertaken and each of these factors must be taken into consideration within the symptom assessment process.

## Symptoms and Quality of Life in Advanced HIV Infection

Several studies have specifically considered quality of life in people with HIV disease.<sup>9-14</sup> The impact of symptoms on quality of life was explored in the large prospective cross-sectional survey done by Vogl, et al. discussed above.<sup>5</sup> In this survey, symptoms were assessed and characterized using a validated symptom scale and it was demonstrated in this population that both the number of symptoms and the symptom distress were highly associated with psychological distress and poorer quality of life. Older age, female sex, nonwhite race, poor social support, and the presence of intravenous drug use, each have been associated with greater distress and poorer quality of life. In many studies the presence of symptoms is the *strongest* indicator of poor quality of life.<sup>5, 10, 12, 15</sup> The results of these studies highlight the impact of a broad range of physical and psychological symptoms on quality of life.

## THE PRINCIPLES OF SYMPTOM ASSESSMENT

■ As discussed above, symptom assessment is a most important aspect of patient care and a significant component of quality of life assessment.<sup>16,17</sup> When care is being provided for people with HIV-related illness, nearly all clinician interactions with patients require symptom assessment skills. The following section outlines key points to consider when assessing symptoms.

### Definition of the Word Symptom

#### Symptoms are Subjective Experiences

A *symptom* has been defined as “a physical or mental phenomena [sic], circumstance or change of condition arising from and accompanying a disorder and constituting evidence for it.... specifically a *subjective* indicator perceptible to the patient and as opposed to an *objective* one (cf. sign).”<sup>18</sup> In other words, *symptoms* are experienced by the patient and *signs* are observed by the clinician. This is a vital concept; symptoms cannot be *seen*, although sometimes the physical manifestations of a symptom can be detected. Oftentimes a clinician can also observe the distress associated with a symptom.

#### Symptoms are Different from Pathological Processes or Diagnoses

Just as *signs* are not *symptoms*, *symptoms* and *signs* are not, of themselves, *diagnoses*. Symptoms and signs can however assist in the diagnostic process. For example, fatigue is a subjective sensation—a symptom—that may occur with the diagnosis of anemia or infection, but fatigue

itself is *not* a diagnosis. A fatigued patient may present with no signs or with cachexia and/or other clinical findings. A diagnosis in a patient with fatigue would be related to the cause of the fatigue. For example, the diagnosis may be an underlying infection such as cytomegalovirus (CMV) infection (see Table 3-1).

Table 3-1: Differential Diagnosis and Management of Fatigue in HIV-Related Illness

<b>Causes</b>	<b>Interventions that <i>may</i> have a role as treatment strategies</b>
• Anemia	Treatment of underlying cause
• Adrenal insufficiency	
• Infections	Physical therapy and exercise
• Malignancy	
• Metabolic abnormalities	Emotional support (counseling, self-help, support groups)
• Disease progression	
• End-stage organ disease	Pharmacological treatment including stimulants or corticosteroids (can also aggravate fatigue in some patients)
• Malnutrition	
• Insomnia	
• Depression	
• Neuromuscular and other neurologic disorders	
• Autoimmune disorders	
• Medications (including chemotherapy, sedatives, steroids and many others)	
• Ongoing distress from uncontrolled symptoms (including pain and dyspnea, among others)	
• Intense physical activity	
• Physical treatments, including radiation therapy	
• Unknown/other	

As an another example, a patient may report a “flushing,” “sweats,” a “feeling of being hot,” or a “feeling of being chilled.” In this context, each of these is a symptom. A sign (which may or may not be present) might in this instance be a fever, and the diagnosis may be an infection or another problem (see Table 3-2).

Table 3-2: Differential Diagnosis and Management of Fever in HIV-Related Illness

Causes	Interventions that <i>may</i> have a role as treatment strategies
• Infections	<p>Treatment of underlying cause</p> <p>Antipyretics including acetaminophen, salicylates, NSAIDs</p> <p>Physical treatments including cooling, sponging, etc.</p>
• Malignancies	
• Autoimmune disorders	
• Granulomatous disorders	
• Drug-related fevers	
• Thrombosis	
• Transfusion-related	
• Factitious	
• Unknown/other	

It is important to be aware that the clinical signs cannot give an indicator of the degree to which a patient is distressed or bothered by a symptom – that must be defined by the patient’s self-report. Pain is another subjective sensation (symptom) that may, or may not, be associated with *signs*. Although sometimes distress can be *seen* – as, for example, an anguished appearance, crying, writhing, tachycardia, or other physical manifestations – none of these *signs* can truly give the clinician a full indicator of the degree to which a patient is *distressed* or *bothered* by the pain. That must be defined by the patient’s self-report.

In the case of chronic pain, it is not uncommon for a patient to demonstrate little in the way of *physical* manifestations of distress even when he or she reports that the pain is severe. A patient may have no visible signs of distress but may report that the pain is 10/10 (on a scale of zero to 10). Even in the absence of *signs of distress*, the pain must be assessed, the etiology of the pain considered, and the associated distress concurrently treated. (See Chapter 4: Pain.)

By keeping these distinctions in mind, health professionals can more easily keep a focus on the two broad goals of symptom assessment: the goal that is related to the treatment of pathophysiology, and the goal that is related to the treatment of distress.

## Definitions of the Words Used to Define Each Symptom

If distress is to be assessed and treated effectively, health care professionals must understand the words that patients use to describe symptoms and, optimally, must use a common language for describing symptoms to others in the health care team. In a particular clinical setting, patients and the health care team usually speak the same “native tongue.” Nonetheless, even in such a setting, clear language is not always used when communicating the detail of symptoms.

The problems with this failure of language in the field of symptom assessment are twofold. One, words that people use to describe symptoms may mean different things to different patients. Two, the words used to describe a symptom may have various medical implications.

### Words May Have Many Meanings

Some of the words used to describe each symptom have a plethora of meanings for patients. This problem of itself can only be approached by careful historytaking and questioning by the clinician to elucidate the nuances of the language the patient uses to communicate distress. Patients should not be described as poor historians. Clinicians must endeavor to be good historians, or good historytakers.

The words patients use to describe their symptoms can often have more than one meaning, which highlights the crucial need for detailed and thorough historytaking. For example:

- *Fatigue* may mean to some sleepiness, to others exhaustion, to others muscle weakness, and to still others the word may have other implications.
- *Shivering* implies to most a tremulous shaking that occurs with fever or sepsis. However, patients have also used this word when attempting to describe the dysesthetic sensation that may occur with neuropathic pain.
- *Confusion* may be used to imply disorganized thinking, forgetfulness, hallucinations, concentration deficits and numerous other changes in mental status.

### Words Have Various Medical Implications

Within the medical arena, the words used to describe a given symptom may have a wide range of implications. Definitions and taxonomies for many symptoms are lacking. Clinicians are often inexact in describing the experiences of patients to other clinicians. This problem has clinical implications that relate to continuity of care and team communication. In addition, it has research implications related to the processes of developing, undertaking and interpreting symptom-related research studies.

Key words that clinicians may encounter in assessing symptoms of patients with HIV are pain, fatigue, breathlessness, and confusion. Consistency is lacking in the application of these and many other words that are used to describe symptoms. Clinicians need to be more aware of this semantic problem and to develop consistent tools for medical communication. The variability of the meanings of words also highlights the need for clinicians to use validated instruments for symptom assessment and research. In summary, these observations point to the need for health professionals to explore the *meaning* of the symptom in detail during the process of symptom assessment.

## Pain

*Pain* has a generally accepted definition and a taxonomy has been developed for its study.<sup>19</sup> Therefore, clinicians generally can use a language that other clinicians can understand when describing pain (see Chapter 4: Pain). Words such as “lancinating neuropathic pain” can be used to describe a pain syndrome very effectively, in a manner that is widely accepted. The development of this taxonomy has also allowed clinicians to undertake and interpret studies of pain. For example, the results of studies of lancinating neuropathic pain caused by post-herpetic neuralgia can be compared and applied in the clinical setting because the pain about which investigators and clinicians are communicating is clearly defined and understood.

## Breathlessness

*Breathlessness* is a word that is generally used to refer to subjective reports of *difficulty breathing*. However, it also has been used in the clinical and research settings to describe the *visible* use of the accessory muscles of respiration (which may not always be associated with distress). Some palliative care studies have reported dyspnea as a prevalent symptom toward the very end of life, but have not defined clearly whether the reports are referring to subjective breathlessness experienced by the patient, or observed heavy breathing witnessed by another person.

Breathlessness lacks widely accepted scientific definitions and taxonomy; consequently, studies of dyspnea can sometimes be difficult to compare. It can thus be difficult to apply the findings of such studies.

## Fatigue

*Fatigue*, as noted earlier, is a word that is used to identify a variety of sensations that may include generalized weakness, sleepiness, and others. Unless clinicians clearly define the sensation to which they are referring in clinical discussions, this can be confusing for others on the health care team.

## Confusion

*Confusion* is a word that is commonly used as a *diagnosis* by clinicians. It is not. Confusion may be a *symptom* when described by patients, and when used by clinicians it could also legitimately be described as a *sign*, usually of an underlying diagnosis/disorder such as delirium, dementia or other condition. Even in the latter context, confusion is a global term. It is most useful when qualified with more detailed descriptors such as concentration deficits, memory deficits, etc., as would be elucidated by an assessment of the confusion with a comprehensive mental state examination.

## Importance of Subjective Assessment

Symptoms are by definition subjective, and where possible, patient self-report must be the primary source of information. Some observations to consider in relation to this are as follows.

- Observer and patient assessments are not highly correlated, and the accuracy of a clinician’s assessment cannot be assumed unless it involves direct input from the patient.<sup>20-24</sup>

It has been demonstrated that clinician accuracy can be very poor, even when assessing patients with severe pain.<sup>20</sup>

- Studies of caregivers have found that caregivers are commonly inaccurate when reporting on subjective aspects of the patient experience.<sup>21,22</sup>

This includes, for example, symptoms such as pain and depression. A tendency has been demonstrated for caregivers to be more accurate when reporting on objective measures, such as the patient's ability to dress independently. Of note, this is not to imply that caregiver reports should be neglected as they can provide vital insights into the patient experience, especially over time.

- Objective signs can be usefully monitored to complement subjective data, but this information cannot substitute for self-report.

For example, nausea assessment should involve a subjective rating by the patient and may be supplemented by assessment of the frequency of emesis.

- In some groups of patients, such as cognitively impaired adults or preverbal children, it may be impossible to obtain or interpret patient self-reports.

These populations need special care and attention. When such patients are encountered, reports from family members and staff may be the *only* useful proxies and the information obtained from these sources should be combined with a physical assessment of the patient so that the clinician can fully assess the situation. Although proxy data should be interpreted with caution, the observations of a caregiver who knows the patient well or is a highly skilled nurse should certainly be considered as important insights into, or indicators of, patient distress.

## Symptoms Are Multidimensional Experiences

Symptoms are multidimensional experiences that may be evaluated in terms of their specific characteristics and impact.<sup>6,25-28</sup> Symptom multidimensionality is portrayed in Table 3-3.<sup>16,17</sup> It is not uncommon for researchers or clinicians to describe a symptom simply by stating that it is *present*. Although prevalence data alone may be useful information, a more detailed assessment of the characteristics of specific symptoms is usually more helpful, especially in the clinical setting.

Significant variability has been demonstrated in relation to symptom characteristics.<sup>6,25-28</sup> Three crucial variable dimensions are frequency, severity and distress. Although symptom characteristics are often variable, the proportion of patients who describe a symptom as relatively intense or frequent usually exceeds the proportion describing it as highly distressing.<sup>28,29</sup> The frequency dimension does not apply to some symptoms, for example, constipation.

Portenoy, et al. have developed a validated instrument for the assessment of three key dimensions of symptoms: frequency, severity and distress.<sup>6</sup> (See Figure 3-1 at the end of this chapter.) This instrument mirrors in part what usually should be explored clinically in relation to each symptom. The three questions asked of the patient on that instrument address how frequent, severe and bothersome a symptom may be to the patient. A shorter version of this instrument has been used in studies of patients with advanced HIV infection and has provided useful data.<sup>5,7</sup>

Symptom *distress* relates to the degree of subjective discomfort and the “bothersomeness” of each specific symptom. Global symptom distress has also been considered as a subjective concept that relates to the impact of all symptoms. Symptom distress can be described and measured. As alluded to above, the overall impact of symptom distress is most important. A large prospective cross-sectional survey, discussed above, of 504 ambulatory AIDS patients found that patients experienced many distressing physical and psychological symptoms and a high level of distress.<sup>5</sup> Symptom distress significantly correlated with lower performance status, worse scores on measures of psychological distress, and a poorer global quality of life.

The impact of symptoms may be described and measured in relation to specific issues or global constructs. Many of the specific issues form the components of the global concept of quality of life. The impact of a symptom can be assessed in relation to the following:

- Spheres of functioning
- Family, social, financial, spiritual and existential issues
- Various global constructs such as overall symptom distress or quality of life

Factors that may modulate symptom distress may in turn be modulated by other components of the overall quality of life. Distress can be compounded when it is coming from multiple sources. By the same token, *positive* aspects of life frequently can mitigate some degree of distress. The multidimensional construct of quality of life reflects the broad influence of many positive and negative factors on a patient’s perceived well-being.<sup>30,31</sup> A diverse array of physical, emotional, social, ethical and spiritual phenomena can increase or temper distress or enhance well-being. Factors from each of these areas have the potential to independently influence quality of life, and to exacerbate or lessen the distress associated with specific symptoms. Each must therefore be considered in symptom assessment.

## PRACTICAL ASPECTS OF SYMPTOM ASSESSMENT

■ This section focuses on the practical aspects of symptom assessment, discusses some populations in which symptom assessment can be especially challenging, and reviews available instruments for symptom assessment.

The key to symptom assessment is a comprehensive approach as shown in Table 3-3. The health care provider should undertake the following tasks:

- Develop an understanding of the patient’s current and past illness
- Elicit the details of the distress caused by each symptom

Table 3-3: Clinical Symptom Assessment

HISTORY		
<ul style="list-style-type: none"> <li>Medical history</li> </ul>	Diagnosis	
	Chronology	Including of other HIV-related illnesses
	Therapeutic interventions	Including antiretroviral therapies
	Patient's knowledge of current extent of disease	
	Past history of other medical, surgical, psychiatric problems	
<ul style="list-style-type: none"> <li>Assessment</li> </ul>	Review of systems	Including the oft-neglected psychiatric review
	For each symptom:	Chronology, frequency, severity
		Aggravating and alleviating factors
		Degree of distress
		Impact on function
		Other clinical characteristics
		Impact of each symptom on other symptoms
		Patient perception of etiology
		Prior treatment modalities and their efficacy
Other factors that modulate distress associated with specific symptoms, e.g., coping strategies and supports		
<ul style="list-style-type: none"> <li>Psychosocial issues</li> </ul>	Family history	
	Social resources	
	Impact of disease and symptoms on patient and family	
	Substance abuse history and aberrant drug-related behaviors	
	Goals of care	



Table 3-3: Clinical Symptom Assessment (continued)

<ul style="list-style-type: none"> <li>Global symptom impact</li> </ul>	Global symptom distress	Impact of overall symptom distress on quality of life
	Impact of symptoms on quality of life	Physical condition
		Psychological status
		Social interactions
Factors that modulate global symptom distress, e.g., coping strategies and family supports		
<ul style="list-style-type: none"> <li>Current medications</li> </ul>	Current and prior use of prescription medications	
	Current and prior use of antiretroviral therapies	
	Current and prior use of nonprescription drugs including alternative or complementary medical therapies	
<ul style="list-style-type: none"> <li>Drug allergies and previous adverse drug reactions</li> </ul>		
Physical examination		
Assessment of available laboratory and imaging data		
Conclusions of diagnostic process		
<ul style="list-style-type: none"> <li>Pathophysiology (for each symptom)</li> </ul>	Inferred pathophysiology	Differing pathophysiologies
	Relationship to other symptoms	Same pathophysiology
		Causal pathology induced by another symptom
		Causal factor is treatment directed at another symptom

Sources: Adapted from Ingham JM, Portenoy RK. Symptom Assessment. In Cherny NI, Foley KM, eds. *Hematology/Oncology Clinics of North America*. Philadelphia: W.B. Saunders; 1996. p. 21-40. Also, Ingham JM, Portenoy RK. The measurement of pain and other symptoms. In Doyle D, Hanks GWC, MacDonald N, eds. *Oxford Textbook of Palliative Medicine*. 2nd ed. Oxford: Oxford University Press; 1998. p. 203-21.

- Define the etiology and pathophysiology of each symptom
- Clarify the nature of the underlying disease
- Develop an understanding of the impact of both the disease process and symptoms on quality of life

The assessment process can be conceptualized in the following steps:

- Evaluation of the patient's medical history
- Physical examination
- Investigations and further evaluation

These steps should allow for the development of a problem list and a treatment plan. The latter should always include a method for ongoing evaluation of the impact of the treatment plan – a clearly defined plan for *ongoing* symptom assessment. A discussion of the detail of the many specific treatment plans that exist for each symptom is beyond the scope of this chapter, but these issues are addressed in symptom-specific chapters. (See, e.g., Chapter 4: Pain, Chapter 6: Pulmonary Symptoms, and Chapter 8: Oral Problems.)

### Evaluation of Medical History

The initial step in the assessment of the symptomatic patient involves the clinician eliciting a complete medical history. This process lies at the core of clinical diagnostic medicine. Symptoms must always be considered in context of the overall medical condition.

The *order* and *timing* that are chosen by the clinician for eliciting a patient's medical history will be influenced by a number of factors, including the following:

- The degree of acute patient distress that is present
- Convenience and efficiency
- The previous relationship of the patient and clinician

Clearly if a patient is in a great deal of distress an expedited history may be required while the clinician concurrently treats the patient's acute distress (for example in the case of a patient in severe acute pain). Although distress that is so severe as to be in need of treatment within minutes requires an expedited approach, this does not obviate the need for eliciting a detailed history from the patient or another source at a slightly later time.

If the clinician is familiar with the patient, the clinician may already be aware of much of the history and the historytaking can be expedited. A clinician seeing a patient for the first time in an emergency setting will likely need to either spend more time with the patient or review available records to ascertain key components of the history.

### Approaches to Historytaking

With complicated HIV-related illness and in cases where multiple symptoms are present, it can help to deviate slightly from the traditional approach to historytaking by specifically eliciting the symptom history, separate from the history of HIV infection and the known intercurrent illnesses. This approach can focus the history and help the clinician define both the detail of the medical problems and the detail of the distress. This approach also serves to emphasize the key components of a palliative symptom assessment and, although it does depart slightly from the traditional approach to historytaking, it does include *all* of the components of a traditional history.

The traditional approach to historytaking includes the following activities:

- History of the present illness
- Systems review
- Past history
- Family history
- Social history
- Medication history

Another approach ensures emphasis on all aspects of the detail needed to care for patients with advanced illness and multiple symptoms (but still involves all of the same components as the traditional approach). This approach includes the following topics (underlined topics are those not always covered in a traditional history):

- History of the underlying illness (HIV infection) including the presence and chronology of known related illnesses (other HIV-related diagnoses) and/or medical events
- Symptom assessment, which allows for a specific focus on new and current symptoms
- Systems review
- Past history of other medical, surgical or psychiatric problems
- Medication history
- Family history
- Social history
- A review of current goals of care

### History of the Underlying Illness

A history of the underlying illness (HIV infection) and its consequences is essential. This will provide insight into the patient's experience, the likely diagnoses that might be the etiology of each symptom, and the therapeutic options that could be considered to relieve the symptoms. Therefore, in the assessment of patients with HIV infection the components of the history should include:

- Stage of the HIV infection
- Presence and chronology of HIV infection and known HIV-related, illnesses and/or medical events (mode of transmission of HIV infection ascertained if possible)
- History of therapies directed towards HIV infection
- History of therapies directed towards significant HIV-related illnesses and/or medical events

## Symptom Evaluation

A symptom evaluation that allows for a specific focus on, and assessment of, new and current symptoms is vital. Often many symptoms are present; each symptom may have several dimensions and each may affect the patient's distress and quality of life to a different degree. In a comprehensive symptom assessment, an attempt should be made to single out each symptom and to explore its dimensions and impact separately. When a patient presents with multiple symptoms it can also be helpful to ascertain his or her biggest issues: the most bothersome day-to-day problems.

- **Chronology of the Symptom(s)**

Establish the chronology of each symptom. (e.g., When did it begin? Were there any triggering factors? Was it initially severe, did it escalate over time or did it become severe suddenly? Does it vary over time?)

- **Exacerbating and Relieving Factors**

Establish factors associated with the symptom. (e.g., Do activity, movement, heat, cold, or other factors affect the symptom?)

- **Symptom Characteristics**

Ask the patient to describe symptom characteristics, including site (for pain and some other symptoms); frequency; severity; and associated distress or how bothersome the symptom may be for the patient.<sup>6</sup> It is important to ensure that, where possible, reports of symptoms, especially of associated distress, are based on the subjective experience of the patient. Occasionally a patient may have a degree of cognitive impairment and may not be able to provide such detail. In these instances rely upon clinical signs of observed distress, as discussed under the section Challenging Clinical Situations and Special Populations.

- **Quantification of the Symptom(s)**

If possible, ask the patient to quantify the symptom in some way to provide an “anchor” for ongoing evaluation. Pain and fatigue, for example, can be described on a severity scale of 0 to 10, and similar scales can be used for other symptoms. Words can also be helpful, such as “mild,” “moderate,” or “severe.” See Figure 3-2, the Memorial Pain Assessment Card, at the end of this chapter;<sup>32</sup> see section Symptom Measurement in Clinical Practice.

- **Impact on Functional Capabilities**

Elicit the impact of each symptom on functional capabilities. (e.g., How does the fatigue limit you in daily activities?) Question 23 in the Brief Pain Inventory, Figure 3-3, provides a useful template for such questions.<sup>33</sup>

- **Impact on Other Symptoms**

Explore the degree to which each symptom, or its treatment, induces or exacerbates other physical or psychological symptoms (e.g., Does the fatigue become more severe on the days that you also have high fevers? Do the medicines seem to cause sleepiness or confusion? Do you find that the pain gets you down?)

- **Impact of Specific Therapies on Each Symptom**

Clarify the impact of therapies on each symptom. Especially with palliative interventions, it is crucial in the process of symptom assessment to investigate the impact of specific therapies on each symptom to ascertain the efficacy of these therapies. Detailed questioning may be needed to clarify which medications or treatments a patient has tried and how well they relieved the symptom. (For example, with the symptom of pain, did pain medications provide you with *any* relief, and if yes, how much relief? For this question, a pain scale can help the patient to report on a scale of 0 to 10 his or her pain level before the medication and pain level after the medication.)

It is also important to ascertain why therapies may have been abandoned. Were they ineffective, too expensive, unavailable, associated with side effects, or were there other reasons?

- **Impact of the Symptom(s) on the Patient's Quality of Life**

A symptom can produce many adverse effects on quality of life (see Table 3-3). The direct and indirect consequences of symptoms can exacerbate physical, psychosocial, spiritual, and financial burdens produced by the disease itself. Pain, for example, can restrict physical functioning or worsen depression and anxiety and interfere with a patient's ability to interact socially. Attention must extend beyond symptom control to the impact of symptoms on the overall quality of the patient's life.

The Brief Pain Inventory (BPI) is a measurement tool that uses standardized questions to explore the impact of a symptom (see Figure 3-3).<sup>33</sup> See Figure 4-5 in Chapter 4 for the BPI Short Form. Question 23 on the BPI provides a good example of the kind of questions that providers should ask when exploring the impact of almost any symptom. Also, questioning should address side effects and costs of therapy. The latter must be included in assessment so that a feasible treatment plan can be developed.

## Systems Review

A systems review is an important aspect of assessment. Especially when a patient is experiencing multiple symptoms, it is not uncommon for him or her to overlook reporting a bothersome problem. For this reason, and because unexpected minor symptoms may provide important diagnostic clues, it is prudent for clinicians to conduct a through systems review.

## History

The patient's history of other medical, surgical or psychiatric problems is important to elicit. These problems can, of themselves, contribute to distress, impact potential treatment strategies, and cause symptoms. This aspect of the historytaking should include a review of all relevant past medical, surgical and psychiatric problems.



## Medication History

A detailed history of drug therapy should include:

- Current and prior use of prescription medications
- Current and prior use of anti-retroviral therapies
- Current and prior use of non-prescription drugs including “alternative” or “complementary” medical therapies
- Drug allergies, and previous adverse drug reactions
- Prior treatment modalities for each symptom (determined earlier, when discussing each symptom)

## Family History

A family history is an important aspect of assessment, especially in a patient with advanced disease. Clinicians may question the relevance of the causes of death of parents and siblings to the situation of a patient with established advanced disease. Family history, however, is very relevant because it is a crucial part of the life experience of an individual. It is additionally relevant in the setting of AIDS, since multiple family members may be HIV-infected and patients may have already lost other family members to the same disease. The experience of family members’ illnesses or deaths colors the life view and the fears of patients who themselves may be facing progressive disease and fearing the worst. Including questions about family members can help to elicit and—ultimately, if possible—alleviate fears.

Questions can include ones along the lines of “Did you provide the direct care for your mother/father/sister/brother/child/friend during that illness?” and/or “Were there things that your relative/friend experienced that have led you to worry about what you might encounter if your own illness were to progress?” Although this is a slight departure from the traditional family history and does lead into the social history, it is an approach that begins to address psychological symptoms such as anxiety, which in turn may be aggravating the distress of a “physical” symptom. For example, if a patient witnessed uncontrolled pain in a relative or friend, his or her assumption that this is the norm may influence his or her response to pain. As reflected by the inclusion of “friend” in the above questioning, with HIV-related illness it can be important to include the experience of others beyond family members in this line of questioning, either at this point or in the social history. A question to ask might be, “Have you known or cared for others with the same or a similar illness to the illness that you have?”

## Social History

The social history provides an opportunity to elicit detail of the psychosocial assessment and can contribute to the clinician’s understanding of the individual’s distress and approaches that may assist in the modulation of that distress. Traditionally, in this part of an assessment, the clinician asks the patient about the following:

- Occupation
- Marital status
- Children
- History of smoking, alcohol use, and illicit drug use

These core aspects of the history are crucial. Of note, given that injection drug use is a risk factor for HIV infection *and* a factor that may interface with many aspects of symptom assessment and management, it is the most important factor to recognize. (Note: “aberrant” drug-related behaviors may be uncovered in the process of eliciting a social history that may suggest problems with substance abuse or addiction. An approach to these is detailed in the section Challenging Clinical Situations and Special Populations.)

In patients with advanced disease, for many reasons, the social assessment should usually be broad. In addition to eliciting the core of the social history, initial historytaking should address the following:

- Psychosocial assessment should reflect an understanding of the many factors that modulate distress, such as personality, coping, and both past and present psychiatric disorders. Questions that address the concept of coping and resources can be helpful (e.g., Are there things or people in your life that give you strength and help you to cope as you face this illness?). These questions can also be symptom-specific (e.g., Are there things/people in your life that have been helping you to cope with fatigue?).
- Cultural and spiritual assessment should reflect an understanding of, and respect for, family cultural and spiritual dynamics and the patient and family expectations and preferences for medical care and interactions. This aspect of assessment is crucial, especially in relation to sensitive issues related to treatment decisions towards the end of life. Practical issues that arise in this aspect of the assessment can inform the development of treatment plans. For example, the clinician may come to understand the cultural or spiritual interpretation that a patient or family has in relation to interventions such as parenteral feeding or ventilator support near the end of life. In addition, for many patients, cultural and spiritual practices and support can help to alleviate distress.
- The clinician should become aware of the patient’s family and social resources, financial situation, and physical living environment. This point in the history also provides an important opportunity to ascertain who is likely to assist with the patient’s care in the home. Often, with advanced illness, family members are asked to function as health care providers in the home. A family member who serves as the “front-line” caregiver plays a key role in symptom management, administration of medications, and reporting problems; therefore, he or she can be a crucial help in ongoing symptom assessment and management.
- Knowledge of the patient’s and family’s previous experience with HIV infection or other progressive medical disease may provide useful insights into the response to physical illness or the genesis of psychological symptoms.

The social history provides the clinician with information that can assist in optimizing the care of the patient with advanced illness. It can also identify aspects of the patient’s illness experience and distress that may be best addressed by others on the health care team or in the community.

## Review of Current Goals of Care

A review of goals of care should be considered in all new assessments of patients with advanced illness. This is often not included in historytaking but, like social history, is a highly relevant part of symptom assessment and can assist the clinician greatly in defining appropriate treatment strategies. It also, somewhat obviously, should assist the clinician in ensuring that the patient's priorities and goals are respected. Clinicians should include current goals of care in the routine historytaking in a manner that reflects patient and family cultural preferences for communication.

The patient's understanding of his or her current disease status usually should be assessed first. Although the exact approach to the patient may vary in certain cultures and family may play a large part in this discussion, goals should be explored as they relate to hopes for cure, life-sustaining treatments and comfort therapies. Once these goals have been elicited, a basis is developed on which a clinician and the patient—and, where appropriate, family—can begin to discuss treatment options and the realities of what can and cannot be achieved in the context of any newly defined problems. Especially in the later stages of illness, where resistant symptoms may be present, this very important aspect of the symptom assessment may influence decisionmaking significantly.

This is often a time in the historytaking when a question may also be appropriate about whether the patient or family has thought about or begun any advanced care planning. This sensitive area is addressed in detail in Chapter 21: Patient-Clinician Communication. The nature of the questioning will be influenced by the relationship of the patient and clinician and the cultural context in which the discussion occurs (e.g., “Perhaps we could talk over what you understand about your illness and how it has been going?”). It may be appropriate in some circumstances to ask about the patient's hopes and goals for particular treatments and fears for the future. Approaches could include, “What concerns you most about your illness?” and “What are your hopes (your expectations, your fears) for the future?”<sup>34</sup>

The approach to such questioning will obviously be different in some cultures. Also, different approaches are called for in situations in which a clinician has been the primary clinician caring for a patient over weeks, months or years as opposed to situations in which the patient is new to the clinician. Nonetheless, the clinician needs an understanding of what a patient understands about his or her stage of illness in order to begin dialogue about a symptom-related treatment plan. (Note: Patients' understanding of their stage of illness can be a factor influencing their distress; for example, patients may assume that because pain is much worse, the underlying disease has significantly progressed).

## Physical Examination, Investigations and Further Evaluation

Having elicited the medical history, the clinician should proceed with a physical examination and further assessment if needed to address symptoms. This aspect of assessment is important for establishing the etiology of (the pathophysiologic process responsible for) each symptom. In addition to a thorough physical examination, symptom assessment must include review of the available laboratory and imaging data, and if needed, further specialized evaluations.

- An examination should, at a minimum, include all body systems relevant to the particular symptoms. With advanced HIV disease, given that multiple symptoms may be present and that unexpected clinical findings are not uncommon, a full clinical examination is usually appropriate.



- Neurologic and mental state examinations are particularly important in advanced HIV-related disease.
- Specific radiological or laboratory tests may be appropriate to clarify the underlying pathophysiology of a symptom.
- Specialist assessments such as neurologic, dermatological, psychiatric, or other assessments may be appropriate to provide diagnostic input.
- Specific assessment may also be appropriate to identify other factors affecting distress and/or patient needs for psychosocial support or rehabilitative therapy.

## Problem List and Treatment Plan

At the conclusion of the history and examination, the clinician should seek to define a problem list and establish a treatment plan that includes symptom assessment and measurement over time.

- *Definition of symptom etiology*  
First the etiology of the symptom(s) should be defined, using knowledge of pain syndromes, other symptoms and common symptom complexes. Further, clinicians should recognize that a symptom may be isolated and caused by a new pathologic process or, alternatively, with multiple symptoms the situation may be more complicated. Symptoms may be concurrent but unrelated in etiology; concurrent and related to the same pathological process; concurrent with the one symptom directly or indirectly a consequence of a pathological process initiated by the other symptom (e.g. vomiting may induce hypokalemia that results in an ileus with nausea, bloating and constipation); or concurrent with one symptom occurring as a consequence or side effect of therapy directed towards treating the other.
- *Problem list*  
The clinician should create a problem list that reflects the clinical priorities, including, importantly, the patient's priorities. The treatment of symptoms that are defined by the patient as particularly bothersome should be given high priority.
- *Treatment plan*  
If possible, the clinician should make a treatment plan for the *etiology* of the symptom(s). Some treatments can palliate a symptom by tackling the primary cause of the symptom. For example, in the case of sweats and chills associated with a fever, which in turn is caused by infection, a plan could be established for treatment of the infection with appropriate antibiotics; in the case of exhaustion and fatigue caused by anemia and exacerbated by depression, a plan could be made to treat the anemia and the depression.

Sometimes, with advanced disease, a patient may elect not to seek treatment directed toward the cause of the problem. Such treatments themselves may be viewed as burdensome and possibly futile given the stage of the disease, particularly if the patient's goals direct the clinician to focus solely on quality of life. In such cases, it is important for the clinician to guide the patient regarding the palliative outcomes likely with and without the treatment that would address etiology. For example, although a patient may have elected to avoid life-prolonging treatments there may be instances when antibiotics may be the most effective means of palliating a symptom.

A treatment plan for the *distress* associated with the symptom should be established. Some treatments may palliate the symptom by direct impact on the distress caused by the symptom. The treatment of pain with analgesics is an obvious example. Another example is the treatment of sweats and chills associated with fever (see Table 3-2) with antipyretics such as acetaminophen or a non-steroidal anti-inflammatory medication and physical methods of cooling (including fanning, bathing, etc.). Similarly, in a case of exhaustion and fatigue caused by anemia and exacerbated by depression it may be appropriate to consider a plan for counseling, support, assistance with daily activities, and other interventions to minimize the impact of fatigue (see Table 3-1).

- *Monitoring plan* A plan for monitoring the impact of symptom management over time is a crucial aspect of symptom assessment. Reassessment should be timely and practical. If a symptom is very severe or distressing, monitoring may need to be undertaken within the hour; if a symptom is less severe, a different schedule should be set up. A monitoring plan should be appropriate for the patient's abilities. For example, if a patient cannot attend the hospital for a follow-up visit, a telephone call or home visit by a clinician may be a good method for monitoring. At times it can be most helpful to use a tool or instrument to facilitate effective monitoring and improve team communication in the health care setting; see following section, Symptom Assessment Methodology and Instruments.

## CHALLENGING CLINICAL SITUATIONS AND SPECIAL POPULATIONS

### Cognitive Impairment in Advanced Disease

Cognitive impairment may occur in advanced disease and in the imminently dying. In such situations, detailed symptom assessment may be difficult. Nonetheless, while giving attentive care at the bedside a provider can generally ascertain whether a patient is distressed and can then consider interventions that may be helpful in alleviating distress. Monitoring behaviors, including, for example, facial or physical movement, can be crucial in this process.

A recent small study of 14 patients with cancer pain and severe cognitive failure found that during episodes of agitated cognitive failure, pain intensity as assessed by a nurse was significantly higher than the patient's assessment had been before and after the episode.<sup>35</sup> After complete recovery, none of the patients studied recalled having had any discomfort during the episode. These data are difficult to interpret, but do highlight some important issues relevant to assessment. The authors of the study suggest that patients who recover from a severe episode of delirium may have no memory of the experience, including the pain, and that medical and nursing staff are likely to overestimate the discomfort of patients with this condition. Although this may be true, another interpretation might be that patients with delirium may be acutely sensitive to many irritations including pain, noise and other factors, and therefore are at risk for compounded distress in the presence of both delirium and one of these irritants. It is apparent that if symptoms are to be controlled, clinicians must assess patients thoroughly to define each problem. When more than one problem is present (in this instance delirium and pain), each problem may warrant treatment in order to minimize distress; in this example, specific treatments may be needed for both pain and delirium.

## Symptom Assessment with Pediatric Patients

Symptom assessment in children requires particular skill. Pediatric AIDS is a specialized area and discussed elsewhere.<sup>36</sup> (See Chapter 12: The Care of Children and Adolescents.) Briefly, the age of the child and his or her ability to provide a report will influence the symptom assessment. Older children who can provide answers to questions can be assessed with greater ease than younger children.

Careful attention to verbal cues and parental input is crucial in the pediatric population. Validated measures for many symptoms in this population are lacking, but a variety of measures have been developed for the assessment of pain including visual analogue scales, “faces” scales,<sup>37-42</sup> and observational scales such as the Observational Scale of Behavioral Distress<sup>43</sup> and the Procedure Behavior Checklist.<sup>39</sup>

The Memorial Symptom Assessment Scale (MSAS) has been adapted for use in children aged 10 to 18 years of age (see Figure 3-1). The MSAS can provide multidimensional information about symptoms experienced by children. Its pediatric use to date, however, has been in the population with cancer and in the research setting rather than in clinical care.<sup>44</sup>

Additional tools specifically for measuring pain in pediatric patients are presented at the end of this chapter in Figures 3-4 (a-d).

## Cultural and Language Barriers

Symptom assessment and measurement can also present challenges in patients who differ in culture and language from the professionals providing their care. In cases where language barriers exist, meticulous attention should, where possible, be given to skilled translation. When measuring symptoms, only a few instruments have been shown to be reliable and valid across cultures and languages.<sup>45, 46</sup> Translation and appropriate symptom measures must be used.

In the clinical setting, health care professionals can use simple, face-valid symptom measures to overcome language barriers. At the initial assessment the clinician can spend time with the patient and an interpreter to develop a simple, two-language verbal rating scale for symptoms, which can be kept by the patient’s bedside. To monitor the level of distress and impact of interventions, such scales should address both symptom intensity and relief. This approach will help to ensure that symptom distress is minimized even when interpreters are not available. In addition, historytaking should explore cultural barriers to symptom assessment and management.

## Substance Abuse History or Problems

Clinicians frequently report that symptom assessment is especially challenging when the patient has a previous or current problem with substance abuse or addiction. In addition, difficulty with symptom assessment also is common in situations in which the clinician is concerned that a substance abuse problem *may* be present. In these situations, the assessment and management of pain presents many difficult clinical issues.<sup>47</sup> However, as highlighted by Passik, et al., “virtually any drug that acts on the central nervous system and any route of drug administration, can be abused.”<sup>48, 49</sup> The implication is that assessment of substance abuse is important when assessing a wide variety of symptoms including pain, anxiety, depression, insomnia and many others. In cases where substance abuse is defined as a problem, experience and skill in caring for such patients can be invaluable as the issues involved in care can be very complex.<sup>47</sup>

A full discussion of the assessment of the patient with a past history of, or active involvement in, substance abuse is beyond the scope of this chapter. (For a more in-depth discussion, see Chapter 11: Substance Use Problems.) The complex issues involved in the medical care of this population have been extensively reviewed in other texts.<sup>47-50</sup> Such care must include attention to both the HIV-related illness(es) *and* the substance abuse, along with the social and medical issues that each involves. In addition, it is important that clinicians who care for people with substance use problems be committed to providing optimal medical care. Such care must involve symptom management. An ongoing relationship between the clinician and patient that can foster both trust and continuity of care is optimal in all cases of advanced illness and is also desirable in this setting.

A detailed history, as described in this chapter, should be undertaken in those with, or suspected to have, a history of substance use problems. As in all cases of patients reporting distress, it is crucial for clinicians to focus on the detail of symptoms and on the distress associated with them, in order to define the underlying pathology and diagnosis and develop a treatment plan. Careful assessment, combined with knowledge on the part of the clinician of pain syndromes, other symptoms, and common symptom complexes should facilitate the development of a diagnosis and treatment plan. Careful attention should be given specifically to assessment for concurrent psychiatric conditions, many of which have an increased prevalence in people who have problems with substance use. Initially, it is important for the clinician to learn about the patient's current status with regard to drug use and the situations and triggers that, in the past, may have prompted the patient to turn to substance abuse. Clearly not all patients will be forthcoming with information relating to their substance use activities. Any inconsistencies that are uncovered during historytaking or from other clinicians or family must also be noted and their implications considered.

In cases where substance abuse is being considered, eliciting the patient's social history is vital, as is speaking with others involved in the patient's medical care, where this is possible and with respect for privacy issues. In this context it is important to consider the concept of *aberrant drug-related behaviors*.<sup>48, 49</sup> These include a broad range of behaviors that have been considered problematic by clinicians prescribing opioids for pain. Table 3-4 presents the spectrum of aberrant drug-related behaviors clinicians may encounter during treatment of the medically ill with prescription drugs.<sup>48, 49</sup>

Table 3-4: Aberrant Drug-Related Behaviors\*

<b>Behaviors more suggestive of addiction</b>	Selling prescription drugs
	Prescription forgery
	Stealing drugs from others
	Injecting oral formulations
	Obtaining prescription drugs from nonmedical sources
	Concurrent abuse of alcohol or illicit drugs

Table 3-4: Aberrant Drug-Related Behaviors\* (continued)

<b>Behaviors more suggestive of addiction</b> continued	Repeated dose escalations or similar noncompliance despite multiple warnings Repeated visits to other clinicians or emergency rooms without informing prescriber
	Drug-related deterioration in function at work, in family or socially
	Repeated resistance to changes in therapy despite adverse drug effects
<b>Behaviors less suggestive of addiction</b>	Aggressive complaints about the need for more drugs
	Drug-hoarding during periods of reduced symptoms
	Requesting specific drugs
	Openly acquiring similar drugs from other medical sources
	Occasional unsanctioned dose escalation or other noncompliance
	Unapproved use of the drug to treat another symptom
	Reporting psychic effects not intended by the clinician
	Resistance to a change in therapy associated with tolerable adverse effects
Intense expressions of anxiety about recurrent symptoms	

\* Based on clinical experience, these behaviors can be divided into those that are relatively more or less likely to be related to addiction. Source: Passik SD, Portenoy RK. Substance abuse issues in palliative care. In Berger A, ed. *Principles and Practices of Supportive Oncology*. Philadelphia: Lippincott-Raven Publishers, 1998. Reproduced with permission. Copyright 1998.

If aberrant behaviors are identified in a patient, the differential diagnosis of these behaviors should be explored (see Table 3-5). Aberrant behavior may occur in the setting of addiction. It also seems likely that some behaviors are more suggestive of addiction than others. The differential diagnosis of all of these behaviors is broad and includes many diagnoses and problems other than addiction.<sup>48,49</sup> Psychiatric disorders, confusional states, *pseudo-addiction* and criminal intent are among the problems that should be considered. Pseudo-addiction refers to the presence of behaviors that are suggestive of addiction in a patient whose problem is not addic-

tion, but rather, unrelieved pain. In addition, social problems may be behind such behaviors, and occasionally a behavior listed as *aberrant* may occur in a patient who simply does not adhere to the norms of social conventions. For example, a patient may borrow medications from another without obtaining a physician's prescription and although this is listed as an *aberrant* behavior it may be an isolated event occurring in the absence of serious problems.

Table 3-5: Differential Diagnosis for Aberrant Drug-Related Behaviors

*Categories are not mutually exclusive*

- Addiction (substance dependence disorder)
- “Pseudo-addiction”
- Psychiatric disorder associated with impulsive or aberrant drug-taking
- Personality disorder, including borderline and psychopathic personality disorders
- Depressive disorder
- Anxiety disorder
- Encephalopathy with confusion about appropriate therapeutic regimen
- Criminal intent
- Other including “normal” or “reasonable” behavior, especially for behavior “less” suggestive of addiction

Source: Passik SD, Portenoy RK. Substance abuse issues in palliative care. In Berger A, ed. *Principles and Practices of Supportive Oncology*. Philadelphia: Lippincott-Raven Publishers, 1998. Reproduced with permission. Copyright 1998.

It must be recognized that undertreatment of pain is currently a more common problem in most clinical settings (including the HIV clinical setting) than addiction and substance abuse. Nonetheless, consideration and monitoring of aberrant behaviors can provide clinicians with important information that can assist in assessing and treating symptoms and defining problems. The management of patients who have problems with substance abuse, and/or engage in aberrant drug-related behaviors for other reasons “necessitates a comprehensive approach that recognizes the biological, chemical, social, and psychiatric aspects of substance abuse and addiction and provides practical means to manage risk, treat pain effectively and ensure patient safety.”<sup>48, 49</sup>

## SYMPTOM MEASUREMENT IN CLINICAL PRACTICE

■ Recently it has been recognized that the use of symptom measurement raises the possibility of improving outcomes through careful and ongoing monitoring of distress. For example, the regular monitoring of pain in hospital settings is recommended to assess pain severity and relief in all patients at risk for pain.<sup>51, 52</sup> Further, recommendations also suggest that clinicians should teach patients and families to use assessment tools in the home to promote continuity of pain management in all settings.

The principles involved in routine pain assessment may be usefully applied for other symptoms. It is likely that the measurement of symptoms:

- Can improve patient outcomes by increasing staff awareness of symptoms, distress and the response of symptoms to treatment interventions
- Has the potential to increase patient attention to reporting distress

## Symptom Assessment Methodology and Instruments

A wide array of instruments is available for the assessment of symptoms. Numerous methods and instruments have been validated for the assessment of symptoms, including instruments for the assessment of pain and depression. However, few instruments have been validated for many of the other symptoms that are prevalent in advanced HIV-related disease, such as anorexia or change in appearance. Although it is beyond the scope of this chapter to review all of the instruments available for the assessment of symptoms, broadly these instruments fall into two categories, as follows:

- Symptom-specific instruments
- Instruments for the assessment of multiple symptoms

Some instruments are more applicable in the research setting than in the clinical setting. When considering the use of instruments in the clinical setting, many factors must be considered, as presented in Table 3-6. It is not always crucial for patients to complete a written instrument. In many cases, a verbal interaction between the patient and clinician that elicits a “measure” of a symptom can provide a useful report. For example, the clinician may ask, “Can you tell me on a scale of 0 to 10 what level your pain is at right now? Zero refers to no pain and 10 the worst possible pain.”

Table 3-6: Considerations for Symptom Measurement in Clinical Settings

<b>Patient-related factors</b>	Can the patient comprehend the method of measurement, and what is the impact of the patient’s cognitive state on his or her report?
	How willing and able is the patient to provide reports and/or complete an instrument?
	Are there cultural and language barriers that have impact on the symptom report?
	Is it possible that the patient may be reluctant to report a specific symptom?
	Is it important, in this particular patient, to assess one symptom or multiple symptoms?
	Do the patient’s descriptions for the symptom accurately match those used in the method or instrument selected for reporting? (This is related to instrument validity.)
<b>Symptom-specific factors</b>	Which symptoms and dimensions of symptoms need to be assessed, from the patient’s perspective? Usually “distress” or “bothersomeness” is important to consider.
	What symptoms or signs are crucial factors to monitor? E.g., in certain cases fever may be a “vital sign” and warrant some priority in assessment.
	Is the symptom important to detect <i>and</i> likely to go unnoticed? E.g., pain and confusion.

Table 3-6: Considerations for Symptom Measurement in Clinical Settings (continued)

<b>Symptom-specific factors</b> continued	When should symptoms be assessed? E.g., if a symptom only occurs when the patient moves, then assessment at rest would not provide useful information.
<b>Clinician resources</b>	What symptoms are amenable to intervention? E.g., hair loss may not be as amenable to intervention as pain; therefore pain may warrant a higher priority for routine measurement.
	What resources are available for monitoring symptoms and collecting data from symptom reports? If patients are asked to provide information, it is important that clinicians have the ability to review and respond to the information provided; unnecessary burden should not be imposed on patients.
	What are the factors related to the method selected for measurement?
	Has the method selected for measurement been demonstrated to be valid and reliable for the assessment of the symptom? Is it valid and reliable both in general and the patient's particular population?
	Does the method selected for measurement assess the clinically relevant symptoms, including dimensions and impact of the symptom? I.e., the dimensions or impact that the patient prioritizes.
	Does the method selected for measurement assess the symptoms in a timely manner? E.g., if a symptom is present at night or on movement, measurement must reflect this.
	How complex is the method selected for measurement, and what burden does this method of reporting impose on the patient?

The following discussion presents the range of options available and the practical issues that may be important in selecting a method or instrument for monitoring a particular symptom in a particular clinical setting. Specific instruments are discussed in detail, and some are illustrated by figures or tables. A more comprehensive review of this subject can be found in the *Oxford Textbook of Palliative Medicine*.<sup>17</sup>



## Unidimensional Scales for Assessing Symptom Intensity or Relief

Instruments for the assessment of symptom intensity or relief are usually unidimensional scales and include visual analogue, numerical and categorical scales. Scales using numbers (e.g., zero to 10), words (e.g., “no pain,” “mild,” “moderate”), faces, and other observational scales, have been the traditional focus of pain measurement (see Figures 3-2 and 3-4).<sup>32, 37-43</sup> While similar scales have not been validated for all symptoms, an approach in which symptoms are “anchored” with numbers or words can be useful in the routine assessment of symptoms. Increasingly clinicians are using pain scores routinely in the inpatient setting along with the recording of vital signs.

## Instruments for Assessing Multiple Dimensions of a Symptom

A more comprehensive evaluation of symptoms and their impact can be elicited by using instruments that define the multiple *dimensions* of a specific symptom. These instruments are usually longer and often, therefore, less useful for routine use. An example of such an instrument is the Brief Pain Inventory, shown in Figure 3-3.<sup>33</sup> This instrument serves to elicit a pain history, intensity, location and quality. Numeric scales (range one to 10) also indicate the intensity of pain: pain at its worst, at its least, and pain “right now.” A percentage scale quantifies relief from current therapies. A body figure allows localization of the pain. Seven questions evaluate the degree to which pain interferes with function, mood and enjoyment of life. This instrument has now been translated into several languages.

The Memorial Pain Assessment Card (MPAC) is a brief, validated measure that uses visual analogue scales to characterize pain intensity, pain relief and mood, and an eight-point verbal rating scale to further characterize pain intensity (see Figure 3-2). The MPAC includes a mood scale that correlates with measures of overall psychological distress, depression and anxiety, and is considered to be a valid measure of global psychological distress. This instrument provides limited information but it is simple to use and reliable and therefore a feasible instrument to use on a regular basis for monitoring difficult pain.<sup>32</sup>

Fatigue is a symptom that is among the most prevalent in patients with advanced HIV-related illness. Its measurement provides an example of the complexity of measurement. Assessing fatigue is most important in the HIV-infected population as fatigue has been associated with significantly poorer physical functioning as well as a greater degree of overall psychological distress and lower quality of life.<sup>3</sup> Unlike pain, fatigue has no generally accepted definition. In addition, fatigue itself may impose limitations on routine assessment.

Fatigue is most usually characterized by a spectrum of disturbances that includes, among others, the following:

- Muscular weakness
- Lethargy
- Sleepiness
- Mood disturbance (particularly depression)
- Cognitive disturbances (such as difficulty concentrating)

As a consequence of this complexity, the measurement of fatigue must attempt to capture this spectrum of disturbances. Although unidimensional scales can and have been used to assess fatigue, clearly a more meaningful assessment will evaluate its temporal dimensions, physical and psychological components, and associated distress.

Unidimensional fatigue scales include single items in symptom checklists and the fatigue subscale of the Profile of Mood States.<sup>53, 54, 55</sup> Another approach involves the assessment of specific symptoms associated with fatigue—for example, a visual analogue scale is used to assess “drowsiness” and other scales are used to evaluate the patient’s cognitive status. Several multidimensional scales exist, including the 41-item Piper Fatigue Self Report Scale (PFS), which addresses the severity, distress, and impact of fatigue<sup>56</sup> and the Visual Analogue Scale-Fatigue measure, an 18-item, multidimensional patient-rated instrument.<sup>57</sup> While these scales are more applicable in the research setting than in the general clinical setting, the issues involved in the assessment of fatigue highlight the need for accurate historytaking so the dimensions of the symptom that is distressing the patient can be clearly defined.

### Instruments for Assessing Symptoms That May Otherwise Be Unnoticed

Instruments to detect the presence of symptoms that may otherwise go unnoticed include those instruments that routinely ask patients about the presence or absence of a symptom (or multiple symptoms) and those that assess for the presence of impaired cognition. Some symptoms may not be reported but may nonetheless be important. Consequently, clinicians may elect to include routine measuring of such symptoms in clinical care. For this purpose, clinicians may use instruments for the assessment of a single symptom (e.g., pain) or multiple symptoms.

Cognitive impairment and its associated symptoms, problems common in hospitalized patients and those with far advanced illness, are amenable to such routine monitoring. There are many instruments available for cognitive assessment.<sup>58</sup> In the clinical setting, some clinicians include brief cognitive screens in routine assessment to improve their ability to detect such problems. Screening tests for cognitive impairment include the Mini Mental Status Exam<sup>59</sup> and the Blessed Orientation-Memory-Concentration Test,<sup>60</sup> Figures 3-5 and 3-6, respectively. Although these tools have been shown to be sensitive indicators of impairment,<sup>61, 62, 63</sup> clinicians must be cautioned that the instruments are not specific for the diagnosis of delirium or dementia, both of which may occur in advanced HIV-related illness. Further assessment would be needed to make these diagnoses. (See Chapter 10: Psychiatric Problems.)

### Instruments for Assessing Multiple Symptoms

Instruments may be needed to assess and monitor multiple symptoms. To date, only a small amount of research has focused on the role in routine clinical use of instruments that assess multiple symptoms. Even less information is available that applies directly to patients with HIV infection.

In clinical settings, the main problem with instruments that assess multiple symptoms has been their length (which may limit their clinical utility for routine use). Nonetheless, some instruments are available that could be considered for use in monitoring multiple symptoms. The Edmonton Symptom Assessment Scale (ESAS) is a nine-item, patient-rated symptom visual analogue scale

developed for use in assessing the symptoms of patients receiving palliative care.<sup>64</sup> The ESAS, Figure 3-7, has been shown to be a valid instrument in cancer populations.<sup>65</sup> In addition to assessing specific symptoms, it contains a “distress” score that tends to reflect physical well-being. Additional studies are needed to confirm its value in patients with HIV-related illness.

The Memorial Symptom Assessment Scale (MSAS)<sup>6</sup> is a validated, patient-rated measure that provides multidimensional information about a diverse group of common symptoms (see Figure 3-1). This instrument assesses 32 physical and psychological symptoms in terms of intensity, frequency and distress. The MSAS has been used in research studies of patients with advanced HIV-related illness and has been modified for the pediatric setting.<sup>3,5,44</sup> Although this is a most helpful measure in research settings, its utility in the routine clinical setting may be limited. Recent research has, however, explored the role of an MSAS short version (Figure 3-8) that may be more useful in the clinical setting.<sup>7</sup>

Holzemer, et al., recently published research to validate a sign and symptom assessment tool for assessing the intensity of HIV-related symptoms.<sup>66</sup> The current version is a 26-item scale. This instrument is also likely to be used in the research setting; however, clinicians may wish to consider its clinical applications.

## Using Signs to Monitor Symptoms

Some clinical signs may be useful indicators of symptoms and therefore it may be helpful to monitor these routinely in certain clinical settings. For example, the monitoring of patient temperature or the frequency of bowel movements and/or emesis may be useful routine methods of detecting—or even anticipating and preventing—symptoms that relate to these signs (e.g., sweats, chills, abdominal pain, and nausea).

In summary, measurement has a key role in the assessment of symptoms. Although measures frequently have limitations, if clinicians remain aware of these limitations the measurement of symptoms is likely to enhance their ability to effectively monitor and treat patient distress.

## CONCLUSION

■ Systematic symptom assessment is a foundation of clinical practice and is crucial in treating HIV-related disease. Careful and meticulous clinical assessment should elicit the patient's perception of distressing symptoms and the pathophysiology responsible for each symptom. A comprehensive assessment will facilitate the development of a treatment plan that can focus on treating reversible pathologic processes, alleviating distress, and promoting quality of life.

Figure 3-1: Memorial Symptom Assessment Scale

<b>Memorial Symptom Assessment Scale</b>														
Name: _____		Date: _____												
<b>Section I:</b>														
Instructions: We have listed 24 symptoms below. Read each one carefully. If you have had the symptom during this past week, let us know how OFTEN you had it, how SEVERE it was usually and how much it DISTRESSED OR BOTHERED you by circling the appropriate number. If you DID NOT HAVE the symptom, mark an "X" in the box marked "DID NOT HAVE."														
<b>During the past week, did you have any of the following symptoms?</b>	<b>Did Not Have</b>	<b>If YES, How OFTEN did you have it?</b>				<b>If YES, How SEVERE was it usually?</b>				<b>If YES, How much did it DISTRESS or BOTHER you?</b>				
		Rarely	Occasionally	Frequently	Almost Constantly	Slight	Moderate	Severe	Very Severe	Not At All	A Little Bit	Somewhat	Quite A Bit	Very Much
• Difficulty concentrating		1	2	3	4	1	2	3	4	0	1	2	3	4
• Pain		1	2	3	4	1	2	3	4	0	1	2	3	4
• Lack of energy		1	2	3	4	1	2	3	4	0	1	2	3	4
• Cough		1	2	3	4	1	2	3	4	0	1	2	3	4
• Feeling nervous		1	2	3	4	1	2	3	4	0	1	2	3	4
• Dry mouth		1	2	3	4	1	2	3	4	0	1	2	3	4
• Nausea		1	2	3	4	1	2	3	4	0	1	2	3	4
• Feeling drowsy		1	2	3	4	1	2	3	4	0	1	2	3	4
• Numbness/tingling in hands/feet		1	2	3	4	1	2	3	4	0	1	2	3	4
• Difficulty sleeping		1	2	3	4	1	2	3	4	0	1	2	3	4
• Feeling bloated		1	2	3	4	1	2	3	4	0	1	2	3	4
• Problems with urination		1	2	3	4	1	2	3	4	0	1	2	3	4
• Vomiting		1	2	3	4	1	2	3	4	0	1	2	3	4
• Shortness of breath		1	2	3	4	1	2	3	4	0	1	2	3	4
• Diarrhea		1	2	3	4	1	2	3	4	0	1	2	3	4
• Feeling sad		1	2	3	4	1	2	3	4	0	1	2	3	4
• Sweats		1	2	3	4	1	2	3	4	0	1	2	3	4
• Worrying		1	2	3	4	1	2	3	4	0	1	2	3	4
• Problems with sexual interest or activity		1	2	3	4	1	2	3	4	0	1	2	3	4
• Itching		1	2	3	4	1	2	3	4	0	1	2	3	4
• Lack of appetite		1	2	3	4	1	2	3	4	0	1	2	3	4
• Dizziness		1	2	3	4	1	2	3	4	0	1	2	3	4
• Difficulty swallowing		1	2	3	4	1	2	3	4	0	1	2	3	4
• Feeling irritable		1	2	3	4	1	2	3	4	0	1	2	3	4

Continue on next page.

Figure 3-1: Memorial Symptom Assessment Scale (continued)

## Memorial Symptom Assessment Scale

**Section 2:**

Instructions: We have listed 8 symptoms below. Read each one carefully. If you have had the symptom during this past week, let us know how SEVERE it was usually and how much it DISTRESSED OR BOTHERED you by circling the appropriate number. If you DID NOT HAVE the symptom, mark an "X" in the box marked "DID NOT HAVE."

<b>During the past week, did you have any of the following symptoms?</b>	<b>Did Not Have</b>	<b>If YES, How SEVERE did you have it?</b>				<b>If YES, How much did it DISTRESS or BOTHER you?</b>				
		<b>Slight</b>	<b>Moderate</b>	<b>Severe</b>	<b>Very Severe</b>	<b>Not At All</b>	<b>A Little Bit</b>	<b>Somewhat</b>	<b>Quite A Bit</b>	<b>Very Much</b>
• Mouth sores		1	2	3	4	0	1	2	3	4
• Change in the way food tastes		1	2	3	4	0	1	2	3	4
• Weight loss		1	2	3	4	0	1	2	3	4
• Hair loss		1	2	3	4	0	1	2	3	4
• Constipation		1	2	3	4	0	1	2	3	4
• Swelling of arms or legs		1	2	3	4	0	1	2	3	4
• "I don't look like myself"		1	2	3	4	0	1	2	3	4
• Changes in skin		1	2	3	4	0	1	2	3	4

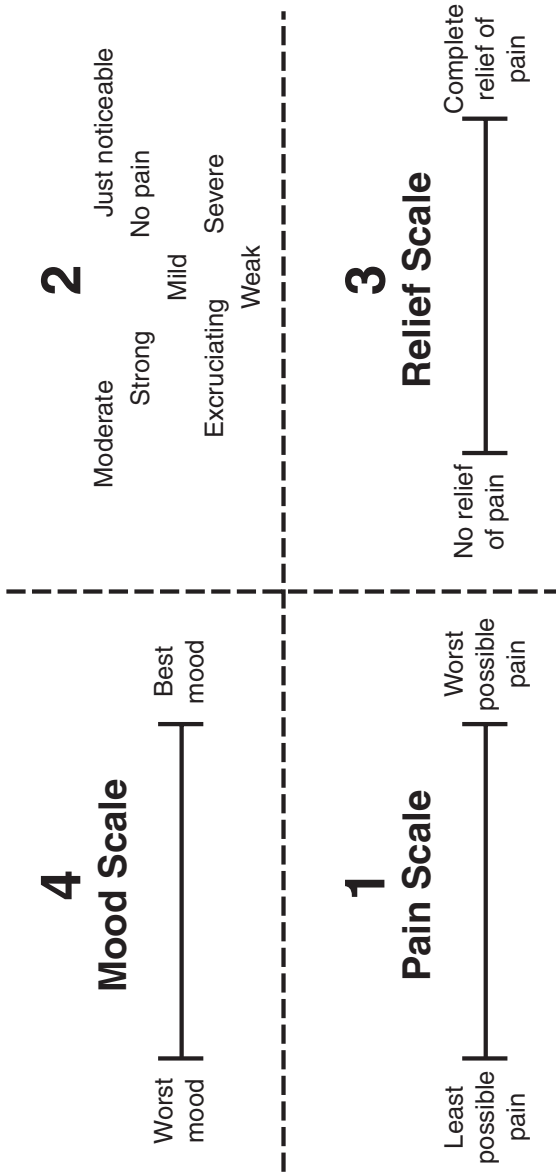
\*\*If you had any other symptoms during the past week, please list below and indicate how much the symptom has distressed or bothered you.

Other:		0	1	2	3	4
Other:		0	1	2	3	4
Other:		0	1	2	3	4

Figure 3-1 revised version of the Memorial Symptom Assessment Scale. Copyright 1994, reprinted with permission from Elsevier Science Ltd, The Boulevard, Langford Lane, Kidlington OX5 1GB, UK.

Source: Portenoy RK, Thaler HT, Kornblith AB, et al. The Memorial Symptom Assessment Scale: an instrument for the evaluation of symptom prevalence, characteristics and distress. *Eur J Cancer* 30A:1326-36, 1994. Copyright 1994. Reproduced with permission of Elsevier Science Ltd.

Figure 3-2: The Memorial Pain Assessment Card (MPAC)



Note: Card is folded along broken line so that each measure is presented to the patient separately in the numbered order.

Source: Fishman B, Pasternack S, Wallenstein SL, et al. The Memorial Pain Assessment Card. A valid instrument for the evaluation of cancer pain. *Cancer* 60:1151-8, 1987. Reproduced with permission.

Figure 3-3: Brief Pain Inventory

**Brief Pain Inventory**

Date: \_\_\_\_\_

Name: \_\_\_\_\_  
LAST FIRST MIDDLE INITIAL

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_ Sex:  Female  Male

Date of Birth: \_\_\_\_\_

- 1** Marital Status (at present)
- 1.  Single
  - 2.  Married
  - 3.  Widowed
  - 4.  Separated/Divorced

- 2** Education (Circle only the highest grade or degree completed)
- |       |    |    |    |    |    |    |           |   |   |   |
|-------|----|----|----|----|----|----|-----------|---|---|---|
| Grade | 0  | 1  | 2  | 3  | 4  | 5  | 6         | 7 | 8 | 9 |
|       | 10 | 11 | 12 | 13 | 14 | 16 | M.A./M.S. |   |   |   |
- Professional degree (please specify) \_\_\_\_\_

**3** Current occupation: \_\_\_\_\_  
(specify titles; if you are not working, tell us your previous occupation)

**4** Spouse's Occupation: \_\_\_\_\_

- 5** Which of the following best describes your current job status?
- 1. Employed outside the home, full-time
  - 2. Employed outside the home, part-time
  - 3. Homemaker
  - 4. Retired
  - 5. Unemployed
  - 6. Other

**6** How long has it been since you first learned your diagnosis? \_\_\_\_\_ months

- 7** Have you ever had pain due to your present disease?
- 1.  Yes
  - 2.  No
  - 3.  Uncertain

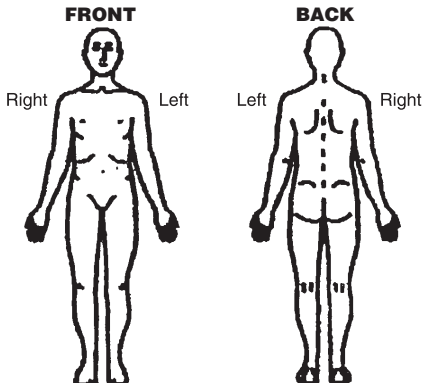
- 8** When you first received your diagnosis, was pain one of your symptoms?
- 1.  Yes
  - 2.  No
  - 3.  Uncertain

**9** Have you had surgery in the past month? 1.  Yes 2.  No

**10** Throughout our lives, most of us have had pain from time to time (such as minor headaches, sprains, and toothaches). Have you had pain other than these everyday kinds of pain during the last week? 1.  Yes 2.  No

*If you answered YES to the last question, please go on to question 11 and finish this questionnaire. If NO, you are finished with the questionnaire. Thank you.*

**11** On the diagram, shade in the areas where you feel pain. Put an X on the area that hurts the most.



Continue on next page.

Figure 3-3: Brief Pain Inventory (continued)

### Brief Pain Inventory continued

- 12** Please rate your pain by circling the one number that best describes your pain at its worst in the last week.
- 0      1      2      3      4      5      6      7      8      9      10
- No Pain Pain as bad as you can imagine
- 13** Please rate your pain by circling the one number that best describes your pain at its least in the last week.
- 0      1      2      3      4      5      6      7      8      9      10
- No Pain Pain as bad as you can imagine
- 14** Please rate your pain by circling the one number that best describes your pain on the average.
- 0      1      2      3      4      5      6      7      8      9      10
- No Pain Pain as bad as you can imagine
- 15** Please rate your pain by circling the one number that tells how much pain you have right now.
- 0      1      2      3      4      5      6      7      8      9      10
- No Pain Pain as bad as you can imagine
- 16** What kinds of things make your pain feel better (for example, head, medicine, rest)?
- 
- 17** What kinds of things make your pain worse (for example, walking, standing, lifting)?
- 
- 18** What treatments or medications are you receiving for your pain?
- 
- 19** In the last week, how much relief have pain treatments or medications provided? Please circle the one percentage that most shows how much relief you have received.
- 0%    10%    20%    30%    40%    50%    60%    70%    80%    90%    100%
- No Relief Complete Relief
- 20** If you take pain medication, how many hours does it take before the pain returns?
1. Pain medication doesn't help at all                       5. Four hours
2. One hour     6. Five to twelve hours
3. Two hours     7. More than twelve hours
4. Three hours     8. I do not take pain help at all
- 21** Circle the appropriate answer for each item. I believe my pain is due to:
- Yes    No      1. The effects of treatment (for example, medication, surgery, radiation, prosthetic device).
- Yes    No      2. My primary disease (meaning the disease currently being treated and evaluated).
- Yes    No      3. A medical condition unrelated to primary disease (for example, arthritis).

Continue on next page.



Figure 3-3: Brief Pain Inventory (continued)

**Brief Pain Inventory continued**

- 22** For each of the following words, check Yes or No if that adjective applies to your pain.
- |           |                              |                             |             |                              |                             |            |                              |                             |
|-----------|------------------------------|-----------------------------|-------------|------------------------------|-----------------------------|------------|------------------------------|-----------------------------|
| Aching    | <input type="checkbox"/> Yes | <input type="checkbox"/> No | Tender      | <input type="checkbox"/> Yes | <input type="checkbox"/> No | Numb       | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Throbbing | <input type="checkbox"/> Yes | <input type="checkbox"/> No | Burning     | <input type="checkbox"/> Yes | <input type="checkbox"/> No | Miserable  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Shooting  | <input type="checkbox"/> Yes | <input type="checkbox"/> No | Exhausting  | <input type="checkbox"/> Yes | <input type="checkbox"/> No | Unbearable | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Stabbing  | <input type="checkbox"/> Yes | <input type="checkbox"/> No | Tiring      | <input type="checkbox"/> Yes | <input type="checkbox"/> No |            |                              |                             |
| Gnawing   | <input type="checkbox"/> Yes | <input type="checkbox"/> No | Penetrating | <input type="checkbox"/> Yes | <input type="checkbox"/> No |            |                              |                             |
| Sharp     | <input type="checkbox"/> Yes | <input type="checkbox"/> No | Nagging     | <input type="checkbox"/> Yes | <input type="checkbox"/> No |            |                              |                             |

**23** Circle the one number that describes how, during the past week, pain has interfered with you:

**A. General Activity**

0      1      2      3      4      5      6      7      8      9      10  
 Does not Interfere      Completely Interferes

**B. Mood**

0      1      2      3      4      5      6      7      8      9      10  
 Does not Interfere      Completely Interferes

**C. Walking ability**

0      1      2      3      4      5      6      7      8      9      10  
 Does not Interfere      Completely Interferes

**D. Normal work (includes both work outside the home and housework)**

0      1      2      3      4      5      6      7      8      9      10  
 Does not Interfere      Completely Interferes

**E. Relations with other people**

0      1      2      3      4      5      6      7      8      9      10  
 Does not Interfere      Completely Interferes

**F. Sleep**

0      1      2      3      4      5      6      7      8      9      10  
 Does not Interfere      Completely Interferes

**G. Enjoyment of life**

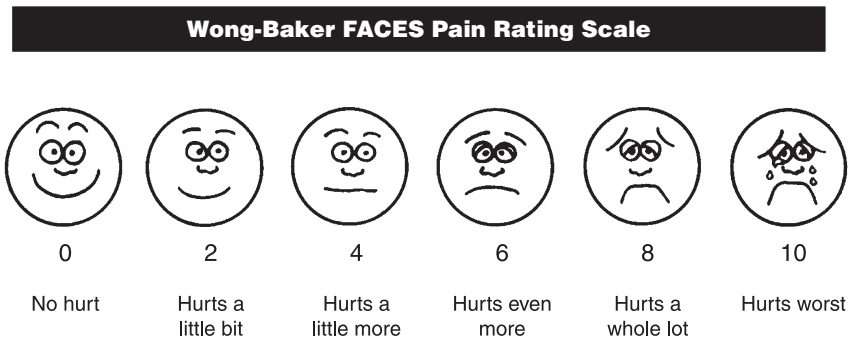
0      1      2      3      4      5      6      7      8      9      10  
 Does not Interfere      Completely Interferes

Source: Charles S Cleeland. Pain Research Group, MD Anderson Cancer Center. Copyright 1991. Reproduced with permission.

**Figure 3-4: Assessment of Pain in Children**

*No one method to assess pain offers an error-free measure of the pediatric pain experience. Therefore, using more than one method of assessment may be helpful. The provider should ascertain whether assessment tools are appropriate for the age and cognitive development of each individual child. For children over the ages of six or seven, the Pain Intensity Scales or Pain Interview usually can be used. When children are unable to describe their pain in words, as occurs with infants and pre-verbal children, they must be watched carefully for behavioral signs of pain. Some examples of assessment tools appear below. (See Figures 3-4a, 3-4b, 3-4c and 3-4d.)*

**Figure 3-4a: Pain Affect Faces Scale**



Explain to the person that each face is for a person who feels happy because he has no pain (hurt) or sad because he has some or a lot of pain. Face 0 is very happy because he doesn't hurt at all. Face 2 hurts just a little bit. Face 4 hurts a little more. Face 6 hurts even more. Face 10 hurts as much as you can imagine, although you don't have to be crying to feel this bad. Ask the person to choose the face that best describes how he is feeling.

Rating scale is recommended for persons age 3 and older.

Source: Wong DL, Hockenberry-Eaton M, Wilson D, Winkelstein ML, Schwartz P. *Wong's Essentials of Pediatric Nursing*, 6th ed. St. Louis: Mosby, Inc., 2001. Copyrighted by Mosby, Inc. Reprinted by permission.

Figure 3-4b: Pain Intensity Scales

*Pain Intensity Scales include the Simple Descriptive Pain Intensity Scale, the Numerical Rating Scale and the Visual Analog Scale. These can be used as pediatric pain assessment tools in children over the age of seven or eight who understand the concept of order and number.*

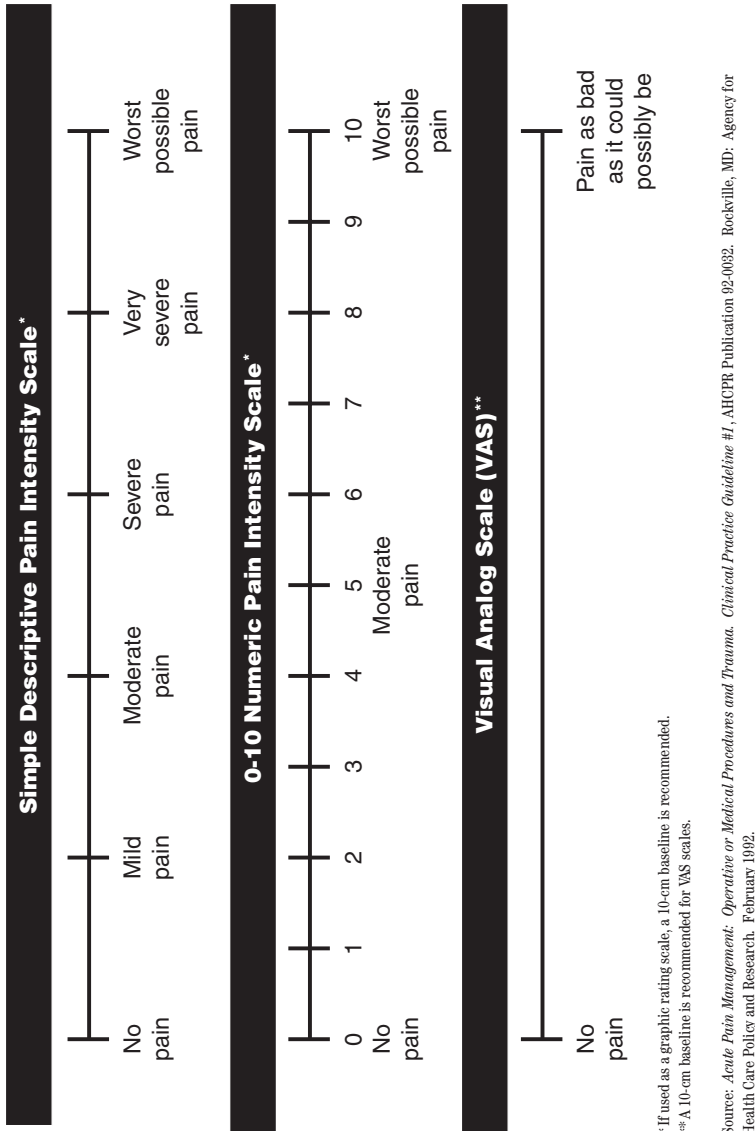


Figure 3-4c: Behavioral Signs Indicative of Pain in Children

*In infants and pre-verbal children who are unable to describe their pain in words, observation of behavior is the primary assessment method. This table shows the primary behavioral signs indicative of pain in children. Behavioral responses to pain may vary depending on whether the pain is brief or persistent.*

Behavioral signs	Duration of Pain	
	Brief	Persistent
• Crying	+	
• Distressed facial expression	+	
• Motor disturbances (localized and whole body)		+
• Lack of interest in surroundings		+
• Decreased ability to concentrate		+
• Sleeping difficulties		+

Source: *Cancer Pain Relief and Palliative Care in Children*. World Health Organization, 1998. Reproduced with permission. Copyright 1998.

Figure 3-4d: Pain Interview for Pediatric Patients

*Pain Interview is a self-report method of pain assessment that provides reliable and valid estimates of pain intensity, quality and location. This method of assessment can be used in most children over six years of age.*

Pain Interview	
Child Form	Parent Form
Tell me about the hurt you're having now.	Tell me about the pain your child is having now.
Elicit descriptors, location, and cause.	Elicit descriptors, location, and cause.
What would you like me to do for you?	What would you like me to do for your child?

Source: Adapted with permission from Hester NO, Barcus CS. Assessment and management of pain in children. *Pediatrics: Nursing Update*, vol 1. Princeton, NJ: Continuing Professional Education Center, Inc., 1986.

### Figure 3-5: Mini Mental State Examination (MMSE)

*The MMSE is one of the most frequently used neuropsychological tests in the clinical evaluation of mental status changes. It is a sensitive indicator of cognitive impairment but is not specific for the diagnosis of delirium or dementia. Cognitive impairment is a component of delirium and dementia, and in HIV infection both delirium and dementia can occur. Delirium is especially common in the palliative care setting.*

*This tool has been used as an initial screen to alert clinicians to the possibility of cognitive impairment and to monitor this condition. The MMSE is provider-administered and usually takes five to 10 minutes to complete. A score of 23 or less generally has been considered the cut-off for cognitive impairment; however, it is important to note that a child's educational level and language ability can affect the usefulness of MMSE scores and cut-off scores.*

#### MMSE Sample Items

##### Orientation to Time

“What is the date?”

##### Registration

“Listen carefully, I am going to say three words.  
You say them back after I stop.

Ready? Here they are

HOUSE (pause), CAR (pause), LAKE (pause).  
Now repeat those words back to me.”

[Repeat up to 5 times, but score only the first trial.]

##### Naming

“What is this?” [Point to a pencil or pen.]

##### Reading

“Please read this and do what it says.”  
[Show examinee the words on the stimulus form:

CLOSE YOUR EYES.]

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Source: Reproduced by special permission of the Publisher, Psychological Assessment Resources, Inc., 16204 North Florida Avenue, Lutz, Florida 33549, from the MiniMental State Examination, by Marshal Folstein and Susan Folstein.

Figure 3-6: Blessed Orientation-Memory-Concentration Test (BOMC)

*The Blessed Orientation-Memory-Concentration Test (BOMC) is an extremely condensed form (consisting of only six simple verbal questions) of a larger 26-question instrument, the Information-Memory-Concentration Mental Status Test (IMCMST) devised by Blessed and colleagues. On the BOMC the items range from easy to difficult, in order of increasing difficulty: time of day, count 20 to one backwards, month, year, months backward, and memory phrase. As with the MMSE, this tool is sometimes used as an initial screen to alert clinicians to the possibility of cognitive impairment and to monitor this condition. It is provider-administered and usually takes less than five minutes to complete. Like MMSE, it is a sensitive indicator of cognitive impairment but not diagnosis-specific for delirium or dementia.*

ITEMS		MAXIMUM		WEIGHT			
		ERROR	SCORE				
1	What <i>year</i> is it now?	1	_____	x	4	=	_____
2	What <i>month</i> is it now?	1	_____	x	3	=	_____
Memory phrase	Repeat this phrase after me: John Brown, 42 Market Street, Chicago						
3	About what <i>time</i> is it?	1	_____	x	3	=	_____
4	<i>Count</i> backwards 20 to 1	2	_____	x	2	=	_____
5	Say the months in reverse order	2	_____	x	2	=	_____
6	Repeat the memory phrase	5	_____	x	2	=	_____

Score of 1 for each incorrect response; maximum weighted error score = 28.

A score above 10 is rated as abnormal.

Source: *Diagnostic and Statistical Manual of Mental Disorders*, 4<sup>th</sup> edition, text revision. Washington DC: American Psychiatric Association, 2000. Copyright 2000, American Psychiatric Association. Reproduced with permission.

Figure 3-7: Edmonton Symptom Assessment Scale (ESAS)

*This tool was designed to assist in the assessment of nine symptoms that are common in cancer patients: pain, tiredness, nausea, depression, anxiety, drowsiness, loss of appetite, impaired well-being and shortness of breath (there is also a line labeled “other problems”). The severity at the time of assessment of each symptom is rated by the patient from 0 to 10 on a numerical scale, 0 meaning that the symptom is absent and 10 that it is of the worst possible severity. The patient is asked to circle the most appropriate number on the numerical scale to indicate where the symptom lies between the two extremes. The circled number can then be transcribed onto a Symptom Assessment Graph.*

*Ideally, patients fill out their own ESAS. Although caregiver-provided data have significant limitations, if a patient cannot independently complete the ESAS, then consideration can be given to having a caregiver assist the patient in completing this instrument. That caregiver assistance was needed should always be documented in the space provided at the bottom of the ESAS Numerical Scale and the Graph, and the validity of this report will need to be considered carefully.*

*This instrument can be used for monitoring symptoms in the hospital or in a home care setting (through telephone or personal contact). It has been used in some settings on a weekly basis. In other settings—for example, in in-patient hospices or tertiary palliative care units—it is often used on more frequent, sometimes daily, basis.*

Edmonton Symptom Assessment: Numerical Scale												
Please circle the number that best describes:												
No Pain	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Pain
Not Tired	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Tiredness
Not Nauseated	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Nausea
Not Depressed	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Depression
Not Anxious	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Anxiety
Not Drowsy	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Drowsiness
Best Appetite	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Appetite
Best Feeling of Well Being	0	1	2	3	4	5	6	7	8	9	10	Worst Feeling of Well Being
No Shortness of Breath	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Shortness of Breath
Other Problems	0	1	2	3	4	5	6	7	8	9	10	Worst Possible

Source: Bruera E, Kuehn N, Miller MJ, Macmillan K. The Edmonton Symptom Assessment Scale: a simple method for the assessment of palliative care patients. *J Palliat Care* 7:6-9, 1991. Reproduced with permission. Copyright 1991.

Figure 3-7: Edmonton Symptom Assessment Scale (ESAS) (continued)

### Edmonton Symptom Assessment: Visual Analogue Scale

Name: \_\_\_\_\_

Room#: \_\_\_\_\_

Please cross the line at the point that best describes: (For coding)

<b>No Pain</b>	_____	<b>Worst Possible Pain</b>
<b>Not Tired</b>	_____	<b>Worst Possible Tiredness</b>
<b>Not Nauseated</b>	_____	<b>Worst Possible Nausea</b>
<b>Not Depressed</b>	_____	<b>Worst Possible Depression</b>
<b>Not Anxious</b>	_____	<b>Worst Possible Anxiety</b>
<b>Not Drowsy</b>	_____	<b>Worst Possible Drowsiness</b>
<b>Best Appetite</b>	_____	<b>Worst Possible Appetite</b>
<b>Best Feeling of Well Being</b>	_____	<b>Worst Feeling of Well Being</b>
<b>No Shortness of Breath</b>	_____	<b>Worst Shortness of Breath</b>
<b>Other Problems</b>	_____	<b>Worst Possible</b>

Assessed by: \_\_\_\_\_

Source: Bruera E, Kuehn N, Miller MJ, Macmillan K. The Edmonton Symptom Assessment Scale: a simple method for the assessment of palliative care patients. *J Palliat Care* 7:6-9, 1991. Reproduced with permission. Copyright 1991.



Figure 3-7: Edmonton Symptom Assessment Scale (ESAS) (continued)

Edmonton Symptom Assessment: Graph												
DATE												
HOSP DAY												
TIME												
PAIN												
ACTIVITY												
NAUSEA												
DEPRESSION												
ANXIETY												
DROWSINESS												
APPETITE												
WELL BEING												
SHORTNESS OF BREATH												
ASSESSED BY												
MINI-MENTAL STATE SCORE												

Source: Bruera E, Kuehn N, Miller MJ, Macmillan K. The Edmonton Symptom Assessment Scale: a simple method for the assessment of palliative care patients. *J Palliat Care* 7:6-9, 1991. Reproduced with permission. Copyright 1991.

**Figure 3-8: Memorial Symptom Assessment Scale - Short Form (MSAS-SF)**

*The Memorial Symptom Assessment Scale Short Form (MSAS-SF) is an abbreviated version of the Memorial Symptom Assessment Scale which measures each of 32 symptoms with respect to frequency or distress alone. The patient is asked to rate the severity or frequency of each symptom himself or herself. This instrument is easy to administer and is reported to usually take less than five minutes to complete. For patients with limited stamina this form may be an effective instrument for monitoring symptoms in an in- or out-patient setting.*

**I. INSTRUCTIONS:** Below is a list of symptoms. If you had the symptom DURING THE PAST WEEK, please check Yes. If you did have the symptom, please check the box that tells us how much the symptom DISTRESSED or BOTHERED you.

Check <i>all</i> the symptoms you have had during the PAST WEEK.	Yes [✓]	➡ ➡ IF YES: How much did it DISTRESS or BOTHER you?				
		Not at All [0]	A little Bit [1]	Some-what [2]	Quite a Bit [3]	Very Much [4]
Difficulty concentrating						
Pain						
Lack of energy						
Cough						
Changes in skin						
Dry mouth						
Nausea						
Feeling drowsy						
Numbness/tingling in hands & feet						
Difficulty sleeping						
Feeling bloated						
Problems with urination						
Vomiting						
Shortness of breath						
Diarrhea						
Sweats						
Mouth sores						
Problems with sexual interest or activity						
Itching						
Lack of appetite						
Dizziness						
Difficulty swallowing						
Change in the way food tastes						
Weight loss						
Hair loss						
Constipation						
Swelling of arms or legs						
"I don't look like myself."						
If you had any other symptoms during the PAST WEEK, please list them below, and indicate how much the symptom DISTRESSED or BOTHERED you.						
1.						
2.						

**II. Below are other commonly listed symptoms. Please indicate if you have had the symptom DURING THE PAST WEEK, and if so, how OFTEN it occurred.**

Check <i>all</i> the symptoms you have had during the PAST WEEK.	Yes [✓]	➡ ➡ IF YES: How OFTEN did it occur?			
		Rarely [1]	Occasionally [2]	Frequently [3]	Almost Constantly [4]
Feeling sad					
Worrying					
Feeling irritable					
Feeling nervous					

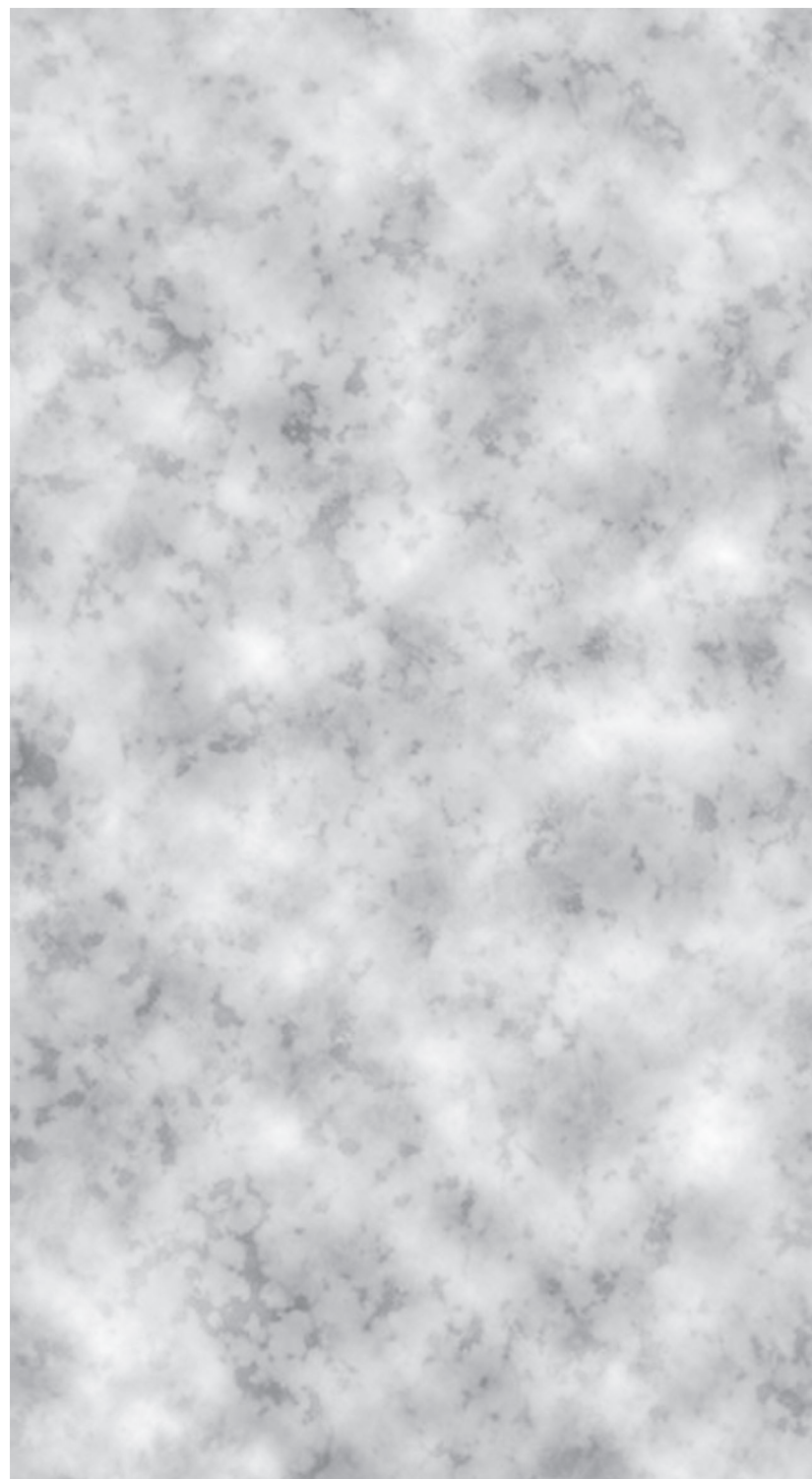
Source: Chang VT, Hwang SS, Feuerman M, Kasimis BS, Thaler BT. The Memorial Symptom Assessment Scale - Short Form (MSAS-SF) *Cancer* 89:1162-71, 2000. Copyright 2000, American Cancer Society. Reproduced with permission of Wiley-Liss, Inc., subsidiary of John Wiley and Sons, Inc.

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## Pain

William Breitbart, MD

### OVERVIEW

■ The advent of highly active antiretroviral treatment has not diminished the need for palliative care for people living with HIV/AIDS. In fact, because of new treatments, fewer patients are dying from HIV/AIDS in the U.S. and the total number of people living with HIV/AIDS is increasing. New treatments, particularly HAART, are also responsible for additional symptoms and complications, including pain that must be understood and managed. Additionally, as the epidemiology of the AIDS epidemic changes in the United States, the challenge of managing pain in AIDS patients who have a history of substance abuse is a growing issue.

Several studies have documented that pain in individuals with HIV infection or AIDS is:<sup>1-12</sup>

- Highly prevalent, diverse, and varied in syndromal presentation
- Associated with significant psychological and functional morbidity
- Alarming under-treated

Moreover, pain has a profound negative impact both on physical and psychological functioning and overall quality of life.<sup>7,11</sup> It is important, therefore, that pain management be more integrated into the total care of patients with HIV disease.<sup>13</sup> This chapter describes the types and prevalence of pain syndromes encountered in patients with HIV disease and reviews the psychological and functional impact of pain as well as the barriers to adequate pain treatment in this population. Finally, the chapter outlines the principles of pain management.

Pain is classified in two major categories, *nociceptive* and *neuropathic* pain (see Table 4-1).<sup>14</sup> Nociceptive pain derives from the stimulation of intact 'nociceptors' or pain receptors in afferent nerves and is further subdivided into *somatic pain* (involving skin, soft tissue, muscle and bone) and *visceral pain* (involving internal organs and hollow viscera). Nociceptive pain may be well-localized (common in somatic pain) or more diffuse (common in visceral pain), and may be sharp, dull, aching, gnawing, throbbing, constant, or spasmodic, with varying intensity. Neuropathic pain involves stimulation of damaged or compromised nerve tissue, and may be burning, tingling, stabbing, shooting, with a sensation of electric shock, or allodynia (the sensation of pain or discomfort produced by a minimal stimulus such as light touch to the skin). The differentiation of pain into one of these subtypes (particularly nociceptive vs. neuropathic) can help in determining appropriate therapy, as further discussed.

Table 4-1: Classification of Pain

**Nociceptive Pain**

- Results from stimulation of intact 'nociceptors' (pain receptors)
- Includes: somatic pain (involving skin, soft tissue, muscle, bone); visceral pain (involving internal organs, hollow viscera)
- Responds to opioid and non-opioid analgesics

**Neuropathic Pain**

- Results from stimulation of damaged or compromised nerve tissue
- Responds to opioid and non-opioid analgesics AND adjuvant medications

**Summary of Pain Syndromes in HIV/AIDS**

Pain syndromes encountered in AIDS are diverse in nature and etiology (see Table 4-2). The most common pain syndromes reported in studies to date include painful sensory peripheral neuropathy, pain due to extensive Kaposi's sarcoma, headache, oral and pharyngeal pain, abdominal pain, chest pain, arthralgias and myalgias, and painful dermatologic conditions.<sup>4, 6, 8, 10, 12, 15, 16, 17, 18</sup>

Table 4-2: Pain Syndromes and Most Common Pain Diagnoses

<b>Pain Type</b>	<b>N</b>	<b>% Patients (n=151)</b>
Somatic pain	107	71
Neuropathic pain	69	46
Visceral pain	44	29
Headache	69	46
<b>Pain Diagnosis</b>		
Joint pains	47	31
Polyneuropathy	42	28
Muscle	40	27
Skin	23	15
Bone	31	20
Abdominal	25	17
Chest	19	13
Radiculopathy	18	12

Source: Reprinted with permission from Hewitt D, McDonald M, Portenoy R, et al. Pain syndromes and etiologies in ambulatory AIDS patients. *Pain* 70:117-23, 1997.



Hewitt and colleagues in 1997 demonstrated that while pains of a neuropathic nature (e.g., polyneuropathies, radiculopathies) certainly comprise a large proportion of pain syndromes encountered in AIDS patients, pains of a somatic and/or visceral nature are also extremely common clinical problems.<sup>6</sup>

The etiology of pain syndromes seen in HIV disease can be categorized into three types: those directly related to HIV infection or consequences of immunosuppression; those due to AIDS therapies; and those unrelated to AIDS or AIDS therapies (see Table 4-3).

Table 4-3: Pain Syndromes in HIV/AIDS Patients

#### **Pain Related to HIV/AIDS**

- HIV neuropathy
- HIV myelopathy
- Kaposi's sarcoma
- Secondary infections (intestines, skin)
- Organomegaly
- Arthritis/Vasculitis
- Myopathy/Myositis

#### **Pain Related to HIV/AIDS Therapy**

- Antiretrovirals, Anti-virals
- Anti-mycobacterials, PCP prophylaxis
- Chemotherapy (vincristine)
- Radiation
- Surgery
- Procedures (bronchoscopy, biopsies)

#### **Pain Unrelated to AIDS**

- Disc disease
- Diabetic neuropathy

In studies to date, approximately 45% of pain syndromes encountered are directly related to HIV infection or consequences of immunosuppression; 15% to 30% are due to therapies for HIV- or AIDS-related conditions and to diagnostic procedures; and the remaining 25% to 40% are unrelated to HIV or its therapies.<sup>2,6</sup>

## Pain in Women with HIV/AIDS

One study has suggested that women with HIV disease experience pain more frequently than men with HIV disease and report somewhat higher levels of pain intensity.<sup>6,19</sup> This may in part reflect the fact that women with AIDS-related pain are twice as likely as men to be undertreated for their pain.<sup>3</sup> Women with HIV disease have unique pain syndromes of a gynecologic nature specifically related to opportunistic infectious processes and cancers of the pelvis and genitourinary tract, and in one survey women with AIDS were significantly more likely to be diagnosed with radiculopathy and headache.<sup>6, 20</sup>

## Pain in Children with HIV/AIDS

Children with HIV infection also experience pain.<sup>21</sup> HIV-related conditions in children that are observed to cause pain include:

- Meningitis and sinusitis (headaches)
- Otitis media
- Shingles
- Cellulitis and abscesses
- Severe *candida* dermatitis
- Dental caries
- Intestinal infections, such as *mycobacterium avium intracellulare* (MAI) and *Cryptosporidium*
- Hepatosplenomegaly
- Oral and esophageal candidiasis and
- Spasticity associated with encephalopathy that causes painful muscle spasms

For more information on HIV palliative care in children, see Chapter 12: The Care of Children and Adolescents.

## SPECIFIC PAIN SYNDROMES IN PATIENTS WITH HIV DISEASE

■ The following section reviews, in detail, the various painful manifestations of HIV disease. The author acknowledges the important review by O'Neill and Sherrard that formed the basis of this section on specific pain syndromes in HIV disease.<sup>10</sup>

### Gastrointestinal Pain Syndromes

Many of the opportunistic infections and HIV-associated neoplasms as well as side effects of some commonly used antiretroviral medications may present as pain referable to the gastrointestinal tract. Generally the pain will be alleviated by specific treatment of the causative diseases or by changing treatments. Adequate analgesia should be provided during diagnostic assessment.<sup>10</sup>

For more information, see Chapter 7: Gastrointestinal Symptoms.

## Oropharyngeal Pain

Oral cavity and throat pain is very common, accounting for approximately 20% of the pain syndromes encountered in one study.<sup>8</sup> Common sources of oral cavity pain are candidiasis; necrotizing gingivitis; and dental abscesses and ulcerations caused by herpes simplex virus (HSV), cytomegalovirus (CMV), Epstein-Barr virus (EBV), atypical and typical mycobacterial infection, cryptococcal infection, or histoplasmosis. Frequently no infectious agent can be identified and these painful recurrent aphthous ulcers (RAU) are a clinically challenging problem.<sup>10</sup> RAU can be controlled with topical steroids (mixed with Orabase), systemic steroids, and/or thalidomide. Up to 75% of patients with cutaneous Kaposi's sarcoma (KS) also have intraoral lesions, most commonly on the palate, although these seldom cause pain.<sup>10</sup> Finally, zalcitabine (ddC) can cause a painful stomatitis. For more information, see Chapter 8: Oral Problems.

## Esophageal Pain

Many HIV/AIDS patients experience dysphagia or odynophagia, most commonly caused by esophageal candidiasis. Ulcerative esophagitis, which can be quite painful, is usually a result of CMV infection but can be idiopathic. Thalidomide has been used successfully in this case.

Infectious causes of esophagitis include: HIV itself, papovavirus, herpes simplex, Epstein-Barr virus, *mycobacteria*, *Cryptosporidium* and *Pneumocystis carinii*. Kaposi's sarcoma and lymphoma both have been reported to invade the esophagus resulting in dysphagia, pain and ulceration.<sup>10</sup> Zidovudine and zalcitabine (ddC) have been implicated in esophagitis as have been non-steroidal medications.

## Abdominal Pain

The abdomen is the primary site of pain in 12-25% of patients with HIV disease.<sup>6,8,22</sup> Infectious causes of abdominal pain predominate, and include: cryptosporidiosis, shigella, salmonella and *Campylobacter* enteritis, CMV ileitis and mycobacterial infection (MAI).

Perforation of the small and large intestine secondary to CMV infection has been described.<sup>22</sup> Repeated intussusception of the small intestine has been seen in association with *Campylobacter* infection.<sup>23</sup> Lymphoma in the gastrointestinal (GI) tract can present with abdominal pain and intestinal obstruction.<sup>10,24</sup> Other causes of abdominal pain in HIV positive patients<sup>10</sup> include ileus, organomegaly, spontaneous aseptic peritonitis, toxic shock, herpes zoster, and Fitzhugh-Curtis syndrome (perihepatitis in association with tubal gonococcal or chlamydia infection).

Many antiretroviral agents are responsible for GI symptoms but lactic acidosis, a rare but serious complication of some HAART regimens, can present with abdominal pain. Didanosine (ddI), zalcitabine (ddC) and stavudine (d4T) can cause pancreatitis (see below) and patients taking indinavir are at increased risk for nephrolithiasis.

## Biliary Tract and Pancreatic Pain

Cholecystitis is a painful condition that may occur in HIV-infected patients as a result of opportunistic infection, with CMV and cryptosporidiosis being the most common infectious agents. Pain from extrahepatic biliary tract obstruction secondary to KS or MAI infection has been reported.<sup>10</sup> Sclerosing cholangitis (CMV, cryptosporidiosis) can cause right upper quadrant or epigastric pain, and opportunistic liver infections (CMV, MAI, fungal infections) as well as drug-induced hepatic toxicities (ddI, pentamidine, ritonavir and nevirapine) are sources of hepatitis and abdominal or right

upper quadrant pain.<sup>25</sup> Viral hepatitis (especially hepatitis B or C) is an increasingly common co-infection and cause of hepatic pain.

Pancreatitis, an extremely painful condition, is often related to adverse effects of HIV-related therapies, in particular didanosine (ddI), stavudine (d4T) and dideoxycytidine (ddC). Intravenous pentamidine is also associated with pancreatitis. Other causes of pancreatitis include CMV infection, MAI infection, cryptococcal lymphoma and KS.

## Anorectal Pain

Painful anorectal diseases are often caused by perirectal abscesses, CMV proctitis, fissure-in-ano, and HPV and HSV infection.

## Chest Pain Syndromes

Chest pain is a common complaint in patients with HIV disease, comprising approximately 13% of the pain syndromes encountered in a sample of ambulatory AIDS patients.<sup>6</sup> Sources of chest pain in patients with HIV disease are similar to those encountered in the general population, i.e., cardiac, esophageal, lung and pleura, and chest wall. However, the etiologies may be somewhat unique, i.e., opportunistic infections and cancers. The index of suspicion for coronary artery disease, even in young patients with no other risk factors, must be high if the patient is being treated with HAART.

In immunosuppressed patients, infectious causes of chest pain should be considered, particularly in the presence of fever and some localizing sign such as dysphagia, dyspnea, or cough. Infectious causes of chest pain include the following:

- *Pneumocystis* pneumonia (with or without a pneumothorax)
- Esophagitis (CMV, candidiasis, herpes simplex)
- Pleuritis/pericarditis (viral, bacterial, tuberculous)
- Post-herpetic neuralgia

Opportunistic cancers (KS, lymphoma) invading the esophagus, pericardium, chest wall, lung and pleura may also be sources of chest pain. Rarely, pulmonary embolus or bacterial endocarditis may be the cause of chest pain.

For more information, see Chapter 6: Pulmonary Symptoms.

## Neurological Pain Syndromes

Pain syndromes originating in the nervous system include headache, painful peripheral neuropathies, radiculopathies, and myelopathies.

The HIV virus is highly neurotropic, invading central and peripheral nervous system structures early in the course of HIV disease. Consequently, many complications of HIV/AIDS and opportunistic infections result in neurological pain, and many commonly used HIV/AIDS medications can also be implicated in neurological pain.

Rarely, cerebrovascular events (e.g., thalamic stroke) occurring in hypercoagulable states can result in central pain syndromes.

## Headache

Headache is extremely common in the HIV/AIDS patient and can pose a diagnostic dilemma for providers in that the underlying cause may range from benign stress and tension to life-threatening central nervous system infection.<sup>10</sup> The differential diagnosis of headache in patients with HIV disease includes:<sup>26</sup>

- HIV encephalitis and atypical aseptic meningitis
- Opportunistic infections of the nervous system
- AIDS-related central nervous system neoplasms
- Sinusitis
- Tension
- Migraine
- Headache induced by medication (particularly AZT)

Toxoplasmosis and cryptococcal meningitis are the two most commonly encountered opportunistic infections of the central nervous system that cause headaches in patients with HIV disease. Other opportunistic infections of the central nervous system that can present as headache in the AIDS patient include:

- CMV
- Herpes simplex virus and herpes zoster
- Progressive multifocal leukoencephalopathy (papovavirus)
- *Candida albicans*
- *Mycobacterium tuberculosis*
- *Mycobacterium avium intracellulare* (MAI)
- Neurosyphilis

One of the most common causes of headache without focal findings is sinusitis. Opportunistic cancers of the central nervous system include central nervous system lymphoma, metastatic systemic lymphoma, and metastatic intracranial KS. These can present, particularly in the immunocompromised patient with HIV disease, with signs of increased intracranial pressure with or without focal neurological signs, as well as fever and meningismus.

More benign causes of headache in the patient with HIV disease include AZT-induced headache; tension headache; migraine with or without aura; and unclassifiable or idiopathic headache. Evers and colleagues in 1999 concluded that the progressing immunological deficiency of HIV-infected patients seems to influence the pain processing of headache in different ways.<sup>27</sup> During that natural course of infection, the migraine frequency significantly decreased, while the frequency of tension type headaches increased.<sup>27</sup>

## Neuropathies

Neuropathic pain occurs in about 40% of AIDS patients.<sup>6</sup> While several types of peripheral neuropathy have been described in patients with HIV/AIDS (see Table 4-4), the most common painful neuropathy encountered is the predominantly sensory neuropathy (PSN) of AIDS. Other potentially painful neuropathies in HIV/AIDS patients, however, can be caused by the following:

- Viral and non-viral infectious processes (mononeuritis multiplex, including polyneuritis cranialis, polyradiculopathy of the lower limbs, cauda equina syndrome and plexopathies caused by CMV, herpes zoster, MAI)
- Immune-mediated inflammatory demyelination (acute and chronic Guillain-Barré syndrome)
- A variety of medical conditions (diabetic neuropathy, post-herpetic neuralgia, entrapment neuropathies)
- Nutritional deficiencies (B<sup>6</sup>, B<sup>12</sup>)
- Toxins (alcohol)
- HIV-related therapies (e.g., ddI [didanosine], ddC [zalcitabine])

Several antiretroviral drugs can cause painful toxic neuropathy, including the following:

- ddI (didanosine), ddC (zalcitabine), d4T (stavudine)
- Chemotherapy agents used to treat Kaposi's sarcoma (vincristine)
- A number of medications used in the treatment of PCP, MAI, and other HIV-associated infections<sup>10, 28, 29</sup>

Table 4-4: Neuropathies in Patients with HIV/AIDS

<b>Predominantly Sensory Neuropathy (PSN) of AIDS</b>	
<b>IMMUNE-MEDIATED:</b>	<ul style="list-style-type: none"> <li>• Inflammatory demyelinating polyneuropathies (IDPs)</li> <li>• Acute (Guillain-Barré syndrome)</li> <li>• Chronic (CIDP)</li> </ul>
<b>INFECTIOUS:</b>	<ul style="list-style-type: none"> <li>• Cytomegalovirus polyradiculopathy</li> <li>• Cytomegalovirus multiple mononeuropathy</li> <li>• Herpes zoster</li> <li>• Mycobacterial (MAI)</li> </ul>
<b>TOXIC/NUTRITIONAL:</b>	<ul style="list-style-type: none"> <li>• Alcohol, Vitamin deficiencies (B 6, B12)</li> <li>• Antiretrovirals: ddI (didanosine), ddC (zalcitabine), d4T (stavudine)</li> <li>• Anti-virals: foscarnet</li> <li>• PCP prophylaxis: dapsone</li> <li>• Anti-bacterial: metronidazole</li> <li>• Anti-mycobacterials: INH (isoniazid), rifampin, ethionamide</li> <li>• Anti-neoplastics: vincristine, vinblastine</li> </ul>
<b>OTHER MEDICAL CONDITIONS:</b>	<ul style="list-style-type: none"> <li>• Diabetic neuropathy</li> <li>• Post-herpetic neuralgia</li> </ul>

- *Predominantly Sensory Neuropathy (PSN) of AIDS*

The most frequently encountered neuropathy is a symmetrical predominantly sensory painful peripheral neuropathy. This is typically a late manifestation, occurring most often in patients with an AIDS-defining illness.<sup>30</sup> The prevalence of this neuropathy in hospice populations ranges from 19% to 26%.<sup>17, 31, 32</sup>

The predominant symptom in about 60% of patients is pain in the soles of the feet. Paraesthesia is frequent and usually involves the dorsum of the feet and soles. Most patients have signs of peripheral neuropathy (most commonly, absent or reduced ankle jerks and elevated thresholds to pain and vibration sense); and, while the signs progress, the symptoms often remain confined to the feet.<sup>30, 33</sup> <sup>34</sup> Although the patients' complaints are predominantly sensory, electrophysiological studies demonstrate both sensory and motor involvement.

- *Immune-mediated Neuropathies*

Acute Guillain-Barré syndrome has been described in association with seroconversion (group-I infection) but may occur at any time. Both acute and chronic inflammatory demyelinating polyneuropathies are predominantly motor-related, and sensory abnormalities are rare.<sup>35</sup> Mononeuritis multiplex presents with sensory or motor deficits in the distribution of multiple spinal, cranial or peripheral nerves and may progress into a chronic inflammatory demyelinating polyneuropathy.<sup>35, 36</sup>

- *Infectious Neuropathies*

Polyradiculopathies (associated with CMV infection) often present with radicular pain and follow a distinct course.<sup>37</sup> The onset is usually subacute and the deficit initially confined to sacral and lumbar nerve roots. Both sensory and motor functions are involved, and there is usually early involvement of sphincters. Progression is relentless.<sup>35</sup>

Harrison and colleagues identified three variables related to herpes zoster pain: extent of lesion healing; extension of lesion crusting; and the number of new vesicles.<sup>38</sup> According to their study, the significance of baseline pain due to herpes zoster was a predictor of return to daily life functioning. Furthermore, the significance of pain at presentation and at one month was a significant predictor of chronic pain.<sup>38</sup>

- *Toxic/nutritional Neuropathies*

Toxic and nutritional neuropathies in patients with HIV disease have been reported with the following:<sup>29, 33</sup>

- Alcohol
- Vitamin deficiencies (B<sup>6</sup>, B<sup>12</sup>)
- Antiretroviral drugs: ddI (didanosine), ddC (zalcitabine), d4T (stavudine)
- Anti-virals: foscarnet
- PCP prophylaxis: dapsone
- Anti-bacterial drugs: metronidazole
- Anti-mycobacterial drugs: INH, rifampin, ethionamide
- Anti-neoplastics: vincristine, vinblastine

### • Painful Neuropathies According to Stage of HIV Infection

In general, the type of neuropathy varies with the stage of infection,<sup>29</sup> as follows:

- The acute or seroconversion phase of HIV disease is associated with mononeuritides, brachial plexopathy and acute demyelinating polyneuropathy
- The latent or asymptomatic phase (CD4+ T lymphocytes >500/mm<sup>3</sup>) is characterized by acute and chronic demyelinating polyneuropathies
- The transition phase (200-500 CD4+ cells) is characterized by herpes zoster (shingles) and mononeuritis multiplex
- The late phase of HIV disease (<200 CD4+ cells) is characterized by HIV predominantly sensory polyneuropathy, CMV polyneuropathy, mononeuritis multiplex, autonomic neuropathy, mononeuropathies secondary to meningeal disease, and antiretroviral induced toxic neuropathies

### Rheumatological Pain Syndromes

In studies conducted by the Memorial Sloan-Kettering group, over 50% of pain syndromes were classified as rheumatologic in nature including various forms of arthritis, arthropathy, arthralgia, myopathy, myositis and myalgias.<sup>6</sup>

#### Arthritis and Arthropathies

HIV disease has been associated with several types of painful arthritis and arthropathies including:<sup>39, 40, 41</sup>

- Non-specific arthralgias
- Reactive arthritis
- Psoriatic arthritis
- HIV-associated arthritis; and, rarely,
- Septic arthritis

The most frequently reported arthritis is a reactive arthritis or Reiter's syndrome.<sup>40, 41, 43</sup> Acute HIV infection may present with a polyarthralgia in association with a mononucleosis-like illness. There is also a syndrome of acute severe and intermittent articular pain, often referred to as HIV-associated painful articular syndrome, which commonly affects the large joints of the lower limbs and shoulders. Psoriasis and psoriatic arthritis have been reported in patients with HIV infection.<sup>40, 44</sup> The arthritis is typically seen in conjunction with the skin changes of psoriasis, and authors O'Neill and Sherrard suggest it may follow a disease course that proves refractory to conventional therapy.<sup>10</sup> An HIV-associated arthritis also was described by Rynes, et al., which typically presents as an oligoarthritis affecting the joints of the lower limbs.<sup>44</sup> Septic arthritis has been reported in patients with HIV disease, including arthritis due to bacterial infections and infections with *Cryptococcus neoformans* and *Sporothrix schenckii*.<sup>40, 41</sup>

#### Myopathy and Myositis

Muscle pain is very common in patients with HIV disease. Several types of myopathy and myositis have been described, including:<sup>45, 46, 47, 48, 49, 50, 51</sup>



- HIV-associated myopathy or polymyositis
- Necrotizing non-inflammatory myopathy in association with zidovudine and without zidovudine
- Pyomyositis
- Microsporidiosis myositis

Polymyositis may occur at any stage of HIV infection; it is thought to be the result of direct viral infection of muscle cells<sup>40</sup> and may present with a sub-acute onset of proximal muscle weakness and myalgia.<sup>45</sup> Electromyographic evidence of myopathy, a raised serum creatinine kinase, and biopsy evidence of polymyositis are common in symptomatic patients. Drugs used in the treatment of HIV disease may also be associated with the development of myalgia<sup>36</sup> and myositis.<sup>46,52</sup> Zidovudine has been particularly implicated; symptoms frequently improve following discontinuation of zidovudine therapy.<sup>10</sup>

## OVERVIEW OF PAIN MANAGEMENT IN HIV/AIDS

■ Optimal management of pain requires a multidisciplinary approach. The initial assessment should shed light on etiology and contributing factors as well as establish a baseline from which to monitor the impact of therapy. Pain assessment tools for noting the intensity of pain, time, dose, and impact of medications are discussed below. Clear communication between provider and patient/family is important to monitor the impact of any intervention (see Chapter 21: Patient-Clinician Communication).

### WHO Pain Ladder

Choice of analgesic agents should follow the World Health Organization's pain ladder (see Figure 4-1):

- Non-narcotic analgesics are the first step, for mild pain
- Weak opioids are the second step, for moderate pain
- Strong opioids are the third step, for severe pain

It is important that providers be comfortable with the use of one or two medications in each analgesic step (see Tables 4-6, 4-7 and 4-8), including management of side effects; conversion from one step, or level, to another; drug interactions (see Chapter 27: Pharmacologic Interactions of Clinical Significance); and dosing schedules.

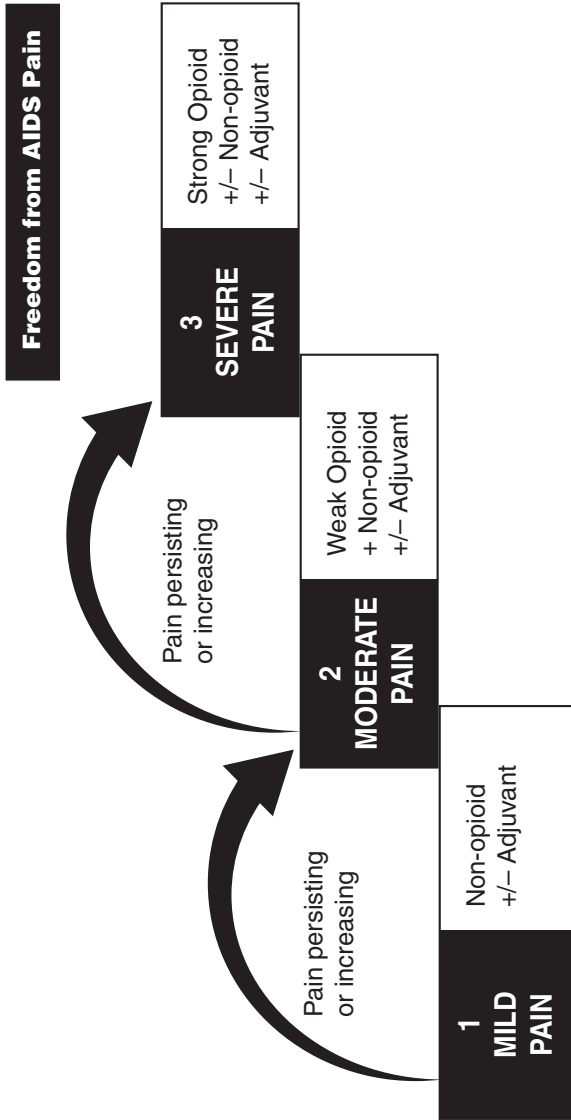
Adjuvant treatments are important components of the pain ladder and have key roles in AIDS, particularly in management of neuropathic pain.

### Assessment Issues

Dame Cicely Saunders introduced the concept of *total pain* in the early years of the hospice movement in the United Kingdom.<sup>53</sup> This approach emphasizes the need to keep in mind psychological, social, and spiritual aspects as well as physical aspects when approaching a patient in pain. Therefore, a close collaboration of the entire health care team is optimal when attempting to adequately manage pain in the AIDS patient.

The initial step in pain management is a comprehensive assessment of pain symptoms. A health professional in the AIDS setting must have a working knowledge of the etiology and treatment of pain in AIDS, including an understanding of the different types of AIDS pain syndromes discussed as well as a familiarity with the parameters of appropriate pharmacologic treatment.

Figure 4-1: WHO Analgesic Ladder for Management of Pain in AIDS



Source: Adapted with permission from World Health Organization. *Cancer Pain Relief*. Geneva: WHO, 1986.

A comprehensive assessment includes the following:

- A careful history and physical examination, which may disclose an identifiable syndrome (e.g., herpes zoster, bacterial infection, or neuropathy) that can be treated in a standard fashion<sup>54, 55</sup>
- A standard pain history, which may provide valuable clues to the nature of the underlying process and indeed may disclose other treatable disorders<sup>56, 57</sup>
- A description of the qualitative features of the pain, its time course and any maneuvers that increase or decrease pain intensity

Pain intensity (current, average, at best, at worst) should be assessed to determine the need for weak *versus* potent analgesics and as a means to serially evaluate the effectiveness of ongoing treatment. Pain descriptors (e.g., burning, shooting, dull or sharp) will help determine the mechanism of pain (somatic, nociceptive, visceral nociceptive, or neuropathic) and may suggest the likelihood of patient response to various classes of traditional and adjuvant analgesics (nonsteroidal anti-inflammatory drugs, opioids, antidepressants, anticonvulsants, oral local anesthetics, corticosteroids, etc.).<sup>58, 59, 60</sup>

Additionally, detailed medical, neurological and psychosocial assessments (including a history of substance use or abuse) must be conducted. Where possible, family members or partners should be interviewed and included in the pain management treatment plan. During the assessment phase, pain should be aggressively treated while pain complaints and psychosocial issues are subject to an ongoing process of re-evaluation.<sup>56</sup>

### Pain Measurement/Assessment Tools

Pain assessment is continuous and needs to be repeated over the course of pain treatment. Readily available, simple and clinically validated pain self-report measures or tools can make pain assessment easier and more reliable. There are essentially four aspects of pain experience in AIDS that require—and can be aided by—ongoing assessment and evaluation:

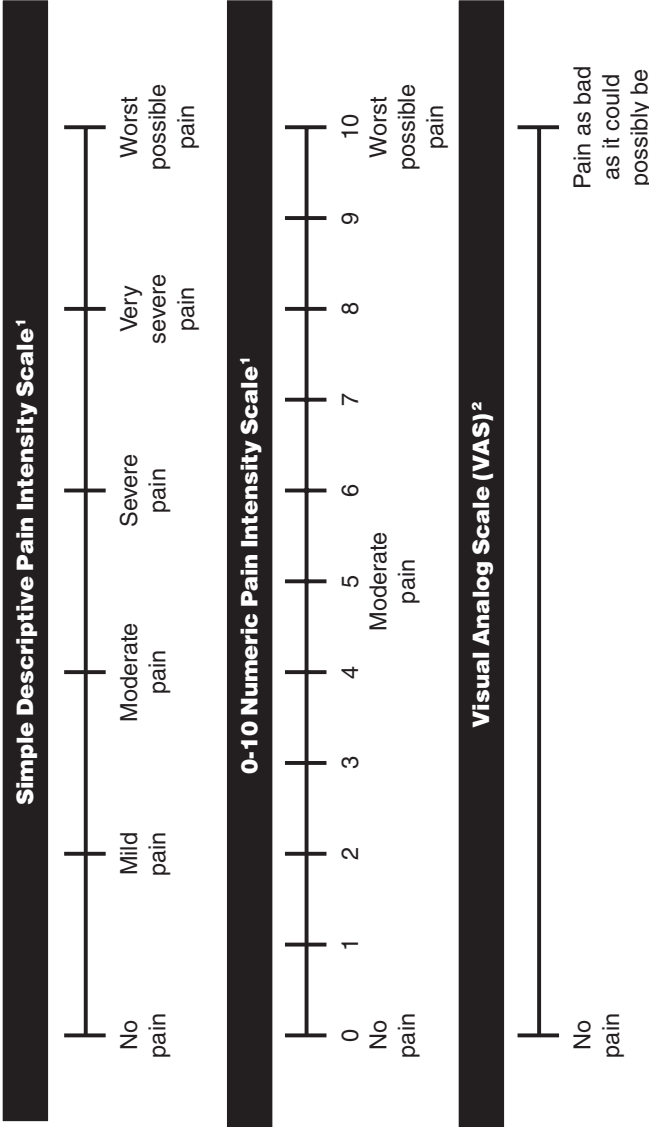
- Pain intensity (see Figures 4-2, 4-3 and 4-4)
- Pain relief (see Figure 4-1)
- Pain-related functional interference (e.g., mood state, general and specific activities)
- Monitoring of intervention effects.

Many pain assessment tools rely on visual analog testing. Three commonly used self-report pain intensity assessment tools, illustrated in Figure 4-2, are a simple descriptive pain intensity scale, a 0-10 numeric pain intensity scale, and a Visual Analog Scale (VAS) for pain intensity. The Pain Faces scale, shown in Figure 4-3, can be used with children, patients who do not share a common language with the provider, or illiterate patients. The Memorial Pain Assessment Card (MPAC) may also be used, since it is a helpful clinical tool that allows patients to report their pain experience.<sup>61</sup> The MPAC consists of visual analog scales that measure pain intensity, pain relief and mood (see Figure 4-4).

The Brief Pain Inventory (BPI) is another pain assessment tool (Figure 4-5) that has been widely used in cancer and AIDS pain research and clinical settings.<sup>62</sup> The BPI has a useful Pain Interference Subscale that assesses pain's interference in seven domains of quality of life and function.

For more information or to download the BPI, go to the Pain Research Group website at [www.mdanderson.org/departments/prg](http://www.mdanderson.org/departments/prg).

Figure 4-2: Pain Intensity Scales



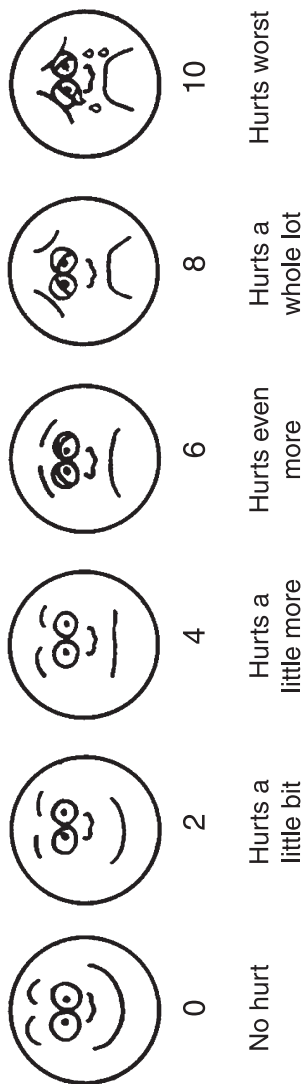
<sup>1</sup> If used as a graphic rating scale, a 10-cm baseline is recommended.

<sup>2</sup> A 10-cm baseline is recommended for VAS scales.

Source: Acute Pain Management Guideline Panel. *Acute Pain Management: Operative or Medical Procedures and Trauma. Clinical Practice Guideline.* AHCPR Pub. #92-0032. Rockville, MD: Agency for Health Care Policy and Research, February 1992.

Figure 4-3: Pain Faces Scale

### Wong-Baker FACES Pain Rating Scale

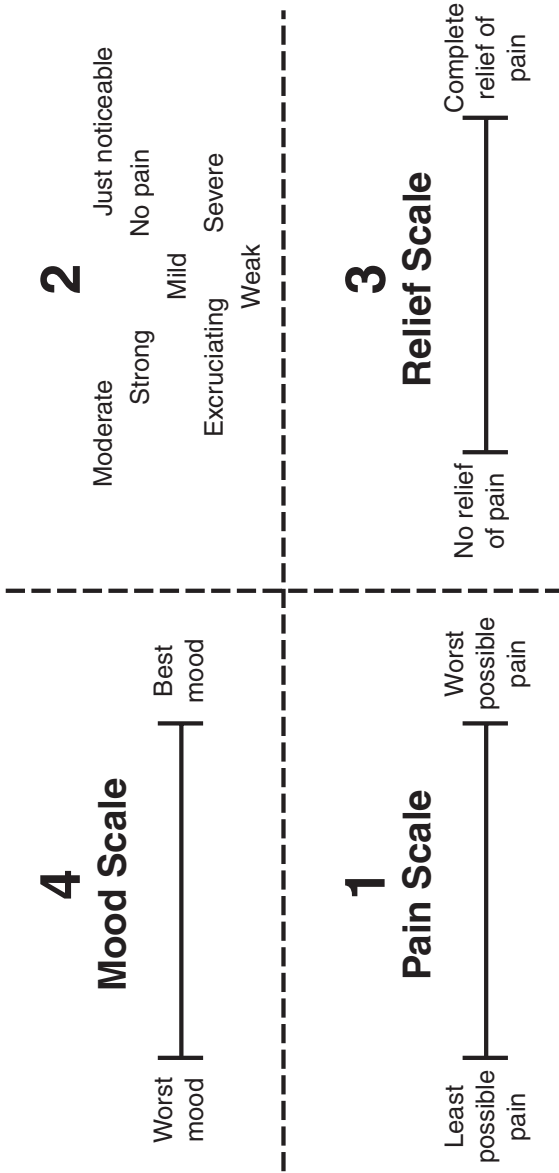


Explain to the person that each face is for a person who feels happy because he has no pain (hurt) or sad because he has some or a lot of pain. Face 0 is very happy because he doesn't hurt at all. Face 2 hurts just a little bit. Face 4 hurts a little more. Face 6 hurts even more. Face 10 hurts as much as you can imagine, although you don't have to be crying to feel this bad. Ask the person to choose the face that best describes how he is feeling.

Rating scale is recommended for persons age 3 and older.

Source: Wong DL, Hockenberry-Eaton M, Wilson D, Winkelstein ML, Schwartz P. *Wong's Essentials of Pediatric Nursing*, 6th ed. St. Louis: Mosby, Inc., 2001. Copyrighted by Mosby, Inc. Reprinted by permission.

Figure 4-4: Memorial Pain Assessment Card



Note: Card is folded along broken line so that each measure is presented to the patient separately in the numbered order.

Source: Fishman B, Pasternack S, Wallenstein SL, et al. The Memorial Pain Assessment Card: a valid instrument for the evaluation of cancer pain. *Cancer* 60:1151-8, 1987.

Figure 4-5: Brief Pain Inventory (Short Form)

Study ID# \_\_\_\_\_ Hospital# \_\_\_\_\_

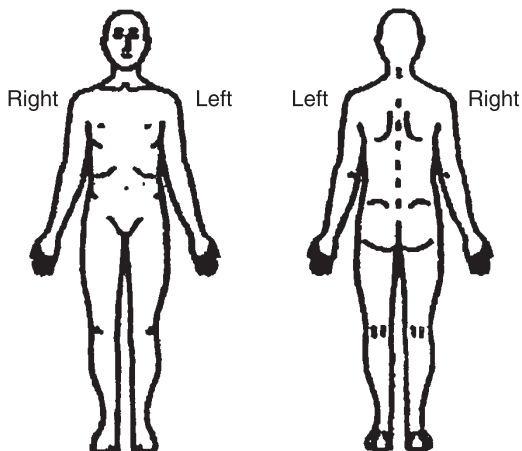
Do not write above this line

Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Time: \_\_\_\_\_

Name: \_\_\_\_\_  
Last First Middle Initial

- 1) Throughout our lives, most of us have had pain from time to time (such as minor headaches, sprains, and toothaches). Have you had pain other than these everyday kinds of pain today? 1. Yes 2. No
- 2) On the diagram, shade in the areas where you feel pain. Put an X on the area that hurts the most.



- 3) Please rate your pain by circling the one number that best describes your pain at its worst in the past 24 hours.  
 0 1 2 3 4 5 6 7 8 9 10  
 No Pain as bad as  
 pain you can imagine
- 4) Please rate your pain by circling the one number that best describes your pain at its least in the past 24 hours.  
 0 1 2 3 4 5 6 7 8 9 10  
 No Pain as bad as  
 pain you can imagine
- 5) Please rate your pain by circling the one number that best describes your pain on the average.  
 0 1 2 3 4 5 6 7 8 9 10  
 No Pain as bad as  
 pain you can imagine

6) Please rate your pain by circling the one number that tells how much pain you have right now.

0	1	2	3	4	5	6	7	8	9	10
No									Pain as bad as	
pain									you can imagine	

7) What treatments or medications are you receiving for your pain?

---

8) In the past 24 hours, how much relief have pain treatments or medications provided? Please circle the one percentage that most shows how much relief you have received.

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
No										Complete
relief										relief

9) Circle the one number that describes how, during the past 24 hours, pain has interfered with you:

A. General activity

0	1	2	3	4	5	6	7	8	9	10
Does not										Completely
interfere										interferes

B. Mood

0	1	2	3	4	5	6	7	8	9	10
Does not										Completely
interfere										interferes

C. Walking ability

0	1	2	3	4	5	6	7	8	9	10
Does not										Completely
interfere										interferes

D. Normal work (includes both work outside the home and housework)

0	1	2	3	4	5	6	7	8	9	10
Does not										Completely
interfere										interferes

E. Relations with other people

0	1	2	3	4	5	6	7	8	9	10
Does not										Completely
interfere										interferes

F. Sleep

0	1	2	3	4	5	6	7	8	9	10
Does not										Completely
interfere										interferes

G. Enjoyment of life

0	1	2	3	4	5	6	7	8	9	10
Does not										Completely
interfere										interferes

Source: Charles S. Cleeland. Pain Research Group, M.D. Anderson Cancer Center. Copyright 1991. Reprinted with permission.



## JCAHO Pain Standards

Effective January 1, 2001, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) established new pain management standards for accreditation.<sup>63</sup> These standards include the following statements:

- Individuals served have the right to appropriate assessment and referral for a provision of management of pain
- Pain must be assessed in all individuals

Some key concepts of the JCAHO standards are listed in Table 4-5. The complete standards are available at [www.jcaho.org/standard/pm\\_hap.html](http://www.jcaho.org/standard/pm_hap.html). The pain assessment tools and measures described above can help organizations and practitioners comply with these standards. The general principles of pain assessment and management described in this chapter may also be helpful.

Other sources of help in meeting the pain standards include *Building an Institutional Commitment to Pain Management: The Mayday Resource Manual for Improvement*, an excellent compilation of resource material to promote institutional support of pain management; all of the sample resource tools are available on a disc. Available from Wisconsin Cancer Pain Initiative, 3675 Medical Sciences Center, Univ. of Wisconsin Medical School, 1300 University Avenue, Madison, WI 53706; 608-262-0278, FAX 608-265-4014; E-mail [aacpi@aacpi.org](mailto:aacpi@aacpi.org) or [www.aacpi.org](http://www.aacpi.org).<sup>64</sup>

Table 4-5: JCAHO Pain Standards

- Recognize the right of patients to appropriate assessment and management of pain.
- Assess the existence and, if so, the nature and intensity of pain in all patients.
- Record the results of the assessment in a way that facilitates regular reassessment and follow-up.
- Determine and assure staff competency in pain assessment and management, and address pain assessment and management in the orientation of all new staff.
- Establish policies and procedures which support the appropriate prescription or ordering of effective pain medications.
- Educate patients and their families about effective pain management; and address patient needs for symptom management in the discharge planning process.

Sources: JCAHO Pain Standards. [www.jcaho.org/standard/pm\\_hap.html](http://www.jcaho.org/standard/pm_hap.html). Also, HRSA. [www.hrsa.gov](http://www.hrsa.gov).

## Multimodal Approach

Federal guidelines developed by the Agency for Health Care Policy and Research (AHCPR) for the management of cancer pain also address the issue of pain management in AIDS. The guidelines state, *the principles of pain assessment and treatment in the patient with HIV/AIDS are not fundamentally different from those in the patient with cancer and should be followed for patients with HIV/AIDS*.<sup>68</sup> In contrast to pain in cancer, pain in HIV disease more commonly may have an underlying treatable cause.<sup>10</sup>

Optimal management of pain in AIDS is multimodal and requires pharmacologic, psychotherapeutic, cognitive-behavioral, anesthetic, neurosurgical and rehabilitative approaches. A multidimensional model of AIDS pain that recognizes the interaction of cognitive, emotional, socioenvironmental and nociceptive aspects of pain suggests a model for multimodal intervention.

## PHARMACOLOGIC INTERVENTIONS FOR PAIN

■ The World Health Organization has devised guidelines for analgesic management of cancer pain which the AHCPR has endorsed for the management of pain related to cancer or AIDS.<sup>58,59</sup> These guidelines, also known widely as the WHO Analgesic Ladder (Figure 4-1), have been well validated.<sup>65</sup> This approach advocates selection of analgesics based on the severity of pain as well as the type of pain (i.e., neuropathic vs. non-neuropathic pain). For pain that is mild to moderate in severity, non-opioid analgesics such as NSAIDs (non-steroidal anti-inflammatory drugs) and acetaminophen are recommended. For pain that is persistent and moderate to severe in intensity, opioid analgesics of increasing potency (such as morphine) should be utilized.

Adjuvant agents, such as laxatives and psychostimulants, are useful in preventing as well as treating opioid side effects such as constipation or sedation respectively. Adjuvant analgesic drugs, such as the antidepressant analgesics, are suggested for considered use, along with opioids and NSAIDs, in all stages of the analgesic ladder (mild, moderate or severe pain), but have their most important clinical application in the management of neuropathic pain.

The WHO approach, while not yet validated in AIDS, has been recommended by the AHCPR and clinical authorities in the fields of pain management and AIDS.<sup>8,10,12,17,29,58,66</sup> In addition, clinical reports have appeared in recent literature describing successful application of the WHO Analgesic Ladder principles to pain management in AIDS, with particular emphasis on the use of opioids.<sup>9,17,67,68,69,70,71</sup>

### Non-Opioid Analgesics

The non-opioid analgesics are prescribed principally for mild-to-moderate pain or to augment the analgesic effects of opioid analgesics in the treatment of severe pain (see Table 4-6). The use of NSAIDs in patients with AIDS must be accompanied by heightened awareness of toxicity and adverse effects. NSAIDs are highly protein-bound, and the free fraction of available drug is increased in AIDS patients who are cachectic, wasted and hypoalbuminemic, often resulting in toxicities and adverse effects. Patients with AIDS are frequently hypovolemic, on concurrent nephrotoxic drugs, and experiencing HIV nephropathy, and so are at increased risk for renal toxicity related to NSAIDs. The antipyretic effects of the NSAIDs may also interfere with early detection of infection in patients with AIDS.

Major adverse effects associated with NSAIDs include the following:

- Gastric ulceration
- Renal failure
- Hepatic dysfunction
- Bleeding

The nonacetylated salicylates, such as salsalate, sodium salicylate, and choline magnesium salicylate, theoretically have fewer gastrointestinal (GI) side effects and might be considered in cases where GI distress is an issue. Prophylaxis for NSAID-associated GI symptoms includes H<sub>2</sub> antagonist drugs (cimetidine 300 mg tid-qid or ranitidine 150mg bid); misoprostal 200 mg qid.; omeprazole 20 mg qd; or an antacid.

Table 4-6: Oral Analgesics for Mild to Moderate Pain in HIV/AIDS

Analgesic (by class)	Starting Dose (MG)	Duration (HRS)	Plasma Half-Life (HRS)	COMMENTS
Acetaminophen	650	4-6	4-6	May be hepatotoxic if exceeds recommended doses
<b>Nonsteroidal (NSAIDs)</b>				
Aspirin	650	4-6	4-6	Standard of comparison among non-opioid analgesics.
Ibuprofen	400-600	—	—	Like aspirin, can inhibit platelet function.
Choline magnesium trisalicylate	700-1500	—	—	Essentially no hematologic or gastrointestinal side effects.
<b>Weaker opioids</b>				
Codeine	32-65	3-4	—	Metabolized to morphine, often used to suppress cough in patients at risk of pulmonary bleed.
Oxycodone	5-10	3-4	—	Available as a single agent and in combination with aspirin or acetaminophen.
Propoxyphene	65-130	4-6	—	Toxic metabolite norpropoxy accumulates with repeated dosing.

Patients should be informed about these side effects, issued guaiac cards with reagent, and taught to check their stool weekly.

NSAIDs affect kidney function and should be used with caution. NSAIDs can cause decrease in glomerular filtration, acute and chronic renal failure, interstitial nephritis, papillary necrosis, and hyperkalemia.<sup>72</sup> Especially in patients with renal impairment, NSAIDs should be used with caution, since many (e.g., ketoprofen, feropfen, naproxen and carprofen) are highly dependent on renal function for clearance. The risk of renal dysfunction is greatest in patients with advanced age, preexisting renal impairment, hypovolemia, concomitant therapy with nephrotoxic drugs and heart failure. Prostaglandins modulate vascular tone and their inhibition by the NSAIDs can cause hypertension as well as interference with the pharmacologic control of hypertension.<sup>73</sup>

Caution should also be used with patients receiving B-adrenergic antagonists, diuretics, or angiotensin-converting enzyme inhibitors. Several studies have suggested that there is substantial biliary excretion of several NSAIDs, including indomethacin and sulindac. In patients with hepatic dysfunction, these drugs should be used with caution. NSAIDs, with the exception of the nonacetylated salicylates (e.g., sodium salicylate, cholinemagnesium trisalicylate), produce inhibition of platelet aggregation (usually reversible, but irreversible with aspirin). NSAIDs should be used with extreme caution, or avoided, in patients who are thrombocytopenic or who have clotting impairment.

## Opioid Analgesics

Opioid analgesics are the mainstay of pharmacotherapy for moderate-to-severe intensity pain in the patient with HIV disease (see Table 4-7).

### Principles of Opioid Pharmacotherapy

It is important that the provider have a systematic approach to the use of opiates to provide around-the-clock pain coverage. (Other than as backup for breakthrough pain, PRN dosing should never be used for treatment of chronic pain.) If a patient has no prior experience with opiates, adequate relief may be achieved with weaker opiates such as codeine or hydrocodone. More severe pain or pain in a non-naive patient may require starting with morphine, hydromorphone, or other potent agents. If a patient needs more than two or three pills every four hours to control pain, the provider should switch to a stronger agent.

In order to switch from one opiate to another, use a simple calculation to estimate the relative potency of regimes: convert both the current medication and the new medication to oral morphine equivalents (see Table 4-7). Then, estimate the number of oral morphine equivalents needed to control pain for a 24-hour period based on the current regimen. A dosing schedule and dose that will provide the same number of morphine equivalents can then be determined based on the pharmacological properties of the new drug choice.

The optimal regimen is one that will keep the patient comfortable and maintain his or her quality of life. The regimen should prevent breakthrough pain from occurring, and should minimize iatrogenic complications and cost. Provision for *breakthrough* pain or *incident* (usually movement-related) pain should be provided, usually 50% to 100% of the around-the-clock dose. Careful records of the breakthrough doses should be maintained so that appropriate increases in the around-the-clock regimen can be calculated. Increases in the around-the-clock dose should, in general, never be less than 25% of the base dose.

Table 4-7: Opioid Analgesics for Moderate to Severe Pain in AIDS

Analgesic	Route	Equi-Analgesic Dose (MG)	**Oral Morphine Equivalents (MG)	Analgesic Onset (HRS)	Duration (HRS)	Plasma Half-Life (HRS)	COMMENTS
Morphine	PO IM, IV, SC	30-60* 10	30-60 10	1-1½ ½-1	4-6 3-6	2-3	Standard of comparison for the narcotic analgesics.*
Morphine (sustained release)	PO	90-120	90-120	1-1½	8-12	—	Now available in long-acting sustained release forms.
Oxycodone	PO	20-30	30-45	1	3-6	2-3	In combination with aspirin or acetaminophen it is considered a weaker opioid, as a single agent it is comparable to the strong opioids, like morphine. Available in immediate release and sustained release preparation.
Oxycodone (sustained release)	PO	20-40	30-60	1	8-12	2-3	
Hydromorphone	PO IM, IV	7.5 1.5	30-40 15-20	½-1 ¼-½	3-4 3-4	2-3 2-3	Short half-life; ideal for elderly patients. Comes in suppository and injectable forms.
Methadone	PO IM, IV	20 10	80 80	½-1 ½-1	4-8 —	15-30 15-30	Long half-life; tends to accumulate with initial dosing, requires careful titration. Good oral potency.
Levorphanol	PO IM	4 2	30-60 30-60	½-1½ ½-1	3-6	12-16 12-16	Long half-life; requires careful dose titration in first week. Note that analgesic duration is only 3-6 hours.
Meperidine	PO IM	300 75	30-60 30-60	½-1½ ½-1	3-6 3-4	3-4 3-4	Active toxic metabolite, or meperidine, tends to accumulate (plasma half-life is 3-4 hours), especially with renal impairment and in elderly patients causing delirium, myoclonus and seizures.
Fentanyl	TD IV	0.1 0.1	24-30 24-30	12-18	48-72 —	20-22 —	Transdermal patch is convenient, bypassing GI analgesia until depot is formed. Not suitable for rapid titration.

PO=per oral; IM=intramuscular; IV=intravenous; SC=subcutaneous; TD=transdermal  
\*30mg for repeat around-the-clock dosing; 60mg for single dose or intermittent dosing.

\*\*Oral morphine equivalents are estimated ranges calculated based on Pereira J, Lawlor P, Viganò A, Bruera E. Equianalgesic dose ratios for opioids: a critical review and proposals for long-term dosing. *J Pain Symptom Manage*, 22:622-87, 2001.

## Classes of Opioids

Opioid analgesics are divided into two classes, the *agonists* and the *agonist-antagonists*, based on their affinity to opioid receptors. Opioid analgesics with mixed agonist-antagonist properties include pentazocine, butorphanol, and nalbuphine. These drugs can reverse opioid effects and precipitate an opioid withdrawal syndrome in a patient who is opioid-tolerant or dependent. They are of limited use in managing chronic pain in AIDS. Oxycodone (in combination with either aspirin or acetaminophen), hydrocodone, and codeine are the so-called *weaker* opioid analgesics and are indicated for use in step two of the WHO ladder for mild-to-moderate intensity pain. More severe pain is best managed with morphine or another of the stronger opioid analgesics, such as hydromorphone, methadone, levorphanol, or fentanyl. Oxycodone, as a single agent without aspirin or acetaminophen, is available in immediate and sustained-release forms and is considered a *stronger* opioid in these forms.

## Routes of Administration

The oral route has often been described as the preferred route of administration of opioid analgesics from the perspectives of convenience and cost. However, the transdermal route of administration has gained rapid acceptance by clinicians and patients since patients are often taking many oral medications.

Patients with HIV infection are burdened with taking anywhere from 20 to 40 tablets of medication per day and often need to follow complicated regimens where medication has to be taken on an empty stomach, etc. In a study on patient-related barriers to pain management in AIDS patients, the vast majority of AIDS patients endorsed a preference to utilize a pain intervention that required a minimal number of additional pills (e.g., sustained-release preparations of oral opioids) or interventions that did not require taking pills at all (e.g., transdermal opioid system).<sup>74</sup>

Immediate-release oral morphine or hydromorphone drug preparations must be taken every three to four hours. Longer-acting, sustained-release oral morphine preparations and oxycodone preparations are available that provide up to 8 to 12 hours or more of analgesia, minimizing the number of daily doses required to control persistent pain. Rescue doses of immediate-release, short-acting opioid are often necessary to supplement the use of sustained-release morphine or oxycodone, particularly during periods of titration or pain escalation.

The transdermal fentanyl patch system (Duragesic) has useful applications in the management of severe pain in AIDS.<sup>67,69</sup> Each transdermal fentanyl patch contains a 48- to 72-hour supply of fentanyl, which is absorbed from a depot in the skin. Levels in the plasma rise slowly over 12 to 18 hours after patch placement so dosage forms are available. As with sustained-release morphine preparations, all patients should be provided with oral or parenteral rapidly acting short duration opioids to manage breakthrough pain. The transdermal system is convenient and can minimize the reminders of pain associated with repeated oral dosing of analgesics. In AIDS patients, it should be noted that the absorption of transdermal fentanyl could be increased with fever, resulting in increased plasma levels and shorter duration of analgesia from the patch.

It is important to note that opioids can be administered through a variety of routes: oral, rectal, transdermal, intravenous, subcutaneous, intraspinal and even intraventricular.<sup>69</sup> There are advantages and disadvantages, as well as indications for use of these various routes. Further discussion of alternative delivery routes appears in the *Agency for Health Care Policy and Research Clinical Practice Guideline #9: Management of Cancer Pain*, available free of charge by calling 1-800-4-CANCER.<sup>58</sup>

## Side Effects of Opioids

The opioids are extremely effective analgesics. Their side effects are common but when anticipated can be minimized. Sedation is a common CNS side effect, especially during the initiation of treatment. Sedation usually resolves after the patient has been maintained on a steady dosage. Persistent sedation can be alleviated with a psychostimulant, such as dextroamphetamine, pemoline or methylphenidate, which are all prescribed in divided doses in early morning and at noon. Additionally, psychostimulants can improve depressed mood and enhance analgesia.<sup>75,76</sup>

Delirium, either agitated or somnolent, can also occur while a patient is on opioid analgesics. Delirium is usually accompanied by attentional deficits, disorientation, and perceptual disturbances (visual hallucinations and more commonly illusions). Myoclonus and asterixis are often early signs of neurotoxicity that accompany the course of opioid-induced delirium. Meperidine (Demerol), when administered chronically in patients with renal impairment can lead to a delirium due to accumulation of the neuro excitatory metabolite normeperidine.<sup>77</sup>

Three strategies may alleviate opioid-induced delirium:

- Lowering the dose of the opioid drug presently in use
- Changing to a different opioid
- Treating the delirium with low doses of high potency neuroleptics, such as haloperidol

The strategy of using high potency neuroleptics is especially useful for agitation, and clears the sensorium.<sup>78</sup> For agitated states, intravenous haloperidol in doses starting at between 1 mg and 2 mg is useful, with rapid escalation of dose if no effect is noted.

Gastrointestinal side effects of opioid analgesics are common. The most prevalent are nausea, vomiting, and constipation.<sup>60</sup> Concomitant therapy with prochlorperazine for nausea is sometimes effective. Since not all opioid analgesics are tolerated in the same manner, switching to another narcotic can be helpful if an anti-emetic regimen fails to control nausea. Constipation caused by narcotic effects on gut receptors is a frequently encountered problem that tends to be responsive to the regular use of senna derivatives. A careful review of medications is imperative, since anticholinergic drugs such as the tricyclic antidepressants can worsen opioid-induced constipation and cause bowel obstruction.

Respiratory depression is a worrisome but rare side effect of the opioid analgesics. Respiratory difficulties can almost always be avoided by adhering to two general principles:

- Start opioid analgesics in low doses in opioid-naïve patients
- Be cognizant of relative potencies when switching opioid analgesics, routes of administration, or both

## Adjuvant Analgesics

Adjuvant analgesics are the third class of medications frequently prescribed for the treatment of chronic pain and have important applications in the management of pain in AIDS (see Table 4-8). Adjuvant analgesic drugs are used to enhance the analgesic efficacy of opioids, treat concurrent symptoms that exacerbate pain, and provide independent analgesia. They may be used in all stages of the WHO analgesic ladder. Commonly used adjuvant drugs include antidepressants, neuroleptics, psychostimulants, anticonvulsants, corticosteroids and oral anesthetics.<sup>56,58,76</sup>

Table 4-8: Psychotropic Adjuvant Analgesic Drugs for HIV/AIDS Pain

Generic Name	Approximate Daily Dosage Range (MG)	Route
<b>TRICYCLIC ANTIDEPRESSANTS</b>		
Amitriptyline	10-150	PO, IM
Nortriptyline	10-150	PO
Imipramine	15.5-150	PO, IM
Desipramine	10-150	PO
Clomipramine	10-150	PO
Doxepin	12-150	PO, IM
<b>HETEROCYCLIC AND NON-CYCLIC ANTIDEPRESSANTS</b>		
Trazodone	125-300	PO
Maprotiline	50-300	PO
<b>SEROTONIN REUPTAKE INHIBITORS</b>		
Fluoxetine	20-80	PO
Paroxetine	10-60	PO
Sertraline	50-200	PO
<b>NEWER AGENTS</b>		
Nefazodone	100-500	PO
Venlafaxine	75-300	PO
<b>PSYCHOSTIMULANTS</b>		
Methylphenidate	2.5-20 bid	PO
Dextroamphetamine	2.5-20 bid	PO
Pemoline	13.75-75 bid	PO
Modafinil	100-400	PO
<b>PHENOTHIAZINES</b>		
Fluphenazine	1-3	PO, IM
Methotrimeprazine	10-20 q6h	IM, IV
<b>BUTYROPHENONES</b>		
Haloperidol	1-3 tid	PO, IV
Pimozide	2-6 bid	PO
<b>ANTIHISTAMINES</b>		
Hydroxyzine	50 q4h -q6h	PO
<b>ANTICONSULSANTS</b>		
Carbamazepine	200 tid - 400 tid	PO
Phenytoin	300-400	PO
Valproate	500 tid - 1000 tid	PO
Gabapentin	300 tid - 1000 tid	PO
<b>ORAL LOCAL ANESTHETICS</b>		
Mexiletine	600-900	PO
<b>CORTICOSTEROIDS</b>		
Dexamethasone	4-16	PO, IV
<b>BENZODIAZEPINES</b>		
Alprazolam	0.25-2.0 tid	PO
Clonazepam	0.5-4 bid	PO

PO=per oral; IM=intramuscular; IV=intravenous; q6h=every 6 hours  
bid = twice a day, tid = three times a day, qid = four times a day



## Antidepressants

The current literature supports the use of antidepressants as adjuvant analgesic agents in the management of a wide variety of chronic pain syndromes, including cancer pain, postherpetic neuralgia, diabetic neuropathy, fibromyalgia, headache and low back pain.<sup>70, 80, 81, 82, 83, 84</sup> The antidepressants are analgesic through a number of mechanisms that include antidepressant activity,<sup>80</sup> potentiation or enhancement of opioid analgesia,<sup>85, 86, 87</sup> and direct analgesic effects.<sup>88</sup>

The leading hypothesis suggests that both serotonergic and noradrenergic properties of the antidepressants are important, and that variations among individuals in pain (as to the status of their own neurotransmitter systems) are an important variable.<sup>54</sup> Other possible mechanisms of antidepressant analgesic activity that have been proposed include adrenergic and serotonin receptor effects, adenosinergic effects, anti-histaminic effects, and direct neuronal effects, such as inhibition of paroxysmal neuronal discharge and decreasing sensitivity of adrenergic receptors on injured nerve sprouts.<sup>86, 89, 90, 91</sup>

There is substantial evidence that the tricyclic antidepressants in particular are analgesic and useful in the management of chronic neuropathic and non-neuropathic pain syndromes. Amitriptyline is the tricyclic antidepressant most studied and has been proven effective as an analgesic in a large number of clinical trials addressing a wide variety of chronic pain syndromes, including neuropathy, cancer pain, fibromyalgia and others.<sup>54, 80, 81, 92, 93, 94</sup> Other tricyclics that have been shown to have efficacy as analgesics include imipramine, desipramine, nortriptyline, clomipramine,<sup>100</sup> and doxepin.<sup>55, 95, 96, 97, 98, 99, 101</sup>

The heterocyclic and non-cyclic antidepressant drugs may be useful as adjuvant analgesics for chronic pain syndromes.<sup>54, 81, 88, 96, 97, 102, 103, 104, 105, 106, 107</sup> These drugs include trazodone, mianserin, maprotiline and the newer serotonin-specific reuptake inhibitors (SSRIs), fluoxetine and paroxetine.

Fluoxetine, a potent antidepressant with specific serotonin reuptake inhibition activity, has been shown to have analgesic properties in experimental animal pain models but failed to show analgesic effects in a clinical trial for neuropathy.<sup>97, 106, 107</sup> Several case reports suggest fluoxetine may be a useful adjuvant analgesic in the management of headache and fibrositis.<sup>108, 109</sup>

Paroxetine, a newer SSRI, is the first antidepressant of this class shown to be a highly effective analgesic in a controlled trial for the treatment of diabetic neuropathy.<sup>96</sup> Newer antidepressants such as sertraline, venlafaxine, and nefazodone may also eventually prove to be clinically useful as adjuvant analgesics. For instance, nefazodone has been demonstrated to potentiate opioid analgesics in an animal model.<sup>110</sup>

Given the diversity of clinical syndromes in which the antidepressants have been demonstrated to be analgesic, trials of these drugs can be justified in the treatment of virtually every type of chronic pain.<sup>111</sup> The established benefit of several of the antidepressants in patients with neuropathic pains, however, suggests these drugs may be particularly useful with cancer and AIDS patients, where an underlying neuropathic component to the pain(s) often exists.<sup>96, 97, 111</sup> While studies of the analgesic efficacy of these drugs in HIV-related painful neuropathies have not yet been conducted, the drugs are widely applied clinically using the model of diabetic and post-herpetic neuropathies.

While antidepressant drugs are analgesic in both neuropathic and non-neuropathic pain models, they are most commonly used clinically in combination with opioid drugs, particularly for moderate-to-severe pain. Antidepressant adjuvant analgesics have their most broad application as *co-analgesics*, potentiating the analgesic effects of opioid drugs.<sup>88</sup> The *opioid sparing* effects of antidepressant analgesics have been demonstrated in a number of trials, especially in cancer populations with neuropathic as well as non-neuropathic pain syndromes.<sup>84,87</sup> The dose and time course of onset of analgesia for antidepressants when used as analgesics appears to be similar to their use as antidepressants.

There is compelling evidence that the therapeutic analgesic effects of amitriptyline are correlated with serum levels, as are the antidepressant effects, and that analgesic treatment failure is due to low serum levels.<sup>93,97</sup> A high dose regimen of up to 150 mg of amitriptyline or higher is suggested.<sup>93</sup> The proper analgesic dose for paroxetine is likely in the 40 to 60 mg range, with the major analgesic trial utilizing a fixed dose of 40 mg.<sup>96</sup>

Anecdotal evidence suggests that in cases of depression or pain, the debilitated medically ill (cancer and AIDS patients) often respond to lower doses of antidepressant than are usually required in the physically healthy, probably because of impaired metabolism of these drugs.<sup>103</sup> As to the time course of onset of analgesia, a biphasic process appears to occur. Immediate or early analgesic effects occur within hours or days, and probably mediated through inhibition of synaptic reuptake of catecholamines. In addition, there are later, longer analgesic effects that peak over a two to four week period that are probably due to receptor effects of the antidepressants.<sup>92,93,97</sup>

## Neuroleptics and Benzodiazepines

Neuroleptic drugs, such as methotrimeprazine, fluphenazine, haloperidol and pimozide, may play a role as adjuvant analgesics<sup>101, 112, 113, 114</sup> in AIDS patients with pain; however, their use must be weighed against what appears to be an increased sensitivity to the extrapyramidal side effects of these drugs in AIDS patients with neurological complications.<sup>115</sup> Anxiolytics, such as alprazolam and clonazepam, may also be useful as adjuvant analgesics, particularly in the management of neuropathic pains.<sup>116, 117, 118</sup>

## Psychostimulants

Psychostimulants such as dextroamphetamine, methylphenidate, pemoline and modafinil may be useful antidepressants in patients with HIV infection or AIDS who are cognitively impaired.<sup>116, 119</sup> Psychostimulants also enhance the analgesic effects of the opioid drugs,<sup>75</sup> are useful in diminishing sedation secondary to narcotic analgesics, and are potent adjuvant analgesics. Bruera, et al., demonstrated that a regimen of 10 mg methylphenidate with breakfast and 5 mg with lunch significantly decreased sedation and potentiated the effect of narcotics in patients with cancer pain.<sup>119</sup> Methylphenidate has also been demonstrated to improve patient functioning on a number of neuropsychological tests, including tests of memory, speed and concentration, in patients receiving continuous infusions of opioids for cancer pain.<sup>119</sup> Dextroamphetamine has been reported to have additive analgesic effects when used with morphine in postoperative pain.<sup>120</sup> In relatively low doses, psychostimulants stimulate appetite, promote a sense of well being, and decrease feelings of weakness and fatigue in cancer patients.

Pemoline is a unique alternative psychostimulant that is chemically unrelated to amphetamine but may have similar usefulness as an antidepressant and adjuvant analgesic in AIDS patients.<sup>76</sup> Advantages of pemoline as a psychostimulant in AIDS pain patients include the following:

- Lack of abuse potential
- Lack of federal regulation through special triplicate prescriptions
- Mild sympathomimetic effects
- The fact that it comes in a chewable tablet form that can be absorbed through the buccal mucosa and thus can be used by AIDS patients who have difficulty swallowing or who have intestinal obstruction

Clinically, pemoline is as effective as methylphenidate or dextroamphetamine in the treatment of depressive symptoms and in countering the sedating effects of opioid analgesics. There are no studies of pemoline's capacity to potentiate the analgesic properties of opioids. Pemoline should be used with caution in patients with liver impairment, and liver function tests should be monitored periodically with longer-term treatment. The Food and Drug Administration (FDA) suggests that when pemoline is prescribed, patients sign an informed consent document that outlines the potential liver toxicities of pemoline.

Modafinil, a novel psychostimulant that has shown efficacy in treating excessive daytime sleepiness associated with narcolepsy, has recently demonstrated potential for the treatment of depression and fatigue.<sup>121</sup> Although modafinil needs further study, it appears to be a promising alternative to other psychostimulants in patients who cannot tolerate or have contraindications to the use of other stimulants. Modafinil has minimal cardiovascular effects, does not cause tolerance or dependence, has a low abuse potential, and does not require a special triplicate prescription.

## Anticonvulsant Drugs

Selected anticonvulsant drugs appear to be analgesic for the lancinating dysesthesias that characterize diverse types of neuropathic pain.<sup>111</sup> Clinical experience also supports the use of these agents in patients with paroxysmal neuropathic pains that may not be lancinating and, to a far lesser extent, in those with neuropathic pains characterized solely by continuous dysesthesias. Although most practitioners prefer to begin with carbamazepine because of the extraordinarily good response rate observed in trigeminal neuralgia, this drug must be used cautiously in AIDS patients with thrombocytopenia, those at risk for marrow failure, and those whose blood counts must be monitored to determine disease status. If carbamazepine is used, a complete blood count should be obtained prior to the start of therapy, after two and four weeks, and then every three to four months thereafter. A leukocyte count below 4000 is usually considered to be a contraindication to treatment, and a decline to less than 3000 or an absolute neutrophil count of less than 1500 during therapy should prompt discontinuation of the drug. Other anticonvulsant drugs may be useful for managing neuropathic pain in AIDS patients, including phenytoin, clonazepam, valproate and gabapentin.<sup>111</sup>

Several newer anticonvulsants have been used in the treatment of neuropathic pain, particularly with patients who have reflex sympathetic dystrophy. These drugs include gabapentin, lamotrigine, tiagabine, and felbamate. Of these newer anticonvulsants, experience has been most favorable with gabapentin, now being widely used by pain specialists to treat neuropathic pain of various types. Gabapentin has a relatively high degree of safety, with no known drug-drug interactions and a lack of hepatic metabolism.<sup>111</sup> Treatment with gabapentin is usually initiated at a dose of 300 mg/day and then gradually increased to a dose range of 900-3200 mg/day in three divided doses.

## Corticosteroids

Corticosteroid drugs have analgesic potential in a variety of chronic pain syndromes, including neuropathic pains and pain syndromes resulting from inflammatory processes.<sup>111</sup> Like other adjuvant analgesics, corticosteroids are usually added to an opioid regimen. In patients with advanced disease, these drugs may also improve appetite, decrease nausea and malaise, and improve the overall quality of life. Adverse effects include neuropsychiatric syndromes, gastrointestinal disturbances and immunosuppression.

## Baclofen

Baclofen is a GABA-agonist that has proven efficacy in the treatment of trigeminal neuralgia.<sup>122</sup> On this basis, a trial of this drug is commonly employed in the management of paroxysmal neuropathic pains of any type. Dosing is generally undertaken in a manner similar to the use of the drug for its primary indication, spasticity. A starting dose of 5 mg two to three times per day is gradually escalated to 30-90 mg per day, and sometimes higher if side effects do not occur. The most common adverse effects are sedation and confusion.

## Oral Local Anesthetics

Local anesthetic drugs may be useful in the management of neuropathic pains characterized by either continuous or lancinating dysesthesias. Controlled trials have demonstrated the efficacy of tocainide and mexiletine and clinical evidence suggests similar effects from flecainide and subcutaneous lidocaine.<sup>123, 124, 125, 126</sup> It is reasonable to undertake a trial with oral local anesthetic in patients with continuous dysesthesias who fail to respond adequately to, or who cannot tolerate, the tricyclic antidepressants, and with patients with lancinating pains refractory to trials of anticonvulsant drugs and baclofen.

Mexiletine is preferred in the U.S.<sup>111</sup> Paice and colleagues in 2000 studied twenty-six subjects in order to test the efficacy of topical capsaicin in the management of HIV-associated pain.<sup>127</sup> Results suggest that capsaicin was ineffective in relieving pain with HIV-associated distal symmetrical peripheral neuropathy (DSPN). However capsaicin has been shown to be effective in relieving pain associated with other neuropathic pain syndromes.<sup>127</sup>

## Drug Interactions: Analgesics and Anti-HIV Drug Therapies

Many of the available anti-HIV drugs have the potential to interact with other medications prescribed for pain, depression, anxiety or other medical conditions. These drug interactions can be dangerous, resulting in drug toxicities due to elevated levels of medication, or drug ineffectiveness due to lower drug levels in the serum. Opioid analgesics can interact with certain anti-HIV drug therapies and these interactions should be kept in mind when prescribing opioids.

The protease inhibitor ritonavir (Norvir) can increase the levels of several opioid drugs including codeine, hydrocodone, oxycodone, methadone, and fentanyl. Patients on ritonavir should not be prescribed meperidine or propoxyphene because of increased risk of serious toxicity. Antidepressant and anticonvulsant analgesics can also interact primarily with ritonavir. Ritonavir can increase the serum levels of bupropion (Wellbutrin, Zyban), fluoxetine, trazodone, and desipramine, resulting in increased drug toxicities (e.g., seizures with bupropion). Both ritonavir and saquinavir (Invirase) may increase levels of anticonvulsants such as phenobarbital, phenytoin, carbamazepine and clonazepam.

## NON-PHARMACOLOGIC INTERVENTIONS

■ Physical interventions, psychological therapies and neurosurgical procedures may also prove useful in the management of HIV-related pain (see Table 4-9).

Table 4-9: Non-pharmacologic Interventions

<b>PHYSICAL THERAPIES</b>
Cutaneous stimulation (superficial heat, cold, and massage)
Transcutaneous electrical nerve stimulation (TENS)
Acupuncture
Bed rest
<b>PSYCHOLOGICAL THERAPIES</b>
Hypnosis
Relaxation, imagery, biofeedback, distraction, and reframing
Patient education
<b>NEUROSURGICAL PROCEDURES</b>
Nerve blocks
Cordotomy

Physical interventions range from bed rest and simple exercise programs to the application of cold packs or heat to affected sites. Other non-pharmacologic interventions include whirlpool baths, massage, the application of ultrasound and transcutaneous electrical nerve stimulation (TENS). Increasing numbers of AIDS patients have resorted to acupuncture to relieve their pain, with anecdotal reports of efficacy.

Several psychological interventions have demonstrated potential efficacy in alleviating HIV-related pain, including hypnosis, relaxation and distraction techniques such as biofeedback and imagery, and cognitive behavioral techniques.

See Tables 4-10 and 4-11 for sample relaxation and distraction exercises.

Where non-pharmacologic and standard pharmacologic treatments fail, anesthetic and even neurosurgical procedures (such as nerve block, cordotomy, and epidural delivery of analgesics) are additional options available to the patient who appreciates the risks and limitations of these procedures.

Table 4-10: Slow Rhythmic Breathing for Relaxation

1. Breathe in slowly and deeply.
2. As you breathe out slowly, feel yourself beginning to relax; feel the tension leaving your body.
3. Now breathe in and out slowly and regularly, at whatever rate is comfortable for you. You may wish to try abdominal breathing.
4. To help you focus on your breathing and breathe slowly and rhythmically: (a) breathe in as you say silently to yourself, “in, two, three”; (b) breathe out as you say silently to yourself, “out, two, three.” or each time you breathe out, say silently to yourself a word such as “peace” or “relax.”
5. Do steps 1 through 4 only once or repeat steps 3 and 4 for up to 20 minutes.
6. End with a slow deep breath. As you breathe out say to yourself, “I feel alert and relaxed.”

Source: Adapted from McCaffery M, Beebe A. *Pain: Clinical Manual for Nursing Practice*. St. Louis: RV Mosby Co, 1989.

Table 4-11: Peaceful Distraction

Something may have happened to you a while ago that brought you peace and comfort. You may be able to draw on that past experience to bring you peace or comfort now. Think about these questions.

1. Can you remember any situation, even when you were a child, when you felt calm, peaceful, secure, hopeful or comfortable?
2. Have you ever daydreamed about something peaceful? What were you thinking of?
3. Do you get a dreamy feeling when you listen to music? Do you have any favorite music?
4. Do you have any favorite poetry that you find uplifting or reassuring?
5. Have you ever been religiously active? Do you have favorite readings, hymns, or prayers? Even if you haven't heard or thought of them for many years, childhood religious experiences may still be very soothing.

Additional points: Very likely some of the things you think of in answer to these questions can be recorded for you, such as your favorite music or a prayer. Then, you can listen to the tape whenever you wish. Or, if your memory is strong, you may simply close your eyes and recall the events or words.

Source: Adapted from McCaffery M, Beebe A. *Pain: Clinical Manual for Nursing Practice*. St. Louis: RV Mosby Co, 1989.

## BARRIERS TO PAIN MANAGEMENT IN HIV/AIDS

■ A number of different factors have been identified as potential influences on the widespread undertreatment of pain in AIDS, including patient-, clinician-, and health care system-related barriers.<sup>3, 74, 128, 129</sup> Sociodemographic factors that have been reported to be associated with undertreatment of pain in AIDS patients include gender, education level, and substance abuse history.<sup>4</sup> Women, less educated patients, minorities, and patients who reported injection drug use as their HIV risk transmission factor are significantly more likely to receive inadequate analgesic therapy for HIV-related pain.

In a 1999 survey of approximately 500 AIDS care providers, clinicians (primarily physicians and nurses) rated the barriers to AIDS pain management they perceived to be the most important in the care of AIDS patients (see Table 4-12).<sup>129</sup>

Table 4-12: AIDS Clinicians' Ratings of Barriers to Pain Management

#	Barrier	Percent
1.	Lack of knowledge regarding pain management	51.8
2.	Reluctance to prescribe opioids	51.5
3.	Lack of access to pain specialists	50.9
4.	Concern regarding drug addiction and/or abuse	50.5
5.	Lack of psychological support/drug treatment services	43.0
6.	Patient reluctance to report pain	24.0
7.	Patient reluctance to take opioids	24.0

Source: Breitbart W, Kaim M, Rosenfeld B. Clinicians' perceptions of barriers to pain management in AIDS. *J Pain Symptom Manage* 18:203-12, 1999.

Managing pain in AIDS patients with a history of substance use is a particularly challenging problem that HIV providers will face with increasing frequency. Table 4-13 identifies basic interventions for pain management in substance users. For more information, see Chapter 11: Substance Use Problems

Table 4-13: An Approach to Pain Management in Substance Users with HIV Disease

1. Substance users with HIV disease deserve pain control; we have an obligation to treat pain and suffering in all of our patients.
2. Accept and respect the report of pain.
3. Be careful about the label *substance abuse*; distinguish between tolerance, physical dependence and addiction (psychological dependence or drug abuse).
4. Not all substance users are the same; distinguish between active users, individuals in methadone maintenance, and those in recovery.
5. Individualize pain treatment.
6. Utilize the principles of pain management outlined for all patients with HIV disease and pain (WHO Ladder).
7. Set clear goals and conditions for opioid therapy: set limits, recognize drug abuse behaviors, make consequences clear, use written contracts and establish a single prescriber.
8. Use a multidimensional approach: pharmacologic and nonpharmacologic interventions, attention to psychosocial issues, team approach.

## CONCLUSION

■ Pain in AIDS, even in this era of protease inhibitors and decreased AIDS death rates, is a clinically significant problem contributing greatly to psychological and functional morbidity. Pain can be adequately treated and so must be a focus of palliative care of the person living with HIV/AIDS.

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## Chapter 5.

# Constitutional Symptoms

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### INTRODUCTION

■ Constitutional symptoms, reported by more than 50% of people with advanced HIV disease, often significantly compromise both physical functioning and quality of life.<sup>1-3</sup> The most common constitutional symptoms include weight loss, fatigue, fever and sweats. These symptoms can be related to myriad potential etiologies including opportunistic infections, malignancy, metabolic dysregulation, medication-related toxicities and advanced AIDS itself.

Attempts should be made to determine and, when possible, treat the underlying causes of constitutional symptoms. Yet some underlying causes are refractory to treatment, and in many settings the necessary resources remain unavailable. Even where highly active antiretroviral therapy (HAART) is available and the chronic phase of HIV disease is prolonged for many patients, constitutional symptoms may arise from or be exacerbated by cumulative co-existing morbidities or by toxicities of the antiretroviral medications themselves.

Nevertheless, particularly in the late stages of HIV disease, aggressive symptom management often can improve a patient's quality of life regardless of the effects of more disease-specific therapies. Thus, it is important that clinicians in all settings be skillful both in controlling uncomfortable constitutional symptoms and in combining HIV-specific and palliative interventions for optimal patient care. The following sections and Table 5-1 address the management of HIV wasting, fatigue, fever and sweats.

### HIV WASTING

■ HIV wasting syndrome is a common AIDS-defining diagnosis in the United States, with an estimated lifetime frequency of 70% to 90% among AIDS patients who receive no antiretroviral therapy.<sup>4</sup> It is defined by the Centers for Disease Control and Prevention as an involuntary loss of more than 10% of baseline body weight in conjunction with fever, weakness or diarrhea for more than 30 days. However, less stringent definitions, such as loss of 5% to 10% of ideal body weight, are widely employed in clinical practice.<sup>5</sup>

Mechanisms of HIV wasting are complex and include the following:

- Diminished or inadequate nutrient intake
- Excessive nutrient loss
- Metabolic dysregulation<sup>6, 7</sup>

Causes of inadequate nutritional intake often include one or more of the following: dysphagia or odynophagia due to candidiasis, cytomegalovirus, herpes simplex virus, or aphthous ulceration; anorexia, nausea, or vomiting due to infection, malignancy, medication side effects, or other symptoms such as pain; and psychological factors such as depression, anxiety, grief and loneliness.

Table 5-1: Management of Constitutional Symptoms in HIV/AIDS

Symptom	Therapeutic Intervention	Comments
HIV Wasting	<b>Appetite Stimulants</b>	
	Megestrol acetate 400-800 mg po qd	Can increase both appetite and body weight (primarily fat). Potential side effects include diabetes, Cushing's Syndrome, hypogonadism, adrenal insufficiency (upon withdrawal).
	Prednisone 20-80 mg po qd	Use lowest effective dose. Best reserved for patients with short prognosis and severe symptoms.
	Dexamethasone 4-16 mg po/iv per day in 1 dose or 2 divided doses	
	Dronabinol 2.5-5 mg po bid-tid	
	<b>Testosterone</b>	
	Testoderm TTS patch 5 mg/day	Can increase weight, lean body mass, and quality-of-life score in men with concomitant hypogonadism. Investigational in women.
	Androderm patch 2.5 - 5 mg/day	
	AndroGel topical 5 g/day	
	Testosterone enanthate or testosterone cypionate 200 mg IM q2weeks	
<b>Other Anabolic Agents</b>		
Oxandrolone 10-20 mg/day in 2-4 divided doses	Can promote weight gain in eugonadal men. May cause severe liver toxicity. Additional risk of virilization in women.	
Growth hormone 0.1 mg/kg/day sc	Long-term effects unknown. Should not be considered first-line. Extremely expensive.	
Fatigue	<b>Psychostimulants</b>	
	Methylphenidate 2.5-5 mg po qAM or bid in AM and at noon; maximum 60 mg/day in 2 divided doses	Do not give after noon. Also good for depression and for sedation due to opioids. Avoid if anxiety, agitation.

Table 5-1: Management of Constitutional Symptoms in HIV/AIDS (continued)

<b>Fatigue</b> continued	<b>Psychostimulants</b> continued	
	Dextroamphetamine Same doses as methylphenidate	As for methylphenidate.
	Pemoline 18.75 mg po qAM or bid at AM and noon	Severe hepatotoxicity possible. Not first-line.
	<b>Corticosteroids</b>	
Dexamethasone 4-16 mg po/iv qd in 1 dose or 2 divided doses	Studied only in patients with progressive, disseminated MAC.	
<b>Fevers and Sweats</b>	<b>Antipyretics</b>	
	Acetaminophen 650-1000 mg po/pr q6hr	NSAIDs may be particularly useful in patients with underlying malignancies. Less GI toxicity with choline magnesium trisalicylate or rofecoxib than with ibuprofen. Consider concomitant use of cytoprotective agent with NSAIDs.
	Choline magnesium trisalicylate 500-1000 mg po bid-tid	
	Ibuprofen 200-600mg po q6 - 8h	
	Indomethacin 25-50 mg po/pr tid	
	Rofecoxib 12.5-50 mg po qd	
	<b>Corticosteroids</b>	
	Dexamethasone 4-16 mg po/iv qd in 1 dose or 2 divided doses	Studied only in patients with progressive, disseminated MAC.
	<b>Anticholinergics (for sweats)</b>	
	Hyoscyamine 0.125-0.25 mg po qhs-q4h	May cause dry mouth, constipa- tion, tachycardia. Hyoscyamine may cause confusion.
	Glycopyrrolate 1-2 mg po qhs-tid or 0.1-0.2 mg sc/iv qhs-qid	
	<b>H2-antagonists (for sweats)</b>	
Cimetidine 400-800 mg po bid		

Excessive nutrient loss may be due to chronic infectious, malabsorptive, or medication-related diarrhea or idiopathic AIDS enteropathy.<sup>8</sup>

Metabolic dysregulation, in the form of hypogonadism, relative growth hormone deficiency or alterations in cortisol metabolism, also frequently contributes to HIV wasting.<sup>9,10</sup>

While there is evidence that HAART can reduce the severity of weight loss and malnutrition in HIV disease, as many as 24% to 48% of patients may continue to lose weight while on potent combination antiretroviral therapy.<sup>11-16</sup>

The first step in managing HIV wasting is to make every effort to increase the patient's caloric intake comfortably to meet the elevated metabolic demand seen in HIV disease. Potentially reversible causes of inadequate nutrient intake and nutrient loss, such as gastrointestinal infections or medication side effects, should be identified and addressed if possible. Additional measures to manage HIV wasting include appetite stimulants and anabolic agents such as androgens and growth hormone.

### Appetite Stimulants

Two agents used to combat HIV wasting by stimulating the appetite are megestrol acetate and dronabinol. Corticosteroids may also be effective.

#### Megestrol Acetate

Megestrol acetate, a synthetic progestational agent, can reduce anorexia and lead to weight gain primarily by increasing fat mass. Randomized controlled trials have shown a statistically significant increase over placebo in food intake, weight gain, and overall sense of well-being over an 8-12 week period.<sup>17,18</sup> The recommended dose in HIV-associated wasting is 400-800 mg/day in a single oral dose. It may be used in conjunction with anabolic agents, resistance exercise or both. There is probably no benefit (and may be additional risk) in adding megestrol acetate to the regimen of a patient already taking a corticosteroid at moderate or high doses, but studies have not been done.

While side effects of megestrol acetate generally have been considered rare or mild, recent evidence suggests that they may be more frequent and severe than previously recognized.<sup>19,20</sup> Reported side effects related to its corticosteroid activity include induction or exacerbation of diabetes mellitus and, in the long term, Cushing's syndrome and—with abrupt discontinuation of therapy—adrenal insufficiency. With prolonged administration, megestrol acetate also diminishes gonadotropin secretion and thus can cause or exacerbate hypogonadism, and an association with hypercoagulability and osteonecrosis also has been suggested.<sup>7, 21-27</sup> As with any intervention, clinicians should weigh the potential benefits and burdens of megestrol acetate in the context of an individual patient's goals, values and life expectancy.

#### Corticosteroids

Corticosteroids have been shown to improve appetite and food intake in cancer patients. In the same population, they can also reduce pain, nausea and vomiting, and fatigue while improving mood, strength, performance status, and overall quality of life.<sup>19</sup> It is likely that AIDS patients with similar symptoms may benefit from corticosteroids, but this has not been well studied.

There is some evidence that any decreases in anorexia, weakness, and fatigue from corticosteroids may be temporary.<sup>28</sup> In addition, the risk of serious side effects from corticosteroids in-



creases with time; these side effects include gastrointestinal bleeding, adrenal insufficiency, myopathy, additive immunocompromise and opportunistic infections. It is prudent to reserve prolonged use for patients with a short life expectancy and severely distressing symptoms that may be eased by corticosteroids. In this situation, prednisone may be started at 20-80 mg orally once daily, while dexamethasone can be initiated in a dose of 2-8 mg orally or intravenously twice per day. Once beneficial effects are noted, the dosage can be reduced to the lowest dose that maintains the beneficial effect. Short-term side effects may include hyperglycemia, fluid retention and psychosis.

## Dronabinol

Dronabinol has been shown to increase appetite and decrease nausea, yet little or no weight gain has been reported.<sup>29,30</sup> The usual starting dose is 2.5 mg orally twice daily before lunch and dinner; this may be increased to 5 mg orally thrice daily. Central nervous system side effects such as confusion, anxiety, emotional lability, euphoria or hallucinations have been reported in as many as 10% of patients, yet in most patients these side effects resolve after one to three days of continued use.<sup>30</sup> If symptoms persist or are severe, reducing dosage to as little as 2.5 mg once a day before dinner or at bedtime may be helpful.

## Testosterone

Hypogonadism has been reported in as many as 50% of men and women with HIV wasting. Several studies have shown that testosterone deficiency may contribute to HIV wasting in both sexes.<sup>31</sup> In this setting, hypogonadism most often is due to impaired gonadotropin secretion resulting from malnutrition, chronic disease, or medications such as phenothiazines or meggestrol acetate.<sup>32</sup> Less frequently, hypogonadism may be primary and result from HIV or opportunistic infection of the gonads, medication side effects, or malignant infiltration.<sup>7</sup>

Androgen deficiency leads to loss of lean body mass and also may cause or exacerbate chronic anemia and depression. Replacement therapy may thus have a significant impact on a patient's overall well-being.<sup>33</sup> Randomized controlled trials of testosterone replacement in men with HIV disease have shown significant weight gain, increases in lean body mass, and improvements in quality of life scores, libido, mood and energy.<sup>31,34</sup>

Once a diagnosis of testosterone deficiency is established in men, appropriate replacement may be undertaken via transdermal patch, androgen gel or intramuscular injection (oral preparations are associated with liver toxicity). Daily scrotal and non-scrotal transdermal patches are available, and a dose of 5 mg/day has been shown to increase lean body mass. Skin irritation at the application site may be relieved by applying a small amount of 0.1% triamcinolone cream to the skin under the reservoir. One percent transdermal testosterone gel is given in a dosage of 2.5-7.5 g/day and should not be applied to the genital area. Finally, the intramuscular preparations, testosterone cypionate and enanthate, are given in doses of 200 mg every two weeks.<sup>31</sup>

The administration of androgens to women with HIV wasting and low serum-free testosterone is currently under investigation. A pilot study showed that physiological doses of testosterone (150 µg transdermally daily) can increase weight and improve quality of life.<sup>35</sup> Further studies are needed to evaluate the safety and efficacy of androgen replacement for these women.

## Testosterone Analogues

Two testosterone analogues, oxandrolone and nandrolone, have been shown to promote weight gain in patients with HIV-associated weight loss.<sup>36-38</sup> However, both drugs can cause hepatic toxicity, their long-term effects are unknown, and neither drug is more effective than testosterone for patients with both HIV wasting and hypogonadism.<sup>7</sup>

In eugonadal men with HIV wasting, oxandrolone may promote weight gain and lean body mass at a dosage of 20 mg orally per day in two to four divided doses. It should be used with great caution in women and patients with liver disease.

## Growth Hormone

Recombinant human growth hormone (rhGH) has been shown to increase weight, lean body mass, and strength in patients with HIV wasting in a daily dose of 0.1 mg/kg given subcutaneously for up to 12 weeks.<sup>39-41</sup> Side effects may include edema, arthralgia and hyperglycemia. Because long-term side effects are unknown, rhGH is not considered first-line treatment. The current cost of rhGH therapy is about \$1750 per week.

## Other Therapies

Exercise in the form of supervised, progressive resistance and fitness training may be useful in HIV wasting, but few data are available. Cytokine modulators, such as thalidomide and pentoxifylline, are experimental and not recommended.

## FATIGUE

■ Fatigue is a common symptom and may affect as many as 85% of AIDS patients.<sup>2</sup> It can severely compromise quality of life by diminishing physical functioning and causing psychological distress. As is the case with fatigue associated with other life-threatening illnesses, HIV/AIDS-related fatigue is usually multifactorial. Frequent etiologies include anemia, infections, HIV disease progression, hormonal insufficiencies, metabolic derangements, medication side effects, malnutrition, wasting, depression, insomnia, malignancy, and end-stage organ disease.<sup>6</sup> (See Chapter 3: Assessment of Physical Symptoms, Table 3-1.)

If possible and appropriate for the clinical situation, interventions should address the underlying cause(s) of fatigue. For example, erythropoietin can be used to treat AIDS patients whose fatigue appears to be due primarily to anemia and whose anemia is not caused by bleeding, hemolysis, or deficiency of iron, B12 or folate. The dose is 40,000 units subcutaneously weekly along with iron supplementation.<sup>42</sup> Testosterone replacement can be used for hypogonadal men with fatigue as described in the section on HIV wasting above.

Treatments for fatigue of multiple etiologies include psychostimulants and corticosteroids.

## Psychostimulants

Methylphenidate is frequently used to treat fatigue or depression in the palliative care of patients with advanced life-threatening illnesses of almost any etiology.<sup>43,44</sup> Its rapid onset of action makes it especially useful for depression in patients with a life expectancy of days or weeks, when the usefulness of selective serotonin reuptake inhibitors is limited. It also is useful for treating sedation due to opioid analgesics. In very frail patients, it can be started in a dosage as low as 2.5-5 mg orally at 8 a.m. or twice per day at 8 a.m. and noon. It should not be given in the

afternoon or evening. The dosage can be increased daily as tolerated to effect or to a maximum daily dose of 60 mg.

While generally well-tolerated, methylphenidate should be used with caution in patients with anxiety, delirium, agitation, or tachyarrhythmias. Any jitteriness, mild anxiety, or hyperactivity that develop during treatment often can be managed with a dose reduction.

Dextroamphetamine has indications and properties very similar to those of methylphenidate.<sup>43</sup> The recommended dosage is the same.

Pemoline, which is chemically unrelated to amphetamine and has milder sympathomimetic effects, also may be effective against fatigue and depression in advanced medical illness including HIV disease.<sup>45</sup> In the only randomized controlled trial of psychostimulants for fatigue in HIV-positive people, methylphenidate (7.5 mg twice daily) and pemoline (18.75 mg/day) were significantly better than placebo at improving not only fatigue but also depression, psychological distress, and overall quality of life.<sup>46</sup> The starting dosage of pemoline is 18.75 mg orally at 8 a.m. or twice per day at 8 a.m. and noon. The dosage can be increased as tolerated to effect or to a maximum daily dose of 112.5 mg. However, due to its potential for severe hepatotoxicity, pemoline should be used with caution and should not be used in patients with liver disease.

## Corticosteroids

Corticosteroids have been shown to temporarily improve fatigue in cancer patients.<sup>28</sup> It is possible that many HIV/AIDS patients may experience similar benefits in the palliative care setting. Information on the use of corticosteroids for fatigue and other indications in general palliative care can be found in this chapter, in the section on HIV wasting above.

There is direct evidence that corticosteroids improve fatigue in one sub-population of HIV/AIDS patients: those with disseminated *mycobacterium avium* complex (MAC) with progressive disease despite combination antimycobacterial therapy. Low-dose dexamethasone (4-6 mg/day) led to a rapid decrease in fatigue, fever and night sweats within one week of initiating treatment in a series of 12 patients. In similar studies of (low-dose) corticosteroids in small numbers of patients, weight gain, fever reduction, and improved sense of well-being were documented.<sup>47,48</sup> While randomized controlled trials have not been done, corticosteroids appear to be useful in the palliative care of patients with end-stage AIDS and MAC refractory to antimycobacterial therapy.<sup>49</sup>

## FEVERS AND SWEATS

■ Fevers, sweats, or both are frequent causes of suffering and poor quality of life in AIDS patients. Fever increases metabolic rate, and persistent fever is associated with anorexia, weight loss and wasting.<sup>6</sup> Etiologies of fever include infections, HIV-associated malignancies, side effects of drugs (e.g., trimethoprim-sulfamethoxazole and other sulfa drugs, abacavir and other antiretrovirals, amphotericin B), hormonal dysfunction, and auto-immune disorders.

While any source of fever can cause sweats, sweats without fever may occur in the setting of some infections, malignancies, endocrinopathies and medications. For example, both opioids and withdrawal from opioids may cause sweats in the absence of fever. If possible and appropriate, efforts should be made to identify and treat the underlying etiology of fevers or sweats. Medications used to treat fever and sweats of many etiologies include antipyretics, corticosteroids and anticholinergics.

In the palliative management of fever in patients with HIV/AIDS, it is important to maintain body temperature within a comfortable range. Usually patients are most comfortable at normal or near-normal body temperature, but not all fevers cause discomfort. The most common antipyretic used is acetaminophen, given in a dosage of 650 to 1000 mg orally or rectally every 6 hours as needed or around the clock. Non-steroidal anti-inflammatory drugs (NSAIDs) are particularly helpful in patients with fevers related to neoplasms and/or when an additional anti-inflammatory effect is desired. The gastrointestinal toxicity of NSAIDs can be reduced by using choline magnesium trisalicylate (500 to 1000 mg orally twice-thrice daily), using a selective cyclooxygenase-2 inhibitor such as rofecoxib (12.5 to 50 mg orally every day), and/or adding a cytoprotective agent such as an H<sub>2</sub> antagonist, proton pump inhibitor, or misoprostol (100 to 200 µg orally twice to four times per day).

For severe, unremitting fever, acetaminophen and an NSAID both can be given every 6 hours in a staggered fashion with the patient receiving one or the other every 3 hours. Corticosteroids provide an alternative that can cut down on the number and frequency of medications, and may be equally effective in some situations. As described above in the section on fatigue, low-dose dexamethasone (4 to 6 mg/day) led to a rapid decrease in fever, night sweats and fatigue within one week of initiating treatment in a series of 12 patients with disseminated MAC refractory to antimycobacterial therapy.<sup>47-49</sup>

Keeping the patient warm and dry will help to prevent chills and shivering.<sup>6</sup> If fluid and electrolyte loss from fever and sweats is considerable, the clinician must weigh the benefits and burdens of aggressive hydration to restore and maintain fluid balance in light of the patient's goals, values, and prognosis.

Sweats associated with fever are treated as above. If sweats are unrelated to fever, NSAIDs as described above still may prove helpful. Anticholinergics also may be tried, such as scopolamine (0.2-0.6 mg subcutaneously or intravenously every 1-4 hours, or by 1.5 mg transdermal patch, 3-5 patches every 72 hours) or hyoscyamine (0.125-0.25 mg orally every 1-4 hours). An anticholinergic with minimal central nervous system effects is glycopyrrolate (1-2 mg orally once daily at bedtime or up to thrice daily or 0.1-0.2 mg subcutaneously or intravenously once daily at bedtime or up to every 6 hours). In addition, the use of the H<sub>2</sub> antagonist cimetidine (400-800 mg orally twice daily) may provide symptomatic relief.<sup>28, 50</sup>

## CONCLUSIONS

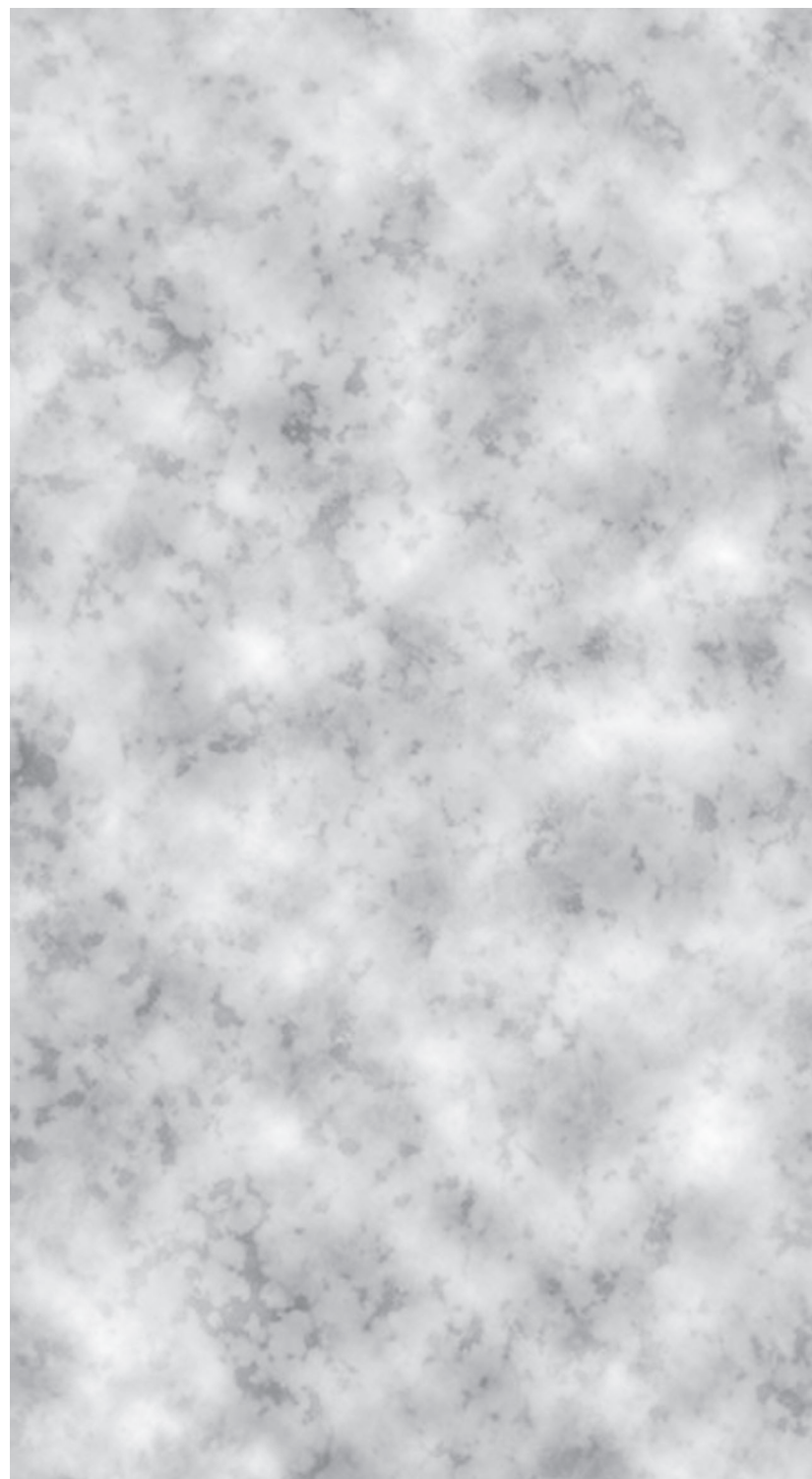
■ In people with HIV/AIDS, constitutional symptoms such as wasting, fatigue, fever and sweats often severely compromise quality of life and overall sense of well-being. Careful management of these symptoms throughout the course of the illness is an important component in overall HIV/AIDS care. As with any intervention, clinicians should weigh the potential benefits and burdens of treatments for constitutional symptoms for each individual patient in each clinical situation. When a patient's life expectancy is short and maximizing his or her quality of life is an important goal, possible long-term side effects of a treatment become less relevant if the treatment is likely to improve short-term quality of life.

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# Chapter 6.

## Pulmonary Symptoms

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### INTRODUCTION

■ This chapter will focus on basic methods of treating the suffering and distress caused by common pulmonary symptoms in AIDS patients. The approaches offered below are useful in relieving discomfort, even when the underlying disease is not treatable. The first part of this chapter will explore issues related to end-of-life decisions in the care of patients who have pulmonary diseases. The second part will address treatment for specific pulmonary symptoms.

HIV-positive individuals are at risk for a variety of disease processes that compromise lung function or cause respiratory symptoms (see Table 6-1). In fact, pulmonary manifestations of AIDS are among the most frequent causes of death in HIV disease. Symptoms associated with lung involvement can be very disturbing to patients. When symptoms include severe air hunger or even a sensation of suffocation, these can lead to escalating feelings of fear, anxiety, and panic. Relief of symptoms can make a great deal of difference in the quality of life for people with HIV, even when the underlying disease is progressing.

Table 6-1: Presenting Symptoms and Radiographic Findings of Common Pulmonary Manifestations of AIDS

	<b>Lymphoma or Kaposi's Sarcoma</b>	<b>Pneumocystis Carinii Pneumonia</b>	<b>Bacterial Pneumonia</b>	<b>Tuberculosis</b>
Bullae/cavities		■ ■		■
Chest Pain	■ ■	■ ■	■ ■	■ ■
Desaturation		■ ■ ■	■ ■	
Dyspnea on Exertion	■	■ ■ ■	■ ■	■
Fever	■ ■		■ ■ ■	■ ■
Hemoptysis	■ ■		■	■ ■ ■
Infiltrates	■	Bilateral/Patchy	Unilateral/lobar	Apical
Night Sweats	■ ■ ■		■	■ ■ ■
Nodules	■ ■		Embolic	■ ■
Onset of Symptoms	Gradual	Weeks /gradual	Acute	Acute or gradual
Pleural Effusion	■ ■ ■	Rare	■ ■	■
Productive Cough			■ ■ ■	■ ■

Key: ■ Occurs occasionally  
 ■ ■ Occurs commonly  
 ■ ■ ■ Occurs very frequently

Source: Carla Alexander, MD

In July of 1981, Morbidity and Mortality Weekly Report (*MMWR*) described five cases of *Pneumocystis carinii* pneumonia (PCP) in homosexual men. Since that time PCP has become the most common AIDS-defining condition. Even in the era of HAART (highly active antiretroviral therapy), PCP remains a frequent opportunistic infection affecting people who are not yet in care or who are unable to adhere to prophylaxis or treatment regimens.<sup>1</sup>

Although the overall incidence of PCP has decreased, people still die of *Pneumocystis*, particularly when the organism becomes resistant to available therapies. Current PCP treatment consists of sulfamethoxazole/trimethoprim, pentamidine, atovaquone or methotrexate, depending on the degree of resistance, although toxicities may limit the usefulness of these drugs. Corticosteroid therapy (40 mg of prednisone daily) is recommended to control symptoms for patients with moderate to severe disease or compromised gas exchange evidenced by hypoxemia (pulse oximetry <88%). If antibiotics are used, prednisone may be tapered over the course of treatment.

While the frequency of PCP infections has decreased in recent years, other forms of pulmonary disease, such as bacterial pneumonias and non-Hodgkin's lymphoma, have become more prevalent in AIDS patients.<sup>2</sup> Recurrent bacterial pneumonia with bacteremia is frequent, especially in patients with a history of injection drug use. *Streptococcus pneumoniae* is the responsible organism in 20 to 70% of cases; *Pseudomonas aeruginosa* is also common and associated with increased rates of bacteremia and death.<sup>3</sup> Even when treated vigorously these infections may exacerbate the progression of HIV disease.<sup>4</sup>

## PALLIATIVE PULMONOLOGY AND END OF LIFE ISSUES

### Use of Oxygen in Terminal Care

Adequate oxygenation is essential to maintain normal cellular function, but information about the specific effects of mild to moderate hypoxemia in terminally ill patients is limited. As patients approach the final stages of life, supplemental oxygen may be beneficial in some settings. For example, oxygen may be useful in reducing cognitive deficits associated with hypoxemia. It is often assumed that oxygen may reduce the sensation of dyspnea, but the evidence does not consistently support this.<sup>5</sup>

Oxygen would be expected to be therapeutic if hypoxemia is stimulating increased respiratory effort and contributing to fatigue. However, the frequency with which this occurs is not clear since some studies have shown that even moderate hypoxemia does not significantly increase ventilation.<sup>6</sup> In addition, there is a great deal of individual variation in the response of the respiratory drive to hypoxemia and, under most circumstances, carbon dioxide tension in the blood plays a greater role than oxygen in regulating respiratory rate and volume. Thus, in some patients, hypoxemia probably does not produce noticeable symptoms, particularly if mental function is already declining from progressive disease.

Even in healthy individuals, hypoxemia is not necessarily uncomfortable and may produce symptoms similar to inebriation. In exercises with Air Force flight crews in altitude chambers, most of the participants initially were unable to determine when they were significantly hypoxic. In fact, though they perceived no changes, they were often surprised to discover that they had decreased color vision, impaired mental acuity, and slower reflexes by the time they responded to instructions to put on oxygen masks. It was only after restoring normal oxygen levels that they

recognized the contrasts in vision, hearing, and perception. When these individuals were subsequently re-exposed to the altitude chamber, many found that their previous experiences did not improve their ability to recognize signs of hypoxemia in themselves. (Griffin R, retired flight surgeon and Colonel, USAFR. Telephone communication with author, April, 2002.)

During the final days or hours of life, AIDS patients, especially those with pulmonary disorders, are likely to become increasingly hypoxemic. They may be unaware of any associated symptoms and may resist efforts to improve oxygenation by removing a mask or nasal cannula. Simple or non-rebreathing masks may create feelings of claustrophobia and anxiety. In these settings, administration of oxygen may not be a comfort measure, although in some situations it may be life-prolonging. If prolonging life is no longer a goal of the patient, family, or friends, or if life-prolonging measures are now compromising comfort, it may be appropriate to consider discontinuing supplemental oxygen. This can be done by not replacing oxygen delivery devices when removed by the patient or by titrating oxygen flows downward and then discontinuing supplemental oxygen over a matter of minutes or hours. Oxygen can always be restarted if the patient appears to have increased symptoms or discomfort associated with stopping oxygen. In most cases this is not necessary.

### Use of Antibiotics in Terminal Care

While we have made remarkable progress in increasing life expectancy by combating infectious diseases over the last one hundred years, there still may be wisdom in the old saying “pneumonia is the old man’s friend.” Death from infection, particularly if the patient is dehydrated, debilitated, and immunocompromised, can be rapid and peaceful. Dyspnea is likely to be minimal when dehydration limits fluid accumulation in the infected lung and/or the inflammatory response is impaired. Pain and cough usually can be managed successfully with opioids.

Likewise, with effective palliation of symptoms, central nervous system infections such as toxoplasmosis, bacteremia, or intra-abdominal sepsis may help to prevent a prolonged or difficult dying process in end-stage patients. In these situations it may not be in a patient’s best interest to pursue aggressive treatment of infections, even though it may be relatively easy to do so.

Infections that are not life-threatening but do contribute to discomfort can always be treated with the appropriate antibiotics. For example, bronchitis or urinary tract infections can cause distressing symptoms that respond well to antibiotic treatment. But in the terminal phases of illness, symptomatic relief of life-threatening infections may be all that is needed. Prednisone may be adequate to combat the symptoms of *Pneumocystis carinii* pneumonia, and low doses of opioids may be enough to control the distressing symptoms of bacterial pneumonia.

### The Role of Fluids and Dehydration in Terminal Care

Decreased fluid intake is a normal part of the dying process and can lead to profound dehydration. There is some evidence that complaints of dry mouth are no greater in dehydrated patients than in patients receiving hydration during the final stages of life, perhaps because of increased mouth-breathing in both groups.

If symptoms of oral dryness are well controlled, dehydration can actually provide several benefits to people in the final days of life. First, dehydration decreases symptoms from pulmonary infections. With a decrease in total body water there is less interstitial or alveolar fluid associated with the inflammatory response to an infection. This leads to a reduction in symptoms

including hypoxemia, coughing, shortness of breath, and secretion production. Second, decreased intravascular fluid may reduce pulmonary symptoms from heart failure by lowering preload and the hydrostatic pressure driving fluid into the lungs. Third, dehydration may lead to a reduction in secretion volume, which can reduce coughing and associated fatigue in a severely debilitated patient and may help control the terminal sounds (“death rattle”) from accumulated airway secretions in a dying patient.

On the other hand, in some situations fluids may be beneficial. For example, thick, dry secretions may be deleterious for a patient who has an effective cough and is not imminently dying. In this situation, careful systemic hydration may promote comfort by allowing easier clearance of airway secretions. Nebulized saline has been used to humidify airways, but is less effective than systemic fluids for thinning secretions and can irritate the airways.

For some terminal patients, partial rehydration may reduce agitation or restlessness. Parenteral fluids also may be appropriate for the dehydrated patient who seeks to prolong life or enhance a sense of well-being in order to achieve specific short term goals. However, when a patient has completed the work of preparing for death, intravenous fluid administration may be less desirable, because it can prolong the dying process and/or increase the discomfort associated with it.

### Use of Opioids and Risks of Respiratory Depression

Concerns about respiratory depression have sometimes limited the use of opioids in the past, even in the presence of significant symptoms. Current evidence indicates that as long as opioids are very carefully titrated against symptoms of real pain or dyspnea, respiratory depression does not present a serious danger.<sup>7</sup>

It appears that pain itself opposes the respiratory depressant effect of the narcotics, although the mechanism for this is not known. This idea is supported by the observation that patients who undergo procedures such as nerve blocks to relieve pain may experience respiratory depression afterward on the same doses of medication that had no negative impact on respiration prior to the procedure.<sup>7</sup> It has also been found that arterial carbon dioxide tension, a sensitive measure of ventilation, remained in the normal range over a wide variety of plasma opioid concentrations in seriously ill patients with COPD or bronchogenic cancer.<sup>8</sup> It is likely that the risk of respiratory depression increases if opioid doses are raised rapidly or are given in excess of the dose needed to control symptoms.

When opioids are used for treatment of dyspnea, rather than pain, there is probably more risk of respiratory depression, although opioids can easily be used safely in this setting. To avoid adverse effects, it is again helpful to titrate doses carefully against the patient's reported symptoms. In this case, the symptom is the patient's perception of dyspnea—not an increased respiratory rate or effort. If tachypnea is felt to reflect a component of anxiety, fear, or stress, those symptoms can be treated with lorazepam.

In many situations, an elevated respiratory rate may not be especially uncomfortable for the patient, and in some settings can represent a physiologic adaptation to maintain adequate ventilation. If this is the case, a reduced respiratory rate is not a good indicator of effective palliation. Life-threatening respiratory depression and breathing patterns that closely resemble agonal respiration can develop if excessive doses of opioids are used to reduce respiratory effort. Since dying patients can have respiratory rates as low as 6 to 10 breaths/min,<sup>9</sup> it is important to monitor changes in respiratory rate, as well as the actual rate.

The ethical principle of *double effect* is frequently invoked when symptom management requires such large doses of medication that there is a significant risk of hastening death. It is generally accepted that as long as the primary intention is to treat symptoms and provide comfort, the medication is justified, regardless of unintended consequences such as shortening life. The principle of double effect would seem to apply as long as careful attention is given to titrating medications against specific patient-identified symptoms to determine the smallest dose needed to prevent distress. Titration against symptoms, rather than the use of standard dosing formulas, helps to adjust for individual variation in opioid needs, metabolism, and tolerance. The focus of treatment should be on the patient's perception of discomfort, not just on signs that may be disturbing to the health care providers.

## Use of Ventilators and Bilevel Positive Airway Pressure in Terminal Care

Mechanical support of respiration may be very helpful for patients who have respiratory failure from a disease process that is likely to be reversible. In these patients, weaning from the ventilator is usually accomplished uneventfully, once the underlying cause of respiratory compromise has been treated. The decision to use mechanical ventilation is much more difficult in patients with end-stage disease such as visceral Kaposi's sarcoma or resistant PCP where the potential for weaning is in serious doubt.

The complexity of these decisions is illustrated by the following information about outcomes in ventilated AIDS patients. A summary of seven studies done on AIDS patients between 1987 and 1994 revealed survival rates (discharge from the hospital) of 11% to 31% in patients who required mechanical ventilation for PCP. In other studies, mortality was strongly associated with a CD4 count < 50/mm<sup>3</sup> (94%), the development of pneumothorax (100%), failure to respond to PCP treatment before intubation (80 to 90%), and ventilation for longer than two weeks.<sup>10</sup>

To identify appropriate interventions, health care practitioners must understand carefully the patient's specific goals, which may change over time as the disease progresses. If lung failure is likely to be irreversible, mechanical ventilation should be undertaken only if prolonging life meets specific needs or desires of the patient. In most cases of irreversible lung failure, mechanical ventilation is inappropriate, even if patients initially express a desire for life-prolonging measures. Usually, education and thoughtful discussions about patient and family goals are effective in guiding decisions toward appropriate care in these settings. If possible, discussion about the risks and benefits of ventilation, along with issues about CPR, should be undertaken before a crisis occurs that precipitates the need for a decision. Patients seriously considering prolonged mechanical ventilation need to understand clearly, in advance, the severe limitations, effects on quality of life, and frequent complications associated with permanent ventilator dependency.

*Bilevel positive airway pressure (BiPAP)* provides positive pressure to facilitate inspiration and maintains low levels of pressure in the circuit during expiration to reduce airway collapse. This may be a helpful option for patients with lung disease who need extra ventilatory support at night or during part of the day to avoid fatigue or maintain adequate blood gases. The difference between BiPAP and a ventilator needs to be discussed carefully to help patients decide which, if either, will help them achieve their goals. Careful thought needs to go into the process of selecting BiPAP as an option to support a terminal patient dying with pulmonary complications. BiPAP may help to postpone, but usually cannot prevent, ultimate respiratory failure. Patient goals and expectations should be carefully explored before deciding to use this treatment modality.

## Discontinuation of Ventilators

Ventilator-dependent patients, or their designated decisionmakers, sometimes choose to stop ventilator support once it has been initiated. They may decide that the quality of life associated with ventilator dependency is not acceptable or they may no longer desire life-prolonging interventions. These are reasonable choices and are ethically acceptable to most people based on the premise that discontinuation of an intervention that artificially prolongs life is not different from choosing to forego the treatment in the first place.

It is essential to be certain that the decisionmakers and others who care about the patient understand clearly that the expected outcome of discontinuing ventilation is death. The possible processes leading to death, such as immediate cessation of breathing or a more prolonged period of gradual respiratory failure, should be explained, when appropriate.

Once decisions have been finalized, a specific time can be set for discontinuing ventilation. There are advantages to allowing all participants to have time to review the decision and “sleep on it” by scheduling the procedure for the next day or later. Support for family and friends by chaplains, social workers, or others can be planned in advance. The patient should be placed in an area that offers privacy and space for all family and friends who need to be present. It is important to allow, even encourage, rituals that have meaning for the patient and family, such as prayers, readings or singing. The specific details of such plans depend on the beliefs and culture of those who will be present.

Plans for the use of supplemental oxygen should be considered before terminating ventilator support. If oxygen supplementation will be stopped, it is often helpful to titrate concentrations down to room air before discontinuing the ventilator. If it will be continued, then the concentration should be reduced to levels easily supported by a simple mask (35% to 50%) or a nasal cannula (30% to 35%).

The process of discontinuation of mechanical ventilation is simple and usually uneventful. Patients can be prepared with intravenous access and sedated, if necessary, with intravenous midazolam or lorazepam. It is difficult to imagine any circumstances where paralytic agents would be appropriate during discontinuation of the ventilator. Once sedated, intravenous morphine (starting with 2 to 4 mg if opioid-naïve) can be titrated to suppress the sensation of dyspnea, and tracheal suctioning may be done one final time.

The ventilator can then be disconnected at the endotracheal tube, replaced by a blow-by circuit, or switched to a ventilator mode with no positive pressure ventilation. Alarms should be silenced and unnecessary monitoring devices removed.

If an endotracheal (ET) tube is in place, there is often a desire to extubate the patient at the time of discontinuing the ventilator. Again, this decision should be carefully considered in advance. Extubation provides a more normal appearance for the patient, removes the resistance associated with breathing through a tube, and may allow the patient to talk. However, suctioning and airway protection will be more difficult without the tube in place.

Some patients occasionally have a reflex laryngospasm from the irritation of the ET tube when it is removed and are unable to breathe. While this symptom can be treated with rapid administration of additional intravenous midazolam or morphine, it may be alarming to friends and family. The development of agonal respiration and “death rattle” may also be distressing to observers and is more easily managed with suction available through the ET tube. The decisions

are easier with a tracheostomy since the tracheostomy tube can be left in place without the drawbacks of an oral or nasal endotracheal tube.

Many patients continue to breathe on their own for hours to days after discontinuation of mechanical ventilation. The discussion, in advance, of the likely outcomes of ventilator discontinuation will prepare the family and friends for this possibility. A patient coming off the ventilator can be managed just like a person with respiratory failure who chooses not to be placed on a ventilator in the first place. Dyspnea can be treated with opioids and anxiety can be treated with lorazepam, as described in the section below, Symptom Management.

Whether patients live for minutes or days after removal of mechanical ventilation, their symptoms usually can be controlled effectively and their suffering prevented. When this is done carefully, the goals and desires of patients and their loved ones are honored through the process of ventilator discontinuation.

### The Option of Continuous Sedation for Respiratory Distress

Sometimes, standard palliative measures fail to give effective relief from respiratory symptoms. This can occur when a patient's anxiety level is very high, when symptoms are frightening or associated with the sensation of being unable to breathe, or when the patient is fearful of death. In these situations, if all other measures have failed, symptomatic relief may be possible only with continuous sedation. This is obviously a serious decision and must have the full support of the patient (if possible), family, friends, and the entire care team. All involved must recognize that the patient will be unable to eat and is likely to die without awakening. In some settings a formal informed consent may be desirable.

Once the decision for continuous sedation has been made, several options are possible (Table 6-2). Patient symptoms can sometimes be treated with increasing doses of benzodiazepines (lorazepam 1 to 3 mg every 4 to 6 hours orally or intravenously) and opioids (morphine 2 to 5 mg parenterally or 5 to 15 mg orally, if opioid-naïve). Doses can be titrated upward if needed to control symptoms or as the disease progresses.

If lorazepam is not sufficient to sedate a frightened, anxious patient who is struggling to breathe, midazolam can be used. A loading dose of midazolam can be administered intravenously, or if necessary, subcutaneously, at a rate not greater than 1 to 2 mg per minute until the desired level of sedation is achieved. Doses in the range of 3 to 15 mg are often needed; the actual dose should be titrated against symptoms to achieve peaceful sedation. Sedation can be maintained with a continuous infusion of midazolam given intravenously or subcutaneously (starting with between 1 and 3 mg an hour and titrating upward to 5 to 10 mg/hour, if needed).

Table 6-2: Continuous Sedation

Medication	Dose	Frequency	Route
Lorazepam	1 to 3 mg	2 to 4 hrs	PO, IV
Diazepam	5 to 10 mg	4 to 12 hrs	PO, IV, PR
Midazolam	1 to 10 mg/hr	Continuous	SC, IV
Pentobarbital	100 to 200 mg	4 to 6 hrs	PO, IM, IV, PR
Phenobarbital	60 to 120 mg	6 to 12 hrs	PO, IM, IV, PR

Often, a longer-acting benzodiazepine such as diazepam (5 to 10 mg rectally or parenterally every 4 to 12 hours) is effective in maintaining sedation. Morphine can be added to help suppress the sensation of dyspnea, if needed.

Barbiturates can also be used to maintain sedation. Pentobarbital (100 to 200 mg IM, intravenously or rectally every 4 to 6 hours) and phenobarbital (60 to 120 mg rectally or IM every 6 to 12 hours) are both very effective in maintaining sedation and may help to reduce benzodiazepine doses. Medication doses may need to be adjusted frequently and these patients often require high levels to maintain comfort. However, with careful attention to the details of dosing, continuous sedation and a peaceful death are possible.

## Options for Patient Control over the End-of-Life Events

Before recommending life-prolonging interventions for a terminally ill patient, it is essential to have a clear idea of how a suggested treatment will enhance the person's quality of life or help him or her to meet specific goals. Just because we can intervene to prolong life, doesn't necessarily mean that we always should. More often than we may recognize, "letting nature take its course" results in the least suffering and the easiest process of dying possible under the circumstances. Patients need to know this.

It is obviously important for patients to understand their treatment options all through the course of their disease. As they approach the end of life, this is no less important. Patients need to know that they have more control over the final events of their lives than they sometimes realize. It is the role of patients, armed with accurate information about the status of their disease and prognosis, to decide when it is time to stop "fighting" the disease. This important transition allows patients to begin focusing their remaining energy toward completing the business of living and giving attention to the work of preparing to die. During this process, they can be offered the further options of choosing or refusing antibiotics or other life-prolonging medications, fluids, artificial nutrition, or blood transfusions. Patients also need to understand how exercising these options can affect the timing and manner of death. Sharing this information with people can be difficult and the timing is critical. However, for most patients, this information is ultimately reassuring and comforting.

## Promises to Keep

Although respiratory symptoms have the potential to be frightening and distressing, applying the principles of palliative medicine allows most people to die comfortably and peacefully. It is often very reassuring to patients and those who love them to know in advance that suffering can be prevented and symptoms controlled with the use of appropriate medications. An old French adage suggested that the role of medicine was "to cure sometimes, to relieve often, to comfort always." With the knowledge and drugs available now, we can almost always relieve, as well as comfort. We can make promises to patients that weren't possible a few decades ago, promises of comfort and relief from suffering. Patients need to know this—in advance. And then, when the time comes, they need to experience the reality of that reassurance.



## SYMPTOM MANAGEMENT

### Management of Pulmonary Secretions

Secretions associated with pulmonary infections or chronic bronchitis can produce troubling symptoms for patients, particularly as increasing weakness and fatigue make coughing exhausting and less effective. For patients who are still able to cough effectively, interventions should be directed at reducing the exertion required to bring up secretions. (See Table 6-3.) This involves the use of expectorants like guaifenesin which may increase sputum volume and decrease viscosity. To avoid patient fatigue, it may be appropriate to use preparations that combine dextromethorphan with an expectorant in order to raise the threshold for coughing while attempting to thin secretions.

The mucolytic drug, N-acetylcysteine, can reduce the internal disulfide cross-linking of tenacious secretions and may allow easier expectoration. This drug has been widely used in Europe as an oral medication without significant side effects, when administered in doses of 600 to 1200 mg twice a day. Although N-acetylcysteine is not approved by the FDA for oral use in the United States, it is often available at American health food and vitamin stores. The only preparation of N-acetylcysteine approved in the U.S. is a solution (Mucomyst or Mucosil) which can be aerosolized for inhalation (3 to 5 ml of 20% solution) up to four times a day or instilled directly through a tracheostomy (1 to 2 ml of 20% solution) every 1 to 4 hours. This preparation may be irritating to the airways and is not used frequently because of the risk of inducing bronchospasm.

Dehydration can increase sputum viscosity and exacerbate difficulties with expectoration. Systemic hydration, orally or intravenously, is the most effective solution to this problem. Humidification of inhaled oxygen is a helpful comfort measure to reduce symptoms of upper airway drying when oxygen is being administered. However, little effective hydration and thinning of pulmonary secretions occurs with airway humidification or use of saline aerosols.

Antihistamines can be useful in controlling a number of uncomfortable pulmonary symptoms associated with allergen-induced bronchospasm or rhinitis. These drugs are used frequently in palliative medicine to treat nausea, vestibular disorders, anxiety and, occasionally, pulmonary secretions at the end of life. However, antihistamines have a marked drying effect on pulmonary secretions and can produce secretions that are thick, tenacious and difficult to expectorate. This can lead to mucus plugging of airways and result in worsening of ventilation-perfusion mismatching in the lungs. Some of the negative effects of antihistamines may be partially offset with diligent efforts to maintain good hydration, but the risks of the use of these drugs must always be weighed against the benefits, especially in patients with increased production of pulmonary secretions.

During the terminal stages of life, patients may be more comfortable if bothersome secretions in the trachea, larynx and pharynx are reduced. Even if patients are not alert enough to suffer distress caused by airway secretions, the airway sounds associated with dying (“death rattle”) may be profoundly disturbing to family, friends, and caregivers. Since salivary and bronchial mucus glands are stimulated by cholinergic input, anticholinergic drugs may reduce upper airway secretions from these sources.

Table 6-3: Treatment of Respiratory Secretions

Goal	Medication	Dose	Frequency	Route
Thin secretions	Guaifenesin liquid/syrup	100 – 400 mg	4 to 6 hrs	PO
	Guaifenesin LA tabs	600 – 1200 mg	12 hrs	PO
	N-Acetylcysteine	300 – 1200 mg	12 hrs	PO
Reduce mucus production	N-Acetylcysteine soln (e.g., Mucomyst)	3-5 ml of 20% solution 1-2 ml 20% solution	6 to 12 hrs 1-4 hrs	Inhaled aerosol Intratracheal
	Fluids	As tolerated		PO, IV
	Scopolamine	1-3 patches (1.5 mg)	72 hrs	Transdermal
	Hyoscyamine sulfate	0.125 – 0.5 mg	4 to 6 hrs	PO, SC
	Atropine	0.4 – 0.8 mg	PRN 4 to 6 hrs	PO, SC
	Diphenhydramine	25 – 50 mg	PRN 4 to 6 hrs	PO, IV, IM, PR

Scopolamine transdermal patches (1.5 mg, with 1 to 3 applied at a time, replaced every 3 days), hyoscyamine sulfate (0.125 to 0.25 mg oral or subcutaneous every 4 hours), or atropine (0.4 to 0.8 mg oral or subcutaneous) can be effective in reducing secretion production if given early enough. Antihistamines such as diphenhydramine (25 to 50 mg every 4 to 6 hours) are effective drying agents occasionally used in the final hours of life to control secretions. The “death rattle” may partially respond to frequent repositioning of the patient, with a special effort to avoid flat or supine positions that allow pooling of secretions in the pharynx or larynx.

## Treatment of Dyspnea

Dyspnea is a general term that describes a subjective sensation, an “uncomfortable awareness of breathing.”<sup>11</sup> Patients may use a variety of words or phrases to explain these distressing symptoms, such as chest tightness, breathlessness, air hunger, unable to take a deep breath, feeling of suffocation or smothering, or unable to get enough air.<sup>12</sup> The symptoms usually worsen with exertion and often limit the patient’s activity. Extensive research has not yet provided a simple, clear explanation of the physiological basis for the symptom of dyspnea. One reasonable explanation is that the sensation of shortness of breath occurs when the air movement or “stretch” in the lungs is disproportional to the respiratory effort involved in breathing. This may be exacerbated when a patient’s respiratory muscles are fatigued or have inadequate energy stores.

Surveys of outpatients with HIV/AIDS indicate that shortness of breath or dyspnea was identified as a problem by between 11% and 48% of the patients.<sup>13</sup> The differential diagnosis of dyspnea in AIDS patients includes pulmonary infections, pulmonary malignancies, pleural effusions, congestive heart failure, marked anemia, and metabolic abnormalities. Malnutrition and weakness can lead to chronic respiratory muscle fatigue that also contributes to dyspnea. Anxiety and fear can precipitate or worsen this symptom in combination with other etiologies.

The sensation of dyspnea is not necessarily associated with low oxygen tension in the blood. In fact, the oxygen saturation of hemoglobin and oxygen partial pressure in blood are often normal in spite of very distressing symptoms. On the other hand, some patients with significant hypoxemia have little or no feeling of dyspnea associated with their abnormal blood gases. In addition, the severity of dyspnea does not necessarily correlate with the severity of pulmonary disease or pulmonary function test values. While dyspnea is usually associated with pulmonary or cardiac disease, it can occur with no detectable evidence of abnormalities in these organs. Even in terminally ill cancer patients, 24% had no evidence of pulmonary or cardiac disease to explain symptoms of dyspnea.<sup>14</sup> For patients with some exercise tolerance, the etiology of dyspnea can be evaluated with a pulmonary exercise test that measures expired and arterial gases during strenuous exercise. However, this approach is seldom practical or useful in patients with terminal illnesses.

## Treatment of Reversible Causes of Dyspnea

Palliative care aims to relieve the discomfort associated with feeling short of breath, regardless of the origin of the symptom. The first step in treatment is to identify any reversible causes of dyspnea and treat these with appropriate medications such as diuretics, bronchodilators, or steroids (Table 6-4). Corticosteroids, in particular, are used generously in palliative medicine, not only for relief of bronchospasm but also to reduce symptoms associated with swelling around

Table 6-4: Treatment of Potentially Reversible Causes of Dyspnea

Cause of Dyspnea	Physical Signs	Treatment Options	Route
Bronchospasm	Wheezing Decreased air movement Nonproductive cough	Bronchodilators – adrenergic and anticholinergic Corticosteroids	Inhaled  Inhaled, IV, PO, SC, PR
Congestive Heart Failure	Inspiratory rales Edema Elevated JVP Orthopnea	Diuretics Cardiac medications Morphine Oxygen	PO, IV, IM PO, IV PO, SC, IV, PR Inhaled
Bacterial Pneumonia	Productive cough with changing sputum Localized rales or consolidation Fever, chills	Antibiotics Expectorants Cautious hydration Morphine for pain/dyspnea Oxygen	PO, IV, IM PO PO, IV, SC PO, IV, SC, PR Inhaled
Pneumocystis carinii	Nonproductive cough Hypoxemia, pain, dyspnea	Antibiotics Corticosteroids	PO, IV PO, IV, SC, PR
Tuberculosis	Fever, cough	Antibacterial drugs	PO, IV
Pleural Effusions	Dullness and decreased air movement in lower lung field with radiographic or ultrasound confirmation	Thoracentesis Pleurodesis (early) if malignant etiology Pleuroperitoneal shunt	
Extrinsic airway compression	Stridor – especially inspiratory Severe shortness of breath Risk factors, such as neck or mediastinal malignancy	External radiation Airway stent Corticosteroids Benzodiazepines Opioids Barbiturates for anxiety or sedation (see text)	PO, IV, SC, PR PO, IV, SC, PR PO, IV, SC, PR PO, IV, IM, PR

Table 6-4: Treatment of Potentially Reversible Causes of Dyspnea (continued)

Cause of Dyspnea	Physical Signs	Treatment Options	Route
Intrinsic airway obstruction	Worsening dyspnea Distal absent breath sounds or localized wheezing Risk factors, like scarring, bronchogenic cancer	Bronchoscopic laser treatment Internal radioisotope application Airway stent	
Copious airway secretions	Diffuse rhonchi, especially over upper airways Ineffective or absent cough	Anticholinergic drugs Antihistamines Dehydration	PO, SC, IV PO, IM, PR
Pulmonary embolism	Sudden onset of dyspnea Risk factors for venous thrombosis	Anticoagulation - heparin Low molecular weight heparin Warfarin	IV, SC SC PO

tumor masses or inflammatory response to infections such as PCP. With pulmonary infection, particularly PCP, antibiotics may be beneficial in treating the underlying process, but discomfort usually can be well controlled with opioids and/or corticosteroids, even if the patient has decided to forego the use of further life-prolonging antibiotics.

## Symptomatic Treatment of Dyspnea

Oxygen may be therapeutic if hypoxemia is stimulating increased respiratory effort and contributing to fatigue. As discussed earlier (see section, “Use of Oxygen in Terminal Care”), it is not clear how often this occurs. For normoxic patients, low flow oxygen (1 to 3 liters/minute) may provide a beneficial sensation of air flowing through the upper respiratory tract and may help reduce anxiety or fear associated with the feeling of being unable to get enough air. (See Table 6-5.)

For some dyspneic patients, cool temperatures and/or a fan blowing air in the face can also be helpful. Positioning is often critical for comfort and is usually determined by patient preferences. In some settings, people may find it helpful to lie on the side with the “good” lung down to reduce ventilation-perfusion mismatch. However, when fluid or secretions are present, keeping the good lung up may facilitate drainage away from the healthier gas exchange surfaces. In any case, frequent repositioning can help limit dependent lung consolidation.

Other nonpharmacologic measures that have been used to palliate symptoms of dyspnea include relaxation techniques, massage, acupuncture and guided imagery. Further studies of the effectiveness of each of these approaches would be helpful.

Although large pleural effusions are not common with PCP or other AIDS-related processes, thoracentesis may provide relief when patients have symptomatic effusions. Malignant effusions tend to re-accumulate rapidly, often within a few days, making repeated thoracenteses minimally beneficial. Thoracentesis also may contribute to protein depletion (two liters of malignant effusion may contain 80 grams of protein) and may increase loculation of fluid which makes future pleurodesis less likely to be successful. Pleurodesis, and even pleuroperitoneal shunts, can reduce dyspnea caused by large recurrent pleural effusions when the patient has an adequate life expectancy to justify the stress and discomfort associated with the procedure.

For dyspnea that persists in spite of specific therapy, opioids have been found to significantly reduce this distressing sensation in end-stage disease.<sup>15</sup> In opioid-naïve patients, 3 to 5 mg of oral morphine solution can be given every 3 to 4 hours and the dose titrated upward to 10 to 20 mg if needed. If symptoms persist, anxiolytic medications such as lorazepam should be added or increased before titrating opioids much higher. Sublingual administration of an oral morphine solution (usually 20 mg/ml) is often successful in patients who need very low doses, have limited swallowing capacity, or are not alert. For patients who do not tolerate oral administration of the drug, morphine tablets can be used rectally at oral doses, or injectible morphine can be given subcutaneously or intravenously using approximately one third of the oral dose (starting with 1 to 2 mg).

In recent years, there have been reports of the use of aerosolized morphine to treat dyspnea. At this point, there is no compelling evidence that this route of administration is superior to the use of oral or subcutaneous morphine. Although the mechanism by which opioids palliate dyspnea is not completely understood, it is likely (though not proven) that opioids work primarily at central receptors which mediate a decrease in the sensation of discomfort. Thus, there probably is not a strong basis for selecting nebulized opioids over oral or subcutaneous routes of administration unless the patient indicates a definite preference. If nebulized opioids will be used, the

Table 6-5: Symptomatic Treatment of Dyspnea

Treatment	Indication	Dose	Frequency	Route
Oxygen	Hypoxemia	2-5 liters/min	PRN or continuously	Inhaled
Fan or cool air toward face	Dyspnea with or without hypoxemia	As tolerated	PRN or continuously	Topical
Morphine* (oral)	Dyspnea	<b>If opioid naïve</b> , 3-5 mg, titrate up to 20 mg as needed <b>If on opioids</b> for pain, one sixth to one tenth of daily dose	4 to 6 hours and/or PRN q 2 hrs PRN q 2 hrs.	PO, SL, PR
Morphine* (parenteral)	Dyspnea	Parenteral dose is 1/3 of oral or rectal dose. <b>If opioid naïve</b> , 1-2 mg, titrate up as needed <b>If on opioids</b> for pain, one sixth to one tenth of daily dose	4 to 6 hours and/or PRN q 2 hrs PRN q 2 hrs	SC, IV
Lorazepam**	Anxiety	0.5 to 1 mg Titrate up to 2 mg if needed	4 to 8 hrs or PRN q 4 hrs	PO, IV, PR
Corticosteroids	Bronchospasm, COPD, PCP, Malignancy	Prednisone 20 to 60 mg Dexamethasone 4 to 16 mg	Daily Once daily or divided doses	PO PO, SC, IV, PR
Bronchodilators Adrenergic Anticholinergic	Bronchospasm Airway obstruction COPD	Metered dose inhaler or nebulizer	2 to 12 hrs and/or PRN q 4 hrs	Inhaled aerosol

\*May substitute equianalgesic doses of other opioids (see text)

\*\*May substitute equivalent doses of other benzodiazepines

risk of histamine-induced bronchospasm should be considered. There may be an advantage to using fentanyl rather than morphine because fentanyl is thought to be less likely to stimulate histamine release, although bronchospasm with fentanyl has been reported.<sup>16</sup>

It is usually helpful to initiate treatment with benzodiazepines along with the morphine when treating dyspnea. Severe dyspnea almost always is associated with an understandable sense of anxiety, and at times, panic. These symptoms can be addressed with small doses of lorazepam (usually beginning with 0.5 mg) every 6 to 8 hours, given orally or sublingually. The dosing interval can be reduced to every 4 hours if needed and some patients require increasing the dose to 1 or 2 mg or sometimes more. The oral lorazepam tablets can be easily dissolved in a small amount of water, or even the morphine solution, if the patient has difficulty swallowing pills. A concentrated lorazepam solution (2 mg/ml) is also useful for these patients.

If symptoms occur less than once or twice a day, these medications can be offered as needed. If symptoms persist or occur regularly, discomfort is controlled best if the medications are given at regular intervals around the clock. For some patients, frequent, regular doses appear to be more effective than long-acting opioids, perhaps because of the recurrent reminder that the symptoms are being carefully treated. However, it is reasonable to attempt a trial of long-acting morphine (beginning with 15 mg every 12 hours) when the total daily dose of oral short acting morphine approaches 30 mg in 24 hours.

## Treatment of Cough

Cough is a common symptom in AIDS, reported by 19% to 34 % of patients in surveys of symptom prevalence in HIV disease.<sup>13</sup> Coughing may result from pulmonary infection with secretion production, chronic bronchitis, bronchospasm, tumors in the airways, restrictive lung diseases, aspiration, post-nasal drip, drugs such as the angiotensin-converting enzyme inhibitors, unrecognized esophageal reflux with aspiration, or inhaled irritants.

When cough is nonproductive, bronchospasm and reflux should be included in the differential diagnoses. A history of COPD, smoking, or asthma is helpful in making the diagnosis of bronchospasm, but it can occur with no relevant history. Physical signs include a prolonged expiratory phase of respiration, use of accessory muscles, decreased air movement, and wheezing which may be elicited only on forced expiration.

Cough from bronchospasm often responds to bronchodilators including albuterol (or salbutamol), salmeterol, ipratropium bromide, and either inhaled or systemic corticosteroids. In patients who are moving little air with each breath, systemic corticosteroids and frequent nebulization of bronchodilators may be needed. If symptoms improve and tidal volumes increase, hand-held metered dose inhalers may be effective. If esophageal reflux is suspected, a trial of H<sub>2</sub> receptor antagonists or proton pump inhibitors may be appropriate.

When cough suppression is needed to prevent exhaustion or control an irritating, nonproductive cough, several drug choices are available (Table 6-6). Dextromethorphan may raise the cough threshold, but in many cases opioids are needed to suppress the cough reflex. Antitussive doses of codeine start at 10 to 20 mg every 4 hours; upward titration is frequently needed and doses as high as 120 mg have been described, though not recommended.

For routine use, hydrocodone is preferred over codeine because it has fewer side effects and generally is tolerated better. Hydrocodone doses start at 5 mg every 4 to 6 hours and may be increased as needed. Morphine or other opioids can also be used for cough suppression, begin-



ning with low doses (2 to 5 mg of oral morphine every 4 hours). If parenteral doses are necessary, approximately one third of the oral morphine dose can be given intravenously or subcutaneously at the same dose frequency. Doses can be increased, as necessary, by carefully titrating effectiveness in cough suppression against side effects.

For an irritating, nonproductive cough, nebulized lidocaine can sometimes provide rapid relief.<sup>17, 18</sup> Three ml of a 2% lidocaine solution (without epinephrine) can be nebulized three to four times a day as needed. Because of the risk of decreasing the sensitivity of the gag reflex with this anesthetic agent, patients should be advised to avoid eating or drinking after treatments for at least an hour, although sips of water are usually tolerated within minutes. There is some risk of inducing bronchospasm and so lidocaine should be used cautiously in patients with asthma.

Table 6-6: Cough Suppression

Medication	Initial Dose	Frequency	Route
Codeine	10 - 30 mg	4 - 6 hrs	PO
Hydrocodone	5 mg	4 - 6 hrs	PO
Morphine (enteral)	2 - 5 mg	4 hrs	PO, PR
Morphine (parenteral)	1 - 2 mg	4 hrs	SC, IV
Lidocaine (1-2% soln)	3 cc	4 to 6 hrs	Inhaled aerosol

### Treatment of Noncardiac Chest Pain

Lung tissue is generally not well innervated with sensory nerves and therefore many invasive diseases that involve the alveoli and lower airways cause little pain. The pleural surfaces, on the other hand, are supplied with an extensive network of sensory nerves and often are exquisitely sensitive to inflammatory or invasive disorders. Pleural pain usually is sharp and aggravated by deep breathing or coughing. Airway inflammation can cause discomfort in the anterior retrosternal chest, and it is thought that pulmonary hypertension also can cause a nonspecific discomfort anteriorly over the hilar regions. Sharp or aching chest wall pain can be caused by bone metastases, rib fractures, or muscle injuries (occasionally from coughing).

Most pain in the lungs and chest wall responds well to usual pain medications. Anti-inflammatory drugs alone, such as aspirin, trisilate, acetaminophen, ibuprofen or naproxen, may be effective. If stronger drugs are needed, combination opioid/acetaminophen preparations such as hydrocodone (2.5 to 10 mg hydrocodone/500 mg acetaminophen) every 4 hours or oxycodone (5 mg oxycodone/325 to 500 mg acetaminophen) may be effective, but total daily doses of acetaminophen should be monitored to avoid exceeding 4 g/day. If higher doses of opioids are needed, routine doses of morphine or oxycodone can be started and titrated upward as needed while continuing standard doses of anti-inflammatory drugs around the clock.

### Treatment of Hiccup

Persistent hiccup is not unusual in terminally ill AIDS patients and can be a distracting and distressing symptom.<sup>19</sup> Because of the interruption of normal activity, patients with intractable hiccup can have depression, sleep deprivation, decreased oral intake, and weight loss. Suspected causes of hiccups include phrenic nerve or diaphragmatic irritation by tumor, gastric disten-

sion, gastroesophageal reflux, and severe esophageal candidiasis. Drugs such as benzodiazepines, corticosteroids and barbiturates have been reported to precipitate hiccup.<sup>19</sup>

If simple mechanical measures such as drinking from the “wrong side” of the glass and swallowing “up hill” against gravity,<sup>13</sup> hypoventilation or carbon dioxide accumulation by breath-holding or breathing into an enclosed space, cold oral fluids or other vagal stimulations do not reduce the symptoms, medications can be used (Table 6-7). Chlorpromazine (12.5 to 50 mg) is sometimes helpful and can be given routinely for prophylaxis if necessary. If gastric distension is likely, metochlopramide (5 to 20 mg orally, rectally or intravenously three to four times a day) may help, and as a last resort, a nasogastric tube, inserted transiently to decompress the stomach, may provide relief.

Table 6-7: Treatment of Hiccup

Medication	Dose	Frequency	Route
Chlorpromazine	12.5 to 50 mg	6 to 8 hrs PRN	PO, IM, PR
Metoclopramide	5 to 20 mg	6 to 8 hrs	PO, IV, PR
Baclofen	5 to 20 mg	8 hrs	PO
Haloperidol	2 mg	6 to 8 hrs PRN	PO, SC, IV, PR
Valproic acid	250 mg	Daily	PO, PR
Midazolam	3 to 10 mg	PRN	SC, IV
Midazolam	1 to 5 mg/hr	Continuous	SC, IV

Other treatments with reported benefits include baclofen (10 to 20 mg tid), valproic acid, and haloperidol.<sup>19</sup> For intractable hiccup, intravenous or subcutaneous midazolam has been reported to be effective as a bolus (5 to 10 mg), followed, if necessary, by a maintenance continuous infusion (1 to 5 mg/hr).<sup>20</sup>

## Management of Hemoptysis

Coughing up blood or bloody sputum can be a frightening experience, but usually is not life-threatening. It may at times be difficult to determine whether or not the source of bleeding is in the lungs. Nasal, pharyngeal, and upper esophageal blood may also ooze into the upper airways and be coughed up.

The most common pulmonary causes of hemoptysis are infections, such as bronchitis or tuberculosis, and neoplasms. In the majority of cases, blood in the sputum can be managed by treating the underlying infection or suppressing cough to reduce the irritation and shear forces within the airways caused by vigorous coughing. An expectorant, and control of bronchospasm if present, may also be helpful. Coughing can usually be suppressed with opioids as described above, starting with hydrocodone-containing cough preparations and moving to 3 to 5 mg of oral morphine every 3 to 4 hours, if needed. The dose can be titrated upward when appropriate. If parenteral doses are necessary, approximately one third of the oral dose of morphine can be given intravenously or subcutaneously.

If bleeding is associated with low platelets or a coagulopathy, it may be possible to reduce bleeding in the lungs by treating the hematological abnormalities. On the other hand, there may be times at the end of life when the underlying disorders are not reversed easily or when treatment would only serve to prolong the dying process. In these situations, the most important therapy may be to suppress cough and prepare the patient and family for the results of persistent bleeding. Bronchial artery embolization or bronchoscopic interventions are possible for severe hemoptysis, but these approaches probably have limited value in terminally ill patients.

Malignancies and severe infections rarely erode from air spaces into large vessels, but the result can be devastating when this occurs. Massive bleeding can impair respiratory function, obstruct airways, and exsanguinate the patient. In most terminally ill patients, a focus on the relief of suffering is the most appropriate response. Symptoms of air hunger and choking may require rapid and complete sedation with benzodiazepines and/or opioids. Midazolam can be given intravenously or subcutaneously beginning with 2 to 4 mg and titrating quickly upward to 10 to 15 mg if the patient is still awake and struggling. Larger doses of midazolam may be needed if there appears to be airway obstruction by blood clots and impending asphyxiation. In these settings, it may be helpful to add parenteral morphine (5 to 10 mg) intravenously or subcutaneously.

In situations where injectible drugs are not available, large doses of morphine solution (20 to 40 mg) and lorazepam (2 to 4 mg given sublingually) or diazepam (10 mg orally or rectally) may be appropriate. In patients where significant hemorrhage is a strong possibility, it is helpful to keep dark towels at the bedside to help lessen the visual trauma to patient and family members associated with large amounts of bright red blood.

### Treatment of Airway Obstruction

Patients who have airway obstruction from endobronchial masses or extrinsic compression often experience worsening dyspnea and increasing anxiety. These symptoms may be accompanied by signs of stridor, decreased intrathoracic air movement, wheezing, or cyanosis.

Corticosteroids may be helpful in reducing swelling and inflammation at any time in the progression of the disease. If the disease is identified early enough, interventions including external radiation therapy, bronchoscopic laser treatment, airway stent placement, or internal radioisotope application may provide at least temporary symptomatic relief.

When airway compromise is advanced, there may be no effective therapeutic options available. The focus of treatment then needs to be directed toward control of symptoms of fear, anxiety and dyspnea. These symptoms can be addressed with increasing doses of benzodiazepines such as lorazepam (beginning with 1 to 3 mg every 4 to 6 hours) and opioids (morphine, 2 to 5 mg parenterally or 5 to 15 mg orally every 2 to 4 hours). Doses can be titrated upward as needed.

As airway obstruction progresses, symptoms of severe respiratory distress and/or panic can be anticipated. At this point it may be necessary to use continuous sedation to prevent suffering. It is essential to discuss this option carefully in advance with the patient and family, since the patient is likely to die without awakening. If lorazepam is not sufficient to sedate a frightened, anxious patient who is struggling to breathe, midazolam can be carefully titrated to sedation with a loading dose of 3 to 15 mg intravenously or subcutaneously, usually given at a rate not greater than 1 to 2 mg per minute. Sedation can be maintained with a continuous infusion of midazolam given intravenously or subcutaneously, or routine doses of longer-acting benzodiazepines. Morphine can be added, intermittently or continuously via PCA, to help suppress the

sensation of severe dyspnea. Addition of barbiturates often helps to maintain sedation and reduce required doses of benzodiazepines. Pentobarbital, 100 to 200 mg, can be administered orally, rectally or parenterally every 3 to 4 hours as needed. Phenobarbital doses of 60 to 120 mg can be given by similar routes every 6 to 12 hours. Doses of drugs need to be adjusted frequently and the patient may require extraordinarily high doses of medications (5 to 15 mg/hour of midazolam) to maintain comfort as the airway obstruction progresses. However, with careful attention to the details of dosing, continuous sedation and a peaceful death are possible.

### Palliative Treatment of Respiratory Depression

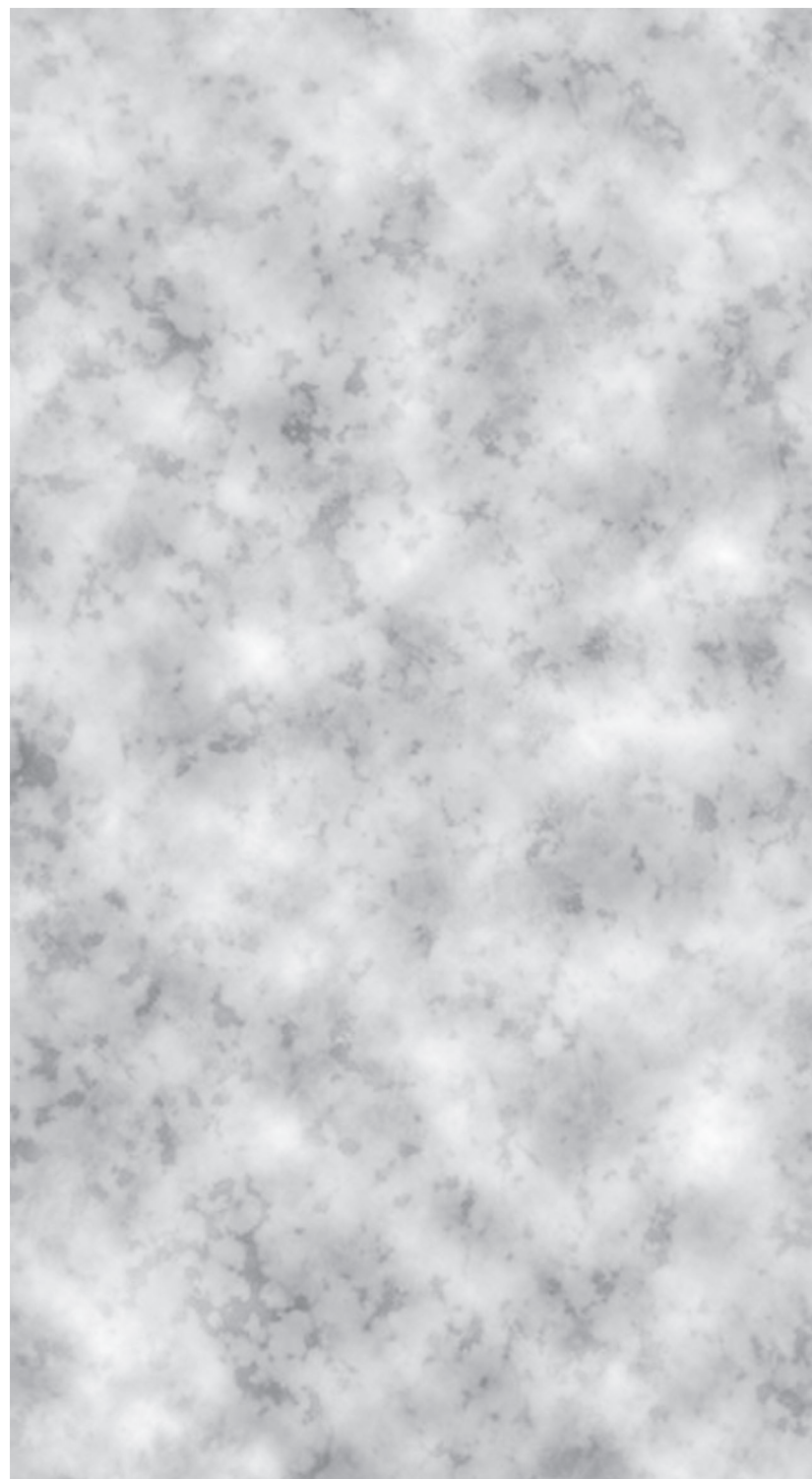
When serious respiratory depression occurs from excess opioids, patients respond well to careful titration of naloxone. One ampule of 0.4 mg of naloxone can be diluted in 9 ml of saline and then one ml (0.04 mg) of this solution can be injected every five minutes until specific symptoms such as respiratory depression or hypotension are reversed. The goal is to treat the symptoms and not to totally reverse the opioid effect. The doses required to treat life-threatening symptoms usually are not disturbing to the recipient and often do not even awaken the patient.

### CONCLUSION

■ Caring for people who are terminally ill is a unique, but rewarding, challenge for health care providers. As patients face progressive, incurable diseases, we are now able to reassure them that even their most distressing physical symptoms can be relieved. The less obvious sources of distress, such as loss of independence, anxiety about being a burden to family, unfulfilled dreams, the impending separation from loved ones, unresolved conflicts or guilt, and the need to redefine the goals and purpose of life, also require attention. In addition to effective symptom management, our patients need a safe environment, willing listeners, and a sense of being valued. They also need accurate information about their disease, an understanding of treatment options, ideas of what to expect in the future, and as much control of their lives as possible. When these needs are met, the majority of terminally ill people experience a peaceful and comfortable death.

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# Gastrointestinal Symptoms

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## INTRODUCTION

■ Gastrointestinal (GI) and hepatobiliary symptoms are ubiquitous in HIV disease. It is estimated that up to 93% of patients will have significant GI symptoms at some point during the course of their HIV illness.<sup>1</sup> Further, as HIV progresses and the patient becomes more profoundly immunocompromised, the occurrence of GI symptoms increases.<sup>2</sup>

GI manifestations in advanced HIV disease result from a wide range of pathogenic etiologies. Those etiologies include protozoan, bacterial, fungal and viral infections; neoplasms such as lymphoma or Kaposi's sarcoma; and idiopathic or poorly defined processes such as "AIDS enteropathy" or aphthous ulcerations. At least one study has demonstrated that the presence of intestinal enteropathogens predicts shorter survival in patients with HIV infection.<sup>3</sup>

This chapter offers information for assessing and treating HIV-positive patients who present with GI symptoms, including the following:

- Diarrhea
- Constipation
- Nausea and vomiting
- Dysphagia and odynophagia

## DIARRHEA

■ Diarrhea is the most common GI symptom in HIV disease. Studies have documented a prevalence of 50<sup>4</sup> to 90<sup>5</sup> percent in persons with advanced HIV infection. Prevalence may vary according to the route of HIV transmission. Centers for Disease Control and Prevention (CDC) studies have shown a higher prevalence of diarrhea in gay men compared to those who acquired HIV through parenteral drug use.<sup>6</sup> Some studies have shown a decline in chronic diarrhea since the advent of HAART (highly active antiretroviral therapy), due to a fall in the number of patients infected with opportunistic enteric pathogens.<sup>7</sup> Nonetheless, the majority of patients infected with HIV continue to report diarrhea during the course of their illness.

## Assessment

In evaluating a patient with diarrhea, an attempt should first be made to determine the etiology of the diarrhea. A careful history should be taken to determine the following:

- Whether the diarrhea is acute (defined as lasting less than seven to 14 days) or chronic (lasting more than two to three weeks)
- Whether the patient has traveled recently
- The characteristics of the diarrhea (e.g., large or small volume, frequency, presence of blood)

- The existence of associated symptoms, such as abdominal pain or fever
- Dietary practices

When the diarrhea is chronic, an attempt should be made to classify it by pathogenic mechanism: inflammatory (e.g., Crohn's disease, cytomegalovirus [CMV] colitis), osmotic (e.g., pancreatic insufficiency and malabsorption), secretory (e.g., hormone-mediated diarrheas such as carcinoid syndrome), altered intestinal motility (e.g., irritable bowel syndrome) or factitious (laxative abuse).

Medications should be carefully reviewed as a possible cause of the diarrhea, and suspect medications discontinued. A number of HAART medications (especially the protease inhibitors) are commonly associated with diarrhea. Medical records should be reviewed carefully to see if the patient has been diagnosed previously with any enteric opportunistic infections, since symptoms often will be secondary to reactivation of that pathologic process. In addition, medical records can give the palliative care team important insight into the success of previously tried therapies.

Depending on the duration and severity of the diarrhea, it may be appropriate to undertake a limited, noninvasive diagnostic work-up. Stools should be sent for routine culture and sensitivity, acid-fast bacilli culture, ova and parasites and *Clostridium difficile* toxin. CMV colitis should be considered in patients with advanced immunosuppression ( $CD4 < 50/mm^3$ ) and symptoms consistent with that disease (i.e., diarrhea accompanied by low-grade fever and abdominal pain, with or without rebound tenderness). For these patients, an ophthalmologic examination may be advisable, since retinitis often coexists with other end-organ CMV disease. In some cases it may be consistent with palliative principles to perform either colonoscopy or flexible sigmoidoscopy to confirm a suspected diagnosis of CMV colitis, especially now that there exists a well-tolerated (though expensive) oral medication (valganciclovir) that can effectively treat CMV end-organ disease without the need for IV access.

## Treatment

Initiation of therapy with limited or no work-up, however, will be appropriate for the majority of patients in advanced AIDS who have diarrhea. If the specific cause of the diarrhea is clearly identifiable, every effort should be made to correct that underlying cause. In many patients, a specific treatable cause will not be found and therapy will need to be empiric and symptom-targeted. In some patients, a brief trial of an *antiinfective agent* such as an antiparasitic (metronidazole [Flagyl] or paromomycin [Humatin]) or antibacterial may be indicated. For symptom control, *antimotility agents* such as loperamide (Imodium) or diphenoxylate (Lomotil) or bulk supplements like psyllium should be tried initially.

Two recent abstracts found that diarrhea improved in patients given *dietary supplementation* with the amino acid L-glutamine or probiotics (acidophilus/bifidobacteria).<sup>8,9</sup> Psyllium and other *hydrophilic agents* absorb water and can be used to enhance stool consistency. *Pancreatic hormone replacement* may benefit patients with malabsorption resulting from dysfunction of the exocrine pancreas.

Severe, chronic diarrhea may respond only to *opioids* such as oral tincture of opium. The usual starting dose is 6 drops (0.6 cc) in two ounces of water every four hours. The dose should then be titrated until symptom control is achieved. There is no maximum ceiling for tincture of opium.



With all of these agents, the patient must always be monitored for the development of constipation or fecal impaction, especially when fluid intake is inadequate. Octreotide (Sandostatin) is a *synthetic somatostatin analog* that is approved for treatment of profuse water diarrhea secondary to vasoactive intestinal peptide tumors and carcinoid tumors. It has shown variable effectiveness in treating diarrhea in AIDS patients. Its major disadvantages are its high cost and the fact that it needs to be administered subcutaneously on a regular basis.

Intravenous fluids may be appropriate in a patient with dehydration secondary to severe acute or chronic diarrhea. Decisions should be made on a case-by-case basis. If the dehydration is not too severe, oral fluid replacement may be adequate.

In patients known to have a diagnosis of CMV colitis, it may be appropriate to initiate therapy with one of the approved anti-CMV therapies (ganciclovir/Cytovene, foscarnet/Foscavir, cidofovir/Vistide or valganciclovir/Valcyte). Standard induction and maintenance dosing guidelines should be followed. Whereas with CMV retinitis maintenance therapy must continue indefinitely, studies have shown that when treating extraocular CMV disease, maintenance therapy often can be discontinued after a relatively short period of time (usually about four weeks) and the patient simply monitored for signs and symptoms of recurrence.

Dosage information for some drugs used to treat diarrhea is presented in Table 7-1.

Table 7-1: Antidiarrheal Agents

Drug Class	Drug and Dosage
Antimotility Agents	<b>Loperamide:</b> 4 mg after first loose bowel movement, followed by 2 mg after each subsequent loose bowel movement, not to exceed 16 mg in a 24-hour period
	<b>Diphenoxylate/atropine:</b> 2.5 to 5 mg (1 to 2 tabs) up to 4 times a day
Pancreatic Hormones	<b>Pancrelipase:</b> 1 to 3 capsules before meals and snacks
Opioids	<b>Tincture of opium (paregoric):</b> 0.6 cc in water q 4 hours (titrate to symptom control)
Somatostatin Analogues	<b>Octreotide:</b> 50 mcg SC 2 to 3 times a day; can be titrated up to as high as 1500 mg daily

## CONSTIPATION

### Assessment

Though diarrhea is a more frequent problem among end-stage AIDS patients, constipation is also seen. Constipation can sometimes be difficult to determine since there is a wide range of normal bowel habits. Constipation is usually defined as a frequency of bowel movements less than three times a week, but subjective symptoms such as excessive straining, lower abdominal fullness and hard stools must also be considered when making the diagnosis.<sup>10</sup> In the palliative care setting, constipation is usually the result of drugs such as opiates that reduce colonic motility and/or of reduced physical activity.

## Treatment

Management of constipation is determined by its severity. Mild constipation can often be treated by increasing the patient's dietary fiber intake to a minimum of 20 to 35 grams daily. Some patients will be able to achieve this minimum by making dietary changes but many will need to take psyllium or another fiber supplement.

If constipation is more severe, treatment with laxatives may be required. A variety of different laxatives can be effectively used, belonging to the following categories:

- *Stimulant* laxatives cause intestinal motility to increase. Commonly used stimulant laxatives include bisacodyl and calsanthranol.
- *Emollient* laxatives such as mineral oil are given orally or by enema. They act by penetrating and softening the stool.
- *Hyperosmolar* agents contain polyethylene glycol and nonabsorbable sugars such as lactulose and sorbitol that act as osmotic agents.
- *Saline* laxatives exert an osmotic effect that increases intraluminal water content. For prevention of constipation, docusate salts are preferred. They are anionic surfactants that lower the surface tension of the stool to allow mixing of aqueous and fatty substances, thereby softening the stool.<sup>10</sup>

Table 7-2 presents dosage information for a variety of agents discussed above that are used to relieve constipation.

Table 7-2: Agents to Relieve Constipation

Drug Class	Drug and Dosage
Stimulant Laxatives	<b>Bisacodyl:</b> 5 to 10 mg orally
	<b>Casanthranol:</b> 1 to 2 capsules or tablespoons (syrup) 1 to 2 times daily
	<b>Senna:</b> 17.2 mg at bedtime
Osmotic Laxatives	<b>Lactulose:</b> 15 to 30 ml twice daily (may be administered orally or rectally)
	<b>Sorbitol:</b> 70% solution 15 to 30 ml twice daily (may be administered orally or rectally)
Emollient Laxatives (stool softeners)	<b>Docusate:</b> 200 to 800 mg/day in 2 divided doses
Combination Agents	<b>Docusate (50mg) plus senna (8.6mg) tablets:</b> 2 to 4 tablets once or twice daily

## NAUSEA AND VOMITING

■ Vomiting is under the control of two functionally distinct brain centers. The chemoreceptor trigger zone is found in the fourth ventricle and when stimulated sends impulses to the vomiting center (in the lateral reticular formation) which controls the actual act of vomiting. Management of nausea and vomiting is based on two principal approaches: correcting the underlying causes of the nausea and vomiting, and utilizing appropriate pharmacologic agents to alleviate the symptoms.

## Assessment

With regard to the first approach, the patient's current medications should be evaluated as a possible cause of the nausea and vomiting and any nonessential medications should be eliminated or changed. Special care should be taken to identify those medications known to have a high likelihood of causing nausea and vomiting. A number of medications have been identified as activators of the chemoreceptor trigger zone, including several medications that are frequently used in a palliative care setting such as morphine and other opiates. In addition, several medications used to treat opportunistic infections and other complications of AIDS are known to cause nausea and vomiting in a significant percentage of patients. Those medications include azithromycin (used for treatment and/or prophylaxis of *mycobacterium avium complex* and cryptosporidiosis), sulfadiazine (used in treatment of toxoplasmosis), zidovudine (sometimes used in a palliative care setting to treat AIDS dementia complex) and a number of other medications.

A thorough physical exam should always be performed to make sure that the patient does not have an acute abdomen. Conditions such as pancreatitis, gastritis and peptic ulcer disease are frequent causes of nausea and vomiting and should be considered in the differential diagnosis. Pharmacologic therapy should be directed both at specific suspected diseases (e.g., H<sub>2</sub>-antagonists or proton pump inhibitors for gastritis, metoclopramide/Reglan for gastroparesis) and at symptom control with antiemetics. The choice of antiemetic should be based on an understanding of the different classes of medications available and their respective mechanisms of action and therapeutic indices.

## Treatment

*Serotonin receptor antagonists* are considered highly effective antiemetics with few side effects. They work by selectively binding to 5-hydroxytryptamine<sub>3</sub> receptors in the chemoreceptor trigger zone. The American Society of Clinical Oncology has classified these medications as having the highest antiemetic therapeutic index.<sup>11</sup> The serotonin antagonists are known to be particularly effective in preventing chemotherapy-induced nausea and vomiting though they have been used effectively in other settings. This class includes ondansetron (Zofran) and granisetron (Kytril).

*Substituted benzamides* are selective dopamine antagonists that can be useful in all types of vomiting except motion sickness and inner ear dysfunction. Metoclopramide is considered the prototypical medication within this class. In addition to antiemetic effects, metoclopramide also has substantial peripheral cholinergic effects that enhance gastric emptying.<sup>10</sup> As such, it can be particularly useful in treating nausea and vomiting secondary to gastroparesis. Gastroparesis is frequently present in patients with AIDS and should especially be considered as a possible etiology in patients who report early satiety or who vomit undigested food more than two hours after a meal. The effectiveness of metoclopramide is limited by its side effects which include acute dystonic reactions, akathisia and sedation.

*Butyrophenones* (such as haloperidol and droperidol) and *phenothiazines* (prochlorperazine and thiethylperazine) are less selective antidopaminergic agents with antiemetic activity. They inhibit cerebral dopamine receptors and act primarily at the chemoreceptor trigger zone. Efficacy of these medications is generally lower than that of metoclopramide, and side effects include dystonic reactions, akathisia, sedation and orthostatic hypotension.<sup>11</sup>

*Cannabinoids* such as dronabinol (Marinol) exert their effects via the central nervous system and have been found to have antiemetic activity both when used alone and in combination with other medications. Marinol is FDA-approved only for use as an appetite stimulant in AIDS patients (it is approved as an antiemetic for cancer patients receiving chemotherapy) though it has frequently been used “off-label” for management of nausea and vomiting in patients with HIV/AIDS.

The use of adjunctive medications such as *glucocorticoids* (dexamethasone), *benzodiazepines*, *antihistamines* (diphenhydramine, hydroxyzine) or *anticholinergics* may enhance the effectiveness of antiemetics. Antihistamines and anticholinergics are primarily useful in controlling nausea and vomiting resulting from motion sickness or other inner ear disturbances. They do not act on the chemoreceptor trigger zone and are of little value in other causes of vomiting.<sup>10</sup> Antihistamines may be a particularly useful adjunct for patients on phenothiazines or other antidopaminergic medications since they will usually prevent dystonic reactions. *H2-receptor antagonists* or *proton pump inhibitors* can be used to control gastritis and gastroesophageal reflux disease, which can also be a cause of nausea or vomiting.

Other interventions that can be tried include changing the patient’s diet or giving the patient smaller, more frequent meals until symptoms are under adequate control. If the vomiting is so severe that the patient is unable to take oral medications, the antiemetics should be administered parenterally or by suppository. For patients with chronic nausea, around-the-clock administration of antiemetics should be considered. Finally, appropriate precautions must always be taken to minimize the patient’s risk of aspiration.

Table 7-3 presents dosage information for many of the antiemetic agents.

## DYSPHAGIA AND ODYNOPHAGIA

■ Prior to the advent of HAART, approximately one-third of AIDS patients at some point developed opportunistic infections involving the esophagus.<sup>12</sup> In fact, esophageal symptoms rank second only to diarrhea in frequency of gastrointestinal complaints among patients with AIDS.<sup>13</sup> Additionally, since opportunistic disorders of the esophagus usually present only after the CD4 count has dropped to below 100/mm<sup>3</sup>,<sup>14</sup> they are problems that will frequently be seen in patients who have advanced AIDS.

### Assessment

The most common symptoms of esophageal disorders in persons with AIDS are dysphagia and odynophagia. Less common symptoms are retrosternal chest pain, coughing, and hiccups, which may occur secondary to acid reflux or esophagitis. Those processes may, in turn, lead to aspiration and/or the development of esophageal ulcers that can then heal and leave esophageal scarring.<sup>15</sup>

Infections are the most common cause of esophageal disorders. The most common infectious etiologies are *candida* and the herpes viruses *herpes simplex* (relatively rare) and cytomegalovirus (more common). *Mycobacterium tuberculosis* and *mycobacterium avium complex* are infectious causes of esophageal disease that are seen less frequently. Additional etiologies include idiopathic ulcers, aphthous ulcers, Kaposi’s sarcoma, gastroesophageal reflux disease and pill-induced esophagitis.<sup>15</sup>

Table 7-3: Antiemetic Agents

<b>Drug Class</b>	<b>Drug and Dosage</b>
<b>Butyrophenones</b>	<b>Haloperidol:</b> 0.5 to 2.0 mg 2 to 4 times/day (may be given PO or IM)
<b>Phenothiazines</b>	<b>Prochlorperazine:</b> 5 to 10 mg q 6 to 8 hours (may be administered IV, rectally or PO) <b>Promethazine:</b> 12.5 to 25 mg q 4 to 6 hours (may be administered IV, rectally, PO or SC)
<b>Substituted Benzamides</b>	<b>Metoclopramide:</b> 5 to 10 mg q 4 to 6 hours (may be administered IV, PO or SC)
<b>Serotonin Antagonists</b>	<b>Ondansetron:</b> 4 to 8 mg PO or IV q 8 to 12 hours <b>Granisetron:</b> 1 to 2 mg PO or 10 mg/kg IV q 12 hours <b>Dolasetron:</b> 50 to 100mg PO or 12.5 to 100mg IV qd
<b>Anticholinergic Agents</b>	<b>Scopolamine:</b> 1.5 mg transdermal patch q 3 days
<b>Antihistamines</b>	<b>Cyclizine:</b> 50 mg PO q 4 to 6 hours <b>Diphenhydramine:</b> 25 to 50 mg q 4 to 6 hours <b>Hydroxyzine:</b> 25 to 100 mg 3 to 4 times a day <b>Meclizine:</b> 25 to 100 mg daily in divided doses
<b>Glucocorticoids</b>	<b>Dexamethasone:</b> 4 to 12 mg/day in 3 to 4 divided doses
<b>Cannabinoids</b>	<b>Dronabinol:</b> 5 mg 3 times/day
<b>Benzodiazepines</b>	<b>Lorazepam:</b> 0.5-2.0 mg q 4 to 6 hours

Dysphagia and odynophagia are important symptoms that must be addressed aggressively in the palliative care setting. If inadequately managed, these symptoms will likely cause a significant diminution in the patient's quality of life and lead to other complications such as anorexia, weight loss, malnutrition and the inability to take oral medications. Almost all esophageal infections in patients with AIDS are treatable and in many instances palliation of symptoms will be best achieved by treating the underlying disorder; attempts at symptom amelioration that fail to address the underlying pathology will often be unsuccessful.

*Candida albicans* is the most frequent esophageal pathogen in HIV disease and, as such, is the most common cause of dysphagia and odynophagia. In evaluating a patient for possible *Candida* esophagitis, it should be remembered that while the presence of oral thrush supports its presumptive diagnosis, its absence does not exclude it. While definitive diagnosis can be made only with endoscopy, the frequency of *Candida* infection in advanced AIDS patients makes an empiric trial of antifungal therapy appropriate in these cases.

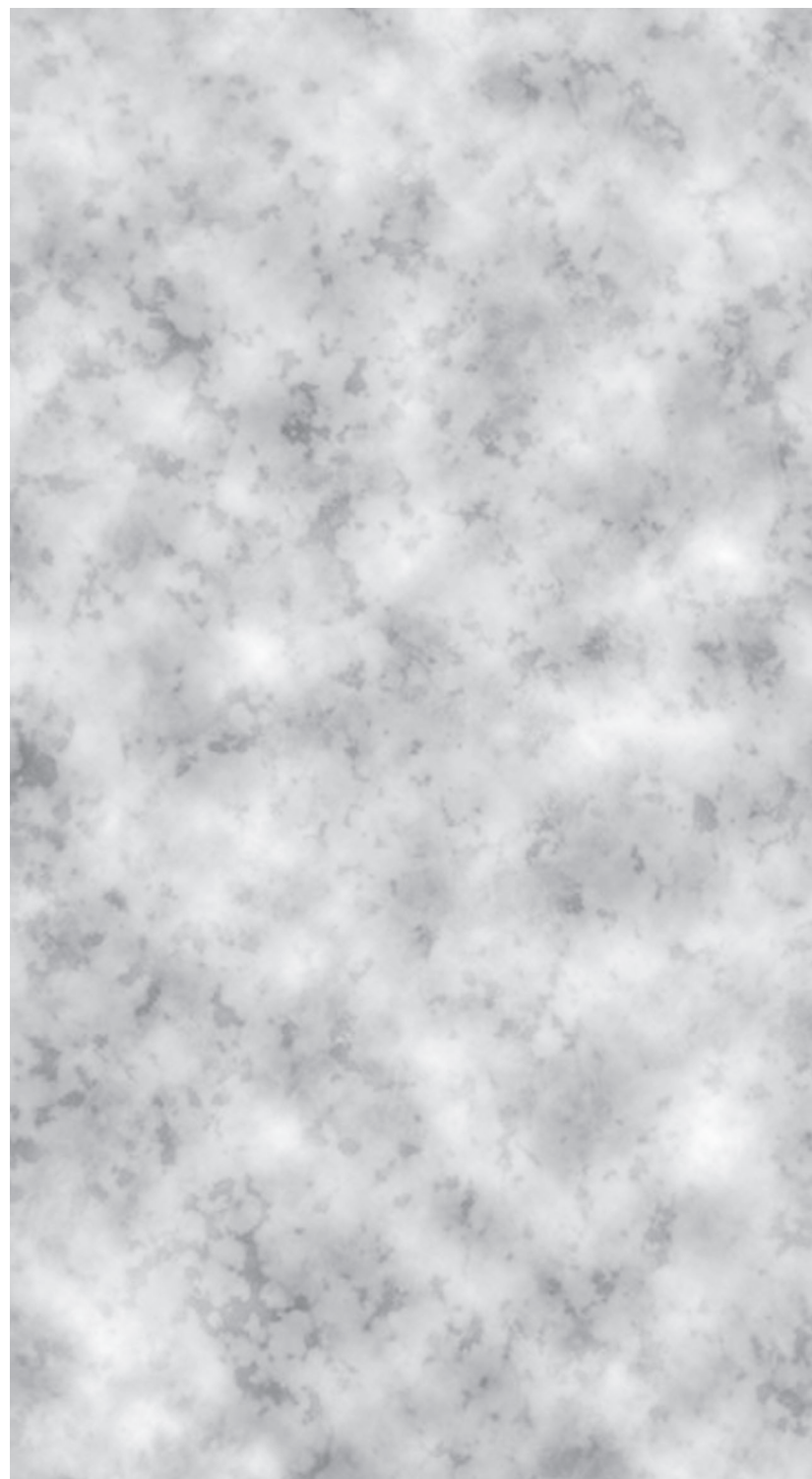
## Treatment

Treatment requires a systemic antifungal since topical therapies such as nystatin oral suspension or clotrimazole troches only act locally and thus will be effective only in treating oral candidiasis. The medication most frequently chosen to treat *Candida* esophagitis is fluconazole (Diflucan). The typical treatment course with fluconazole would be to start with a 200 mg loading dose and then to place the patient on 100 mg daily. In many patients a two-week course of therapy will be sufficient to effectively treat *Candida* esophagitis. Treatment may then be discontinued and the patient observed for recurrence of symptoms. Some patients will require persistent fluconazole therapy and/or doses higher than 100 mg daily. Other medications that can be used to treat *Candida* are itraconazole (Sporanox) and ketoconazole (Nizoral). If a patient has candidiasis that is resistant to the azoles, it may be necessary to use intravenous medications such as amphotericin-B or the new antifungal caspofungin acetate (Cancidas).

Odynophagia or dysphagia that is caused by CMV infection should be treated with an appropriate course of anti-CMV therapy (see guidelines for treating CMV colitis above). Idiopathic or aphthous ulcers can often be effectively treated with either a course of corticosteroids<sup>16</sup> or thalidomide.<sup>17</sup> Treating odynophagia without regard to the underlying pathology can be attempted by administering standard analgesics or viscous lidocaine but those approaches will often be unsatisfactory. There is no good symptomatic treatment for dysphagia that does not address the causative pathologic process.

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# Oral Problems

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## INTRODUCTION

■ People who are HIV positive face many challenges, including oral health problems. While most oral health problems are no different from the problems faced by people who are HIV-negative, there are some distinct differences. Further, while some problems may be similar, the lack of a competent immune system can have an effect on the course of an oral disease and require a more aggressive approach to treatment, particularly so that what starts out as a minor problem does not escalate into a major problem with serious health consequences.

Palliative treatment of oral problems generally means antibiotics or antiviral medication, along with pain medication and a referral to a dentist—usually within a day or two. For oral symptoms of HIV disease, as for other syndromes and organ systems discussed in this guide, the distinction between palliative and disease-altering interventions is often blurred. Palliative care interventions are often disease-specific, as in the use of antifungal medication for the symptoms of oral candidiasis or antiviral medication for herpes simplex stomatitis. Other symptoms such as pain or xerostomia may be treated effectively with palliative medications. Many of the oral problems that develop can be treated effectively by medical providers.

The important concern for medical providers caring for HIV-positive patients is to conduct a thorough oral exam so that if any of the common conditions are present in the patient's oral cavity, palliative care can be provided and referral to a dentist made expeditiously. Further, while immune-competent individuals can be somewhat lax regarding a six-month oral exam, all people living with HIV/AIDS should have routine examinations by a dentist every six months.

Although the information provided here is designed for providing palliative care, the most effective treatment is in fact prevention. Prevention is best achieved by regular visits with a dentist, and by having the medical provider conduct thorough examinations of the oral cavity at each check-up visit. The oral exam should inspect and document tongue, cheeks, palate and conditions of the teeth, looking for growths, abnormal mucosa, lesions and tumors—all signs of one or more oral manifestations of HIV.

Since early in the course of the AIDS epidemic, more than 30 different oral manifestations of this disease have been reported. This section will address the seven most common oral health issues facing people who are HIV positive and the immediate treatment that can be provided. Patients with advanced disease are more likely to have the conditions described than are asymptomatic patients.

Treatments for oral problems in HIV-positive patients are specified in Table 8-1: Medications for Oral Conditions.

Table 8-1: Medications for Oral Conditions

Condition	Problem	Medication	Dosage
Caries	"Dry mouth"	Sugar-free lemon drops or artificial saliva	
	Abscess	Penicillin VK	500mg q6H for 28 doses
Oral candidiasis	Oral infection	Clotrimazole troches	Slowly allow to dissolve in mouth, one q4H while awake, for 14 days
		Fluconazole 100mg	1 tablet/day for 14 days
		Clotrimazole 1% cream	Apply two to three times/day until condition clears
Recurrent aphthous stomatitis	Minor lesion	Fluocinonide (Lidex Cream) or Triamcinolone acetonide (Kenalog in Orabase)	Apply to lesion four times a day until condition clears
	Major lesion	Same medication as above; if no effect, consider systemic prednisone, tapering doses	
Recurrent herpes simplex	Prodromal stage	Acyclovir ointment	Apply q3H for 7 days
	Lesion present	Acyclovir 200mg	1q4H while awake for 10 days
Periodontal disease	Linear erythematous gingivitis	Chlorhexidine gluconate rinse	Rinse with 1/2 oz, bid for 2 weeks
	Necrotizing ulcerative periodontitis	Chlorhexidine rinses and either metronidazole or Augmentin <sup>1</sup>	Both 250 mg, q6H for metronidazole, q8H for Augmentin, for 7 days

<sup>1</sup> Amoxicillin/clavulanate potassium

## CARIES

■ Caries, or dental decay, is a common problem for everyone. Medical providers do not need to be concerned with a few carious lesions (cavities). However, rampant decay in an HIV-positive patient's teeth frequently lead to pulpal infection, followed rapidly by abscess formation, which is important to either prevent or treat promptly.

Some antiretroviral medications (e.g., indinavir) can cause decreased salivary flow, which is known to result in rampant caries; it is not uncommon for patients with decreased salivary flow to have multiple carious lesions. These lesions frequently are at the cervical area, the part of the tooth where the crown meets the roots. The tooth surface at this area is cementum, not enamel, and more likely to decay at a faster rate. Further, this can lead to an abscess formation which can be debilitating. A photo showing rampant decay in the cervical area can be seen in Color Plate 8-1 at the end of this chapter.

In cases of rampant decay, treatment should be expedited, which may mean that the dentist uses the technique called *scoop and fill*. As quickly as possible, and usually without anesthesia, the bulk of the decay is scooped out, using hand instruments, and then filled with a temporary filling or medium that contains fluoride, so that further decay is inhibited. The filling material of choice is glass ionomer. Once the teeth are temporized by the *scoop and fill*, the dentist can then go back and restore each tooth in a traditional manner.

Until the patient can be treated by a dentist, several steps can be taken by medical providers. The first, and clearly most important, is to determine if there are any cavities that have extended into the pulp, causing an infection. This is recognizable by swelling, and would be noticed by medical providers during a routine examination of the oral cavity. Infections should be treated with antibiotics, preferably penicillin. Treatment should be immediately implemented, and a referral to a dentist should occur within days. The treatment for an abscess is the same for both HIV-positive and HIV-negative patients.

If there are no obvious infections, but decay is present, particularly if the decay is extensive, palliative care consists of fluoride mouth rinses, which can be prescribed by the medical provider prior to referring the patient to a dentist. Referral should occur as soon as possible, but this is not an urgent problem.

There are artificial saliva products that can be used with patients who have active decay, resulting in part from xerostomia (dry mouth) that can be caused by medications or even HIV infection itself. However, the frequency with which these artificial saliva products have to be used may be unrealistic, and patients may prefer to use sugar-free lemon drops, which stimulate saliva, another palliative treatment that is effective. Medical providers can suggest the use of either sugar-free lemon drops or over-the-counter saliva substitutes.

## ORAL CANDIDIASIS

■ Oral candidiasis is a relatively frequent problem for people who are HIV-positive. This condition has several different forms, the most common being pseudomembranous candidiasis. Candidiasis, which presents with small white patches any place in the mouth, can be mistaken for materia alba, or food particles. A photo showing pseudomembranous candidiasis is seen in Color Plate 8-2.

Pseudomembranous candidiasis is generally white, and can easily be wiped off. There may be an erythematous area or bleeding under the white patch. The patient usually notices a change in taste, with food becoming undesirable. Further, there may be pain or a burning sensation associated with this lesion.

Palliative treatment includes the use of antifungal medications. The medications most commonly used are systemic, including clotrimazole, fluconazole, and itraconazole. Treatment should be provided by whomever diagnoses this condition, the medical provider or a dentist. However, if a dentist is the first provider to diagnose candidiasis in a patient, it is important that the medical provider be informed. The presence of a candida infection is not a normal condition, and is a sign of immune dysfunction, which should be brought to the attention of the medical provider.

There are several other forms of candidiasis, all less common than pseudomembranous. When pseudomembranous candidiasis occurs at the corner of the mouth it is called angular cheilitis. (Color Plate 8-3) Palliative care requires topical antifungal medication, i.e. clotrimazole. Erythematous candidiasis usually appears on the tongue or hard palate, and has a red appearance that cannot be wiped off. The fungal infection is usually intracellular. Atrophic candidiasis usually appears on the tongue. Both of these lesions can cause altered taste sensation and/or pain and burning sensation. Palliative treatment of these conditions is the same as that for pseudomembranous candidiasis.

All forms of candidiasis should be treated promptly. Candidiasis can cause pain and can alter taste sensation, make eating even more difficult. For patients with advanced disease, particularly with wasting syndrome, untreated candidiasis can create serious problems.

As is true for most conditions, as a patient's viral load decreases, and/or the CD4 counts improve, the appearance of candidiasis decreases.

## ORAL HAIRY LEUKOPLAKIA

■ Oral hairy leukoplakia was a common condition prior to the use of antiretroviral therapy and still exists, although it is less common now. The lesion is shown in Color Plate 8-4. The etiological agent for oral hairy leukoplakia appears to be the Epstein-Barr virus, in combination with the HIV virus, and the occurrence of this condition appears to be associated with a reduced CD4 count.

The lesion appears as a white patch, almost always on the lateral border of the tongue, with a very characteristic striated appearance. The lesion is benign and usually is not treated. Palliative treatment would be the use of an antiviral medication such as acyclovir or famciclovir; treatment may be considered for cosmetic reasons or if the lesions become large and bothersome to the patient. However, inasmuch as there usually are no symptoms, there is rarely need for any treatment.

Patients need to be advised that this is a condition that generally causes no problems and can disappear, particularly as the CD4 count improves. The condition does not cause any discomfort and does not cause a change in taste perception. Lesions usually last until the CD4 counts improve or the patient is receiving antiviral medication.

This condition can resemble pseudomembranous oral candidiasis; the difference is that while oral candidiasis can be wiped off, hairy leukoplakia cannot be wiped off.

## RECURRENT APHTHOUS STOMATITIS (CANKER SORES)

■ Aphthous stomatitis is a common condition for all patients, irrespective of their HIV status. (Color Plate 8-5) However, in patients who are HIV positive the duration of the ulcer can be extended and aphthous ulcers *minor* become aphthous ulcers *major* more frequently. The difference between minor and major ulcers is the size (major ulcers are more than one centimeter in diameter) and the seriousness of the condition.

Recurrent aphthous lesions are generally shallow, cratered lesions with a raised, erythematous border and a gray, central pseudomembrane. HIV-positive patients can have these lesions on keratinized tissue, whereas HIV-negative patients generally do not.

These lesions are left to heal on their own in a patient with a competent immune system. However, the lesions do cause pain and can become quite large, particularly if a patient has a compromised immune system. If the lesions become secondarily infected, treatment should be implemented immediately. Accordingly, HIV-positive patients require palliative care for any lesion, irrespective of its size, to prevent it from expanding, creating potentially serious problems.

Palliative care consists of a steroid medication, most frequently topical, to prevent the possibility of an extended problem or progression to recurrent aphthous stomatitis major. Options for treating aphthous ulcers include dexamethasone solution (“swish and spit”), local steroid ointment (such as Kenalog, sometimes compounded together with an adherent paste such as Orabase), or even systemic steroids such as prednisone for patients with large lesions or suspected involvement of the esophagus or lower gastrointestinal tract. Treatment with thalidomide has recently been approved for aphthous ulcers in patients with AIDS.

Patients with advanced disease, particularly if they have wasting syndrome or are generally debilitated, have great difficulty when this lesion causes pain and decreases their ability to consume food comfortably. Early treatment is key, and palliative care should be implemented right away.

These lesions can be mistaken for recurrent herpes. Patients with either lesion have had a history of this condition and usually do not suffer from both, so a reliable history is a good method to determine the condition; viral cultures for herpes simplex can also be helpful.

## RECURRENT HERPES SIMPLEX

■ Herpes simplex lesions, like aphthous ulcers, occur frequently irrespective of a patient’s HIV status. (Color Plate 8-6) Just as aphthous ulcers can be more problematic for HIV-positive patients, the same is true for herpetic lesions. Herpes simplex lesions can be more painful, larger, and more prone to secondary infections in HIV-positive patients. Again, like aphthous ulcers, these can accelerate problems for patients with wasting syndrome by causing pain and decreasing the ability to eat comfortably.

Herpes simplex lesions start with a prodromal feeling of malaise, fever and general debilitation. This can be masked in patients who are already debilitated. There may be an itching or tingling sensation. Vesicles form, usually within 24 hours, with rupture shortly after, forming a scab. The lesion usually is not treated in an immune-competent patient, and ordinarily resolves within two weeks.

However, in immune-compromised patients treatment should be provided, and usually involves the use of a systemic antiviral medication for herpes. Topical medications do not usually work as well as systemic medications in this situation. However, if the condition is at an early stage, prior to the rupture of the vesicles, topical antiviral medication may be effective. Once the vesicles rupture or are well established, systemic treatment with antivirals is warranted, most commonly acyclovir or famciclovir.

## PERIODONTAL DISEASE

■ Periodontal disease, the chronic inflammatory process that affects the ligaments and bone that support the teeth, is a condition that can occur in all patients irrespective of HIV status. However, there are several conditions that appear to be unique to individuals with a compromised immune system.

Periodontal disease—like gingivitis, which is not associated with HIV status but can be present in individuals who are HIV-positive—is treated by the same methods as with HIV-negative patients. The success rate does not appear to depend upon HIV status.

The gingival condition originally known as HIV-gingivitis and now called linear gingival erythema consists of a red lesion on the attached gingiva, which can be very painful and can lead to periodontal disease. (Color Plate 8-7) Ordinary gingivitis is not painful and does not lead to periodontal disease. Palliative care until the patient can get to a dentist consists of antimicrobial mouth rinses, such as chlorhexidine, and in severe cases, systemic antibiotics. Treatment should be limited to a short duration, days, or at most, one week, until the patient can be seen by a dentist.

Necrotizing ulcerative periodontitis, which previously was called HIV-periodontitis, is a painful condition that causes rapid bone loss, including the exposure of the bone, and rapid loss of attachment. This condition can result in the premature loss of teeth. (Color Plate 8-8) Treatment includes antimicrobial mouth rinses, systemic antibiotics Metronidazole or Augmentin, and when necessary, pain medication. Again, the patient should be referred to a dentist as soon as is feasible.

Palliative care does not definitively treat the underlying periodontal disease. However, frequent dental examinations and care can either prevent periodontal disease from occurring or limit the extent of the disease.

## OPPORTUNISTIC TUMORS

■ There are several opportunistic tumors that can occur in the mouth which are associated with a patient being HIV-positive. The two most frequently occurring neoplasms are Kaposi's sarcoma and non-Hodgkin's lymphoma.

Kaposi's sarcoma is the most common neoplasm in HIV-positive patients. It is a malignancy of the endothelial lining of blood vessels and appears clinically as a flat or raised, asymptomatic, purplish lesion that does not blanch with pressure. (Color Plate 8-9) Lesions often enlarge rapidly and can become exophytic. Treatment may be necessary, especially if the lesion interferes with function. Various chemotherapeutic regimens (e.g., vincristine, doxorubicin) as well as alpha-interferon may be somewhat effective, as well as radiation therapy. In many cases HAART itself can be associated with regression of KS lesions.

Non-Hodgkin's lymphoma when seen in the oral cavity is most often an exophytic soft, tumorlike mass that can enlarge rapidly. (Color Plate 8-10) Biopsy is required for diagnosis and treatment consists of radiation and/or chemotherapy. Until treatment can be implemented, palliative care is usually not required.

Neither of these conditions is seen until immune suppression is severe and patients have end-stage HIV disease.



**COLOR PLATE 8-1. Cervical caries**

Photo courtesy David I Rosenstein, DMD, MPH



**COLOR PLATE 8-2. Pseudomembranous candidiasis**

Photo courtesy David I Rosenstein, DMD, MPH



**COLOR PLATE 8-3. Angular cheilitis**

Photo courtesy David I Rosenstein, DMD, MPH



**COLOR PLATE 8-4.** Oral hairy leukoplakia

Photo courtesy David I. Rosenstein, DMD, MPH



**COLOR PLATE 8-5.** Recurrent aphthous stomatitis (canker sores)

Photo courtesy David I. Rosenstein, DMD, MPH



**COLOR PLATE 8-6.** Recurrent herpes simplex

Photo courtesy David I. Rosenstein, DMD, MPH





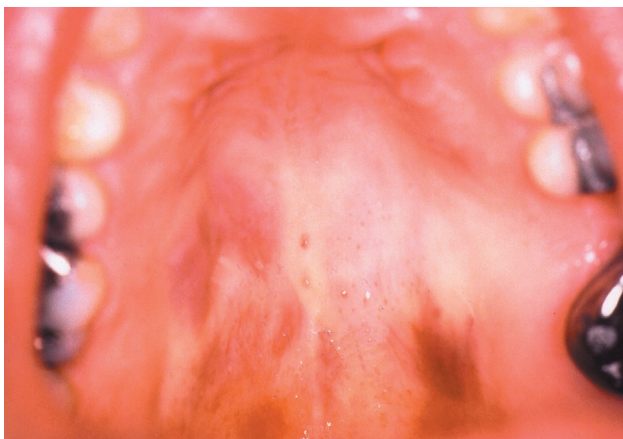
**COLOR PLATE 8-7.** Linear gingival erythema

Photo courtesy David I. Rosenstein, DMD, MPH



**COLOR PLATE 8-8.** Necrotizing ulcerative periodontitis

Photo courtesy David I. Rosenstein, DMD, MPH



**COLOR PLATE 8-9.** Kaposi's sarcoma

Photo courtesy David I. Rosenstein, DMD, MPH



**COLOR PLATE 8-10.** Non-Hodgkins lymphoma

Photo courtesy David I. Rosenstein, DMD, MPH

# Dermatologic Problems

David J Kouba, MD, PhD, and Ciro R Martins, MD

## INTRODUCTION

■ The prevalence of skin disorders in AIDS patients treated in the palliative care setting is exceptionally high. Unfortunately, accurate diagnosis and proper treatment of skin diseases in both HIV and AIDS can be an especially challenging and often frustrating task, because the presentation of common dermatoses is often exaggerated into florid cutaneous eruptions. The practitioner also has to be cognizant of more unusual cutaneous disorders that would otherwise be virtually nonexistent in his or her daily practice. Furthermore, because of the severe immunosuppression seen in end-stage AIDS patients, treatment and eradication of these disorders is almost always difficult, and often not possible. In these instances, appropriate palliative care needs to be administered in a timely fashion to assure a better quality of life for these patients.

The health care provider will need to be aware of the following in caring for AIDS patients in the palliative care setting who develop skin disorders.

- Many common dermatoses may have unusual or unusually severe presentations in HIV disease, and especially in advanced and end-stage AIDS.
- The hospice environment predisposes patients with AIDS to certain skin conditions. This is attributable not only to severe immunosuppression, but also to immobilization, bed confinement, and close quarters.
- It is important to recognize primary skin lesions, and to differentiate those from cutaneous changes associated with manipulation and trauma to the skin, such as scratching, picking, and rubbing. These are seen in most patients with advanced HIV disease, as a consequence of severe, chronic, and intractable pruritus.
- A thorough skin examination must be done whenever possible and should be performed under good lighting, with the patient completely undressed. Examine the whole body including scalp, hair, oral mucosa, and nails. It is of utmost importance to note the pattern of distribution of the lesions and areas of sparing and to determine the predominant type of lesion.
- Simple auxiliary tests done on scrapings of the skin can be diagnostic and are extremely helpful in narrowing down the differential diagnosis. They should be performed as often as possible and whenever a microscope is available. These tests include KOH prep of every scaly lesion, Tzanck smear of any ulcerated or bullous lesion, and mineral oil prep of generalized pruritic papules or whenever the clinical morphology or epidemiology are suggestive of scabies. Cultures for bacteria, fungi, mycobacteria, and viruses should always be obtained whenever clinical findings suggest an infection.

Keeping these ideas in mind and armed with the knowledge of the most common cutaneous manifestations of advanced HIV infection, the AIDS hospice practitioner will be better prepared to identify cutaneous infectious processes, and to differentiate these from neoplastic or inflammatory skin conditions.

## EPIDEMIOLOGY

■ The incidence, prevalence, severity, and clinical appearance of cutaneous diseases vary significantly with the transition from asymptomatic HIV infection to the development of AIDS. Although successful treatment with antiretroviral regimens helps to control many of the cutaneous disorders, certain skin conditions may actually flare when treatment is effective and a phase of immunologic recovery develops. Proper understanding of the epidemiology of AIDS-related cutaneous disorders can aid in anticipating conditions that may arise, and can hasten appropriate diagnosis and treatment measures to enhance the patient's quality of life. The types of disorders range from infectious processes to malignant conditions and inflammatory disorders to conditions directly related to immobility and the hospice environment.

Several studies throughout the world have documented with many similarities the most prevalent cutaneous findings that occur as a patient transitions from asymptomatic infection through AIDS and finally reaches the terminal phase of the disease. One study found that the prevalence of any skin disorders in the HIV-positive population was 91%, with an average of more than two simultaneous conditions per patient. While xerosis (dry skin) was a common finding irrespective of disease stage, the infectious processes including fungal, bacterial, and viral disease as well as inflammatory conditions such as eczema, pruritus, and psoriasis were increasingly more common when matched with the degree of immunosuppression. Additionally, infestations such as scabies and malignancy, specifically Kaposi's sarcoma (KS), were more prevalent with fulminant AIDS and the associated dramatically decreased CD4 counts.<sup>1</sup>

Although there has been some disagreement between various epidemiologic studies, there have been a few consistent results. Specifically, there seems to be a much higher incidence of infectious, inflammatory, and neoplastic conditions as one transitions from HIV to fulminant AIDS. There have been varied reports on the incidence of bacterial infection.<sup>2</sup> One very important factor that changes the incidence of certain types of cutaneous disorders is demographics. Geographic location as well as patient population (i.e., intravenous drug users (IDU), impoverished inner city patients, or homosexual males) dictate the development of some very different conditions. For example, when comparing Uthayakumar's<sup>1</sup> cohort of 92% homosexual men to another study made of 74% IDU and only 9% homosexual men, there was a clear distinction in the incidence of KS between the two populations with a significantly lower incidence in the IDU population.<sup>3</sup>

Another issue borne out from the various demographic studies is the lack of correlation between absolute CD4 counts and the development of certain cutaneous disorders. While there is some consistency between development of cutaneous conditions with the general health and immunologic state of the patient, the standard deviations seen in CD4 counts at the time of diagnosis of many conditions were so large that statistical significance was lost.<sup>3</sup> In addition, many inflammatory conditions, which would normally be associated with a healthy, overactive immune system, are seen more frequently in the profoundly immunocompromised. Although it may seem intuitive to think of end-stage AIDS as equivalent to a nearly complete lack of immunity, these patients suffer from a severe, "cytokine haywire" that causes a state of cutaneous hyperreactivity responsible for the many inflammatory conditions including pruritus and the many forms of eczema.

## PRURITUS AND ITS CONSEQUENCES

■ Pruritus, or the sensation of itching, is the most common dermatologic symptom and it can, at times, be so severe as to drive patients to developing suicidal thoughts. Unfortunately, but not surprisingly, it is also the most common dermatologic problem in patients with both HIV and AIDS. With this in mind, accurately diagnosing a pruritic eruption becomes a daunting, yet necessary task because the pruritus can cause significant morbidity.

Pruritus can be localized or generalized and is often associated with a state of hypereosinophilia. It can be caused by skin lesions or rashes or it can indirectly induce the development of skin lesions due to trauma, such as from scratching and rubbing. To establish the etiology of the pruritus, the practitioner should first attempt to identify any primary skin lesions and then follow a rather simple diagnostic algorithm. Examples of types of primary lesions that one commonly encounters with pruritic eruptions are papules or nodules (“bumps”), plaques (slightly elevated, palpable lesions with large diameter), and exanthems (diffuse or patchy “redness” of the skin). Very commonly one sees combinations of different types of lesions that may or may not be associated with surface changes, such as scaling, crusting, or ulceration.

### Clinical Presentation

The clinical presentation of pruritus is widely variable because of its many potential etiologies (Table 9-1). Localized pruritus is usually associated with primary skin lesions, i.e., papules and burrows of scabies or scaling plaques of tinea corporis. However, generalized pruritus may or may not be associated with primary lesions. For example, pruritus associated with obstructive biliary disease may only demonstrate excoriations, but generalized xerosis cutis shows widespread drying, cracking, and fissuring of the skin, which is responsible for intense itching. Unfortunately, in the terminal stages of AIDS, patients often suffer from cutaneous disorders representing a combination of multiple pathologies. Often, in addition to xerosis, there may be adverse drug reactions, liver failure, and multiple infections, which all result in potentially unbearable pruritus, making diagnosis and palliative treatment very difficult.

Table 9-1: Most Common Skin Conditions Associated with Pruritus in Patients with AIDS

Xerosis cutis
Eczemas: seborrheic dermatitis, nummular eczema, atopic dermatitis, contact dermatitis
Folliculitis
Drug eruptions
Lichen simplex chronicus / prurigo nodularis
Papular urticaria (insect bite hypersensitivity reaction)
Dermatophyte (tinea) infections
Intertrigo ( <i>Candida</i> , tinea, herpes simplex)
Scabies

Lichen simplex chronicus is a pruritic condition produced and aggravated by scratching or rubbing. The underlying etiology is not well understood, and some have postulated a sensory neuropathy whereas others maintain a psychological origin. Inciting factors may include any bites, trauma, or pruritic skin disorders. Prurigo nodularis (Color Plate 9-1), a nodular variant of lichen simplex chronicus is also perpetuated by rubbing and/or scratching. Either hyper- or hypopigmented nodules are often seen on a background of accentuated skin markings and pronounced skin thickening.

A common consequence of prolonged pruritus and scratching is postinflammatory pigmentary changes. There is often a racial predilection for these changes in that African Americans very frequently develop hyperpigmented lesions after resolution of the active disease process. These changes may be so extensive and cosmetically disfiguring as to cause significant anxiety in the patient. Pruritus itself is both an anxiety-inducing disorder and a consequence of anxiety in that anxiety and related mood disorders help to propagate the vicious cycle of itching, scratching, and itching again. Anxiety and depression, both psychiatric conditions inextricably linked to terminal disease, lower the threshold for pruritus.

## Diagnosis

Apart from the requisite thorough medical history, the physical examination will generally guide diagnosis. The following diagnostic algorithm (adapted from Majors and co-workers<sup>4</sup>) represents a simplified way of approaching the diagnosis of pruritic eruptions based primarily on their morphology. The first question to be asked is: “Are primary lesions present?” That is, are there intact papules, vesicles, or plaques that have not yet been manipulated by the patient? Are there skin lesions other than those caused by scratching, picking, or rubbing?

### No Primary Lesions Present

If all the cutaneous findings represent the result of scratching or rubbing of the skin, then two main diagnostic alternatives exist: the pruritus either is from systemic disease or is psychogenic in origin.

At different stages of HIV infection, pruritus can be the direct result of viral infection. For example, the initial manifestation of very early infection, far before overt AIDS takes control, the patients often suffer from a transient, influenza-like illness that may be associated with a morbilliform eruption. This may be pruritic in nature. Additionally, as the patients succumb to the devastating immunologic attack of fulminant AIDS, they suffer from a severe immunologic imbalance. Despite the fact that CD4 counts have plummeted, cytokine production is drastically dysregulated and often causes generalized pruritus.

Other systemic causes of pruritus are renal failure, obstructive biliary disease, hyper- or hypothyroidism, diabetes mellitus, multiple myeloma, carcinoid, polycythemia vera, lymphoma, or anemia. To rule out these diagnoses a basic workup is recommended as outlined in the section below, *Objective Data*, below. Otherwise, appropriate psychiatric evaluation and treatment are indicated.

### Primary Lesions Are Present

Once established that a primary cutaneous disease process does exist, the next step would be to determine whether these lesions are associated with hair follicles. One simplified way of doing so is to try to identify the follicular

ostium (“pore”) at the center of each individual lesion. Another way of assessing if they are follicular is to see if the lesions are roughly equally spaced on the affected areas, since hair follicles do have a homogeneous distribution on any given skin area.

### **Yes, Lesions Are Follicular**

Once it is determined that the lesions are associated with hair follicles, a short differential diagnosis is available and includes folliculitis, acne, and rosacea.

### **No, Lesions Are Found on Sites Other than Hair Follicles**

The remaining primary nonfollicular, pruritic lesions should then be grouped into two main groups: papular/nodular lesions and the scaly/papulosquamous eruptions. Diagnosis of papular nonfollicular primary lesions most commonly includes scabies, insect bites and papular urticaria, drug eruptions, miliaria, and Grover’s disease (discussed in section on Skin Problems in the Chronic, Bedridden Patient on page 198). The most frequently encountered scaly/papulosquamous eruptions are xerosis cutis, asteatotic eczema, seborrheic dermatitis, dermatophyte infections, and psoriasis, which are differentiated by the extent of disease, the quality of the scale, location, and degree of associated inflammation (discussed in section on Eczemas and Papulosquamous Disease on page 183).

## Objective Data

In patients with HIV, a thorough skin examination will reveal, in most cases, at least one possible dermatologic cause for the pruritus. In these cases, the skin condition should be treated before an expensive workup for possible systemic causes of pruritus is done, because clearing the skin problem very often clears the pruritus as well.

The laboratory investigation for internal causes of pruritus in the absence of primary skin pathology and neurologic disease is the same for AIDS patients as it is for the immunocompetent individual. A complete blood count with manual differential can exclude anemia, polycythemia vera, or lymphoproliferative disorders. Liver function tests can rule out obstructive biliary processes. An electrolyte screen that includes blood urea nitrogen, creatinine, and glucose levels excludes renal insufficiency, uremia, and diabetes. Thyroid-stimulating hormone and parathyroid hormone are good primary screens for thyroid and parathyroid disorders.

## Treatment

As previously mentioned, the first step is to treat any primary dermatologic process. In cases associated with a systemic disease, cure of the underlying systemic process is frequently impossible, therefore therapy is aimed at achieving and maintaining symptomatic relief only. Some general guidelines should be followed, keeping in mind that the main goal is to break the itching/scratching cycle, because scratching induces more pruritus, thus perpetuating and intensifying the problem. Some measures that may help most patients with pruritus are discussed below.

- Modification of showering and bathing habits, advocating the importance of taking no more than one shower a day, avoiding hot showers, using soap very sparingly, preferably on the intertriginous areas only, and not using any abrasive material such as washcloths, sponges, etc.
- Adequate moisturization of the skin with daily or twice-daily applications of emollient lotions or creams to prevent or correct xerosis cutis, one of the most common causes of pruritus in patients with advanced HIV disease.

- H1-blocking oral antihistamines, used as a single agent or as combination of a sedating type at night and a nonsedating type (second-generation H1 blockers) in the morning. Usually patients are kept on maximum doses around-the-clock if significant relief is desired.
- Topical antipruritic agents compounded in moisturizing creams or lotions applied to the most affected areas as often as needed. Most commonly used agents are menthol (0.25%), phenol (0.25%), Doxepin, and Pramoxine.
- Mid- to high-potency topical corticosteroid preparations should be used to treat individual lesions of prurigo nodularis and lichen simplex chronicus. These can also be compounded with any of the anti-pruritic agents as described above. (See Table 9-2)

Harder to control cases can be successfully treated with phototherapy, using either ultraviolet B light or ultraviolet A plus psoralen, a photosensitizing agent, in a regimen known as PUVA. However, this method requires a specialized dermatologic facility and significant commitment to a schedule of treatments administered three times a week for a minimum of 3 months, and is therefore not a practical option for most hospice patients.

Intractable pruritus can be successfully controlled with thalidomide but because of its significant and potentially serious side effects, thalidomide should be used only in selected patients. Thalidomide should be started at 100 mg qd for one to two weeks followed by 200 mg qd. Regular blood tests including complete blood count and viral load should always be obtained while the patient is on this medication. Also one should monitor closely for development of side effects, including neuropathy.

Table 9-2: Commonly Used Topical Steroid Preparations

Class	Generic Name	Trade Name
I	Betamethasone dipropionate Diflorasone diacetate Clobetasol propionate Halobetasol propionate	Diprolene ointment 0.05% Psorocon ointment 0.05% Temovate cream 0.05% Ultravate ointment 0.05%
II	Betamethasone dipropionate Mometasone furoate Fluocinonide	Diprolene cream AF 0.05% Elocon ointment 0.1% Lidex gel/ointment 0.05%
III	Fluocinonide Desoximetasone Triamcinolone acetonide	Lidex-E cream 0.05% Topicort LP cream 0.05% Aristocort A ointment 0.1%
IV	Triamcinolone acetonide Mometasone furoate Fluocinolone acetonide Hydrocortisone valerate	Kenalog cream 0.1% Elocon cream 0.1% Synalar ointment 0.025% Westcort ointment 0.2%
V	Triamcinolone acetonide Fluticasone propionate Hydrocortisone valerate	Kenalog lotion 0.1% Cutivate cream 0.05% Westcort cream 0.2%
VI	Desonide Aclometasone dipropionate Fluocinolone acetonide	DesOwen cream, ointment 0.05% Aclovene cream 0.05% Synalar cream 0.01%



## ECZEMAS AND PAPULOSQUAMOUS DISEASE

■ Eczema is the most common inflammatory disorder of the skin and, in any of its subtypes, generally presents in one of three stages, i.e., acute, subacute, or chronic. These forms are characterized by varying degrees of erythema, vesiculation, crusting, scaling, hyperpigmentation, and skin thickening. Examples of eczemas commonly seen in individuals with HIV are asteatotic, atopic, seborrheic, nummular, and contact dermatitis.

The papulosquamous diseases of the skin are manifold, but have in common their primary morphological characteristics, namely scaling papules and plaques. Common examples of these diseases are psoriasis, pityriasis rosea, and xerosis cutis. The papulosquamous and eczematous dermatoses can affect both HIV-negative and HIV-positive individuals, but, as previously mentioned, their clinical presentation can be drastically altered with advancing immunosuppression.

### Asteatotic Eczema

Also known as eczema craquele (Color Plate 9-2), asteatotic eczema is caused by, and therefore usually seen concomitantly with, xerosis cutis generalisata (severely dry skin). Both conditions are the most common dermatoses seen in individuals with advanced HIV, particularly during the winter months, when the degree of humidity in the environment is significantly lower. Dryness of the skin (xerosis) is accompanied by the development of microscopic tears on the skin surface, causing initially subclinical inflammation, intense pruritus, and subsequently evolving into overt eczema. This condition is usually one of the first papulosquamous/eczematous eruptions to develop, usually presenting early when the CD4 counts drop below 400 and, as the HIV disease progresses, it becomes more generalized, more symptomatic, and more difficult to treat.

### Clinical Presentation

The usual presentation is with xerosis of the skin, characterized by scaling and varied degrees of superficial fissuring, affecting especially the lower extremities. When significant disruption of the skin barrier is present, serous oozing and resultant crusting is seen. The combination of pruritus and disruption in the skin barrier leads to a significantly higher risk for secondary bacterial infection. When severe, pain rather than pruritus may be a more common symptom. The signs of frank cellulitis, namely erythema, edema, pain, and purulent exudate, should be identified before bacteremia and sepsis ensue.

### Differential Diagnosis

Atopic dermatitis, nummular eczema, seborrheic dermatitis, psoriasis, crusted (“Norwegian”) scabies, generalized inflammatory reaction to skin infections such as dermatophytoses.

### Treatment

Treatment depends on the extent of disease at presentation. First and foremost, it must be determined if an overlying bacterial infection is present. If secondary infection is noticed, crusts should be removed with wet compresses and appropriate oral antibiotics covering common skin pathogens should be given. When infection is not an issue, then generous use of emollients and keratolytic agents such as urea, salicylic acid, and lactic acid should be given. Although often ineffective, H1 blockers should be tried to reduce itching and the inevitable associated excoriation. For clearly inflammatory lesions, midpotency topical corticosteroid preparations should be used. Saturated fatty acid soaps, such as Emulave and Basis, should also be used, again with copious lubrication after bathing.<sup>5</sup>

## Nummular (or Coin-Like) Eczema

This common condition often presents a diagnostic dilemma because of its resemblance to tinea corporis, pityriasis rosea, and psoriasis, three conditions that are also commonly seen in the AIDS patient. The course of disease is usually a chronic one, with many cases unresponsive to therapy.

### Clinical Presentation

Pruritic, well-demarcated, erythematous, round plaques, usually 1 to 5 cm in diameter, with scales and/or crusts over the entire surface of the lesion (Color Plate 9-3). Nummular eczema is the perfect example of how exacting attention to detail in description of the lesional morphology will help pinpoint accurate diagnosis. The scales are usually mixed with crusts, as opposed to psoriasis, which has heavy, silvery scale. This is also different from tinea corporis, which shows scaling at the periphery and central clearing, giving it the appearance of a “ring,” and pityriasis rosea, which has a “collarette” scale just behind the advancing border of the lesion.

### Differential Diagnosis

A KOH prep *must* be performed to exclude multifocal tinea corporis (ringworm). Other differentials are plaque-type psoriasis and atypical pityriasis rosea.

### Treatment

Mid- to high-potency topical corticosteroids used twice daily only on the lesions, in conjunction with H1-blocking antihistamines, are the mainstay of therapy. For diffuse disease, caution must be taken when applying potent topical steroids over large body surface areas, because systemic absorption does occur, and with long-term use, the potential for suppression of the pituitary axis exists.

## Atopic Dermatitis

Atopic dermatitis can flare in individuals with an atopic background and HIV infection, even after decades of complete remission. As with any of the eczemas, it may present features of acute, subacute, or chronic skin inflammation but, in the terminally ill patients, chronic features of lichenification, hyperpigmentation, and/or hyperkeratosis prevail.

### Clinical Presentation

The most common presentation of atopic dermatitis in HIV-negative adults is chronic, recurrent dermatitis localized to either the palms and soles, ankles and elbows, or popliteal and antecubital fossae. In HIV-positive individuals, immunologic dysregulation favors frequent outbreaks, which are initially localized or multifocal, but usually become widespread and generalized in patients with advanced disease. The clinical features in subacute stages are mild to moderate erythema, crusting, hyperkeratosis, and scaling. Chronic lesions are characterized by secondary changes resulting from manipulation, namely rubbing and scratching. Skin then becomes thickened, darkened and rough with accentuation of the superficial skin markings. Atopic dermatitis is a particularly pruritic type of eczema and when it becomes chronic, excoriations, crusting, and scarring develop as a result of scratching. Commonly affected areas include the face, neck, trunk, flexural surfaces of the extremities, extensor surface of the forearms and lower legs, dorsal and plantar surfaces of the feet, and palms and dorsum of the hands (Color Plate 9-4).

## Differential Diagnosis

Seborrheic dermatitis, eczematous drug reaction, contact dermatitis, crusted (“Norwegian”) scabies, widespread impetigo.

## Treatment

Topical corticosteroid preparations or the recently introduced topical tacrolimus 0.1% ointment (Protopic) should be used to reduce inflammation. Potent corticosteroids (Class I-II) may be needed at first to gain control of this intensely pruritic condition and then tapered to more mild steroid agents. Antihistamines such as diphenhydramine or hydroxyzine are very helpful, especially at night. Careful monitoring of the skin for signs of secondary bacterial infection is very important. Skin dryness aggravates atopic dermatitis immensely; therefore, liberal use of emollients and soap avoidance are mandatory. Colloidal oatmeal baths followed by widespread application of petroleum jelly daily is also very helpful to control pruritus. Patient education to avoid scratching and rubbing is also needed.

## Seborrheic Dermatitis

Seborrheic dermatitis very often becomes a more florid eruption in AIDS than that seen in the general population, with the extent of disease inversely proportional to the patient's gross CD4 level. Although the incidence of seborrheic dermatitis affecting nonscalp skin in the general public has been estimated at less than 5%, some studies have documented a prevalence of 40% to 80% in AIDS. The follicular yeast *Pityrosporum ovale* appears to play a role in the development and maintenance of skin lesions, but it represents only one of multiple factors that may be involved in the pathogenesis of this type of eczema.

## Clinical Presentation

Although seborrheic dermatitis presents in healthy persons as an erythematous, greasy scaling/crusting eruption, usually localized to the nasolabial folds, ears, eyebrows, forehead and scalp, the eruption in AIDS can be much more extensive. The erythema is significantly more pronounced and diffuse. Scales are thicker and more greasy, and can resemble those seen in psoriasis. The skin surface involved is extended past the face and scalp to involve the presternal area, axillae, groin, genitals, and buttocks.

## Differential Diagnosis

Atopic dermatitis, contact dermatitis, eczematous drug eruption, intertrigo, and inverse psoriasis.

## Treatment

Inflammatory lesions on the face can be treated with low-potency (Class V) topical corticosteroid creams and lotions or more potent preparations, depending on the location and degree of inflammation. They should be applied twice daily. Facial skin is very thin and susceptible to the damaging effects of long-term use of superpotent topical steroids (telangiectasias, atrophy, striae, discoloration); such steroids, therefore, should be used only as a temporizing measure. Ketoconazole 2% topical cream, lotion, or shampoo, or 200–400 mg of ketoconazole orally per day should be tried because it has been shown to be a treatment successful in 25% of cases.<sup>6</sup> Tar and salicylic acid-based shampoos are helpful in cases associated with thick scaling plaques on the scalp.

## Psoriasis

Psoriasis occurs in approximately 1% of the population worldwide. Its prevalence in HIV-infected individuals is not significantly greater than this, but its presentation is often atypical and more widespread. Not uncommonly, the abrupt development of widespread psoriasis as an adult without prior history of the disease is the first manifestation of HIV infection.

### Clinical Presentation

Psoriasis can develop in one of two forms, namely localized lesions or generalized disease. The typical lesion is a well-circumscribed, erythematous plaque with thick, “silvery” scales that are easily detached, leaving a bright pinkish/red base (Color Plate 9-5). The most common location is on the areas of pressure and trauma such as the extensor surfaces of the extremities, sacral area, hands, feet, and scalp. In patients with AIDS, however, psoriasis usually presents as a generalized eruption. Most commonly generalized plaques, but more atypical forms such as erythrodermic and pustular psoriasis, as well as psoriasis associated with severe arthropathy are frequently seen.

### Differential Diagnosis

*Localized disease:* atypical pityriasis rosea, nummular eczema, tinea corporis; *widespread disease:* seborrheic dermatitis, disorders causing erythroderma including dermatomyositis and lymphoproliferative disease.

### Treatment

Treatment of generalized disease usually requires some form of systemic therapy, but it often becomes a difficult issue because of the immunosuppression and/or liver or renal toxicity that can be associated with most of the systemic drugs available. Examples of these therapeutic modalities are the immunosuppressive agents methotrexate and cyclosporine as well as oral retinoids such as acitretin, and biologic response modifiers such as specific monoclonal antibody therapy. Phototherapy using ultraviolet B alone or PUVA are both associated with very good response rates. Unfortunately, these are not practical options for patients in the hospice setting because these treatments require transportation to a facility that has the appropriate equipment, three times a week, for a prolonged length of time.

Topical therapy therefore is the therapeutic modality of choice for most of these patients. Mid to high-potency (Classes I, II, or III) topical corticosteroid preparations, coal tar products, vitamin D derivatives such as calcipotriol, and vitamin A derivatives such as tazarotene can all be tried. Again, regular emollient use is a very helpful adjuvant measure.

## Folliculitis

Inflammation of the hair follicle usually indicates an infection of the pilosebaceous unit. In AIDS, infections with *Staphylococcus aureus* are very common but additionally organisms that are part of the normal flora in the hair follicle such as *Pityrosporum* yeasts (*P. ovale*) or *Demodex* mites (*D. folliculorum*) can induce a very pruritic process characterized by eosinophilic inflammation. In many instances, an infectious agent cannot be identified and biopsy of the skin lesion reveals destruction of the hair follicle by a dense eosinophilic infiltrate, known as eosinophilic folliculitis. It has been estimated that 25% of the pruritic conditions of advanced HIV disease

represent some type of folliculitis and these prevalence rates can increase during the summer months. In patients receiving chronic antibiotic prophylaxis, a gram-negative folliculitis may also develop. Another type of noninfectious folliculitis commonly seen is that associated with hormonal therapy, mainly testosterone and anabolic steroids as well as growth hormone replacement therapy.

### Clinical Presentation

*S. aureus* folliculitis is usually caused by cutaneous spread from nasal carriage, which is twice as common in HIV-positive people than in healthy control subjects. The presentation can be varied, but typically consists of erythematous follicular papules and pustules somewhat equally spaced on the skin surface, but may be clustered in some areas. Lesions in different stages present at the same time, with pustules, crusts, and varying degrees of inflammation and are very suggestive of a bacterial process. Monomorphic superficial pustules are more typically seen in folliculitis caused by yeasts, whereas significant edema of individual papules (“juicy” appearance) with signs of aggressive excoriation are more suggestive of either a parasitic or an eosinophilic process. In cases of bacterial folliculitis, depending on the degree of inflammation and the depth of penetration into the follicle, a painful, erythematous nodule may develop, called a furuncle or boil.

Eosinophilic folliculitis usually presents when CD4 counts drop below 200. It presents with urticarial papules usually confined to the upper trunk, face, scalp, and neck, and it can uncommonly also be pustular. The course waxes and wanes and can be characterized by unpredictable flares. There is usually an associated peripheral eosinophilia and elevated levels of IgE.

### Diagnosis

Clinical diagnosis alone is difficult for the untrained care provider, therefore lesions should be biopsied and sent for culture and histopathology, specifically requesting special stains for different infectious organisms.

### Treatment

In the absence of available tissue for histopathologic examination, it is acceptable to empirically treat based on a “shotgun” type approach. If forced into such a circumstance by the inaccessibility of a biopsy, coverage for fungal elements, bacterial pathogens and *Demodex*, in addition to treating the inflammatory component, is required. In such a regimen, ketoconazole 2% lotion applied qd to bid, erythromycin 2% gel applied bid with or without 10% benzoyl peroxide and metronidazole 0.75% lotion applied bid cover fungal, bacterial and *Demodex*, respectively. Any non-fluorinated steroid of choice used bid is appropriate to control inflammation. In the presence of diagnostic biopsy demonstrating a predominance of either fungal or bacterial or *Demodex* responsible for the eosinophilic inflammation, treatment modalities should reflect the histopathologic diagnosis.

However, in the absence of a biopsy, a “shotgun” approach is not always necessary. In many situations, the clinical history and appearance of the lesions can guide a more directed approach to therapy. Clinically obvious bacterial folliculitis should be treated with topical antibiotics and benzoyl peroxide combinations. Clindamycin/Benzoyl peroxide as well as Erythromycin/Benzoyl peroxide combinations are very useful for limited areas. For larger treatments, a benzoyl peroxide wash is helpful. In addition, antibacterial soaps

help to reduce colonization by skin flora. If furunculosis is present, then oral antibiotics are required, directed against gram-positive bacteria. If a bacterial folliculitis develops while already on oral antibiotics, then gram-negative folliculitis should be suspected and treated with Trimethoprim-sulfamethoxazole. Extensive, pustular and cystic bacterial folliculitis can be treated with the oral retinoid, isotretinoin. However, there is significant potential morbidity due to the many possible side effects that are often tolerable only in the immunocompetent host. The potential for liver toxicity, cytopenias and excessive dryness of the skin and mucous membranes, to name a few, make oral isotretinoin a far less attractive therapeutic option in AIDS hospice patients.

If the clinical picture suggests a folliculitis of fungal etiology, ketoconazole cream or shampoos are helpful. If extensive or recalcitrant to a two-three week course of aggressive topical therapy, then oral antifungals should be used. *Demodex* folliculitis should first be treated with topical metronidazole, or permethrins. Often, if a clinical overlap exists, then a combination regimen using two or more of the above topical medications may hasten clinical remission.

## OTHER COMMON INFECTIONS

### Bacterial Infection

Bacterial infection most commonly represents secondary penetration of skin flora as a result of barrier disruption due to severe xerosis, eczema, or by direct penetration. The gram-positive organisms, both *Strep* and *Staph* genera, are responsible for impetigo and ecthyma as well as recurrent cellulitis.

#### Clinical Presentation

##### *Impetigo*

Erythematous, minimally elevated papules covered by honey-colored thin crusts. May be limited to one or a few lesions or may be multiple, coalescing into crusted plaques. Ecthyma is a more localized and clearly a deeper process, presenting with more induration, erythema, and edema with the development of a thick eschar that heals with scarring.

##### *Cellulitis*

More commonly encountered on the lower extremities, there is a poorly defined patch of erythema surrounding the site of initial penetration by bacteria. At that site, pus and crust are often present. Peripherally from this lesion, one may see erythematous streaking, suggesting lymphangitic spread of bacteria. The involved region is also painful and warmer than on the opposite leg. As a general rule, bilateral lower extremity cellulitis does not exist. Cellulitis is differentiated from erysipelas as follows: Erysipelas shows a very indurated, tense lesion with a well-demarcated, elevated border that more commonly occurs on the head and neck region.

#### Diagnosis

Culture is generally not necessary and typically yields the expected pathogenic skin flora. Sensitivities will be useful, however, in disease that is recalcitrant to treatment to investigate antibiotic resistance profiles.

## Treatment

### *Impetigo*

Mupirocin 2% (Bactroban) ointment or cream tid-qid until clear. This is usually effective in treating mild and localized disease. Systemic therapy is indicated in cases of bullous impetigo, extensive disease or with regional lymphadenopathy. The preferred treatment for nonbullous impetigo is either penicillin VK 250-500 mg PO q6-8h x 7d, penicillin G-benzathine 1.2 million U IM x 1, amoxicillin 250-500 mg PO q8h or 500-875 mg PO q12h x 7d, or ampicillin PO q6h x 7d. For bullous impetigo or culture-proven *Staphylococcal* impetigo either cephalexin 250-500 mg PO q6h x 7d, cefadroxil 500 mg-1g PO q12h x 7d, or dicloxacillin 500 mg PO q6h x 7d. In addition to the aforementioned antibiotic regimens, practitioners should soften the crusts with clean Vaseline or Bacitracin ointment several times per day, wash the individual lesions with antibacterial soap or antiseptic solution and water, trying to gently remove crusts twice a day, instruct the patient not to touch the lesions and to wash hands frequently, and clip fingernails short to decrease risks of excoriation, self-inoculation, and contagion.

### *Cellulitis*

While penicillin is, in most cases, appropriate for the treatment of uncomplicated streptococcal cellulitis, the problem of resistance is very real. Keeping this in mind, a penicillinase-resistant penicillin (e.g. dicloxacillin 250-500 mg PO qid) or first generation cephalosporin (e.g. cephalexin 250-500 mg PO qid) may be used. These also should be kept in mind for *Staphylococcal* genera.

However, mild cases of non-resistant *Streptococcal* cellulitis may be treated with penicillin V 500mg PO q6h x 10d or penicillin G benzathine 1.2 mil U IM x1. If penicillin allergic, then Erythromycin 250-500mg PO q6h or 333mg PO q8h x 7-10d or azithromycin 500mg PO x1 followed by 250mg PO qd x 4d or clarithromycin 250mg PO q12h x 7-10d. For severe cases, penicillin G 2-4mil U IM or IV q4-6h (maximum 24mil U/day) is suggested.

Other interventions besides antibiotics include immobilization and elevation of the affected area, moist heat compresses, and debridement and drainage when bullae, abscess or necrosis is present.

## Viral Infections

Viral infections tend to run rampant in patients with advanced HIV disease. Not only are Herpes simplex infections the most commonly seen in this setting, but Varicella zoster virus reactivation as well as poxviruses and human papillomavirus infection are all especially common.

### Clinical Presentation

#### *Herpes simplex virus*

##### *Herpes labialis*

Herpes labialis often begins with a prodrome of pain or burning on the lip prior to eruption of a tender, vesicular, erythematous lesion that crusts in a few days. In advanced HIV infection, the lesions may be chronic, difficult to eradicate, often resistant to standard antiviral therapy, and may become more

extensive, often involving not only the lip but part of the cheek as well, making diagnosis more difficult.

### Genital herpes

Seen in both the healthy and AIDS populations, genital herpes presents with either shallow, clean, superficial ulcers on an erythematous base or with a patch of erythema with a cluster of vesicles that later ulcerate. These lesions are also painful. In advanced AIDS, the chronic, extensive perianal lesions may provide a diagnostic challenge (Color Plate 9-6). As ulcers become confluent and the associated patches of erythema larger, they often resemble *Candida* intertrigo and irritant contact dermatitis from chronic diarrhea. Again, careful examination is paramount to accurate diagnosis and treatment because antifungal agents will not help and topical steroids will make the infection much worse. Candidal intertrigo usually involves the entire perineum, not simply the perianal region, characteristically has peripheral satellite lesions, and ulceration is not a feature. In addition, chronic diarrhea and incontinence should cause perianal irritation and maceration, but there should not be large regions of ulceration unless there is also associated decubitus ulcer. In such cases, it is always best to swab the ulcer base for viral culture.

### Herpetic whitlow

Painful, tender, erythematous patch on the distal pharynx of usually one finger. Whitlow is the result of direct inoculation of the finger from another site and before AIDS was more commonly seen in health care workers as a consequence of direct, ungloved contact with a patient's herpetic lesion.

### *Varicella zoster virus*

Reactivation of the varicella zoster virus (VZV) from the dorsal root ganglia of spinal nerves is a painful sequella to AIDS-related immunosuppression. Following a dermatomal distribution, a strikingly erythematous cluster of papules forming a plaque with overlying vesicles is often present in a patch- or band-like configuration. The presentation in normal hosts is one in which any significant portion of the rash rarely crosses the midline. However, in the AIDS group, zoster may be more inflamed and painful and may be disseminated. Chronic and recurrent forms may also become an issue. Burning pain may either precede the cutaneous eruption or may continue after the acute episode as postherpetic neuralgia. The postherpetic neuralgia is a cause of significant morbidity, as the intense burning pain can last for years after the cutaneous lesions have gone and is often very difficult to treat, especially in this population. Involvement of the tip of the nose signifies involvement of the ophthalmic branch of the trigeminal nerve and heralds a potential ophthalmic emergency, termed zoster ophthalmicus. In AIDS patients receiving chronic acyclovir therapy, acyclovir-resistant VZV infection may present with a chronic, disseminated form of Zoster. The lesions are warty, hyperkeratotic papules with or without ulceration or eschar formation.

### *Molluscum contagiosum*

A contagious viral infection previously seen predominantly in children, this previously benign condition can occasionally have devastating consequences in AIDS.



## Simple

The usual presentation in both normal children and adults with AIDS is that of scattered skin-colored, dome-shaped papules, approximately 3 mm in diameter with a central dimple, or umbilication. The lesions can be a few in number or be present in hundreds, covering large areas of the body, commonly the face and neck, with devastating impact on the patient's quality of life.

## Complicated

Less frequently, in the immunocompromised patient giant molluscum may ensue with larger papules that appear in a cluster and aggregate into large fungating plaques (Color Plate 9-7).

### *Human papillomavirus*

Different serotypes of the human papillomavirus (HPV) dictate where a wart will arise on the body. *Verruca vulgaris*, or common warts, are frequently seen in both the general population and in AIDS patients. They are difficult to eradicate in both groups. *Condyloma accuminata*, or genital warts, flourish in the immunosuppressed host and may reach very large sizes, presenting as warty, cauliflower-like growths in the perineal region. Flat warts do occur in the normal host, but tend to flourish in the immunocompromised. They appear as groups of hypopigmented, flat-topped, regularly shaped 2 to 4 mm papules that, at times may be so flat as to appear macular. *Condyloma accuminata* are generally associated with HPV serotypes 6, 11, 16, and 18. There is a significantly increased risk for the development of squamous cell carcinoma when the lesions are associated with HPV types 16 and 18. Anogenital verucae are often difficult to visualize without anoscopy and, unfortunately, may cause the most significant morbidity, as very large growths may partially obstruct the anal canal.

## Diagnosis

Most of the aforementioned disorders are diagnosed strictly on clinical grounds; however, viral culture and serotyping can be an important tool for not only confirmation of the clinical suspicion but also for viral sensitivity profiles, because resistance is not uncommon. If the diagnosis is uncertain, then a simple punch biopsy of the lesion in question can also aid in diagnosis. A Tzanck smear for HSV can be performed in the office if vesicles or fresh ulcers are present. Old, previously unroofed blisters or ulcers will not suffice. Using a sterile scalpel blade and a sterile swab, the intact blister roof is removed and the base of the blister is aggressively scraped. (Extraction of the blister fluid alone is insufficient for the Tzanck smear.) Once the base is swabbed, the cells are rubbed onto a microscope slide and the specimen is rapidly fixed and stained in the office prior to microscopic examination looking for multinucleated giant cells. During the same procedure, a culture may be taken from the same denuded blister.

## Treatment

### *HSV*

The approach to treating herpes labialis, genital herpes, and herpetic whitlow are very similar. Previous initial therapy utilized acyclovir, a cumbersome regimen that required five daily doses which, in combination with other AIDS

regimens, raises compliance issues. Therefore, valacyclovir (Valtrex) is generally the preferred starting regimen for uncomplicated HSV. A dosing regimen of 1 g bid for 7 to 10 days should be tried first. For widespread or nonresponsive forms of HSV, intravenous acyclovir should be used and cultures should be obtained for sensitivity. Resistance is common and other drug regimens such as foscarnet should be used for resistant herpes.

### VZV

For uncomplicated Zoster, the same generalized initial treatment guidelines as for HSV apply. However, Zoster ophthalmicus and the more complicated forms of generalized zoster require hospitalization and intravenous acyclovir. Zoster ophthalmicus requires emergency consultation by ophthalmology.

### Molluscum

Uncomplicated molluscum is more of a nuisance and cosmetic problem that is common in the AIDS population. Although there is no permanent cure, it can be easily controlled with local destructive methods and immunomodulatory agents. The key is not allowing the infection to run rampant. Localized, minimal disease can be treated with cryotherapy, electrocautery, blister beetle extract (cantharidine), cidofovir, or the immunomodulator imiquimod 5% cream, applied 3 nights per week. However, giant molluscum is very resistant to all known therapies. Cryotherapy, CO<sub>2</sub> laser, tretinoin and trichloroacetic acid have all been used, and are generally unsuccessful.<sup>7</sup>

### HPV

Common warts, flat warts, and genital warts are all caused by different strains of HPV and therefore share many similar therapies. Cryotherapy with liquid nitrogen should be performed with three cycles of at least 10-second freeze followed by complete thaw. A blister should form within 24 hours. This treatment should be repeated approximately three weeks later. Often, for extensive local disease, podophyllin can be also be used. Imiquimod has been shown to be effective in clearing clinical disease as well. HIV-positive individuals usually are infected by more than one HPV-type simultaneously and frequently harbor one of the oncogenic types, which places them at higher risk for anal dysplasia and anal carcinoma. If a patient has a history of perianal warts, receptive anal intercourse, or penile or vaginal warts or reports a partner with penile warts, a Pap smear should be obtained from the anal canal. If any degree of dysplasia is observed, an anoscopic examination with biopsy of suspicious lesions is recommended. In the hospice setting, however, more relevant issues are keeping the lesions at a size that will allow adequate bowel movements without discomfort and also monitoring for secondary bacterial infection of the vegetating mass. Large and potentially obstructive anal lesions must be dealt with surgically. Adequate hygiene, including washing the perianal area after bowel movements instead of wiping it with dry paper, helps prevent secondary bacterial infections.

## Fungal Infection

Fungal infection is no more common in AIDS patients than in the general population, but the character of the infection changes as patients become more immunocompromised. These most

common fungal infections are the “tineas,” caused by dermatophyte fungi, followed by *Candida* infections. As the disease progresses, patients are more susceptible to acquiring deep fungal infections such as blastomycosis and sporotrichosis and also to developing cutaneous lesions of generalized systemic fungal infections, such as cryptococcosis and histoplasmosis. There is also a poorer response to standard therapies and higher recurrence rates. Additionally, the resulting skin breakdown may also predispose these patients to bacterial superinfection and bacteremia, which they are ill equipped to handle.

## Clinical Presentation

### *Dermatophytoses*

Superficial fungal infections in AIDS patients may be extensive, especially in the groin and feet. Tinea pedis (“Athlete’s foot”), tinea cruris (“jock itch”), and tinea corporis (“ringworm”) all occur with a similar frequency in the general population, but tinea pedis is the most common dermatophytosis seen in AIDS.<sup>8</sup> With all three infections, the lesions may become more widespread, larger, and more resistant to traditional therapies. They may also present with atypical clinical features resembling other noninfectious dermatologic problems (Color Plate 9-8).

### *Thrush*

Oral candidiasis, or thrush, occurs in almost all HIV patients and is often difficult to cure. In addition to immunosuppression, complicating factors include a high rate of oral carriage in even healthy patients as well as frequent and long-term antibiotic use. Classically, there are white plaques on the palate, tongue, and gingival area, which can be scraped off to leave an erythematous, often slightly bleeding base. In the case of long-standing infection, it may be difficult to scrape them off. Dysphagia and sore throat are all commonly associated complaints. *Candida* intertrigo occurs commonly in patients with warm, macerated, moist skin and very commonly in AIDS patients (covered in Skin Problems in the Chronic, Bedridden Patient on page 198). *Candida* paronychia is a frequently misdiagnosed condition that is often seen in patients who wash their hands frequently, do dishes frequently, or have their hands in cleaning solutions. Periungual erythema, swelling, and the extrusion of pus is a common presentation, and is often misdiagnosed as bacterial infection. Here, the patient’s history should guide diagnostic and treatment options.

### *Deep Fungal Infections*

Presentation varies from fungating nodules and tumors to ulcers and diffuse papulonodular disease. Cryptococcosis and histoplasmosis, when affecting the skin, may present with multiple, widespread, translucent, dome-shaped papules with a slight central dimple resembling molluscum contagiosum, but the morphologic variation can be broad.

## Diagnosis

### *Dermatophytes*

Tinea can have atypical presentations in these patients, often resembling one of the eczemas or even psoriasis. As a rule of thumb, every lesion that is scaly

has to be scraped for a KOH prep. When scraping suspected lesions, use a disposable scalpel blade, held perpendicularly to the skin, collecting the obtained scales on a microscope slide. Then add a drop of 10% KOH, cover with a coverslip, and warm the slide up by placing it under a flame for three to five seconds. The slide is then examined under the microscope looking for the presence of septated, branching hyphae. The highest yield is obtained when the peripheral scales on the edge of the advancing lesional border are scraped.

### *Thrush*

Although the differential diagnosis for white plaques in the mouth is extensive, thrush is largely a clinical diagnosis. A KOH prep may be helpful when clinical presentation is atypical. Most AIDS patients will have asymptomatic colonization, so the only use of cultures is for speciation and to determine sensitivity. Adherent white plaques on the sides of the tongue in AIDS patients may represent oral hairy leukoplakia, caused by Epstein-Barr virus infection. Biopsy can definitively differentiate the former from squamous cell carcinoma.

### *Deep Fungal Infection*

Culture is indicated for deep fungal infection. If cryptococcal infection is suspected, India ink stain or Wrights stain may be performed. Culture of histoplasmosis takes several weeks to grow.

## Treatment

### *Dermatophytes*

For limited disease, topical antifungal preparations should be tried first. Treatment has to be performed for a period of two to three weeks, even after symptoms have completely subsided. Oral antifungal agents are needed when fungal infection is widespread, when it affects a hairy area such as the scalp or beard, or when nails are affected. Currently available oral drugs are griseofulvin, fluconazole, ketoconazole, itraconazole, and terbinafine. Things to keep in mind when selecting an oral antifungal agent are the potential drug interactions with antiretroviral drugs and also with the drugs that are metabolized by the cytochrome P450 system. Many of the oral antifungal agents are associated with a significant risk of hepatotoxicity when given for a prolonged period of time, such as that required for treatment of nail infections. Therefore, in patients with a history of hepatitis or other liver disease, the options are limited. Ketoconazole's absorption is reduced by achlorhydria that is often seen with AIDS, so it should be taken with a cola soft drink, which can increase absorption by 50%.

### *Thrush*

In our experience, clotrimazole troches are superior to nystatin swish-and-swallow, likely because of greater contact time with the oral mucosa. For difficult to treat infections, studies have shown that PO fluconazole is equal in efficacy to itraconazole.<sup>9</sup> The practitioner should keep in mind that even with

the best current therapies, *Candida albicans* relapse rate is high, and the failure rate is even higher. There is a high incidence of resistant *Candida* species among patients with HIV, and prolonged treatment failures necessitate culture for sensitivity profiling.

### Deep Fungal Infections

Cryptococcal infection is the most common lethal mycosis in AIDS and should be treated with amphotericin B with fluconazole as secondary prophylaxis.<sup>10</sup> Histoplasmosis should also be treated with amphotericin 0.5 mg/kg/d IV or itraconazole 200 mg PO bid.

## Scabies

Infestation with the mite *Sarcoptes scabiei var hominis* results in an intensely pruritic eruption in both the normal host and in the AIDS patient. An investigation for scabetic infestation should always be performed in any patient with a persistent or widespread, pruritic eruption. Keep in mind, however, that there may be significant differences in the clinical presentation of scabies in the immunocompromised host.

### Clinical Presentation

#### Typical Scabies

Multiple small, pinpoint to pinhead sized erythematous papules that can be intact, but usually are excoriated due to the intense pruritus. Areas commonly affected are the interdigital spaces of the hands, wrists, antecubital fossae, anterior axillary areas, inframammary folds, periumbilical area, waistline, buttocks, and inner thighs. The male genitalia is usually affected and nodules can be seen on the scrotum. The diagnostic clinical finding is the presence of burrows on the skin. They present as a pink papule at the end of a small linear tract only a few millimeters in length, often in the interdigital spaces of the hand or lateral aspects of the feet. In many cases, the papular lesions are caused by an immune response to the mites and, even when they are small in numbers, the affected individuals may still present with widespread skin lesions.

#### Atypical, Crusted, or “Norwegian” Scabies

The incidence of this variant is very low in comparison with typical scabies, but higher in AIDS patients than in the healthy population. Varying degrees of hyperkeratotic plaques associated with skin thickening and crusting is observed (Color Plate 9-9). Fissuring is common, as is bacterial superinfection and even bacteremia. Burrows may not be evident because of the thick overlying crust. These patients are infested with millions of mites, and pruritus, if present, is often only minimal. This form of scabies is usually misdiagnosed and, because it is an extremely contagious process, it becomes a walking source of infestation for the health care workers and other patients for prolonged periods of time before patients are correctly diagnosed and adequately treated. It should be noted that there have been no reported cases of HIV transmission via scabetic mites passed from patient to health care worker.

## Differential Diagnosis

*Classical scabies*: Insect bite reactions, papular urticaria, drug reaction, folliculitis, prurigo simplex, organic causes of pruritus; *crusted scabies*: psoriasis, various forms of eczema and lichen planus.

## Diagnosis

Identification of the mites, their eggs, or their feces from skin scrapings is necessary for diagnosis. The region most fruitful for scraping is a nonexcoriated papule, especially in the burrows. Scrapings can also be performed from under the fingernails because this is a protected area. Once an adequate sample is scraped onto a microscope slide, a drop of mineral oil is placed on the specimen and covered with a coverslip before viewing under the microscope.

## Treatment

Scabetic infestation represents a good example of why topical steroids should not be given to patients until an exact diagnosis has been reached. Suppression of the local immune response around the infection will only help the mite, not the patient. Even though the estimated life span of the mite outside of human hosts is very short, it is important that the patient's environment, including bed sheets, towels, and personal clothing that have been worn and are not freshly laundered should all be washed. Whenever possible, carpeting and upholstery should be cleaned. This should be done after the patient has completed the recommended treatment. In addition, all intimate contacts and nonintimate household or roommate contacts should be treated simultaneously. Health care workers who had direct skin contact with the patient or their bed should also be treated as soon as possible. Topical antiscabetic preparations include permethrin 5%, crotamiton 10%, and lindane 1%, applied to cover the entire body surface once, washed off 10 to 12 hours later and repeated 10 to 14 days later when the female mite's eggs hatch. Ivermectin, although not FDA-approved for this purpose, has shown to be effective as a single-dose oral treatment for scabies in both HIV-positive and HIV-negative individuals.<sup>11</sup> The dose is 200 micrograms ( $\mu\text{g}$ ) per kilogram of body weight once and repeated 10 days later if necessary. This is a good option when compliance is questionable and in epidemics affecting hospitals and hospices. Case reports have noted that for the thick plaques of crusted scabies, a combination of oral and topical antiscabetic regimens is likely most effective. For cases of crusted scabies, a keratolytic agent such as salicylic acid 3–5% or urea 20% should also be used to facilitate removal of the crusts that harbor thousands of mites and penetration of the antiscabetic medication. Side effects of ivermectin include eosinophilia and constitutional symptoms. It should not be given to young children, pregnant women, or breastfeeding mothers.

## Kaposi's Sarcoma

Kaposi's sarcoma (KS) is the most common tumor seen in patients infected with HIV and is an AIDS-defining illness. More common in homosexual or bisexual men, KS is also 300 times more common in AIDS patients than in patients immunosuppressed for transplants. The etiology is clearly multifactorial; however, there have been significant strides made in the past decade in understanding the pathogenesis of this tumor. At the heart of the pathology is angiogen-

esis, and various mechanisms are known to be responsible, namely sexual transmission of human herpesvirus 8 (HHV8), an altered cytokine environment and the HIV *trans*-activating protein, Tat.<sup>12</sup> It is thought that in the presence of a dysregulated cytokine milieu, Tat induces HHV8, which also encodes on its genome, viral IL-6. This IL-6 leads to increased expression of endothelial growth factor which, in turn, promotes angiogenesis.<sup>13,14</sup>

### Clinical Appearance

The skin is the most commonly affected organ, where this disorder may present with either a few localized lesions or diffusely (Color Plate 9-10). Any body area may be involved with red or purple, hyperpigmented, indurated patches, papules, nodules, plaques, or tumors, but there appears to be a higher predilection for the lower extremities. The lesions tend to be oval shaped, be symmetrically distributed, and to follow skin tension lines. In the oral cavity, the palate and gingiva are usually involved. Chronic lesions may show superficial changes such as scaling and crusting and they may even ulcerate.

### Differential Diagnosis

Bacillary angiomatosis, pyogenic granulomas, traumatic ecchymoses and hematomas, cutaneous B-cell lymphoma, angiosarcoma. If the clinical diagnosis is in question, simple punch biopsy of the lesion should be diagnostic.

### Treatment

Options for treatment vary according to the extent of the disease, rate of progression, the development of new lesions, and presence of systemic involvement. Therapeutic options for localized cutaneous disease are very different from widespread, symptomatic, systemic involvement (reviewed in Dezube, 2000<sup>15</sup>). Local disease can be treated by any number of modalities, including cryotherapy with liquid nitrogen, CO<sub>2</sub> laser ablation, infrared photo-coagulation, intralesional chemotherapy, surgical excision, electrofulguration, radiation therapy, and alitretinoin 0.1% gel applied topically.

Chemotherapeutic options include paclitaxel or the liposomal anthracyclines doxorubicin and daunorubicin. These modalities are useful for disseminated, symptomatic KS. Paclitaxel is very effective but has a higher incidence of myelosuppression, alopecia, and arthralgias than the liposomal anthracyclines, which are widely considered first-line chemotherapeutic agents in these patients. Radiation therapy is also very effective for palliation in advanced, symptomatic, and extensive disease. A radiation schedule of 3.5Gy/fraction at 3 fractions per week for a total cumulative dose of 21 Gy has shown to reduce visible tumor burden as soon as 2 weeks after completion of therapy.

The importance of successful antiretroviral therapy cannot be overstated. Studies have shown that HAART dramatically reduces the incidence of new KS lesions and can decrease the size of or even clear existing lesions.<sup>16</sup>

### Drug Eruptions

AIDS patients are at high risk for the development of adverse drug reactions because of the sheer number of medications they require as well as their body's dramatically altered immunologic milieu. The most critical knowledge for the health care worker caring for these patients is

the ability to differentiate between drug reactions that are serious and even life-threatening and those that may be tolerated in order to continue a necessary medication.

It has been widely recognized since the early 1980s that patients with AIDS suffer from an increased incidence of cutaneous eruptions directly attributable to trimethoprim-sulfamethoxazole<sup>17</sup> and that the incidence of drug eruptions from all sources was likely to be approximately ten times higher than in the general population.<sup>18</sup>

### Clinical Presentation

Unfortunately, the cutaneous manifestations of adverse drug reaction are manifold. While a morbilliform eruption with widespread erythematous macules and overlying papules is one of the more common manifestations, urticaria, bullous eruptions, pityriasis rosea-like lesions, palpable purpura, erythema multiforme, and others are also not rare.

### Diagnosis

The goal is to be able to differentiate between a primary cutaneous process in an ill patient and a drug-related cutaneous reaction. Here, the timing of the medication with the development of rash is critical because most eruptions begin 7-12 days after initiation of therapy. For unfamiliar lesions, a biopsy is always the safest route, making sure an analysis by direct immunofluorescence for immunoglobulin or complement deposition in the skin is performed. This is especially important in the bullous eruptions or eruptions suggestive of vasculitis.

### Treatment

Table 9-3 enumerates the most important indications for discontinuing a medication because of an adverse cutaneous reaction.

Apart from discontinuing medications, lesions of erythema multiforme that are causing significant discomfort may be treated with systemic corticosteroids. It should be noted that their use does not prevent progression to the more severe toxic epidermal necrolysis. Systemic corticosteroid use in toxic epidermal necrolysis is contraindicated and in Stevens-Johnson syndrome is debated. Intravenous immunoglobulin has been reported on a case-by-case basis to be successful in treating the more severe cutaneous drug eruptions, including toxic epidermal necrolysis.<sup>19</sup> However, to date there have been no controlled trials to prove its efficacy. If the offending medication is absolutely necessary, desensitization may be performed in cases of non-life-threatening adverse reactions.<sup>20</sup>

## SKIN PROBLEMS IN THE CHRONIC, BED-RIDDEN PATIENT

■ Immobilization during the latter stages of AIDS, especially when in the hospice environment, generates by itself a number of potentially chronic skin disorders. These often chronically bed-ridden patients, who lack any immune function, suffer from not only skin breakdown and infection, but also from disorders uniquely associated with increased body temperature as well as increased sweating and impotence of the normal sweating mechanisms. The following section deals with the diagnosis and management of intertriginous infections, and with miliaria and Grover's disease, which are often seen in such patients.



Table 9-3: Cutaneous Signs of Dangerous Adverse Drug Reactions

Syndrome	Clinical signs, symptoms
Constitutional symptoms	Fever, rigors, intolerable pruritus and skin discomfort, etc.
Vasculitis	Palpable purpura or new ulcers, digital infarcts, livedo reticularis or unexplained subcutaneous nodules or nonpruritic, painful and persistent urticaria
Mucous membrane involvement	Hemorrhagic erosions of the oral mucosa suggestive of Stevens-Johnson syndrome or the deadly toxic epidermal necrolysis, which presents with generalized skin sloughing
Blister formation	Diffuse or localized bullae
Hypersensitivity syndrome	May present as a morbilliform eruption but with severe systemic symptoms including high fever and organomegaly with elevated LFTs and peripheral eosinophilia.
Acute generalized exanthematous pustulosis	A diffuse pustular eruption (papules filled with white/yellow pus)
Lupus-like syndrome	Malar rash, photosensitivity combined with other symptoms suggestive of systemic lupus erythematosus
Erythroderma	A generalized, severe reddening of the entire skin surface
Angioedema	Swelling of the face, lips and oropharyngeal mucosa. If there is airway compromise it becomes a medical emergency requiring immediate ventilatory support.

### Intertrigo

Intertrigo is a general term that describes inflammation and/or infection of the intertriginous areas, specifically the perineum, inframammary region, axillae, and redundant skin folds in obese individuals. Three major infections—dermatophyte or tinea infections, *Candida* infections, and erythrasma, which is caused by *Corynebacteria*—all thrive in the warm, moist areas of the intertriginous spaces and are seen in both the healthy and the AIDS populations.

### Clinical Presentation

Tinea infections classically present with erythematous patches showing a more active, slightly elevated, scaling border as the fungus advances at the outer edges. The border is frequently scalloped and well defined. The scrotum is hardly ever involved in tinea infections. This is in contrast to *Candida* infections, which are generally more moist, weepy, and erythematous, with the characteristic satellite lesions at the periphery of the large patch. Erythrasma is much less common than the above but is important to recognize because of its clinical similarity and because, as a bacterial infection, will not respond to

antifungal agents. It usually presents as an erythematous/brownish intertriginous patch that has a characteristic coral red fluorescence under Woods lamp. Prompt attention to these conditions is important because inflammation and the frequent maceration seen predispose these patients to skin breakdown and superinfection with bacterial pathogens.

In addition to the overt infectious processes from dermatophytes, *Candida*, and *Corynebacterium*, other mimicking conditions may also flourish in the perineal region. Although psoriasis typically affects the extensor surfaces (i.e., knees, elbows) inverse psoriasis often appears in intertriginous spaces. Again with an erythematous, well-demarcated patch with heavy silvery scale, inverse psoriasis may resemble infectious intertrigo. When a friable bleeding base is revealed from gentle removal of scales, this condition should be considered. Additionally, as AIDS progresses, seborrheic dermatitis often becomes more widespread and not uncommonly involves the perineum. Greasy yellow scale on an ill-defined, erythematous base differentiates this condition from inverse psoriasis and infectious intertrigo. Finally, irritant contact dermatitis is a very common problem in the hospice setting. As patients approach terminal illness, incontinence and/or chronic diarrhea is very prevalent. This causes tremendous irritation, not dissimilar to diaper dermatitis of infants, accelerating the formation of decubitus ulcers and enhancing bacterial superinfection.

## Treatment

The treatment of dermatophyte and *Candida* infections is covered in Other Common Infections. The treatment for erythrasma is with topical erythromycin and antibacterial soaps, including benzoyl peroxide washes. In general, it is critical to reduce maceration and predisposing conditions. Appropriate skin care includes washing the affected areas daily or twice daily followed by the use of drying agents such as aluminum acetate or diluted acetic acid soaks and lotions. Hydrophobic barrier creams and ointments such as petroleum jelly or dimethicone- or silicone-containing creams can also be used to prevent recurrence of the problem. One therapy often used for uncomplicated diaper dermatitis is a compound made of 15 g of nystatin cream, 15 g of 2.5% hydrocortisone cream compounded in a zinc oxide base. Zinc oxide helps to dry the area, nystatin reduces yeast colonization, and the steroid reduces inflammation.

## Miliaria and Grover's Disease

Miliaria and Grover's disease are the more common heat-related conditions in bed-ridden patients. Miliaria, or "prickly heat" is a transient condition usually seen in children during the summer months and it is related to obstruction of eccrine sweat gland ducts. Grover's disease was originally described as a transient vesiculopapular eruption occurring usually in men over 50 years old. Chronic forms are not uncommon.

### Clinical Presentation

Miliaria cristallina presents with small, clear superficial vesicles in bedridden patients with increased perspiration and inadequate ventilation from tight or excessive clothing. Miliaria rubra, or prickly heat, is a very pruritic papulovesicular eruption that produces a burning or tingling sensation. It is common in the flexural fossae and intertriginous areas. Grover's disease is generally limited to the trunk and presents with erythematous 2 to 3 mm papules and vesicles. There is usually mild pruritus. Grover's disease is associated with increased temperature and sweating.

## Treatment

Miliaria is a self-limiting condition and requires no specific treatment besides reducing immobilization by frequent decubitus changes, and reducing overheating and heat entrapment by avoiding excessive clothing. Grover's disease, if chronic, can be treated with Class IV topical corticosteroids twice daily. For persistent cases, alternatives include a 6-month course of isotretinoin or PUVA.

## Decubitus Ulcers

The bedridden patient in any hospital or hospice environment is at constant risk for primary skin breakdown. This represents a significant risk in this immunologically debilitated population because open wounds, chronic diarrhea, and warm, moist environments are fertile ground for superinfection. The diagnosis and treatment of decubitus ulcers will be discussed separately. (See Chapter 25: Prevention of Skin Breakdown.)

## CONCLUSION

■ A careful history and a comprehensive physical examination with review of pertinent medications, medical history, and exposures are all essential to making a rapid diagnosis of the many potential dermatologic conditions that may arise in the AIDS patient. For the immunocompromised patient, it is essential that topical steroids not be given indiscriminately without accurate diagnosis. When in doubt, a simple biopsy and referral to a dermatologist will save the patient critical time spent on topical therapies that, through their ineffectiveness, may only prolong patient suffering.

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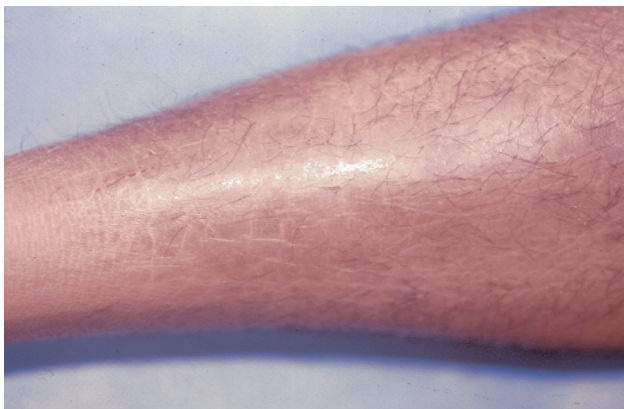
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**COLOR PLATE 9-1.** Prurigo nodules

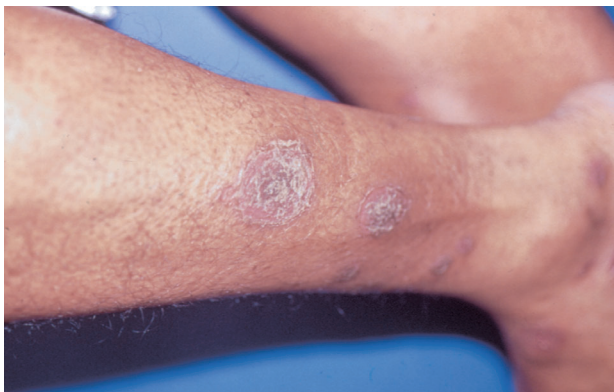
Credit: Ciro R Martins, MD

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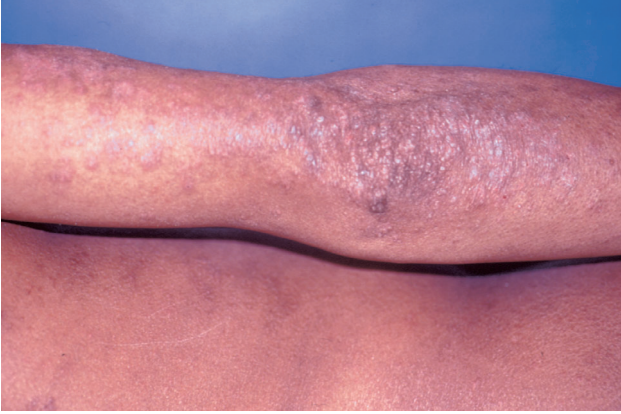
**COLOR PLATE 9-2.** Eczema craquele with ichthyosis

Credit: Ciro R Martins, MD



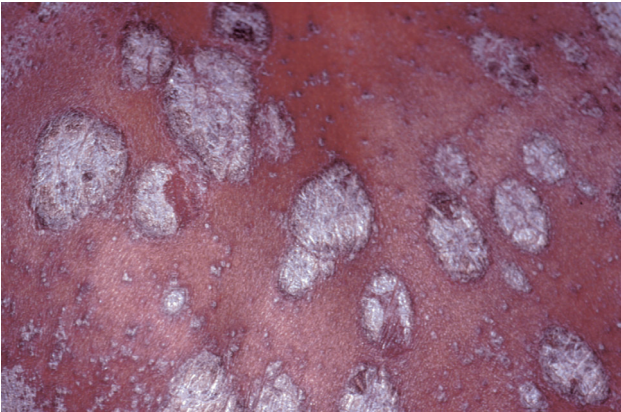
**COLOR PLATE 9-3.** Nummular eczema

Credit: Ciro R Martins, MD



**COLOR PLATE 9-4.** Atopic dermatitis

Credit: Ciro R Martins, MD



**COLOR PLATE 9-5.** Psoriasis

Credit: Ciro R Martins, MD



**COLOR PLATE 9-6.** Peri-anal herpes simplex virus

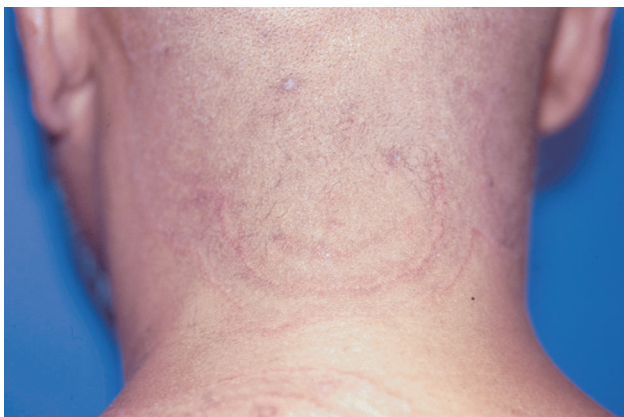
Credit: Ciro R Martins, MD



**COLOR PLATE 9-7. Molluscum**

Credit: Ciro R Martins, MD

IX



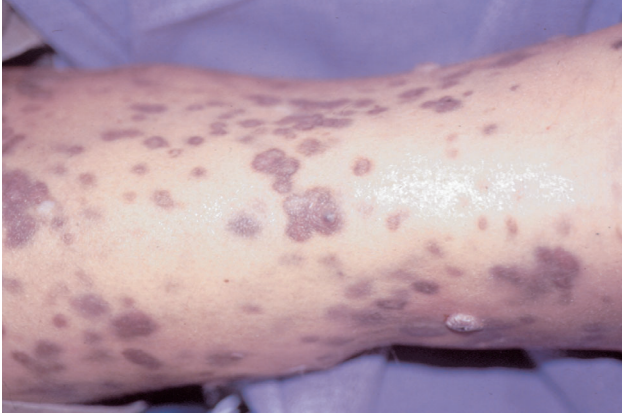
**COLOR PLATE 9-8. Tinea corporis**

Credit: Ciro R Martins, MD



**COLOR PLATE 9-9. Crusted scabies**

Credit: Ciro R Martins, MD



**COLOR PLATE 9-10.** Diffuse Kaposi's Sarcoma

Credit: Ciro R Martins, MD



## Psychiatric Problems

Marshall Forstein, MD

### INTRODUCTION

■ There are significant direct consequences to the invasion of HIV into the nervous system that may present as neurological, neuropsychiatric, and /or psychiatric syndromes and disorders. In addition, as the immune system deteriorates, myriad secondary physiologic and psychological problems can cause additional disturbances of brain function. These problems may arise acutely and require rapid evaluation and intervention or they may be chronic, sometimes subtle, and often present along with physical complaints. Particularly during palliative or end of life care, attention to disturbances of brain function improves quality of life and the ability of providers to honor patient wishes about limits of care.

Early involvement of mental health clinicians, particularly psychiatrists who can help with the differential diagnosis of presenting neuropsychiatric and psychiatric symptoms, should be sought whenever possible. The assessment and treatment of neuropsychiatric complaints are essential to both the overall well-being of the patient and to the efficacy of other treatments, particularly palliative care. In addition to the enormous psychological burden of progressive illness and loss of physical function, even subtle and subclinical changes in brain function may significantly affect both quality of life and the ability for a person to participate in his or her own medical care. This, in turn, has impacts on family members, loved ones, providers—that is, on the palliative care team itself. (See Chapter 20: Care for the Caregiver.)

Changes in a patient's mental state, either acute or chronic, throughout the course of HIV infection must be evaluated using a comprehensive conceptual framework that includes pre-existing medical and psychiatric disorders, as well as those arising from HIV (see Table 10-1).

Table 10-1: Differential Diagnosis of Acute and Chronic Mental Status Changes through the Course of HIV Infection

- The direct effect of HIV itself on brain tissue and function (primary HIV neuropsychiatric syndromes)
- The consequences of immune deficiency in the central nervous system itself: opportunistic infections, neoplasms, vasculitis
- The impact of systemic illness on brain function
- Endocrine or metabolic disturbances which affect brain function
- Effects of antiretrovirals and other medical and psychiatric treatments on brain function
- Pre-existing (to HIV) neurological and psychiatric disorders
- Neurological and psychiatric disorders that arise after HIV infection
- Persistent or intermittent substance use or withdrawal states

## INITIAL ASSESSMENT

■ Changes in mental status are always to be considered abnormal, not simply an understandable problem associated with having HIV, and should be considered a medical emergency. The initial assessment should begin by ruling out and treating any acute process (see Table 10-2). Some questions that may be useful to the clinician in the differential diagnosis are listed in Table 10-3.

Table 10-2: Causes of Change in Central Nervous System (CNS) Function

Type of Manifestation	Condition
Acute HIV-1 infection	• Viral meningitis
	• Ascending polyneuropathy
	• Encephalitis
Chronic HIV-1 infection	• Subclinical cognitive-motor impairment
	• Minor cognitive motor disorder
	• HIV-1 associated dementia (HAD)
<b>OPPORTUNISTIC INFECTIONS</b>	
Viral	• Herpes simplex encephalitis
	• Cytomegalovirus encephalitis
	• Progressive multifocal leukoencephalopathy
Fungal	• Cryptococcal meningitis
Protozoal	• Toxoplasma cerebritis
Other	• Mycobacterium tuberculosis meningitis
	• Neurosyphilis
Neoplastic disease	• Primary CNS lymphoma
	• Metastatic disease
	• Kaposi's sarcoma
Systemic/metabolic disorders	• Pneumonia → hypoxia
	• Anemia → hypoxia, depression, lethargy
	• Addison's disease
	• Thyroid disease
	• Hypogonadism
<b>TOXIC DISORDERS</b>	
Prescribed	• Antiretrovirals
	• Antimicrobials
	• Antineoplastic agents
	• Psychiatric agents
	• Anabolic steroids
Non-prescribed	• Substances of abuse
	• Withdrawal states
	• Herbal remedies

Table 10-3: Assessing Changes in Mental Status

- Is the change acute? or chronic? What is the time frame for the change?
- Does the problem appear to be in thinking, attention, mood or behavior?
- What specific changes in function, or symptoms, are reported by patient or others that might give a clue to the particular problem?
- Are presenting symptoms accompanied by fever? pain? other signs of autonomic dysfunction?
- Are there any focal neurological signs or symptoms?
- Have any new medications been started recently, including antivirals, psychiatric medications?
- Is there evidence of substance use by a complete toxic screen or other report rather than the patient's own report?
- Are there pre-existing psychiatric symptoms?

Since a patient may be unable to give a complete or accurate history, family and friends must be asked about any unusual behavior or sudden changes in the person's mental state. Any change in the patient's typical behavior or engagement must be evaluated urgently. Irritable and anxious patients often come to attention because they are obviously disturbed. Attention must also be paid, however, to the withdrawn and quiet patient.

Changes in personality, level of activity or interest in others may signal an acute CNS disturbance. Some changes are the direct effect of brain dysfunction, while others may be due to the acute psychological distress of a systemic problem. For example, the acute onset of pain in the feet due to neuropathy might affect cognition and behavior because of an acute anxiety or panic that the person is dying. On the other hand, the presence of transverse myelitis is often associated with HIV-related cognitive impairment.

The first step is to make an accurate diagnosis of one or more disorders that might account for the clinical presentation. The most common psychiatric diagnoses are depression, adjustment disorders, anxiety disorders, and the neuropsychiatric disorders resulting from HIV in the central nervous system. Table 10-4 presents a format to use to conduct a complete mental status exam.

Table 10-4: The Mental Status Exam in Primary Practice

<b>Elements of the Complete Psychiatric History</b>	History of psychiatric disorders in patient and family
	Number of psychiatric hospitalizations
	History of outpatient mental health treatment
	History of psychotropic medications used by patient or family members (note those deemed effective)
	History of suicidal ideation or violence in patient or family
	History of education and performance in school
	History of occupational functioning; current status
	Family/other support
	Legal history
	Risk behavior history

Table 10-4: The Mental Status Exam in Primary Practice (continued)

<b>Elements of the Mental Status Examination</b>  <i>The mental status examination is done by observation and by questioning the patient.</i>	<b>Assessment of General Appearance and Behavior</b>
	• Appearance: hygiene, grooming, clothing appropriate for the season and occasion, worn appropriately
	• Behavior: sits quietly, paces, impulsive, disorganized
	• Attitude: irritable, belligerent, cooperative
	• Speech: slow, rapid, soft, loud, slurred, spontaneous or minimal
	<b>Assessment of Insight and Judgment about Current Illness</b>
	• How does the patient understand what is happening?
	• Does the person attempt to reduce risk to self and others?
	• Current use of drugs and medications and the need for 95% adherence if on antivirals
	• How able is the person to follow through with directions?
	<b>Assessment of Mood</b>
	• Does the patient feel sad or depressed?
	• Does the patient express any ability to enjoy anything?
	• Is the patient anxious or irritable?
	• Is the patient withdrawn and without much affect?
	<b>Assessment of Suicidality</b>
	<b>Assessment of Thoughts</b>
A positive response to any of these questions should lead to referral to a psychiatrist.	
• Have you ever felt that your thoughts were being controlled by another person or that others could read your thoughts?	
• Do you think that people are out to get you? That there might be a plot against you?	
• Do you hear voices, or see or smell things that others don't?	
• Do you ever think that the radio or TV is sending you a private message from somewhere else?	
• Have you heard voices tell you to hurt yourself or others?	

## NEUROPSYCHIATRIC DISORDERS

### ■ It is important to remember the following points:

- The spectrum of neurological/neuropsychiatric manifestations depends on the degree of immunosuppression.
- Psychiatric disorders may pre-exist or result from HIV or both.
- Co-morbidity is the rule, not the exception—multiple pathologies insulating the CNS often co-exist.
- Few symptoms are pathognomonic.

HIV enters the brain at the time of initial infection. This may cause a cascade of immune responses that can cause acute or chronic cognitive impairment. With progressive disease, delirium often occurs as a consequence of illness and/or treatment, presenting with cognitive changes that are important to distinguish from depression or dementia.

HIV-infected patients with cognitive-motor impairment have increased mortality rates.<sup>1</sup> While specific cognitive deficits may be assessed most accurately by neuropsychological testing, the real impact on patients is related to their functional status. Changes in cognition, motor capacity, mood or behavior may be subtle or overt and can be dramatic. Even subtle neurocognitive impairments may affect the ability to work and psychological coping.<sup>2,3</sup>

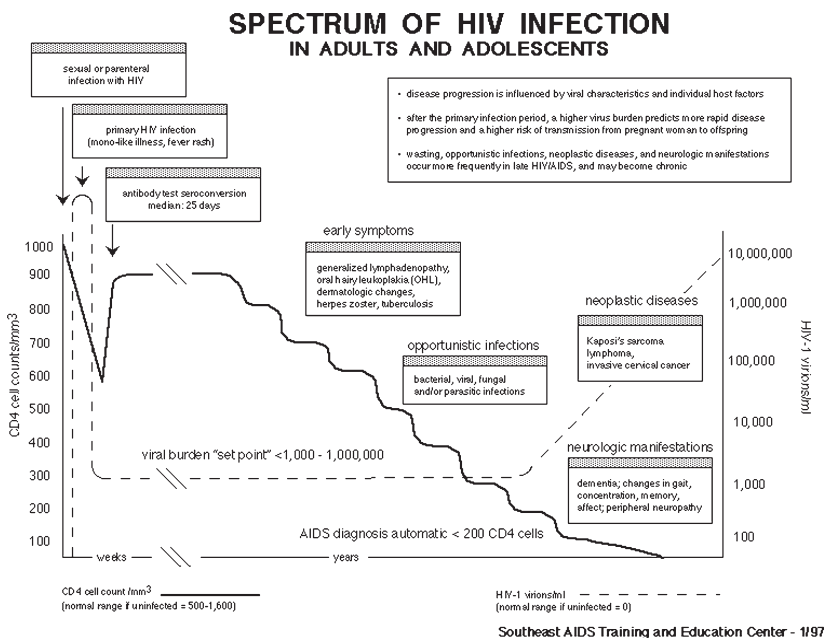
In the untreated adult, HIV-related neuropsychiatric disorders are most likely to be evident in late-stage illness. The neuropsychiatric syndromes (due to HIV itself in the brain) are dementia (HAD), minor cognitive-motor disorder (MCMD), and subclinical cognitive-motor impairment. In all cases, the diagnosis of primary HIV cognitive-motor disorder must be made as a diagnosis of exclusion. It has been argued that focusing on minor cognitive-motor disorder may be more important a focus of treatment than overt dementia because it is more likely to be reversible.<sup>4</sup>



### Clinical Neuropsychiatric Syndromes

While most primary brain impairment in adults occurs late in the course of infection, it is not possible to rule this out when patients present early with changes in mental status. (See Figure 10-1.)

Figure 10-1: The Course of Untreated HIV Infection in Adults and Adolescents



Source: Southeast AIDS Training and Education Center. Atlanta, GA: Emory University. 1997.  
 Available at [www.seatec.emory.edu/SEATEC/resources/MEDICAL/spectrum.gif](http://www.seatec.emory.edu/SEATEC/resources/MEDICAL/spectrum.gif).

Children and adults manifest the impact of CNS HIV infection somewhat differently. In adults the impact is on the developed brain and peripheral nervous system, with deterioration evident as the loss of neurological integrity or mental capacity. In children and adolescents HIV can prevent the normal growth and development of neural pathways, achievement of developmental milestones, or integration of cognitive, motor and affective components of the self at age-appropriate stages. For adults the impact is a loss of function whereas in children it is the failure to thrive or achieve some function altogether.

### HIV Dementia

There is now evidence that the presence and severity of HIV dementia correlates with the levels of HIV production in the CNS, as well as with macrophage activation.<sup>5,6</sup> HIV vRNA in the peripheral blood may not reflect the level of brain vRNA nor the degree of neurological dysfunction.<sup>7-13</sup>

HIV dementia is classified as a subcortical dementia and manifests as one or more of a clinical triad of progressive cognitive decline, motor dysfunction, and behavioral abnormalities.<sup>14</sup> Early symptoms include slowed information processing, cognitive and psychomotor slowing, and problems with verbal memory and new learning. Later on, evidence of difficulty with executive functioning appears, along with visual and spatial difficulties, and apraxias, and in the end stages may look similar to the global cortical dementias. (See Table 10-5.)

Table 10-5: Clinical Signs and Symptoms of HIV-Associated Dementia

Type of Impairment	Manifestations
Cognitive	<ul style="list-style-type: none"> <li>• Impaired concentration and attention</li> <li>• Impaired verbal memory (e.g. word finding)</li> <li>• Mental slowing</li> <li>• Difficulty with calculations/abstractions</li> <li>• Impairment of visuospatial memory</li> <li>• Lack of visuomotor coordination (e.g. eye movement abnormalities)</li> <li>• Difficulty with complex task sequencing</li> </ul> <p>LATE:</p> <ul style="list-style-type: none"> <li>• Global cognitive impairment</li> <li>• Mutism</li> </ul>
Motor	<ul style="list-style-type: none"> <li>• Unsteady gait or ataxia</li> <li>• Loss of balance</li> <li>• Slowed fine motor speed (noticeable more in non-dominant hand)</li> <li>• Tremors</li> <li>• Change in handwriting</li> <li>• Hyperactive DTRs</li> <li>• Weakness</li> </ul> <p>LATE:</p> <ul style="list-style-type: none"> <li>• Seizures</li> <li>• Decorticate posturing</li> <li>• Myoclonus</li> <li>• Spastic weakness</li> <li>• Frontal release signs</li> </ul>

Table 10-5: Clinical Signs and Symptoms of HIV-Associated Dementia (continued)

<b>Behavioral</b>	<ul style="list-style-type: none"> <li>• Psychomotor retardation (e.g. slowed speech or response time)</li> <li>• Personality changes</li> </ul> <b>LATE:</b> <ul style="list-style-type: none"> <li>• Hallucinations</li> <li>• Delusions</li> </ul>
<b>Affective</b>	<ul style="list-style-type: none"> <li>• Apathy, loss of interest in friends and others</li> <li>• Irritability</li> <li>• Mania</li> </ul>

## Neuropsychiatric Disorders in Adults

Adults typically present with complaints of difficulty with short term memory, difficulty paying attention and finding words, and feeling slowed down in thought process. Since memory difficulty is a common symptom, other psychiatric disorders and prior brain trauma must be ruled out. (See Table 10-6).

Table 10-6: Differential Diagnosis of Early HIV Dementia in Adults

- Anxiety
- Depression
- Medication side effects
- Metabolic encephalopathy
- Drug-drug interactions (especially with protease inhibitors)
- Alcohol and other recreational drugs

HIV-infected patients may have mild neuropsychological impairment that does not meet criteria for any specific disorder. It is important to recognize that this may be the initial stage of developing disease and should be followed closely. In doing so, clinicians must consider other conditions such as head trauma, epilepsy, learning disorders, aging, low intellectual ability, and alcohol or substance use. Deficits due to HIV would be evident as decline from previous function prior to HIV infection, thus requiring monitoring of impairment over time. Cognitive deficits due to other conditions would not necessarily be expected to progress if the underlying condition was stable or in remission, whereas impairment due to HIV would be expected to progress over time.

## Dementia

While prior estimates of dementia had been reported at 20% to 25% of individuals with AIDS,<sup>15</sup> it is now thought that the cumulative prevalence of dementia has been reduced to 7% to 10%, as a result of multidrug antiretroviral therapy.<sup>3</sup> This figure may rise as drug resistance increases and adherence falls over time. This may be due to the relatively poor penetration of antiretrovirals into the CNS, leading to incomplete viral suppression, resistance and reseeding of the peripheral blood with drug resistant strains of virus. The blood brain barrier (BBB) thus creates a sanctuary for HIV in the CNS, making it impossible to achieve complete viral suppression.

The diagnosis of HIV-associated dementia (HAD) is made by excluding all potential causes for a change in mental state according to criteria set out by the American Academy of Neurology,<sup>16</sup> shown in Table 10-7. Risk factors for dementia are listed in Table 10-8.

Table 10-7: Definitional Criteria for HIV-Associated Dementia (HAD)

Criterion	Description
<b>1. Acquired abnormality in at least two of the following cognitive abilities (present for more than or equal to one month):</b> Attention/concentration Speed of processing Abstraction/reasoning Visuospatial skills Memory learning Speech/language	Cognitive decline verified by history and mental status examination. When possible, history should be obtained from an informant and examination should be supplemented by neuropsychological testing. The cognitive dysfunction must cause impairment of work or in activities of daily living, with impairment not attributable solely to severe systemic illness.
<b>2. At least one of the following:</b>  Acquired abnormality in motor function or performance.  Decline in motivation or emotional control or change in social behavior.	Abnormality verified by physical examination, neuropsychological tests, or both.  Change characterized by any of the following: apathy, inertia, irritability, emotional lability, or new-onset impaired judgment characterized by socially inappropriate behavior or disinhibition.
<b>3. Absence of clouding of consciousness during a period long enough to establish the presence of criterion 1.</b>	
<b>4. Exclusion of another etiology by history, physical, and psychiatric examination and appropriate laboratory and radiologic tests.</b>	Alternate possible etiologies include active central nervous system opportunistic infections or malignancy, psychiatric disorders (e.g., depressive disorders), active substance abuse, or acute or chronic substance withdrawal.

Source: American Academy of Neurology AIDS Task Force. Nomenclature and research case definitions for neurological manifestations of human immunodeficiency virus type 1 (HIV-1) infection: report of a working group of the American Academy of Neurology AIDS Task Force. *Neurology* 41:778-85, 1991.

Table 10-8: Risk Factors for HIV Dementia

<ul style="list-style-type: none"> <li>• High plasma HIV RNA (may not correlate in significant % of cases)</li> </ul>
<ul style="list-style-type: none"> <li>• Low CD4 count</li> </ul>
<ul style="list-style-type: none"> <li>• Anemia</li> </ul>
<ul style="list-style-type: none"> <li>• Low body mass index</li> </ul>
<ul style="list-style-type: none"> <li>• Older age</li> </ul>
<ul style="list-style-type: none"> <li>• Intravenous drug use</li> </ul>
<ul style="list-style-type: none"> <li>• Constitutional symptoms prior to diagnosis of AIDS</li> </ul>
<ul style="list-style-type: none"> <li>• Co-morbidity with chronic encephalopathy or vacuolar myelopathy</li> </ul>



## Minor Cognitive-Motor Disorder (MCMD)

Minor cognitive-motor disorder (MCMD) is also a diagnosis of exclusion, according to the criteria set out in Table 10-9.<sup>16</sup> Patients failing to meet these criteria yet who manifest functional impairments or related anxiety and fear warrant attention as well. MCMD may result from many of the same risk factors as dementia. It is important to distinguish between progressive dementia and MCMD because the latter is a less severe disorder and does not progress necessarily to full dementia. This information may ameliorate a patient's fear of a continuing decline.

Table 10-9: Defined Criteria for HIV-Associated Minor Cognitive-Motor Disorder

### Probable Diagnosis (must meet all four criteria)\*

1. Acquired cognitive/motor/behavioral abnormalities verified by both a reliable history and by neuropsychological tests
2. Mild impairment of work or activities of daily living
3. Does not meet criteria for HIV dementia or HIV myelopathy
4. No other etiology present

\* A possible diagnosis of minor cognitive-motor disorder can be given if criteria 1, 2 and 3 are present and either (1) an alternative etiology is present and the cause of criterion 1 is not certain, or (2) the etiology of criterion 1 cannot be determined because of incomplete evaluation.

Source: American Academy of Neurology AIDS Task Force. Nomenclature and research case definitions for neurological manifestations of human immunodeficiency virus type 1 (HIV-1) infection: report of a working group of the American Academy of Neurology AIDS Task Force. *Neurology* 41:778-85, 1991.

## Subclinical Neurocognitive Impairment

The impact of HIV in the CNS may show up in neurocognitive testing in the absence of significant or consistent clinical complaints, signs or symptoms. A patient may have a very mild problem with memory, for instance, which might show up on testing but does not affect the person's ability to function in his or her work or home life. Since such neurocognitive testing would show evidence of cognitive deficits in patients without HIV as well, the long-term implications of such findings are not yet clear. Whether such patients are more likely to progress to MCMD or HAD as their viral loads increase and immune systems decline needs to be determined.

## Evaluation of Altered Mental Status

Table 10-10 lists the requisite elements of an evaluation of a patient for HAD or MCMD.<sup>17</sup>

TABLE 10-10: Evaluation of Altered Mental Status in Patients with HIV/AIDS

<b>Physical/neurological examination</b>	• Focal deficits, which may indicate space-occupying lesion, e.g., CNS lymphoma, toxoplasmosis, progressive leukoencephalopathy
	• Sensory changes, which may indicate peripheral neuropathy
	• Ataxia or changes in gait, which may indicate myelopathy
<b>Laboratory analyses</b>	• CBC with differential
	• Serum chemistries
	• Arterial blood gas in patients with pneumonia
	• VDRL, fluorescent treponemal antibody
	• B <sub>12</sub> , folate
<b>MRI</b>	• To rule out space-occupying lesions (PML, lymphoma)
<b>Lumbar puncture</b>	• To rule out acute infection (herpes, cryptococcal meningitis)
<b>Neuropsychological testing</b>	• AIDS dementia rating scale
	• Finger-tapping test
	• Trail-making test

Source: Adapted from Bialer PA, Wallack JJ, McDaniel JS. Human immunodeficiency virus and AIDS. In *Psychiatric Care of the Medical Patient*. Stoudmire A, Fogel BS, Greenberg DB, eds. New York: Oxford University Press, 871-88, 2000.

Additional elements may also be necessary for a comprehensive evaluation. For example, an acute change of mental state in a person known to be abusing drugs would require toxicological screening. Likewise, lumbar puncture and imaging studies may help confirm a diagnosis of HAD, as shown in Table 10-11. It must be remembered that co-morbidity is common and changes can occur rapidly, often requiring repeated examinations over time.

Table 10-11: Findings Indicative of HIV-Associated Dementia

### Cerebral Spinal Fluid (CSF) Findings

- Negative bacterial, fungal, viral cultures
- Negative cryptococcal antigen
- Negative VDRL
- Negative cytology
- Mild lymphocytic pleocytosis in 25%
- Increased proteins in 55%
- Elevated b<sub>2</sub> microglobulin > 3.8mg/dl
- Elevated neopterin, sTNF $\alpha$

Table 10-11: Findings Indicative of HIV-Associated Dementia (continued)

**CT/MRI Brain Scan Findings**

- Cerebral atrophy with resultant ventricular enlargement
- Diffuse and symmetrical periventricular T-2 abnormalities

Dementia and minor cognitive motor disorder are always diagnoses of exclusion. In late-stage disease, particularly when CD4 counts are below 200, there are many disorders that may present with similar clinical signs, as shown in Table 10-12.<sup>18</sup> Table 10-13 illustrates the distinguishing characteristics of progressive multifocal leukoencephalopathy and HIV-associated dementia.<sup>19</sup> Laboratory and imaging findings are necessary for accurate diagnosis and appropriate intervention.

Table 10-12: Major CNS Manifestations of HIV Infection

Diagnosis	CD4 Cells/ $\mu$ l	Symptoms	Signs	Diagnostic Studies
<b>BRAIN</b>				
<b>Neurosyphilis</b>	Any	Headache Memory loss Visual disturbances	Dementia Stroke Meningeal or myelopathic signs Cranial nerve palsies	CSF: increased leukocyte count, increased protein; CSF and serum: VDRL, FTA
<b><i>Cryptococcus neoformans</i> meningitis</b>	<200	Headache Neck stiffness Memory loss Lethargy Confusion	Fever Meningeal signs Cranial nerve palsies	CSF: India ink; CSF and serum: <i>cryptococcus neoformans</i> antigen and culture
<b>HIV-associated dementia</b>	<200 (occasionally higher)	Memory loss Gait disorder Behavioral change	Dementia Spasticity Psychosis	CT/MRI: brain atrophy, white matter abnormalities; Neuropsychologic studies
<b>Toxoplasma encephalitis</b>	<200	Headache Confusion Lethargy Seizures Focal weakness	Dementia Ataxia Hemiparesis Aphasia Visual field loss	Serum: Toxoplasma antibodies; CT/MRI: multiple enhancing lesions, edema

Table 10-12: Major CNS Manifestations of HIV Infection (continued)

Diagnosis	CD4 Cells/ $\mu$ l	Symptoms	Signs	Diagnostic Studies
<b>BRAIN (continued)</b>				
<b>CNS lymphoma</b>	<100	Headache Confusion Lethargy	Dementia Hemiparesis Aphasia Memory loss Seizures Weakness	CT/MRI: enhancing lesions (especially if single), edema; SPECT/PET: tracer uptake; stereotactic brain biopsy; CSF: EBV PCR
<b>PML</b>	<200 (occasionally higher)	Weakness Aphasia Visual loss Focal weakness Gait disorder	Hemiparesis Ataxia Aphasia Visual field loss	CT/MRI: multiple hypodense, nonenhancing white matter lesions; stereotactic brain biopsy; CSF: JC virus PCR
<b>CMV encephalitis</b>	<50	Progressive confusion Apathy Weakness	Dementia Cranial neuropathies Spasticity Retinitis	CT/MRI: periventricular and meningeal abnormalities; CSF: CMV culture/PCR, electrolyte abnormalities
<b>SPINAL CORD</b>				
<b>Vacuolar myelopathy</b>	<200	Gait dysfunction Lower extremity weakness and stiffness Urinary dysfunction Impotence	Spastic paraparesis Hyperreflexia Babinski sign Sensory abnormalities	MRI/CSF: normal or nonspecific abnormalities; SEP: central conduction abnormalities

CMV: cytomegalovirus; CSF: cerebrospinal fluid; CT: computed tomography; EBV: Epstein Barr virus; FTA: fluorescent treponemal antibody; MRI: magnetic resonance imaging; PCR: polymerase chain reaction; PET: positron emission tomography; SEP: somatosensory evoked potentials; SPECT: single photon emission computed tomography; VDRL: venereal disease research laboratory test.

Source: Simpson, DM. Update on neurological complications of HIV (Monograph). Bristol-Meyers Squibb, p 3. Monograph based on Simpson DM, Tagliati M. Neurological manifestations of HIV infection. *Ann Intern Med* 121:769-85, 1994. [Published erratum appears in *Ann Intern Med* 122:317, 1995.]

Table 10-13: Distinguishing Characteristics of HIV-Associated Dementia and Progressive Multifocal Leukoencephalopathy

Characteristic	HIV-Associated Dementia (HAD)	Progressive Multifocal Leukoencephalopathy (PML)
<b>Clinical</b>		
Dementia	Prominent	Less common
Progression	Usually slow (months)	Variable
Focal neurologic findings	Less common	Characteristic
<b>Radiographic</b>		
Subcortical involvement	Common	Characteristic
MRI/T-1 weighted image	Isointense	Hypointense
MRI/T-2 weighted image	Bilateral symmetrical hyperintensity	Asymmetric, multifocal hyperintensity
Enhancement	No	Faint and peripheral (5 to 10%)
Infratentorial lesions	Uncommon	Often ( $\geq 30\%$ )
<b>CSF</b>		
JCV DNA PCR positive	Negative	Positive

Source: Adapted from Berger JR, Gallo BV, Concha M. In Berger JR, Levy RM, eds. *AIDS and the Nervous System*, 2<sup>nd</sup> ed. Philadelphia: Lippincott-Raven Publishers, 1997.

## Neuropsychiatric Disorders in Children

CNS deficits in children may be due to the direct impact of HIV; intrauterine or perinatal insults; or, other environmental problems.<sup>20,21</sup> The terms *HIV-associated progressive encephalopathy* or *HIV encephalopathy*, rather than *dementia*, are used to designate the primary impact of HIV on developing neural tissue. Because there are other syndromes, such as mental retardation, prematurity and maternal drug use, that can present with similar symptoms, longitudinal assessment is necessary to make diagnoses of HIV encephalopathy in children.

Three profiles have been described in HIV-positive children: those without impairment in function, those with compromise of the CNS, and those with encephalopathy.<sup>22,23</sup> While progressive encephalopathy is generally observed in the context of immunosuppression, CD4 count and other markers of immunologic functioning do not correlate with the degree of cognitive impairment.<sup>24</sup>

Cognitive deficits in children with compromise of the CNS tend to be milder and less global than in children with encephalopathy. Children infected perinatally who experience early and severe immunodeficiency may show pronounced developmental problems. Progressive encephalopathic changes cause impaired brain growth, including motor dysfunction, impaired social skills development, dysprosody, flattened affect, and apathy, as well as abnormal developmental milestones. HIV-infected children may have impairments in intelligence and language functioning, with expressive language more impaired than receptive. Many HIV-positive children have poor academic performance, exacerbated by frequent absences due to medical illnesses. Visual motor deficits are common and may correlate with progression of disease.<sup>25</sup>

## Treatment of Neuropsychiatric Disorders in Adults and Children

Treatment includes strategies for decreasing viral load in the brain and periphery, rapid and adequate treatment of co-occurring systemic illness, and restitution of metabolic and endocrine function. The major impediment to achieving viral suppression in the CNS has been the lack of penetration of antiretrovirals across the BBB. While AZT has the best evidence of being able to improve cognitive motor impairment associated with HIV, only high doses (1000-2000mg/d) have proven to be clinically significant.<sup>26</sup> Table 10-14 shows the relative penetration of antiretrovirals into the cerebrospinal fluid.<sup>27-30</sup>

Table 10-14: CSF/Plasma Ratio of Antiretrovirals by Percent

Nucleoside Analogs		Non-Nucleoside RT Inhibitors		Protease Inhibitors	
Zidovudine	60%	Nevirapine	45%	Indinavir	16%
Stavudine	40%	Delavirdine	2%	Saquinavir	<5%
Abacavir	40%	Efavirenz	1%	Ritonavir	<5%
Didanosine	20%	Nelfinavir	<5%		
Zalcitabine	15%	Amprenavir	<5%		
Lamivudine	10%				

Source: Adapted from Brew BJ, Brown SJ, Catalan J, et al. Safety and efficacy of abacavir in AIDS dementia complex. Presented at the XIIIth International Conference of AIDS, Geneva, Switzerland (Abstract), 1998; Monteforte A, Musico M, Galli M, et al. Italian multicenter study of didanosine compassionate use in advanced HIV infection. *Eur J Microb Infect Dis* 16:135-42, 1997; Pizzo PA, Butler K, Balis F, et al. Dideoxycytidine alone and in an alternating schedule with zidovudine in children with symptomatic human immunodeficiency virus infection. *J Pediatr* 117:799-808, 1990; and Thomas SA, Segal MB. The transport of the anti-HIV drug, 2',3'-dideoxy-3'-deoxythymidine (D4T), across the blood brain and blood-cerebrospinal fluid barriers. *Br J Pharmacol* 125:49-54, 1998.

The nucleoside reverse transcriptase inhibitors, zidovudine (AZT), stavudine (d4T), lamivudine (3TC) and abacavir most readily penetrate the blood brain barrier (BBB). Non-nucleoside reverse transcriptase inhibitors nevirapine and efavirenz may reach inhibitory concentrations in the CSF.<sup>31</sup> Protease inhibitors are of particular concern as indinavir is the only one able to reach viral inhibitory concentrations of >95%.<sup>32</sup> Currently there are no published studies of the CNS penetration of newer antiretrovirals such as lopinavir or tenofovir. More recent studies have shown that there may not be a correspondence between antiretroviral levels in the CSF and the level of HIV activity in the brain. So far, the best predictor of maintaining cognitive function seems to be decreasing peripheral viral load as much as possible.

The incidence of cognitive impairment has decreased since the advent of highly active antiretroviral therapies (HAART), but may be on the rise because of incomplete viral suppression and increasing viral resistance. Since other AIDS-defining diagnoses have decreased in the era of multidrug therapy, dementia constitutes a higher percentage of AIDS-defining illnesses.

Immune modulation using calcium channel blockers (e.g., nimodipine, memantine), inhibitors of Tumor Necrosis Factor Alpha (TNF $\alpha$ ) (e.g., pentoxifylline), and alpha interferon and naltrexone, have been studied. There are, however, no clear guidelines to their use in clinical practice at this time.

Psychostimulants, such as methylphenidate, dextroamphetamine, and pemoline, have generally been found to be clinically effective in enhancing attention and executive function.<sup>33,34</sup> Dosage information for these drugs appears in Table 10-15. Modafinil, which has FDA approval for narcolepsy, has been clinically useful in some HIV patients with fatigue and excessive daytime sleepiness, although there is limited information as to its effect on cognitive function.

Table 10-15: Dosage for Medications Used in Treating HIV-Related Cognitive Disorders

- Psychostimulant dosing should start low and increase slowly, monitoring for agitation, palpitations, increased blood pressure, or disturbance in sleep.
- Some patients respond to one type of stimulant better than to others, and long-acting preparations are useful in prolonging the effect on cognition with less frequent dosing.
- Clinically, very few drug-drug interactions are seen, and side effects of stimulants are usually mild and easily managed.
- Although the following are common dosing patterns, significantly higher doses have been used, particularly in patients with pain syndromes.

Drug	Dosing	Comments
Methylphenidate (Ritalin, Concerta, Metadate)	10 to 80mg/day	Short-acting: q 4 to 6 hours / long-acting (SR): q 8 to 12 hours
Amphetamine: dextroamphetamine (Dexedrine, Dextrostat; Dexedrine spansules)	5 to 60mg	Short-acting: q 4 to 6 hours; long-acting (spansules): q 8 to 24 hours
Amphetamine: combination amphetamine (Adderall; Adderall XR)	10 to 40mg	q 6 to 8 hours; qd
Pemoline (Cylert)*	18.5mg to 148mg	Dose 1qd or bid

\* Concerns about pemoline-induced liver failure necessitate frequent blood tests to evaluate liver function. Should not be used in patients with co-morbid HIV and hepatitis C.

Dopaminergic agonists have improved neuropsychological performance in some instances. Case studies of carbidopa, L-dopa, and selegiline, a monoamine oxidase type B inhibitor, have suggested some preliminary benefit. The use of donepezil and tacrine to increase cholinergic transmission may also prove to be of value, but to date there are no studies to support this.<sup>35,36</sup>

Correction of nutritional deficits in cobalamin (vitamin B<sub>12</sub>) and pyridoxine (vitamin B<sub>6</sub>) may boost a patient's cognitive function and general well-being. Other nutritional interventions that may prove to be useful include omega-3-fatty acids, folate, s-adenosylmethionine and zinc.<sup>37,38,39</sup> The routine workup for a change in mental state should include vitamin B<sub>12</sub> and folate levels.

Supportive and cognitive-behavioral psychotherapies are effective in addressing a patient's anxieties and fears about progressive cognitive decline. Associated with entering a more terminal phase of illness, end of life issues always arise, and providers can offer palliative treatment with antiretrovirals and psychostimulants to maximize cognitive capacity and quality of life.

## Treatment of Late-Stage Dementia

HIV subcortical dementia may progress to a global dementia in the later stages. At this point, a patient's intellectual function, decisionmaking capacity and behavioral control may be impaired. Psychostimulants should be evaluated often and decreased if there are signs of agitation or excessive motor activity. Late-stage dementia is often complicated by concurrent delirium due to medications, metabolic disturbances, or acute infections. Agitation and psychotic features such as hallucinations or paranoia can best be treated with risperidone and/or lorazepam. If an oral route of administration is not possible, IV haloperidol (.25 to 1mg) and IV lorazepam may be helpful in controlling agitation and psychotic features.

## Treatment of Cognitive Disorders in Children

There are limited studies of AZT and ddI showing improvement in children with AIDS and that for the most part, these medications are well tolerated.<sup>40,41,42</sup> While psychostimulants have not been systematically studied in children and adolescents with HIV, there is a long medical experience with them in treating attention deficit disorders in children and adolescents.

## Delirium and the Impact of Medications on Central Nervous System Function

Delirium in the HIV-infected patient can result from acute primary HIV infection of the brain, consequences of infections, metabolic derangement, medications, and acute substance intoxication or withdrawal, and is more likely in the setting of advanced illness or hospitalization.<sup>43,44</sup>

Hypoxemia due to *pneumocystis carinii* pneumonia may cause an acute change in mental state, as can uremia secondary to HIV nephropathy or elevated ammonia levels due to hepatic disease. Table 10-16 lists common side effects of medications used in the care of the HIV-infected patient that also must be considered.<sup>45</sup>

Intoxication or withdrawal from either prescribed or non-prescribed medications must be ruled out. There can be multiple causes of acute changes in mental status. If the delirious condition does not improve with treatment for an obvious potential cause, the clinician must look for other co-morbid conditions.



Table 10-16: Neuropsychiatric Side Effects of Selected Medications Used in HIV Disease

Drug	Target Illness	Side Effects
Acyclovir	Herpes encephalitis	Visual hallucinations, depersonalization, tearfulness, confusion, hyperesthesia, hyperacusis, thought insertion, insomnia
Amphotericin B	Cryptococcosis	Delirium, peripheral neuropathy, diplopia
b-Lactam antibiotics	Infections	Confusion, paranoia, hallucinations, mania, coma
Co-trimoxazole	<i>Pneumocystis carinii</i> pneumonia	Depression, loss of appetite, insomnia, apathy
Cycloserine	Tuberculosis	Psychosis, somnolence, depression, confusion, tremor, vertigo, paresis, seizure, dysarthria
Didanosine	HIV	Nervousness, anxiety, confusion, seizures, insomnia, peripheral neuropathy
Efavirenz	HIV	Nightmares, depression, confusion
Foscarnet	Cytomegalovirus	Paresthesias, seizures, headache, irritability, hallucinations, confusion
Interferon- $\alpha$	Kaposi's sarcoma	Depression, weakness, headache, myalgias, confusion
Isoniazid	Tuberculosis	Depression, agitation, hallucinations, paranoia, impaired memory, anxiety
Lamivudine	HIV	Insomnia, mania
Methotrexate	Lymphoma	Encephalopathy (at high dose)
Pentamidine	<i>Pneumocystis carinii</i> pneumonia	Confusion, anxiety, lability, hallucinations
Procarbazine	Lymphoma	Mania, loss of appetite, insomnia, nightmares, confusion, malaise
Quinolones	Infection	Psychosis, delirium, seizures, anxiety, insomnia, depression
Stavudine	HIV	Headache, asthenia, malaise, confusion, depression, seizures, excitability, anxiety, mania, early morning awakening, insomnia
Sulfonamides	Infection	Psychosis, delirium, confusion, depression, hallucinations
Thiabendazole	Strongyloidiasis	Hallucinations, olfactory disturbance
Vinblastine	Kaposi's sarcoma	Depression, loss of appetite, headache
Vincristine	Kaposi's sarcoma	Hallucinations, headache, ataxia, sensory loss
Zalcitabine	HIV	Headaches, confusion, impaired concentration, somnolence, asthenia, depression, seizures, peripheral neuropathy
Zidovudine	HIV	Headache, malaise, asthenia, insomnia, unusually vivid dreams, restlessness, severe agitation, mania, auditory hallucinations, confusion

Source: Adapted from Grant I, Atkinson JH Jr. Neuropsychiatric aspects of HIV infection and AIDS. In Sadock BJ, Sadock VA, eds. *Kaplan and Sadock's Comprehensive Textbook of Psychiatry*. Philadelphia: Lippincott Williams & Wilkins, 1999.

## PSYCHIATRIC DISORDERS

■ Psychiatric disorders are common in patients infected with HIV, and may either predate HIV or occur during the course of living with the disease. Many psychiatric disorders become apparent at an age when risk for HIV may be high, such as in late adolescence or early adulthood. The appearance of psychiatric symptoms is not necessarily directly attributable to the neuropathic effects of HIV.<sup>46, 47, 48, 49</sup>

Table 10-17: Common Clinical Misperceptions Regarding Psychiatric Issues

Psychiatric Issue/ Disorder	Clinical Misperceptions	Remember to Ask About
Major depression	“Anyone would be depressed or grieving,” forgetting biologic depression	Vegetative symptoms (early morning awakening, diurnal mood variation, appetite disturbance); anhedonia more than sadness
Bipolar mood disorder	“Depressed mood must mean depression,” forgetting bipolar symptoms	Hypomanic/manic symptoms (history of racing thoughts, hyperactivity, no need for sleep, grandiose plans, irritability)
Psychosis	“The patient seems normal,” forgetting hallucinations and paranoia	Psychotic symptoms: “Do you ever hear your name called, turn around and no one is there? or a phone ringing?” “Ever feel like people are talking about you walking down the street?”
Delirium	“The patient is clearly schizophrenic or psychotic,” forgetting acute medical etiologies	Distractibility, disorientation, dysarthric speech; inability to sustain, focus attention; misperceptions; mumbling or muttering
Sexual abuse/assault history	“Too personal; may embarrass or offend”	“Were you ever sexually, physically abused in childhood? Assaulted as an adult?” Do not ask details.
Anxiety, panic, agoraphobia	“Must be drug-seeking;” “Anyone would be anxious”	Panic symptom, sense of doom, tachycardia (repeated episodes), impairment of function; avoids crowded places
Domestic violence	“Seems like a nice person”	“Is there anyone in your life now or in the past who makes you feel unsafe?”
Suicidal ideation	“May plant the thought in their mind, provoke it”	“Have you ever felt like hurting or killing yourself? Have a plan? Have the means?”

Source: Kobayashi J. Psychiatric Issues. In Anderson JR, ed. *Guide to Clinical Care of Women with HIV*. Rockville, Maryland: U.S. Department of Health and Human Services, Health Resources and Services Administration, HIV/AIDS Bureau, 2001, p.303.

The diagnosis and treatment of psychiatric disorders is essential to the well-being of a person infected by HIV. Depression, for example, has been associated with shorter survival times in HIV-infected men<sup>50</sup> and women. Appropriate mental health care is also essential if patients are to engage in treatment and sustain sobriety and protective sexual practices.

It is never appropriate to assume that a psychiatric symptom is merely an “understandable” emotional reaction to a particular situation. Table 10-17 lists some common misperceptions in this regard.

## Mood Disorders

Mood disorders are associated with substance use, impaired quality of life, mental suffering, suicide, poor adherence to antiretroviral regimens and increased risk for behaviors such as multiple sexual partners and drug use that transmit HIV.<sup>51</sup>

### Depression

Studies show that depressive disorders are very common but underdiagnosed and undertreated in HIV infection.<sup>52,53</sup> Depressive symptoms increase over the course of HIV illness, especially after the onset of AIDS. These increases are not necessarily associated with HAD or MCMD.

Depression must be differentiated from many other conditions common in HIV which are presented in Table 10-18. Major depression is never a “normal” response to a particular situation. It must be approached with the same rigor as any other medical illness.

Patients often feel that they are depressed for good reason, or that they feel fatigued and sad because they are sick. Providers must understand and make clear that depression is a treatable medical illness that responds well to both psychotherapy and medications. Somatic symptoms, such as fatigue, trouble sleeping, decreased appetite or sexual drive, and mental slowing are also symptoms of HIV-related cognitive disorders. Symptoms of anhedonia, guilty feelings, sadness and loss of hope may be helpful in distinguishing depression from cognitive impairment.

### Depression at the End of Life

Even at the end of life, depression is a disorder that requires treatment, and should never be considered a normal response to illness or dying. Patients who are not clinically depressed may talk about the sadness of leaving others behind, of dying, or of fear of the unknown. Depressed patients near the end of life will likely have flattened affect or an inability to respond appropriately to loved ones, or might be withdrawn and mute. When in doubt, using low dose psychostimulants may be very helpful in reducing the depression, and increasing cognitive function even in the last weeks of life. In the agitated or anxious patient very low doses of risperidone (.25 to 1mg) or olanzapine (1.25 to 5mg) may be a helpful treatment.

Providers must distinguish between depression and grief. While sadness may be present in both conditions, grief is a normal reaction to loss or impending loss. Further, grief may manifest differently across cultures. Anticipating the loss of function and quality of life, and acknowledging an impending death, can appear to observers like depression. Grief, however, is often accompanied by powerful and profound affective states and crying, while severe depression appears more like an emotional paralysis, with patients often unable to mobilize any affect other than hopelessness.

Table 10-18: Differential diagnosis of major depressive disorder (MDD)

<b>Disorder</b>	<b>Differentiated from MDD by:</b>
Bipolar disorder	Racing thoughts, increased energy, decreased need for sleep, irritability, hypersexuality (these may coexist with depressed mood in a mixed bipolar state)
Grief	Onset associated with the loss; responsive to changes in the environment with less sadness or enjoyment; decreasing severity over time; preoccupation with deceased; “psychotic” symptoms related to deceased such as seeing, being visited by the deceased; rare suicidal intent although reunion fantasies may exist
Adjustment disorder with depressed mood	Sadness is rarely as profound; little anhedonia; no vegetative symptoms; identifiable precipitant; responsive to environmental change; suicidal ideation and intent may still occur
Organic mood disorder	Identifiable agent linked by time; less anhedonia or hopelessness; test for specific medical conditions such as TSH, B12, VDRL or RPR, CNS evaluation; no family history
Dementia	Less concern with cognitive decline; more gradual changes; may respond with laughter; worse at night; specific neurological deficits; CT scan often abnormal
Delirium	Fluctuating mental status with altered level of consciousness; distractibility; inability to focus or sustain attention; dysarthric speech; agitation; medical etiology
Medication-induced, substance-induced mood disorders	Onset with use of: steroids, anticholinergics, sedative-hypnotics, anticonvulsants, antiparkinsonians, beta-blockers, anti-TB meds; sympathomimetics; azidothymidine, stavudine; all illicit drugs; urine toxicology screen; medication history

TSH, thyroid-stimulating hormone; VDRL/RPR, nontreponemal serologic tests for syphilis.

Source: Kobayashi J. Psychiatric issues. In Anderson JR, ed. *Guide to Clinical Care of Women with HIV*. Rockville, Maryland: U.S. Department of Health and Human Services, Health Resources and Services Administration, HIV/AIDS Bureau, 2001, p. 304.

## Affective Disorders in Children and Adolescents

Rates of psychiatric disorders among HIV-positive children and adolescents are generally similar to those among adults. One study showed 85% had at least one Axis I diagnosis<sup>54</sup> and 53% had history of psychiatric contact prior to their HIV diagnosis. Among adolescents, 34% had major depression according to one study,<sup>54</sup> and 25% had major depressive disorder and high rates of distress in another.<sup>55</sup> Children and adolescents come to the attention of providers less with internalizing disorders (depression and anxiety) than externalizing disorders (conduct-behavioral disorders).<sup>56</sup>

Depression in children and adolescents must be evaluated in the context of HIV disease, the cognitive and emotional stage of development, and manifestations of HIV in the CNS. Suicidality must be thoroughly assessed and treated. One study showed 28% of HIV-positive adolescents reported a suicide attempt.<sup>57</sup> Another study showed one third of HIV-positive adolescents required hospitalization because of a suicide attempt.<sup>54</sup> Children and adolescents may express hopelessness over the future, fear of themselves or their infected parents dying, or being unable to participate with their peers as “normal” children due to physical or cognitive limitations.

## Mania

As with depression, rates of mania increase as HIV disease progresses. Only 1 to 2% of patients with early HIV experience a manic episode. Since this is only slightly higher than rates for mania in the general population, this may reflect the increased risk for infection with HIV due to hypersexuality, poor judgment and/or substance use that are associated with bipolar disorder. However, as HIV progresses to AIDS, 4 to 8% may have a manic episode.<sup>58,59</sup> In addition, mania in advanced disease can be associated with cognitive changes or HIV dementia.

AIDS-related mania can differ clinically from the true mania of bipolar disorder in that irritability, rather than true grandiose euphoria, is the core symptom.<sup>60</sup> Common symptoms of mania include the following:

- Decreased sleep, increased activity
- Increased talkativeness, pressured speech
- Evidence of racing thoughts
- Attention to unimportant or irrelevant activities
- Grandiosity or inflated sense of self
- Hallucinations or delusions
- Increased goal-oriented activity
- Psychomotor agitation
- Excessive spending, or sexual activity without good judgment

The clinical presentation of mania requires emergency psychiatric intervention, particularly if psychotic symptoms are present and judgment is impaired.

Prescribed and illicit use of androgenic and/or anabolic steroids can cause or exacerbate mania or hypomania and should be ruled out in the work-up of this symptom. Gancyclovir and dapsone have also been associated with increased rates of mania.

## Treatment of Mood Disorders

Treatment of mood disorders must be tailored to the individual patient's illness and circumstances. Although antidepressant medications are commonly prescribed by primary and palliative care providers, referral to a psychiatrist should be made when the patient experiences significant side effects or does not respond to the psychopharmacological intervention. Clinically depressed patients with HIV have been shown to benefit from a therapeutic relationship and from medications to alleviate depressive symptoms.<sup>61</sup> Additional studies have indicated that some types of psychotherapy and medications together may be more effective in treating depression than either one alone.<sup>62</sup> Additionally, management of psychotropic medications in the debilitated, fragile AIDS patient may be difficult and warrant specialist consultation.

Table 10-19: Common Psychiatric Medications

<b>Disorder</b>	<b>Medication(s)</b>
Major depressive disorder with or without anxiety May also be useful in PTSD	<b>Bupropion</b> (Wellbutrin -SR): 50 to 300mg; divided doses <b>Venlafaxine</b> (Effexor XR): 37.5 to 225mg <b>Citalopram</b> (Celexa): 10 to 40mg (SSRI) <b>Escitalopram</b> (Lexapro): 5 to 20mg (SSRI) <b>Sertraline</b> (Zoloft): 25 to 200mg (SSRI) <b>Fluoxetine</b> (Prozac): 10 to 80mg (SSRI) <b>Paroxetine</b> (Paxil): 10 to 50mg (SSRI) <b>Mirtazapine</b> (Remeron): 15 to 45mg* <b>Nefazodone</b> (Serzone): 50 to 400mg*
HIV-related depression/ fatigue (with or without MCMD)	<b>Methylphenidate</b> (Ritalin, Metadate, Concerta): 10 to 80mg/day; short-acting q 4 to 6 hours, long-acting (SR) q 8 to 12 hours <b>Dextroamphetamine</b> (Dextrostat, Dexedrine; Dexedrine spansules): 5 to 60mg/day; short-acting q 4 to 6 hours, long-acting (spansules) q 8 to 24 hours <b>Combination amphetamine</b> (Adderall, Adderall XR): 10 to 40mg/day; Adderall q 6 to 8 hours, Adderall XR qd <b>Pemoline</b> (Cylert): 18.5mg to 148mg; dose 1qd or bid **:**
Bipolar disorder	<b>Lithium carbonate</b> (Lithobid/Eskalith): 600 to 1800mg, titrated by blood levels (0.6 to 1.0mEq/L) <b>Valproic acid</b> (Depakote): 500 to 2000mg, titrated by blood levels (50 to 100mg/mL) <b>Gabapentin</b> : 600 to 3000mg/bid-qid (start 100mg tid and titrate) <b>Topiramate</b> : 25 to 100 mg/bid-tid (max=400mg qd) <b>Lamotrigine</b> : 25 to 100mg/bid-tid (max=200 qd)
Psychotic symptoms (may be useful for agitation associated with dementia/delirium)	<b>Risperidone</b> (Risperdal): 0.5 to 6mg <b>Olanzapine</b> (Zyprexa): 2.5 to 20mg <b>Quetiapine</b> (Seroquel): 25 to 600mg
Panic attacks and Obsessive-Compulsive Disorder	<b>Imipramine</b> (Tofranil): 25 to 200mg ** <b>Sertraline</b> (Zoloft): 25 to 200mg (SSRI) <b>Paroxetine</b> (Paxil): 10 to 40mg (SSRI) <b>Fluoxetine</b> (Prozac): 10 to 80mg (SSRI) <b>Fluvoxamine</b> (Luvox): 25 to 200mg <b>Lorazepam</b> (Ativan): 0.5 to 6mg in divided doses <b>Clonazepam</b> (Klonopin): .05 to 4mg in divided doses *

Table 10-19: Common Psychiatric Medications (continued)

Anxiety disorders (also PTSD) <i>See also SSRIs above</i>	<b>Clonazepam</b> (Klonopin): 1 to 4mg in divided doses* <b>Lorazepam</b> (Ativan): 1 to 6mg in divided doses <b>Buspirone</b> (BusPar): 15 to 45mg in divided doses <b>Venlafaxine</b> (Effexor XR): 37.5 to 225mg
Insomnia	<b>Zolpidem</b> (Ambien): 5 to 10mg <b>Zaleplon</b> (Sonata): 5 to 10mg <b>Temezepam</b> (Restoril): 15 to 30mg <b>Trazadone</b> (Desyrel): 25 to 300mg <b>Lorazepam</b> (Ativan): 0.5 to 2mg at hs <b>Clonazepam</b> (Klonopin): 0.5 to 2mg at hs
Alcohol dependence	<b>Disulfiram</b> (Antabuse): 250 to 500mg
Alcohol withdrawal	<b>Clorazepate</b> (Tranxene): 15 to 40mg q 2 to 6 hours
Opiate dependence	<b>Methadone</b> : 60 to 120+mg qd ***
Opiate withdrawal	<b>Methadone</b> : 5 to 20mg in divided doses, tapered by 5mg/day*** <b>Clonidine</b> : 0.3mg in three divided doses; increase to 2 mg/day in divided doses

Abbreviations: SSRI-selective serotonin reuptake inhibitors; PTSD-post-traumatic stress disorder

\* Must be used with caution in patients on protease inhibitors.

\*\* Use with caution in later-stage illness.

\*\*\* Some anti-HIV medications increase levels of methadone, others decrease (see chart on medication interactions).

\*\*\*\* Concerns about pemoline-induced liver failure necessitate frequent blood tests to evaluate liver function. Should not be used in patients with co-morbid HIV and hepatitis C.

Adapted from Kobayashi J, Psychiatric issues. In Anderson, JR, ed. *Guide to Clinical Care of Women with HIV*, Rockville, Maryland: U.S. Department of Health and Human Services, Health Resources and Services Administration, HIV/AIDS Bureau, 2001.

Table 10-19 provides information about antidepressants commonly used in the treatment of depression. Older antidepressants such as tricyclics may be effective and tolerated in early HIV; however, they may exacerbate both cognitive impairment and gastrointestinal disturbances as a result of their anticholinergic activity. Selective Serotonin Reuptake Inhibitors (SSRIs) are effective antidepressants but are often problematic because of sexual side effects. Newer antidepressants such as bupropion and venlafaxine are very effective, with few drug-drug interactions. Bupropion (more activating) and nefazodone (more sedating) are tolerated well. Nefazodone must be used cautiously with patients on protease inhibitors (particularly ritonavir), which may raise blood levels 4 to 8 times. Mirtazapine is a sedating antidepressant compatible with antiretroviral medications, and may also stimulate appetite and weight gain. A more recently approved SSRI, Escitalopram, is reported to have fewer side effects, minimal interaction with other drugs metabolized by the P450 cytochrome enzymes, and may have a faster onset of action. So far there are no studies of its use in people with HIV.

Antidepressants should be started at low doses and gradually increased. It is important to use sufficient doses of medication to achieve a therapeutic level. Raising doses too quickly, however,

may cause side effects and will not hasten a clinical response. Many patients who are in recovery may be reluctant to take antidepressants because they believe that mind-altering substances must be habit-forming. The patient must be educated and supplied with information about depression, its treatment, and the differences between antidepressants and benzodiazepines or narcotics.

Because they can present with similar symptoms (poor concentration, memory impairment, fatigue and/or mental slowing), depression and other mood disorders must be differentiated from MCMD or HAD. Psychostimulants are well tolerated in the medically ill patient and may treat symptoms of both depression and cognitive impairment. As depression and cognitive impairment often co-exist in advanced HIV, psychostimulants may be used alone or in conjunction with an antidepressant.<sup>63</sup> Mood may improve significantly in the hypogonadal patient (male or female) with correction of the underlying androgen deficiency.<sup>64</sup>

People with HIV may be particularly sensitive to side effects of antidepressants. Starting with low doses and anticipating side effects for the patient increases his or her ability to tolerate the medication. It is important to allow a reasonable period of time to assess effectiveness of a particular medication and dose.

Psychological support is very important in adherence to antidepressants and other medications. Some clinical suggestions in this regard are as follows:

- Start low and go slowly in dosing psychiatric medications. Increase meds according to the half-life and time-to-reach-steady-state to avoid overshooting therapeutic levels.
- Anticipate side effects, and suggest that most of the time they may subside in time.
- Encourage patient to call health care provider four to five days after starting medication to report how well it is being tolerated, and what side effects are present.
- Dose sedating antidepressants one to two hours before sleep time to help initiate sleep. Taking medications right at bedtime does not give them time to be absorbed and to reach peak sedating levels.

Treatment for mood disorders in children and adolescents also includes psychotropic medications and a variety of psychological and psychosocial interventions. Medications for mood disorders in children and adolescents with HIV have not been well studied, although the SSRIs are used clinically. Individual, group and family therapy are effective in treating issues specific to HIV in adolescents, such as future goals, intimacy issues and self esteem. In the later stages of disease, preparation for disability and death may require intensive, multidisciplinary approaches.

## Suicide Evaluation

Suicidal ideation must always be taken seriously. Table 10-20 contains important elements in evaluating suicide risk. Attempts increase under the influence of psychoactive substances and alcohol and in the midst of a delirium or psychosis.<sup>65</sup>



Table 10-20: Risk Factors and Considerations in the Evaluation of Suicide Risk

- Significant suicidal ideation\*
- Specific intent or plan\*; available means
- Hopelessness\*
- Previous suicide attempts\*
- Depressed mood, mood disorders\*
- Family history of suicide or mood disorders\*
- Schizophrenia, psychosis (not necessarily command hallucinations)\*
- Organic mental syndromes\*
- Intoxication with alcohol\*, other substances
- Recent major loss, particularly through suicide
- Preoccupation with death
- Fantasies of reunion through death
- Homicidal rage
- Caucasian race\*

\*These factors have been documented as risk factors for suicide.

Source: Kobayashi J. Psychiatric Issues. In Anderson JR, ed. *Guide to Clinical Care of Women with HIV*. Rockville, Maryland: U.S. Department of Health and Human Services, Health Resources and Services Administration, HIV/AIDS Bureau, 2001, p.308.

It is important to ask specific and direct questions such as the following:

- How are you feeling today?
- Has it ever become so (painful, frustrating, difficult, frightening) that you have thought about giving up? About ending your life? Would you ever consider doing so? Under what circumstances have you considered this?
- Do you currently have any thoughts or plans to hurt yourself?<sup>66</sup>

When a patient admits to suicidal ideation, inquire about whether he or she has thought about a specific plan to carry it out. Ask about the consequences of doing so, to the patient and those in the patient's life. Assess whether there is an intent to die, even if the methodology seems not very lethal to the provider, for example, the patient says he or she will take 20 pills which may not be biologically lethal, but psychologically is intended to end life.

Providers are often reluctant to ask about suicidal ideation. Asking does not engender such ideas in people who do not have those thoughts to begin with. When a provider asks about suicidal ideation, it acknowledges the amount of pain and suffering the patient has endured, and often feels supportive and caring to the patient. It is also important to understand that the idea of suicide may provide to some a sense of ultimate control when it appears that control over the mind, body, or environment is slipping away. It would be unusual for anyone who experiences the shock of a new diagnosis of HIV, cancer or loss of function to not consider how much life is worth living and under what circumstances. Simply being able to verbalize the feeling of having ultimate control, and deciding if that is even a possibility, may help patients feel understood and more in control of their lives. Suicidal ideation may also be a sign of undiagnosed depression, undertreated pain, or other co-morbid conditions.

## Anxiety Disorders

Anxiety is a common concern. Brief periods of anxiety directly related to specific events usually respond to support and help in coping with the specific problem. Anxiety disorders, however, can impair overall functioning and the capacity for self-care.<sup>67</sup>

Anxiety often coexists with depression and substance abuse. Anxiety disorders in HIV/AIDS patients range up to 40%. However, there is no clear association between specific types of anxiety and HIV status or stage of disease. Diagnosis of anxiety is important as anxiety can affect the capacity of the patient to take in information, plan ahead, or adhere to a treatment plan.

Health care providers must rule out biological causes—presented in Table 10-21—for anxiety symptoms. Once biological causes have been ruled out, it is important to diagnose the anxiety disorder correctly in order to determine the treatment.

Table 10-21: Differential Diagnosis of Anxiety

<b>Medical causes of anxiety</b>	Hypoxia due to respiratory infections
	Hypoglycemia
	CNS lesions
	Hyperthyroidism
	Pheochromocytoma
	Adrenal insufficiency
	Medications
	• Antiretrovirals
	• Antidepressants
	• Psychostimulants (methylphenidate, dextroamphetamine)
	• Neuroleptics (haloperidol, risperidone, chlorpromazine)
	• Antituberculous (isoniazid, cycloserine)
	• Antihypertensives (reserpine, hydralazine)
	• Sympathomimetics (ephedrine, epinephrine, phenylephrine, phenylpropanolamine, dopamine, pseudoephedrine)
	• Steroids (prescribed for hypogonadal states/used for body-building)
	• Nicotinic acid
	• Thyroid medications
	• Theophylline/ aminophylline
	• Cold or sinus medications with ephedrine
	Acute withdrawal from substances of abuse
	Excessive caffeine (coffee, tea, soft drinks, chocolate)
	Herbal compounds (gingko, ginseng, ma huang, ephedra, guarana)
	Cognitive impairment with anxiety and fear of losing one's mind

Table 10-21: Differential Diagnosis of Anxiety (continued)

<b>Psychological stressors causing anxiety</b>	Fear of pain
	Fear of rejection by loved ones
	Fear of isolation
	Financial distress, job insecurity
	Stigmatization
	Housing concerns
	Child care, permanency placement
	Disease unpredictability
	Loss of control over bodily functions, increased dependency
	Death of another person with HIV
	Fear of death and dying due to acute change in medical status

### Generalized Anxiety Disorder (GAD)

Generalized anxiety disorder (GAD) is diagnosed when another specific cause of anxiety cannot be found and the person suffers from persistent and significant anxiety that impairs function. GAD may or may not be associated with specific life events. Many patients may have been suffering with GAD prior to the diagnosis of their HIV disease, but develop a more profound and disabling anxiety disorder as they enter treatment. Likewise, chronic substance users may unmask GAD when they initiate sobriety as a result of being diagnosed with HIV. Major depression with anxiety must always be considered in the differential diagnosis of GAD.

### Panic Disorder

Panic symptoms can be terrifying to the person and can, in severe or chronically untreated situations, lead to suicidal ideation and attempts. Many patients are worked up for cardiovascular, neurological, or respiratory disorders before a diagnosis of panic disorder is made. A medical evaluation should rule out alcohol withdrawal, cocaine or other stimulant abuse, overuse of caffeine, arrhythmia, hyperthyroidism, asthma, pneumonia, or the use of herbal compounds that include ephedra, ginkgo, ginseng, ma huang, or guarana. Signs and symptoms of panic disorder are described in Table 10-22.

Table 10-22: Panic Disorder

<b>Panic Disorder</b>	Diagnosed by the following
	(1) recurrent <i>panic attacks</i> (see below); and
	(2) at least one of the attacks has been followed by one month or more of one or more of the following:
	<ul style="list-style-type: none"> <li>• Persistent concern about having additional attacks</li> <li>• Worry about the implications of the attack or its consequences (i.e. losing control, having a heart attack, “going crazy”); or</li> <li>• A significant change in behavior related to the attacks</li> </ul>

Table 10-22: Panic Disorder (continued)

<b>Panic attack</b>	Diagnosed with or without <i>agoraphobia</i> (see below), is defined as a <i>discrete period of intense fear or discomfort, in which four (or more) of the following symptoms developed abruptly and reached a peak within 10 minutes:</i>
	<ul style="list-style-type: none"> <li>• Palpitations, pounding heart, or accelerated heart rate</li> <li>• Sweating</li> <li>• Trembling or shaking</li> <li>• Sensations of shortness of breath or smothering</li> <li>• Feeling of choking</li> <li>• Chest pain or discomfort</li> <li>• Nausea or abdominal distress</li> <li>• Feeling dizzy, unsteady, lightheaded or faint</li> <li>• Derealization (feeling of unreality) or depersonalization (being detached from oneself)</li> <li>• Fear of losing control or going crazy</li> <li>• Fear of dying</li> <li>• Parasthesias (numbness or tingling sensations)</li> <li>• Chills or hot flashes</li> </ul>
<b>Agoraphobia</b>	includes the following:
	<ul style="list-style-type: none"> <li>• Anxiety about being in places or situations in which escape might be difficult (or embarrassing) or in which help may not be available in the event of having an unexpected or situationally predisposed panic attack or panic-like symptoms. Agoraphobic fears typically involve characteristic clusters of situations that include being outside the home alone; being in a crowd or standing in line; being on a bridge; and traveling in a bus, train or automobile.</li> <li>• The patient avoids the situations (e.g. travel is restricted) or else endures marked distress or anxiety about having a panic attack or panic-like symptoms, or requires the presence of a companion.</li> <li>• The anxiety or phobic avoidance is not better accounted for by another mental disorder.</li> </ul>

### Obsessive-Compulsive Disorder (OCD)

About 2% of the general population have a lifetime prevalence of OCD symptoms including recurrent and intrusive thoughts (obsessions) and/or behaviors (compulsions) intended to reduce the obsessional thinking. People with HIV may obsess about CD4 counts, viral load, side effects of medications, physical symptoms, weight loss or change in body habits. These obsessions may lead to requests for repeated tests, or intense concerns about insignificant changes in physical signs.

## Post Traumatic Stress Disorder (PTSD)

Post Traumatic Stress Disorder (PTSD) has not been well studied in HIV disease. Manifested by hypervigilance, exaggerated startle response, anxiety, social withdrawal and fears associated with the original trauma, PTSD is particularly associated with a history of physical and sexual abuse in people with HIV. Intrusive medical procedures, hospitalization, new providers and untoward reactions to medications can precipitate an increase in PTSD symptoms. PTSD may manifest itself with increased risk-taking behavior, depression, self-imposed isolation, and mistrust and anger towards others, including medical personnel, leading to disrupted care and/or negative interactions with providers and poor adherence to medication regimens and clinical care.

### Treatment Considerations

As with most psychiatric disorders, the treatment of anxiety disorders almost always involves both pharmacotherapy (see Table 10-19) and psychotherapy. For short-term treatment of symptoms of anxiety, benzodiazepines (BZs) may be used until psychotherapeutic treatment helps to re-establish coping mechanisms or the patient can learn behavioral techniques to manage symptoms. Benzodiazepines that are particularly useful in HIV are lorazepam, oxazepam, and temezepam, as they have short half-lives, hence less accumulation and side effects. There can be important drug interactions between these agents and some antiretroviral agents. Alprazolam is best avoided because of its very short half-life, and may interact with protease inhibitors.

Benzodiazepines are often the only immediately effective medications that can be tolerated and may help engage a person in treatment. Benzodiazepines should, however, be avoided in active substance abusers, because of the risk of dose escalation, dependence and intoxication. In people with a history of substance abuse, BZs must be used cautiously, with careful monitoring of use, frequent and limited prescriptions, and attention to the risk of relapse. See Table 10-23 for clinical suggestions for prescribing medications that have potential to be abused.

**Table 10-23: Clinical Management of Medications with Potential for Abuse**

*Establish a written contract regarding how medications will be used, and spell out under what circumstances medications may be withheld or withdrawn.*

- Prescriptions will be written initially for one week (or less if appropriate), with refills as needed.
- Only one provider will write prescriptions (or a designee when not available).
- Pills that are lost or stolen will not be replaced.
- Toxic screens may be performed spontaneously.
- Medications will not be prescribed if the patient is high.
- Medications must not be shared or sold to others.
- Patient must be in some active relapse prevention or recovery program.

Psychological counseling or group therapy to address use of controlled substances should be mandated as part of the management of patients with substance abuse history, and offered to anyone concerned about using controlled substances as part of his or her treatment.

For longer-term or chronic anxiety disorders, maintenance with antidepressants may help avoid the use of potentially addictive agents, and are generally effective for generalized anxiety disorder, panic disorder, obsessive compulsive disorder, and social phobia. Venlafaxine is effective for general anxiety disorder, usually well tolerated in people with HIV, and has few interactions with other HIV medications, although sexual side effects may interfere with the person's willingness to continue the medication. All of the SSRIs as well can cause significant sexual and gastrointestinal side effects sufficient to cause patients to be non-adherent. Anticipating such side effects and starting with lower than typical doses may help alleviate these problems and allow patients to accommodate more easily to the medications.

Adding bupropion to a regimen of other antidepressants to help counter the sexual side effects may enhance adherence. However, bupropion alone is not usually sufficient to treat anxiety, and is stimulating, so caution must be used in adding it into the regimen in anxious patients. Using long-acting (SR) formulations, and simply anticipating the potential problems will often comfort patients enough for them to try tolerating the medications. Bupirone may be effective for GAD but requires several weeks of bid-tid dosing to be effective.

Medications which are most effective in treatment of OCD include the SSRIs, particularly fluvoxamine, sertraline, and fluoxetine. These are typically required in higher dosages than for depression. Anafranil, strongly anticholinergic, is effective for OCD but not well tolerated in the person with HIV.

The SSRIs and some mood stabilizers may be useful for diminishing the physiological responses associated with PTSD.

Cognitive behavioral therapy may be particularly useful in addressing the underlying distorted thinking, irrational thinking, and maladaptive behavior. Specific techniques that address particular anxiety syndromes, short-term psychoeducational groups, individual therapy and ongoing therapy groups all may be useful in reducing anxiety symptoms.

## Anxiety Disorders in Children and Adolescents

Anxiety symptoms and disorders occur more frequently in HIV-positive than HIV-negative children.<sup>68,69</sup> Anxiety in children may focus on life span, how they contracted HIV and health concerns. Ruminations about death may be excessive and disabling. Physiological changes, such as shortness of breath, gastrointestinal symptoms, or neurological problems may compound these concerns. The extent to which psychological functioning is affected varies with the cognitive and developmental stage of the child.

As in adults, treatment includes anti-anxiety medication and psychotherapy. Clinically, SSRIs are used for long-term anxiety and BZs for short-term, situation anxiety. Teaching children to use deep breathing exercises, progressive muscle relaxation and guided imagery may relieve symptoms and provide some sense of mastery to children feeling out of control of their feelings and bodily functions.

## Conduct-Behavioral (Externalizing) Disorders in Children and Adolescents

Attention problems in children with HIV may be a direct consequence of HIV infection and CNS complications.<sup>70</sup> Treatment of attention deficits in HIV-positive children is similar to treatment in non-infected children. Psychostimulants and alpha agonists can be effective.<sup>71</sup> Social skills training can help children with HIV with attention deficits cope with stigma.

Conduct disorders and substance abuse are common among HIV-positive adolescents.<sup>57</sup> Treatment must be specialized to reduce psychiatric morbidity and decrease associated risk-taking behaviors. (See Chapter 11: Substance Use Problems.)

## Sleep Disorders

Sleep disorders are common and distressing, and exacerbate other symptoms associated with HIV such as fatigue, cognitive impairment, memory loss, decreased work performance, diminished coping capacity, and reduced social interaction.<sup>72,73</sup> Sleep disturbance can contribute to poor adherence, failure to engage in treatment, relapse of substance use in the attempt to self-medicate, poor impulse control and impaired judgment. Treating sleep disorders in people with HIV is not only helpful to the patient in terms of reducing fatigue, but also enhances the treatment alliance.

In HIV, sleep disturbance is marked by shorter total sleep time, longer sleep onset latency, reduced sleep efficiency, more frequent awakenings and more time spent awake. The impact of sleep deprivation becomes more significant as illness progresses and stamina and energy decline.

Sleep pathology has been associated with growth hormone dysregulation.<sup>74,75</sup> Hypersomnia, associated with advanced disease, may be related to elevated levels of TNF $\alpha$ . The differential diagnosis of sleep disturbance appears in Table 10-24.

Table 10-24: Differential Diagnosis of Sleep Disorders in HIV

- Primary insomnia
- Primary hypersomnia
- Narcolepsy
- Circadian rhythm disturbance
- Parasomnias
- Major depressive disorder
- Generalized anxiety disorder
- Adjustment disorder with anxious mood
- Mania
- Delirium
- Alcohol/substance abuse
- Caffeine
- Acute stress of hospitalization or bereavement
- Pain

There are both non-pharmacologic and pharmacologic treatments for sleep disorders. Non-pharmacologic treatments include the following:

- Sleep hygiene (set sleep and wake times)
- Exercise, at least four hours before bedtime
- Avoid napping if possible
- Small bedtime snack
- Relaxation training, sound machine or tapes
- Psychotherapy for stress
- Treatment of underlying psychiatric disorder
- Treatment of pain

Providers often fear overmedicating sleep disorders. Although habituation to sleeping medications occurs often, the potential for addiction is rare. Pharmacologic treatments for sleep disturbance are discussed in detail in Table 10-25.

Table 10-25: Pharmacologic Agents Used for Sleep Disturbance in HIV

Agent	Dosing	Side Effects	Comments
<b>Temazepam</b> (Restoril)	15 to 30mg at hs 30 min. before sleep	Amnestic effect	Habituation common Addiction rare Half-life 4 to 6 hours Additive effects with ETOH
<b>Lorazepam</b> (Ativan)	.5 to 2mg at hs 30 min. before sleep	Amnestic effect Habituation common	Addiction rare Additive effects with ETOH
<b>Zolpidem</b> (Ambien)	5 to 10mg at hs 15 to 30 min. before sleep	Rarely causes sleepwalking Amnestic effect possible	Short half-life 2.5 hours No active metabolite Preserves stages 3,4 Safe in renal impairment Additive effects with ETOH
<b>Zaleplon</b> (Sonata) half-life	5 to 10mg at hs 15 to 30 min. before sleep	Rapid onset, very short May not increase sleep time	Very short half-life (<2 hrs) May be dosed again in middle of night with four hours left for patient to sleep No studies in HIV
<b>Trazodone</b> (Desyrel)	25 to 400mg at hs, may need 1 to 2 hrs prior to sleep to reach peak effect	Sedation in AM	Rare priapism Anticholinergic effects Helps with SSRI-induced sleep disturbance No habituation/addiction
<b>Nefazodone</b> (Serzone)	10 to 150mg at hs	Sedation	Caution with drugs which inhibit Cytochrome 3A4 (especially ritonavir) No studies in HIV



Table 10-25: Pharmacologic Agents Used for Sleep Disturbance in HIV (continued)

<b>Desipramine</b> (Norpramin)	10 to 100mg	Anticholinergic alpha blocking	May promote sleep Blood levels (>125ng/dl) Useful for neuropathy
<b>Nortriptyline</b> (Pamelor)	10 to 100mg	Anticholinergic alpha blocking	May promote sleep Blood levels (70 to 125ng/dl) Useful for neuropathy
<b>Doxepin</b> (Sinequan)	10 to 50mg at hs	Sedation Anticholinergic alpha blocking Confusion in medically ill	May be useful in asymptomatics Useful for neuropathy
<b>Amitriptyline</b> (Elavil)	10 to 100mg	Sedation Anticholinergic alpha blocking Confusion in medically ill	May be useful in asymptomatics Useful for neuropathy
<b>Antihistamines</b> (hydroxyzine, diphenhydramine)	10 to 50mg at hs	Sedation in AM Anticholinergic effects Confusion in medically ill	May be useful in mildly anxious patients with initial insomnia Not usually effective long-term

### Substance Use Disorders

Substance use disorders complicate the psychiatric diagnosis and treatment of many patients with HIV. (See Chapter 11: Substance Use Problems.) Patients with a triple diagnosis of HIV, psychiatric disorder, and substance use are at increased risk for poor access to care, poor adherence to medical treatments and increased psychological distress leading to increased morbidity and mortality.

Substance-using patients, including those receiving methadone maintenance treatment (MMT), have high rates of prior psychiatric morbidity and suicidal ideation.<sup>76</sup> Screening for substance abuse and psychiatric disorders should be routine.

### Psychiatric Treatment of HIV-Positive Substance Users

The diagnosis and treatment of drug users with HIV is complicated by multiple risks for neuropsychiatric disturbance. Acute and chronic effects of alcohol and substances of abuse, methadone, head trauma, and HIV itself can each and in combination cause significant mental status impairments. Problems secondary to past trauma or substance use can be differentiated from current use and HIV neurocognitive effects by serial assessments. Past brain injury or substance abuse would not continue to cause increasing CNS impairment. Current substance use, CNS infection, or HIV related cognitive impairment would continue to show decrements of function over time.

There are few studies to show the safety or efficacy of pharmacological treatment of psychiatric disorders in substance-using patients with HIV. Safety, abuse potential and adherence capacity must all be considered when prescribing medications for cognitive or psychiatric disorders. Likewise, the capacity for adherence to antiretrovirals often impacts the decision to start or continue anti-HIV medications.

One national study of alcohol or other substance-using individuals with HIV reported less adherence to combination therapy (45% vs 59% adherence in the past seven days) than non-using counterparts.<sup>77</sup> Some clinicians believe that waiting until the substance abuse and psychiatric disorder are stabilized will decrease the probability of poor adherence leading to viral resistance. Many experienced HIV clinicians encourage dual diagnosis treatment. Treating either the substance abuse or psychiatric disorder independently or in sequence has not been shown to be effective in stabilizing patients with co-morbidity. Harm reduction programs, when abstinence programs are not working, may offer an opportunity to keep patients engaged in treatment.

The use of antidepressants and anti-anxiety agents in substance-using patients may be fraught with difficulty. Substance users are usually impatient for a response to psychiatric medications, preferring the rapid onset of action of BZs rather than buspirone or antidepressants. Efficacy may be delayed or diminished by current substance use. Efforts should be made to engage the HIV-positive substance user in both drug treatment and psychiatric care at the same time. Patients with untreated psychiatric disorders may be less able to enroll and adhere to a drug treatment program.

The treatment of substance abuse in patients with HIV is often more complicated than in non-infected substance users. Concerns about illness, depressed mood, hopelessness, and suicidal ideation often impede progress in drug abuse treatment, requiring a harm-reduction approach. Inpatient detoxification may be necessary for medically ill HIV-positive substance users, as withdrawal from substances may precipitate relapse with serious potential for overdosing. After medical stabilization and detoxification, treatment is geared to maintain sobriety and reduce the incidence of relapses. Cognitive impairments and psychiatric distress will be more evident within a few weeks of detoxification.

Retention in substance abuse programs may be enhanced by early treatment of emerging psychiatric disorders, which may be precipitants for relapse. Methadone maintenance may be necessary for some opioid abusers to stay clean long enough to engage in psychiatric care. Methadone must be monitored carefully, with increases and decreases in dosing when interactions with medications occur. Nevirapine and rifampin may increase the elimination of methadone, requiring increased dosing to avoid opioid withdrawal. Methadone itself may reduce serum concentrations of ddI, d4T, and AZT. Table 10-26 presents relevant medication interactions.<sup>78</sup> Methadone must be maintained even when additional narcotics must be used to treat pain. Methadone maintenance provides for many patients a stabilization of the narcotic addiction, allowing for more consistent HIV and psychiatric care.

In addition to intensive outpatient treatment, adjunctive pharmacologic treatments such as disulfiram for alcohol dependence and naltrexone for opioid and alcohol dependence may help patients manage cravings and enhance participation in 12-Step and dual diagnosis programs. Disulfiram is given in doses of 250 to 500mg per day, and naltrexone 50mg per day. While disulfiram is an aversive drug, creating intense nausea and vomiting if taken with alcohol, naltrexone requires abstinence from opioids for seven to 10 days prior to initiating treatment to avoid precipitating an acute opioid abstinence syndrome.<sup>79</sup> It is particularly important to note that naltrexone must not be used in patients who are treated with narcotic analgesics for pain control. Clonidine has also been used to treat the effects of opioid withdrawal.

Table 10-26: Important Substrates Inhibitors and Inducers of Cytochrome P450 Isoenzymes

<b>CYP Isoform</b>	<b>Substrates</b>		<b>Inhibitors</b>	<b>Inducers</b>
1A2	Caffeine Clomipremine Clozapine Fluvoxamine	Imipramine Methadone Mirtazapine Zolpidem	Fluvoxamine(+++)	<i>Ritonavir</i> *
2C9	Fluoxetine		<i>Ritonavir</i> * (++) Fluoxetine (+) Paroxetine	Phenobarbital Rifampin
2D6	<i>Ritonavir</i> * <i>Nelfinavir</i> * <i>Indinavir</i> * Amphetamines Clozapine Codeine Fluvoxamine Mirtazapine Venlafaxine	Ecstasy (MDMA) Olanzapine Paroxetine Perphenazine Risperidone Sertindole TCAs Thioridazine	<i>Ritonavir</i> * (++) <i>Indinavir</i> * (+) Cocaine (+++) Fluoxetine (+++) Methadone Paroxetine (+++) Perphenazine Sertindole Sertraline (++)	
3A family	<i>Amprenavir</i> * <i>Ritonavir</i> * <i>Nelfinavir</i> * <i>Saquinavir</i> * <i>Indinavir</i> * <i>Nevirapine</i> † Alprazolam Buspirone Carbamazepine Citalopram	Clomipremine Clonazepam Diazepam Imipremine Midaazolam Nefazodone Pirnozide Sildenafil Trazodone Triazolam	<i>Amprenavir</i> * <i>Indinavir</i> * (+++) <i>Nelfinavir</i> * (++) <i>Ritonavir</i> * (+++) <i>Saquinavir</i> * (+) <i>Efavirenz</i> † Fluvoxamine (+) Nefazodone (+++) Sertindole Thioridazine	<i>Efavirenz</i> † <i>Nevirapine</i> † <i>Ritonavir</i> * Barbiturates Carbamazepine Dexamethasone Rifabutin Rifampin

TCAs=tricyclic antidepressants.

\*Protease inhibitor

†Non-nucleoside-analogue reverse transcriptase inhibitor

Notes: Antiretroviral drugs are in italics, +, ++, and +++ represent relative inhibitory potential.

Source: Gillenwater DR, McDaniel JS. Rational psychopharmacology for patients with HIV infection and AIDS. *Psychiatric Annals* 31, 1: 28-34, 2001. Reproduced by permission.

## The Treatment of HIV in Psychiatric Patients

As many as one in every 12 adults who are in treatment for serious mental illness may have HIV infection and several studies have documented an overall HIV seroprevalence rate of 7.8% among severely impaired psychiatric patients.<sup>80</sup> AIDS is the leading cause of death among young people experiencing their first psychiatric hospitalization.<sup>81</sup>

Cognitive changes associated with chronic psychotic illness may confound the diagnosis of HIV-related cognitive impairment, especially during the acute phase of psychiatric illness. Providers must understand their own preconceived notions about psychiatric patients. While during the acute phase of a psychotic or manic illness it may be difficult for patients to fully understand or engage in their treatment, the same patients may become quite able and willing to adhere to antiretroviral regimens. Patients who have been adherent to their psychiatric regimens may be likely to adhere to antiretroviral treatments as well.

Antiretroviral medications, however, should never be started in the acute phase of a psychotic or mood disorder. Every patient should be offered the same opportunity to be educated about how the medications work, why adherence is so crucial, and why taking psychiatric medications is important to help minimize an adherence failure. A low threshold for psychiatric hospitalization will minimize the impact of medication lapses and reduce the chances of resistance. Close monitoring of medication side effects, strategies to enhance adherence to all medications, and drug treatment programs may be required to provide the best medical care for patients with serious co-morbid disorders. A case management approach with an integrated care model addressing medical, psychiatric and substance use can be helpful.

Patients who have suffered from a serious mental illness may express ambivalence and despair about HIV. Periods of hopelessness and feelings of contamination and defectiveness may become prominent and require intensive psychiatric intervention. Suicidal ideation is common. Delusions about the nature of HIV infection, sexual anxieties, and paranoid ideation can complicate the treatment relationship. Reducing psychosis and enhancing cognitive capacity are important goals of treatment.

Psychopharmacologic treatment is effective in treating psychosis in the HIV-infected patient.<sup>82</sup> Patients with manic psychosis showed more improvement than those patients with schizophreniform psychosis, and positive symptoms responded more readily than negative symptoms. Anti-anxiety agents, antidepressants and mood stabilizers can be helpful as adjunctive agents. Two case reports suggested that catatonia responded to lorazepam.<sup>83</sup>

## Personality Disorders

It is important for providers to recognize serious character pathology as soon as possible in the treatment of HIV. Compared to uninfected patients, those with HIV have higher rates of personality disorders in the range of 19% to 37%.<sup>84</sup> Borderline and histrionic disorders tended to be the most common.<sup>85,86</sup> Those personality disorders found among people with HIV are associated with increased rates of psychiatric symptoms, injection drug use, depression and maladaptive coping mechanisms.<sup>87,88</sup>

Essentially, character pathology is syntonetic to the individual but problematic to those around him or her. The most serious character disorders in terms of complicating the treatment of HIV

are antisocial personality, narcissistic personality, borderline personality and histrionic personality. These disorders tend to create difficulty for patients in relationships with providers, whereas other personality disorders, such as avoidant or passive patients, may elicit provider feelings of not being able to do enough to engage patients in ongoing treatment.

Problematic character traits are distinguished from serious character disorders by the consistency and intractability of the behavior regardless of the external environment. Many patients may exhibit some traits that seem to be components of their basic personality, but are evident only under extreme duress. Patients with cognitive impairment who are frightened and having trouble completing automatic tasks, patients in pain, and patients intoxicated or withdrawing from either substances of abuse or prescribed medications are particularly at risk for exhibiting problematic behavior which usually resolves when the underlying problem is adequately addressed. Social stressors that often complicate treatment relationships include homelessness or unstable living situations, unstable support systems, rejection from families of origin, and relapsing criminal or drug related behaviors.

A provider's reactions to a patient's character pathology may include anger, fantasies of abandoning or withdrawing care, impulses to limit access to the provider, or frank fear of encounters with the patient. These emotional reactions to a patient should alert the provider to the likelihood that the patient may have a difficult character disorder.

While each type of character disorder has particular defense mechanisms, most employ *denial* (the inability to acknowledge or believe something; e.g., "I can't infect others because I really don't have HIV"), *projection* (putting onto others what one is feeling or believing; e.g., "you must hate me"), and *splitting* (telling different things to different providers with the hope of confusing each provider or getting one provider to believe that another is being unjust, uncaring or incompetent). Lying, or confabulating, to acquire, for example, increased pain medication, is common. The fear of abandonment often provokes in the patient an increased neediness and unwillingness to admit any improvement for fear the provider may withdraw or decrease the level of involvement. Projective identification (feeling what a patient is feeling) often leads providers to think something is wrong with themselves, instead of identifying the problem as a projection onto them by a patient.

People with character disorders are also vulnerable to psychotic, mood, and anxiety disorders, and have rates of substance abuse at least comparable to the general population. Providers often may find that granting requests made by such patients provokes a sense of being abused. Errors in treatment can follow from either withholding appropriate treatment or overgratifying a request in order to end more quickly an encounter with the patient.

### Communication with Other Providers in Personality Disorder

Unless there is constant communication among members of the palliative care team, a patient's splitting will wreak havoc on the team's effectiveness. When a patient states something about a member of the team to another member (reporting what was said or done), confirmation is imperative. The provider should never rely on the patient to convey information.

While no specific psychotherapeutic technique has been shown to be effective in treating personality disorders in HIV, some clinical guidelines may be helpful; see Table 10-27. Other psychiatric syndromes may be present along with personality disorders and should be treated appropriately.

Table 10-27: Strategies for Managing Difficult Patients

- Identify the nature of the treatment problem: Pain? Cognitive impairment? Irritability? Non-adherence? Devaluation? Underlying depression, anxiety or psychosis?
- Establish and identify the treatment team and have the patient sign a consent for free and unrestricted communication among ALL providers, within the same system and outside (e.g., methadone treatment program staff, case managers, housing authority staff).
- Establish concrete treatment goals that are reasonable and can be renegotiated at specified time intervals.
- If at all possible, establish an agreement regarding pain management before the need for pain treatment actually begins. Write a pain management contract with rules spelled out regarding refills, how doses will be determined and increased, which meds will and will not be used.
- Set limits on refilling prescriptions, identify which provider will be responsible for which medications, and who will be covering when the primary prescriber is away. Also set limits on how and when patients should access their primary care provider vs. their mental health provider, person on call, or emergency services.
- Establish rules of behavior for the clinic's entire patient population. Identify what behavior will not be tolerated and enforce the rules fairly and without individual variation. Have the limits for behavior clearly spelled out and approved by a consumer advisory board or patient constituency group.
- When a patient is admitted to the hospital for medical care or psychiatric care, establish contact with the treatment staff to discuss rules regarding limit-setting, making goals clear and responding to patient requests without bias.
- Provide a space for clinicians to share feelings and thoughts about difficult patients. Knowing that one is not alone in having trouble with a particular patient can be comforting and prevent acting out on the part of the provider.

### HIV-Associated Syndromes with Psychiatric Implications

Several HIV-associated syndromes such as wasting, fatigue, sexual dysfunction and pain have psychiatric implications. As with sleep disturbance, treating complaints that are important to patients and that affect cognitive functioning will increase patient adherence to care and help build a therapeutic alliance between patient and provider. Pain and fatigue are discussed elsewhere in this guide. (See Chapter 4: Pain and Chapter 5: Constitutional Symptoms.)

Wasting syndrome and sexual dysfunction are often associated with impaired self image, a sense of being defective, and body dysmorphia. These feelings can lead to obsessional concerns and behaviors. Testosterone replacement may be beneficial in these settings.<sup>87,88</sup> While testosterone may improve libido, it may not address all sexual dysfunctions. Underlying problems such as

neuropathy, vascular disease, autonomic insufficiency, premorbid psychological disease, and drug side effects should be addressed so that as normal a sexual life as possible is possible. Erectile dysfunction may be facilitated with sildenafil but caution must be urged with regard to dosing in the presence of protease inhibitors.

Psychotherapy, particular behavior and cognitive therapies to treat sexual inhibitions and anxieties, and couples therapy may enhance both sexual function and adaptation to declining sexual function.<sup>89</sup>

## PSYCHOLOGICAL AND PSYCHOSOCIAL ISSUES

■ Even with the advent of multidrug therapy, the future of most people with HIV is uncertain. Living with such a tremendous burden of unpredictability often affects people's ability to maintain emotional stability and retain control over their lives. Many issues arise throughout the course of HIV infection. Each change in medical status, every blood test result, and every recognition of a new change in mental or physical function can create enormous stress on an infected individual and the people in his or her life.<sup>90</sup>

Primary care providers are increasingly faced with complex medical and social issues. The importance of mental health and practical support to help patients meet these challenges cannot be overstated. All too often, medical providers do not see the need for mental health care or understand the contributions that mental health clinicians can make to a treatment team, and may convey that bias unwittingly to patients. Early involvement of mental health care in the treatment of the HIV-infected patient allows the development of a relationship that can prevent crises from becoming disruptive to the care of the patient or the medical provider's practice.

Table 10-28 lists some of the most important issues facing people over the course of their HIV infection. Two of the most emotionally difficult issues for many patients are permanency placement for minor children, and creating advance directives.

Table 10-28: Psychological and Psychosocial Issues

*While these issues are divided into early-, middle- and late-phase concerns, in fact any of the issues can and do occur at any phase. Discussion about some issues, particularly those that become critical in the later phase, often gets postponed due to collusion on the part of providers and patients to refrain from addressing difficult topics until absolutely necessary. However, it is best to begin discussing all of these issues early in care.*

#### Early in HIV Diagnosis

- Adjusting to new diagnosis of HIV seroconversion: acute vs. chronic adaptational responses (fear of imminent death, guilt of infecting others, exacerbation of existing psychiatric conditions, acute suicidal ideation)
- Disclosure to others; informing intimate contacts, partners and children
- Adapting safer sexual and drug using behaviors
- Accessing appropriate HIV medical and psychiatric care
- Assessing substance use and need for detox, treatment, methadone maintenance
- Accommodating to medical evaluation and assessment of level of illness (lab results, etc.)
- Establishment of health care proxy; defining those involved in the care of the patient

#### Middle Phase

- Accommodating work and family needs to physical and emotional impact of illness
- Dealing with learning about the nature of the illness and the potential treatments
- Adherence issues
- Decisions about working, going on disability, back-to-work issues, feeling productive
- Maintaining relationships and managing normal developmental issues in the context of the uncertainty of the progression of illness
- Dealing with untoward effects of illness and/or treatment; e.g., medication side effects, lipodystrophy syndrome and body image, fatigue and depression

#### Later Phase

- Permanency planning issues
- Advance directives
- Existential issues; e.g., the meaning of one's life, hope versus despair, spiritual concerns and death anxiety, "rational suicide"
- Decisions about withdrawing care at the end of life
- Preparations for death



Permanency placement evokes powerful feelings in parents who fear abandoning their children, and who grieve the probability that they will not see their children grow up. Accepting that permanency placement is necessary means accepting one's inevitable death, a problem for both the patient and his or her health care providers. Guilt and shame inevitably emerge as parents get sick and face the possibility that they will die, leaving others to care for their offspring. Particularly in cases where there are difficult family relationships, many parents feel ambivalent about having to place their children with family members they don't like or don't trust with their children.

Providers can support parents with HIV by acknowledging that permanency placement planning is a very painful process that takes time and continued reflection and consideration, and often involves wavering back and forth from one decision to another. Helping parents to establish a working relationship with a mental health provider before permanency planning issues must be addressed can make it easier for them to deal with such powerful concerns when they do arise. For patients, trying to establish a strong, trusting relationship with a provider brought in during a crisis is very difficult. With a relationship built early in the care of the infected parent, a skilled mental health clinician can raise issues of permanency placement before the acute fears and denial set in when a medical crisis occurs.

Another difficult issue for HIV-infected people is the establishment of advance directives. (See Chapter 18: Legal and Financial Issues.) Psychologically this requires the patient to acknowledge that life is finite and death may be imminent. Again, a relationship with a mental health provider can provide a safe place for the patient to explore fears of dying, and of death. Helping a patient to think about the quality of life near the end of life is best done in the context of ongoing relationships with both a primary provider and a mental health clinician, working together to explain the medical details and the emotional components of the decisionmaking process.

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# Chapter 11.

## Substance Use Problems

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### INTRODUCTION

■ It is axiomatic in palliative care that suffering occurs in physical, emotional, practical, and spiritual domains and that each of these domains has an impact on any given symptom.<sup>1</sup> Although in many ways these domains are more complicated in patients with substance use histories, the approach to palliative care for the substance user is fundamentally the same as for any other patient. Given the importance that substance use plays in the HIV epidemic, however, it is important that care providers explore, understand and address these complications. Clinicians can often become frustrated with and alienated from substance-using patients, in whom self-destructive behaviors and care providers' own negative attitudes can interfere with treatment success. However, by attending to the specific clinical issues pertaining to substance use and integrating these into a palliative care treatment plan, providers can effectively care for this challenging population.

If a patient has a history of or is currently using alcohol or illicit drugs, care providers must know. These issues should be, therefore, part of every history taken by members of the health care team and can be readily addressed in the routine primary care encounter (see Table 11-1).<sup>2</sup> It is a mistake to raise issues of substance use only with patients who arouse suspicions or fit certain stereotypes. Care should be taken, however, to ensure that the patient or family members are not made to feel judged or guilty during these discussions.

Table 11-1: Screening for and Diagnosis of Substance Abuse

History of Substance Abuse	
Substances used	Opioids (heroin, prescription analgesics)
	Stimulants (cocaine, prescription stimulants)
	Alcohol (beer, wine, spirits, nonbeverage sources)
	Sedative-hypnotics (benzodiazepines, barbiturates)
	Tobacco (cigarettes, chewing tobacco)
	Other (marijuana, hallucinogens, solvents)
Routes of administration	Injection (intravenous, subcutaneous, intramuscular)
	Intranasal
	Inhaled
	Oral
Pattern of use	Amount
	Frequency
	Duration
	Most recent use
	Needle-sharing or shooting gallery use

Table 11-1: Screening for and Diagnosis of Substance Abuse (continued)

<b>Treatment history</b>	Setting (outpatient, inpatient, residential)
	Drug treatment program
	Pharmacologic treatment
	Treatment outcome
<b>Complications of Substance Abuse</b>	
<b>Medical</b>	Needle-induced: viral, bacterial, and fungal infections; peripheral vascular disease
	Drug-induced: overdose, withdrawal, organ-specific complications (nephropathy due to heroin; cardiac ischemia due to cocaine; gastrointestinal, cardiac and neurologic disease due to alcohol)
	Other: tuberculosis, sexually transmitted disease
<b>Social</b>	Unemployment
	Family disruption
	Legal problems
	Homelessness
<b>Physical Examination</b>	
<b>Signs of injection drug use</b>	Recent: "tracks," cellulitis, abscess
	Past: "track" or abscess scars
<b>Evidence of medical complications</b>	
<b>Laboratory Tests</b>	
<b>Toxicologic screening of urine</b>	E.g.: opioids, cocaine, benzodiazepines, barbiturates, hallucinogens, alcohol
<b>Screening for medical complications</b>	E.g.: hepatitis B, C serologies, liver function abnormalities

Source: O'Connor PG, Selwyn PA, Schottenfeld RS. Medical care for injection-drug users with human immunodeficiency virus. *N Engl J Med* 331:450-9, 1994.

The CAGE questionnaire is one helpful method of eliciting important information regarding alcohol use (see Table 11-2).<sup>3</sup>

Table 11-2: The CAGE Questionnaire

**C:** Have you ever felt you ought to **C**ut down on drinking?

**A:** Have people **A**nnoyed you by criticizing your drinking?

**G:** Have you ever felt bad or **G**uilty about your drinking?

**E:** Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover (**E**ye-opener)?

Source: Ewing, JA. Detecting alcoholism: the CAGE questionnaire. *JAMA* 252:1904-7, 1984.

It is often easiest to include questions regarding drug use among questions regarding smoking and alcohol use in a straightforward, matter-of-fact manner. Physical and laboratory examinations can also be helpful. Track marks, evidence of soft tissue infections, nasal septum erosion, liver function abnormalities, tremor, or asterixis can support a diagnosis of substance use.



Finally, a social history remarkable for repeated incarcerations, violence, inability to sustain long-term interpersonal relationships, sporadic employment and/or a family history of substance use should raise the provider's index of suspicion for substance use.

If a history of substance use is identified, further exploration is needed. It is important to be aware that poly-substance use is common. At a minimum, the type of substance(s), amount, route of administration, frequency of use, and medical complications, including signs of tolerance and dependence should be understood (see below). If a patient has been in substance use treatment, the palliative care team should know the approach that was used and its impact on the patient's drug use. In these circumstances, the palliative care team should include an expert in treating addictions.

## GENERAL MEDICAL CARE

■ While this chapter does not attempt to review the myriad medical complications of substance use and HIV, it is important that the palliative care provider be aware of the scope of issues that he or she may face and be prepared to seek consultation when necessary.<sup>3,4</sup>

Substance users can be at higher risk for diseases besides HIV/AIDS. Hepatitis B, C, and delta are transmitted parenterally, as are bacteria causing endocarditis, soft tissue infection and other infections. Tuberculosis and sexually transmitted diseases are more common in this population and must be ruled out. Chronic lung disease associated with exposure to substances used to “cut” cocaine and heroin and chronic liver disease associated with alcohol can make provision of palliative care medically complex.

Active drug users are at risk for withdrawal (from opiates, alcohol, barbiturates and benzodiazepines), which can be a life-threatening emergency. Cocaine, particularly when injected or smoked, can cause cardiac arrhythmias, hypertension, hyperpyrexia, rhabdomyolysis, and cerebral or coronary artery vasospasm. Substances that suppress consciousness and respiration can induce coma and death. Opiates, in addition, can cause non-cardiogenic pulmonary edema.

## PAIN

■ Pain is often poorly managed in the substance-abusing patient or in the patient with a history of substance use.<sup>5</sup> This can be because pain is not recognized as such and is interpreted as manipulation or “drug-seeking;” because unique predispositions to pain are not understood; or because of ignorance of basic principles of addiction and/or pain management. To manage pain appropriately, providers need a systematic and thoughtful approach.

## Substance Use and Pain

*It must first be understood and accepted that a history of substance use does not preclude someone from having real pain.* In many cases, in fact, substance use may predispose a patient to experience physical pain (secondary to trauma, chronic venous insufficiency, infections, alcoholic or nutritional neuropathies, etc.) or to have pain that is difficult to control for a variety of reasons. Patients who have developed tolerance to opiates may require doses of narcotic medications considerably higher than non-tolerant patients, and this may make some providers uncomfortable. Additionally, it has been shown that some substance users treated with methadone may have a lower pain threshold than others.<sup>6</sup> Finally, the profound emotional, practical, and even spiritual complications of substance use contribute to pain symptoms and must be addressed to manage pain successfully.

IX

The substance-using patient may contribute to the difficulty of treating pain by his or her own behavior. Trust between clinician and provider is fundamental to mobilizing an effective treatment regimen. If the patient has lied, manipulated, sold prescription drugs or otherwise created cause for mistrust, such a negative atmosphere is not easily overcome. In these instances, the provider should discuss the situation directly and frankly with the patient, articulate reasonable limits, develop a written contract and move on. Such a contract should stipulate the following:

- The total amount of medication is specified that will be prescribed over a short period of time (with the provider dispensing only small amounts, as necessary, to limit the possibility of abuse)
- Only one person will write and one pharmacy will fill prescriptions for controlled substances
- Refills will not be given for “lost” or “stolen” prescriptions
- Random toxicology screenings will be part of the treatment plan
- Forgery of prescriptions or other serious violations of the law will result in criminal prosecution of the patient

While these efforts can be very effective in helping to prevent manipulation and abuse of prescribed narcotics, abuse can sometimes still occur. It is important for providers to recognize the types of behaviors suggestive of abuse, in order to be able to prevent and address these problems (Table 11-3).<sup>5</sup>

Table 11-3: Spectrum of Aberrant Drug-Related Behaviors Occurring during Treatment with Narcotic Analgesics

More Suggestive of Drug Abuse	Less Suggestive of Drug Abuse
<ul style="list-style-type: none"> <li>• Reports of ‘lost’ or ‘stolen’ prescriptions</li> <li>• Selling prescription drugs</li> <li>• Prescription forgery</li> <li>• Stealing drugs from others</li> <li>• Injecting oral formulations</li> <li>• Obtaining prescription drugs from nonmedical sources</li> <li>• Concurrent abuse of alcohol or illicit drugs</li> <li>• Repeated dose escalations or similar noncompliance despite multiple warnings</li> <li>• Repeated visits to other clinicians or emergency rooms without informing the prescriber</li> <li>• Drug-related deterioration in function at work, in the family, or socially</li> <li>• Repeated resistance to changes in therapy despite evidence of adverse drug effects</li> </ul>	<ul style="list-style-type: none"> <li>• Aggressive complaining about the need for more drugs</li> <li>• Drug-hoarding during periods of reduced symptoms</li> <li>• Requesting specific drugs</li> <li>• Openly acquiring similar drugs from other medical sources</li> <li>• Occasional unsanctioned dose escalation or other noncompliance</li> <li>• Unapproved use of the drug to treat another symptom</li> <li>• Reporting psychic effects not intended by the clinician</li> <li>• Resistance to a change in therapy associated with tolerable adverse effects</li> <li>• Intense expressions of anxiety about recurrent symptoms</li> </ul>

Source: Passik SD, Portenoy RK. Substance abuse issues in palliative care. In Berger A, ed. *Principles and Practices of Supportive Oncology*. Philadelphia: Lippincott-Raven Publishers, 1998.

While patients' own behaviors can damage trust, a provider can also unintentionally damage trust in his or her relationship with the patient. A provider who does not take a complaint of pain seriously simply because of a patient's socioeconomic status, race or history of substance use is violating the implicit trust that the patient places in his or her hands. Several studies have demonstrated that nonwhite patients are more likely to have pain underdiagnosed and undertreated than white patients.<sup>7</sup> It has also been shown that pharmacies in poor minority neighborhoods may not stock narcotic medications and thus make access to pain treatment more difficult.<sup>8</sup> As will be discussed below, substance-using patients often have long histories of negative interactions with the health care system. Provider prejudices, when brought to the palliative care of an HIV-infected patient, can inflict further damage precisely at a time when trust and healing are most needed.

## Pharmacologic Properties and Physiologic Impact of Substances

Providers must know what substance(s) the patient is using, the pharmacologic properties, and the physiologic impact. A patient with a chronic addiction to alcohol will have different physiologic response to a given dose of an opiate than someone who has become tolerant to heroin. Similarly, someone with alcohol-related peripheral nerve damage might experience HIV-related neuropathy more severely than a cocaine user.

Care must be taken to precisely describe the patient's use of the substance. Tables 11-4 and 11-5 provide definitions of commonly used terms in this regard.<sup>5, 9, 10, 11</sup> Proper use of these terms allows clear communication among all members of the palliative care team (including addiction specialists) and forms the basis of an explicit clinical rationale for both pain and addiction treatment decisions.

Table 11-4: Definitions of Substance Dependence and Abuse

### Substance Dependence:

A maladaptive pattern of substance abuse, leading to clinically significant impairment or distress, as manifested by three or more of the following, occurring at any time in the same twelve-month period:

Tolerance, as defined by either of the following:

- A need for markedly increased amounts of substance to achieve intoxication or desired effects, or
- Markedly diminished effect with continued use of the same amount of the substance.

Withdrawal, as manifested by either of the following:

- The characteristic withdrawal syndrome for the substance, or
- The same (or closely related) substance is taken to relieve or avoid withdrawal symptoms.

The substance is often taken in larger amounts or over a longer period than was intended.

There is a persistent desire or unsuccessful effort to cut down or control substance use.

A great deal of time is spent in activities necessary to obtain the substance, use the substance, or recover from its effects

- (e.g., visiting multiple doctors or driving long distances, chain smoking).

Table 11-4: Definitions of Substance Dependence and Abuse (continued)

Important social, occasional, or recreational activities are given up or reduced because of substance use.

The substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance

- (e.g., current cocaine use despite recognition of cocaine-induced depression, or continued drinking despite recognition that an ulcer was made worse by alcohol consumption).

### **Substance Abuse:**

A maladaptive pattern of substance abuse, leading to clinically significant impairment or distress, as manifested by one (or more) of the following, occurring within a twelve-month period:

Recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home:

- repeated absences or poor work performance related to substance abuse,
- substance abuse-related absence, suspension,
- expulsions from school, or
- neglect of children or household.

Recurrent substance use in situations in which it is physically hazardous, such as:

- driving an automobile, or
- operating a machine when impaired by substance use.

Recurrent substance-related legal problems, such as arrests for substance-related disorderly conduct.

Continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance

- (e.g., arguments with spouse about consequences of intoxication, physical fights).

The symptoms have never met the criteria for substance dependence for this class of substance.

Sources: Passik SD, Portenoy RK. Substance abuse issues in palliative care. In Berger AM, Portenoy RK, Weissman DE, eds. *Principles and Practice of Supportive Oncology*, 1<sup>st</sup> ed. Philadelphia: Lippincott-Raven Publishers, 1998; American Psychiatric Association. *Diagnostic and Statistical Manual for Mental Disorders*, 4<sup>th</sup> ed. Washington, DC: American Psychiatric Association, 1994.

Table 11-5: Definitions of Addiction, Physical Dependence, Tolerance, and Pseudo-Addiction

<b>Addiction</b>	A primary, chronic neurobiologic disease, with genetic, psychosocial, and environmental factors influencing its development and manifestations.
	It is characterized by behaviors that include one or more of the following: <ul style="list-style-type: none"> <li>• impaired control over drug use;</li> <li>• compulsive use;</li> <li>• continued use despite harm; and</li> <li>• craving.</li> </ul>
	Most consistent with related concepts of <i>psychological dependence</i> and the DSM-IV criteria for <i>substance dependence</i> .
<b>Physical dependence</b>	A state of adaptation that is manifested by a drug class-specific withdrawal syndrome that can be produced by abrupt cessation, rapid dose reduction, decreasing blood level of the drug, and/or administration of an antagonist.
<b>Tolerance</b>	A state of adaptation in which exposure to a drug induces changes that result in a diminution of one or more of the drug's effects over time.
<b>Pseudo-addiction</b>	Syndrome of behavioral symptoms which mimic those seen with psychological dependence, including an overwhelming and compulsive interest in the acquisition and use of opioid analgesics.
	Unlike true psychological dependence, pseudo-addiction is an iatrogenic syndrome caused by the undermedication of pain.
	Symptoms and aberrant behaviors resolve once pain is effectively controlled.

Sources: American Academy of Pain Medicine, American Pain Society and American Society of Addiction Medicine (ASAM). *Definitions Related to the Use of Opioids for the Treatment of Pain*. Public policy statement, 2001. Available at <http://www.asam.org>; Weissman DE, Hadox DJ. Opioid pseudoaddiction – an iatrogenic syndrome. *Pain* 36:363-6, 1989.

Table 11-6 presents particular issues that arise in the care of patients being treated in methadone maintenance programs. It is always best to keep pain management and addiction treatments as separate items on the problem list with distinct strategies and approaches.<sup>12</sup> However, at the same time, both pain management and addiction treatment must be integrated into an overall plan of care.

**Table 11-6: Treating Pain in Methadone-Maintained Patients**

Methadone used as daily maintenance therapy for opioid addiction has no significant analgesic effects. It is legal and permissible to prescribe opioid analgesics to narcotic-addicted patients for the treatment of pain if these opioids are clinically justified and prescribed with appropriate documentation and precautions to prevent abuse. In methadone-maintained patients receiving opioid analgesics, these opioids should be given in addition to the daily maintenance dose of methadone.

Due to opioid tolerance, it is generally necessary to use higher and more frequent doses of opioid analgesics in methadone-maintained patients compared with non-tolerant patients.

Methadone is an excellent opioid analgesic agent when used to treat pain (e.g., tid or qid dosing) but due to possible therapeutic confusion, miscommunication and regulatory issues, it is preferable to use another opioid when this class of analgesic is required in methadone-maintained patients.

In inpatients or homebound patients with chronic severe pain, in the end stages of terminal illness, patients' entire opioid analgesic dose plus the daily methadone maintenance dose may be converted into a continuous subcutaneous or intravenous infusion of parenteral methadone or another opioid as clinically indicated.

Source: Selwyn PA. Pain management in substance users. In *Manual for Primary Care Providers: Effectively Caring for Substance Abusers*. New York: New York Academy of Medicine, in press.

The baseline methadone dose should never be assumed to be sufficient to treat pain. Furthermore, increasing a patient's daily methadone dosage for purposes of treating pain has serious drawbacks, as follows:

- It can greatly confuse psychosocial aspects of addiction treatment
- It will be ineffective as a means of pain control (methadone when used for pain is dosed q 6 to 8 hrs, and when used for addiction treatment is dosed only qd; patients already on methadone maintenance would need significantly higher additional doses of methadone to achieve any analgesic effect)
- It can potentially expose the palliative care team to legal confusion and difficulties as it is illegal to prescribe methadone for addiction treatment outside of a licensed methadone maintenance program

Near the end of life, inpatient or homebound patients on methadone maintenance may benefit from a less rigid approach. A total daily opiate dose (e.g., morphine, hydromorphone) can be given via continuous intravenous or subcutaneous infusion pump.

## General Pain Management Issues

In patients with substance use histories, as with other patients, the provider must develop an understanding of the pathophysiology of the pain in question and a rational, incremental approach to its pharmacological management. (See Chapter 4: Pain.) After taking a careful history of the pain complaint (site; quality; exacerbating and relieving factors; temporal quality; onset; associated symptoms and signs; impact on life and psychology; and effect of current treatments), the provider can determine whether the pain is of nociceptive or neuropathic origin. This distinction is important as it can have treatment implications. Nociceptive pain results from stimulation of afferent receptors and can cause myriad painful sensations: localized or diffuse; somatic (involving skin, muscle, bone and soft tissue) or visceral; mild to severe. Neuropathic pain derives from damaged or otherwise compromised nerves and tends to result in shooting, stabbing, burning, electric shock-like pain, or discomfort that is caused by minimal stimulation to the skin (allodynia).

As is true in any patient, effective pain management in the substance-using patient involves multiple modalities and usually requires contributions from all members of the palliative care team. The pharmacological approach is best guided by the World Health Organization (WHO) three-tiered ladder—starting with non-narcotic analgesics (step one); followed by weak narcotics (step two); and finally moving to strong opioids (step three). (See Figure 4-1 in Chapter 4: Pain.) Adjuvant analgesics can be added at any step (e.g., for neuropathic pain). It is important to be aware, however, that in a patient who has developed tolerance to narcotics, strong opiates (step three) may be needed sooner, at greater frequency, and at higher doses, than would otherwise be expected. It is better for the primary care provider to work and be comfortable with one or two drugs in each class (doses, pharmacokinetics, conversions, side effects, interactions etc.) than to have only a superficial knowledge of all of them. As a general rule, it is best to push lower level treatment to the maximum before advancing to the next level. In cases of moderate to severe pain, therapy can rightly begin at step two.

While taking reports of pain seriously, providers should also act to minimize the likelihood of abuse. This often means opting for the alternative that is least tempting to the patient, avoiding use of a stronger, more readily abused drug for mild to moderate pain if an alternative is available that is less likely to be abused. For example, codeine is weaker, less euphorogenic, more constipating, and of lower “street value” than oxycodone, morphine, or hydromorphone. Although this is not a firm rule, long-acting drugs tend to be less likely to be abused than short-acting ones, and certain formulations (e.g., the transdermal fentanyl patch) may be less prone to abuse than others (e.g., brand-name oxycodone pills, which have a higher “street value” than generic oxycodone).

As noted above, the concepts of *tolerance* and *dependence* are very important in assessing and treating pain in substance users. (See Tables 11-4 and 11-5.) Because of tolerance, patients will have higher narcotic requirements than patients who are opioid-naïve, meaning that opioids will have to be prescribed at higher dosages and more frequently. This is sometimes counterintuitive to providers who are reluctant to prescribe opioids to patients with histories of opioid abuse. However, unless the provider accounts for the patient’s actual dosage needs, the treatment will be guaranteed to fail. Moreover, a common scenario which then unfolds is that providers may interpret patients’ requests for higher doses or early prescription refills as signs of drug-seeking, thus confirming their prejudices about manipulative behavior in substance users, when in fact this patient response is entirely predictable based on the pharmacology of opioid medications.

The concept of *dependence* is important in that the symptoms of drug withdrawal (which may include malaise, musculoskeletal pain, and abdominal pain) may need to be distinguished from the underlying pain disorder in patients who become opioid-dependent and may require additional intervention (e.g., use of longer-acting drugs) to ensure a steady-state over the 24-hour dosing period.

When switching between opioids and analgesics clinicians must be familiar with conversions between different drugs in order to maintain a constant level of analgesia and avoid side effects. (See Chapter 4: Pain.) As cross-tolerance between opioids is not always complete, however, the initial dose of a new opioid should be about half of the calculated dose and the patient observed for side effects. Rapid scale-up of the medication can follow.

Meperidine (which has long-acting metabolites) and mixed agonist-antagonist agents that can precipitate withdrawal such as pentazocine and butorphanol should generally be avoided. Providers should also be careful when prescribing narcotic combinations that include potentially hepatotoxic agents like acetaminophen (e.g., fixed-combination oxycodone or codeine plus acetaminophen). In many cases, the dose-ceiling for these drugs is due to the acetaminophen (for which the daily dose should not exceed 4 gm/day and in some patients even less), and not the opioid itself. This is particularly true in a drug-using population with HIV already at high risk for hepatitis.

Neuropathic pain also can be pharmacologically managed using the WHO ladder. Effective management, however, often involves more aggressive use of adjuvant treatments, particularly those known to act on the central nervous system: anti-depressants, anti-convulsants, and others. (See Chapter 4: Pain.)

Route of administration of opiates is also an important issue in this population. Some patients whose substance use is in remission may strongly object to administration of any drug using a needle and be much more comfortable with oral or transdermal preparations. In other cases, when there is concern that medications may be sold on the street (either by the patient or household members), long-acting, transdermal, and generic formulations are best, even though misuse can still occur with all of these options. Indwelling catheters pose particular problems in that they can be, and are, misused by some patients. In these cases, a percutaneous infusion pump may be a better option.

Physicians often fear that they are being manipulated to over-prescribe controlled substances. Alternatively, they may be concerned that they will create or re-establish an addiction. There are no easy answers to these dilemmas. Both are real dangers. However, if decisions are informed by a solid understanding of the precise nature of the patient's substance use as outlined above, the chances of such bad outcomes are lessened.

That said, the fear of over-prescribing should not prevent effective pain management. Surgical teaching on treatment of appendicitis holds that:

*Accuracy of preoperative diagnosis should be about 85%. If it is considerably less, some unnecessary operations are probably being done, and a more rigorous pre-operative differential diagnosis is in order. On the other hand, an accuracy consistently greater than 90 percent should also cause concern, since this may mean that some patients with atypical but bona fide acute appendicitis are being "observed" when they should have prompt surgical intervention.<sup>13</sup>*



A similar line of thought might well be applied to the use of controlled pain medications. It is better to tolerate a degree of manipulation and drug-seeking behavior in a population of patients than to allow a high prevalence of un- or undertreated pain. This is especially true in the case of the patients who are the concern of this book—those living with HIV/AIDS who need palliation and end-of-life care.

Symptoms other than pain are managed much the same in the substance-using population as in other groups. It should be remembered, however, that pain (physical, psychic or spiritual) can and will exacerbate suffering associated with a variety of symptoms. If, therefore, pain is not appropriately managed in the substance user, it is less likely that other symptoms will resolve either.

## PSYCHOLOGICAL, SPIRITUAL, AND SOCIAL CONCERNS

■ Substance users typically have histories of negative interactions with health care institutions and providers. The palliative care provider may, therefore, find himself or herself faced with a mistrustful or even hostile patient requiring considerable effort, time, and compassion. Overcoming this barrier can be especially rewarding, particularly if it means that a patient is able to meet his or her death in an environment of trust and respect.

Alcohol aside, substance use is an illegal activity. Discovery or admission of substance use carries with it fear of criminal prosecution, loss of children, dissolution of family structures, loss of employment, and other social sanctions. The clinician should anticipate these fears and have in mind a reasonable plan of action should they be raised. At times, the patient and palliative care team must have legal advice to ensure that the patient's interests are protected.

Substance users often live in chaotic social situations that make home care impossible. Medications with a street value are stolen; violence is common (women living with HIV and substance use are at increased risk for physical and sexual abuse);<sup>14</sup> reliable primary caregivers are difficult to identify; and providing security to members of the care team can be problematic. In these cases institution-based care may be sought earlier than would otherwise be clinically indicated.

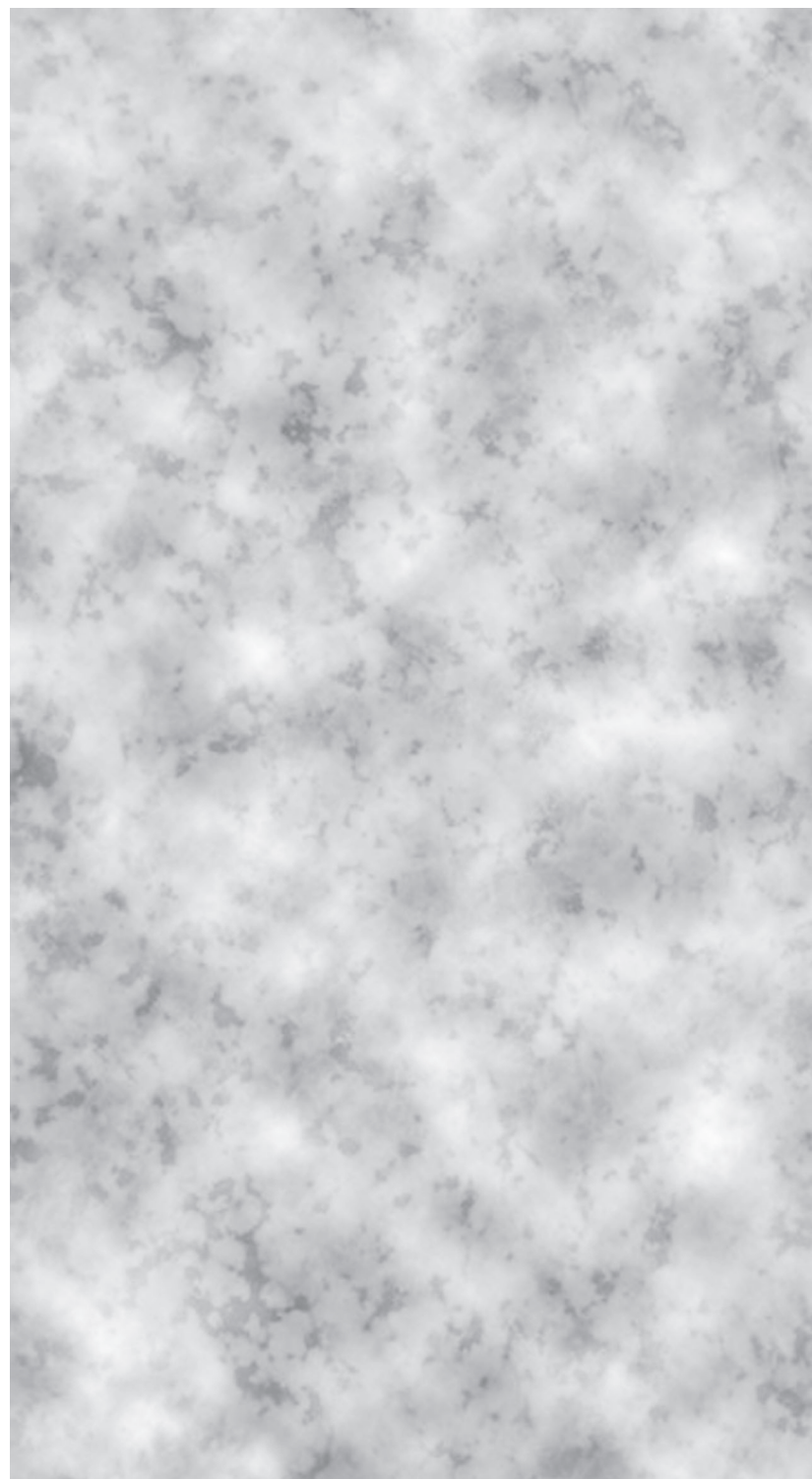
There are high rates of psychiatric co-morbidity in the substance using population. All patients presenting with active substance use should therefore have a psychiatric evaluation. (See Chapter 10: Psychiatric Problems). Even when substance use is in remission, providers should remember that HIV/AIDS is in and of itself a stressor, that stages of clinical deterioration are especially difficult from a psychological point of view, and that there is high risk for relapse at such times.

Spiritual concerns among substance users are as varied and universal as among any other people. (See Chapter 13: Spiritual Care.) There are, however, some additional considerations. Many former substance users rely upon deeply held religious convictions to maintain sobriety. It is critical that these beliefs be understood and respected by the palliative care team. If, for example, a patient is a member of Alcoholics or Narcotics Anonymous, providers may want to include the patient's sponsor as a member of the care team. Active users, on the other hand, may have experienced repeated rejection from religious institutions and initially be most comfortable dealing with spiritual concerns in other ways. Many people who are alienated from religious institutions of their youth desire, as their health deteriorates, to re-engage. It is important, therefore, that the palliative care team maintain a high degree of flexibility and openness in this regard.

Care providers often see substance users as a source of frustration, mistrust, and negative interactions. However, when providers understand the basic principles of addictive disease, and can incorporate some of these simple principles into their management of such patients, the rewards can be very gratifying. Just as providers bring their own prejudices to the encounter with the patient, so too do the patients themselves. Substance using patients may have concerns that their reports of pain will not be taken seriously, that they will be dismissed as drug-seeking or manipulative, or that they will generally be treated with hostility and disrespect. This negative framework often guarantees even before an encounter begins that it will be a failure. A provider's ability to overcome this negative framework can be critically important both to patient outcomes and provider satisfaction. Especially for patients at the end of life, opportunities for empathy, understanding, and healing occur frequently, and provide continued affirmation that substance use need not disqualify patients from receiving effective care.

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## Chapter 12.

# The Care of Children and Adolescents

Nancy Hutton, MD, and James M Oleske, MD, MPH

### INTRODUCTION

■ All HIV clinicians, whether they care for adults or children, need to understand the basic issues and needs of children and adolescents in order to provide palliative care. Pediatric HIV providers must have the knowledge and skills to provide palliative care to their patients throughout the disease trajectory. They must also be cognizant of the palliative care issues that affect the family members in a child's life. Providers for adults with HIV must understand the needs of children and adolescents in the lives of their adult patients, especially as they relate to palliative care and care at the end of life.

This chapter first describes the developmental continuum of children and adolescents, and then addresses pain and symptom management. Finally a range of issues related to caring for children with advanced disease is discussed, including prognostication, several aspects of decisionmaking and communication including disclosure of HIV status, and support of affected children including permanency planning.

### HIV Is a Family Disease

HIV is a family disease in every sense. In pediatric HIV infection, there are usually at least two generations of the family infected: mothers (and often fathers) and children. Parents continue caring for sick children as their own disease progresses. Families living with HIV often include several people with HIV, increasing the disease's impact on each individual almost exponentially. When multiple adult siblings are infected, substantial caregiving burden falls to their aging parents. If those adult children have children themselves, caregiving responsibility for sick mothers and sick children often falls to grandparents or other elderly family members.

### Children and Adolescents Infected with HIV

Young people with HIV/AIDS require high quality care throughout the continuum of their disease, including high quality palliative care. The advent of highly active antiretroviral combination therapies (HAART) has not made palliative care obsolete. In fact, it helps refocus our goals. As symptom management is an important component of palliative care, managing the symptoms associated with antiretroviral therapy should be an integral component of initial HIV management in a newly diagnosed patient.

HAART has not cured HIV. A cohort of children has survived into adolescence on serial mono and dual therapies. These young people, now in their mid-teen years and often in non-parent care, are grappling with the failure of medical treatment to stem the progression of their disease.

## Children and Adolescents Affected by HIV

Besides the children and adolescents who are infected with HIV, many non-infected children and adolescents are affected by the disease. Children and adolescents affected by loved ones with HIV—including parents, siblings, grandparents, aunts, uncles, friends and lovers—are often called the forgotten children of the epidemic. Although HAART has provided a respite from the multiple deaths of parents and other treasured adults, the losses have not stopped and are beginning to escalate again. The needs of children and adolescents include basic care and protection, nurturing, discipline, and mentoring in order to grow into independent adults. Children also need support in anticipating and preparing for loss and in experiencing healthy bereavement.

## DEVELOPMENTAL CONTINUUM

■ The single characteristic that makes children stand apart from adults is their rapid growth and development. Because the changes are so large and so rapid during life's first two decades, any engagement with children and adolescents, whether infected or affected, must begin with a sense of where a child is on his/her developmental trajectory. Health care providers need to understand a child or adolescent's level of development in order to offer appropriate support.

For purposes of description, four streams of development will be presented:

- Physical growth and physiological maturation
- Motor skills development
- Cognitive maturation
- Social and emotional maturation

Some streams may have greater relevance than others to certain situations. However, we must always remember that all four streams are intertwined into the unique whole of each individual child or adolescent.

## Physical Growth and Physiological Maturation

Childhood and adolescence are periods of rapid physical growth. Newborns *triple* their body weight in the first year of life. By the age of 15, an adolescent will weigh two-thirds more than he or she weighed as a ten year old. Appetite, diet, and caloric intake increase substantially as a child grows. Clothing and shoes become too small before they are worn out. Basic care requires close supervision and protection by nurturing adults with the means to support the growing child.

## Growth, Size and HIV Infection

Growth failure is a common complication of HIV infection. Short stature in adolescents may lead to teasing by peers and inappropriate treatment by adults who think the adolescent is a younger child.

Clearly “one size” cannot “fit all.” For children with special health care needs, equipment must be available in appropriate sizes. Blood pressure cuffs, wheelchairs, beds, and walkers come in a range of sizes.

Using safe and familiar items creatively is desirable. For instance, children feeling too weak or tired to walk around or go outside may enjoy rides in a wagon filled with pillows and blankets.

## Medication Dosage for Children and Adolescents

Medications are dosed by body weight or body surface area. Metabolism and excretion of medications change with the maturation of body organs. Early infancy is a time of rapid maturation in hepatic and renal function. There are further changes at puberty that are less well defined. Therefore, chronic medication dosing must be recalculated as children grow or regress (Table 12-1).

Common pediatric medicines such as antibiotics have been studied for safety, efficacy, and optimal dosing in even the youngest patients. Often, children require and tolerate higher total doses than adults. However, many medications that are used to manage symptoms and complications have not been formally tested in children.

Table 12-1: Example Illustrating the Need for Flexible Dosing Formulations: Range of Doses for a Common Antibiotic Prescribed during Childhood and Adolescence

Age	Weight	Dose Calculation	Dose Administered
2 months	5 kg or 11 lb	50 mg/kg/day	85 mg tid
3 years	15 kg or 33 lb	50 mg/kg/day	250 mg tid
9 years	30 kg or 66 lb	50 mg/kg/day	500 mg tid
14 years	50 kg or 110 lb	(equiv to 15-30 mg/kg/day)	250-500 mg tid
Adult	70 kg or 154 lb	(equiv to 10-20 mg/kg/day)	250-500 mg tid

Medication formulations must provide flexible doses in a form that can be easily swallowed. Liquid formulations offer the most flexible dose titration and are the easiest to swallow if the flavor and odor are tolerable. Sustained release preparations can reduce the frequency and number of doses, but must be available in multiple strengths in order to be useful at all with children or adolescents. Transdermal patches, an ideal delivery system, are available only for a limited number of drugs and in adult dose ranges.

## Motor Skills Development

Human infants are completely dependent on adult caregivers for all basic care and daily activities until they develop into independent people responsible for their own care. Gross motor skills are the first developmental milestones we see, as infants learn to sit, stand, walk, run, and climb. Fine motor skills include using hands to accomplish increasingly complex tasks such as grasping, carrying, self-feeding, and gaining voluntary control over intake and elimination (chewing, swallowing, bowel and bladder control).

Motor skills influence the extent to which children can cooperate with or perform their self-care or care for others. They are markers of independence and usually great pride. However, adults sometimes assume that physical skills predict cognitive or emotional maturity. This error can lead adults to expect children to shoulder burdens that are not appropriate for their cognitive or emotional level of development.

The loss of motor skills due to illness or injury is significant physically and emotionally for child and parent alike. HIV can cause progressive neurologic deterioration, with loss of milestones and increased dependency on others for ambulation and self-care. HIV also causes fatigue and weakness that functionally restrict a child's independence. Assessing changes over time, especially the loss of skills, is an important component of care planning for children with chronic and progressive illness.

### Cognitive Maturation

A child's developing ability to think is reflected in his or her ability to communicate in written and spoken language, and in the ability to solve problems. *Expressive language* includes the vocalizations, body motions, or writings that a child will use to attempt to express ideas to others. Primitive skills will communicate comfort or discomfort (smiling, crying). As cognition advances, expressions become more intricate and refined, becoming recognizable words, then sentences, then paragraphs and conversations. With patients who are children, our ability to ascertain their experience of physical symptoms or psychological loss is limited by their ability to express these ideas in ways we can understand.

*Receptive language* skills include a child's ability to hear and understand the spoken word and see and read the written word. All these skills are necessary for children and adolescents (and adults) to participate effectively in decisionmaking. These skills develop gradually as a child matures. Young children understand events concretely while adolescents are better able to think abstractly. Our explanations of what is going to happen and why, or of choices about treatment, can only be shared to the extent that a child has the receptive skills and cognitive processing to comprehend what is being communicated and its implications.

### Social and Emotional Maturation

A child's social interaction begins with parents and other daily caregivers. During the first year, infants begin to distinguish self from others, and familiar others from strangers. They begin to remember people even when the people are not physically present. During the second year, children begin parallel play and later become truly interactive in their play. Social interaction with peers becomes important throughout the school years, and takes on greater importance as adolescents become more independent from adults. Table 12-2 presents suggestions for health care providers to use in working with children and adolescents at different stages of social development.

A personal or family illness will interfere with the normal progression of a child's socialization process. Missing school and other opportunities for age-appropriate play can cause arrest or regression of this component of development.

Emotionally, a child's experience of loss (self, family, friends) will vary according to his or her developmental age. The same loss may be re-experienced in new ways at critical points in the child's development.



Table 12-2: Interacting with Children and Adolescents at Different Stages of Social Development

<b>Infants (0-12 months)</b>	Communicate to us nonverbally
	Adults should use language, tone, and touch to communicate
	Need physical and emotional nurturing
	Adults should give very simple explanations
	Object permanence develops
<b>Toddlers (1-2 years)</b>	Are learning words
	May have temper tantrums
	Adults should give simple explanations
	Adults should be clear, consistent
	Adults should prepare toddlers for procedures just beforehand
<b>Preschoolers (3-4 years)</b>	Adults should be efficient and comforting
	Have simple conversations, can ask questions
	Can play with others
	Have concerns about body integrity
	Show magical thinking
<b>Children (5-11 years)</b>	Adults should provide concrete information about what is happening and why
	Are curious about own body and own health
	Spontaneous questions are opportunities for adults to tell children the truth
	Learn to read
	Begin to understand cause and effect
<b>Early Adolescents (12-14 years)</b>	Offering children choices improves their sense of control
	Puberty is a period of rapid physical, physiologic, emotional, and social change
	Want to be treated like adults but are still kids
	Struggle with their own vulnerability vs. invulnerability
	Need direct positive adult support
<b>Late Adolescents (15-18 years)</b>	Peer relationships are very important
	Are abstract, existential thinkers
	Can accept active responsibility for own health care
	Can be active in health care decisions, including participation in research
	Still need adult structure and support
May be shouldering adult responsibilities	

## PALLIATIVE CARE FOR CHILDREN AND ADOLESCENTS WITH HIV/AIDS

■ Palliative care is the active total care of patients whose disease is not responsive to curative treatment. Because HIV remains a disease without curative treatment, in some sense, all care is palliative in intent. We must attend to patients' physical problems in order to support further exploration of the emotional, spiritual, and social issues that concern them. We strive to improve the quality of living through HIV-specific therapies and other supportive and preventive therapies.

### Symptom Management

This section explores the range of physical symptoms experienced by children and adolescents with HIV/AIDS, management options for these symptoms, and strategies for successfully implementing effective management. Conscious use of this framework for care from the time of diagnosis will help to facilitate the transitions in care that must occur as disease progresses.

The range of symptoms experienced by children and adolescents is similar to that for adults with HIV/AIDS. Some symptoms are caused by the underlying disease and its complications and some are caused by the procedures and treatments that are used to manage the disease (Table 12-3).

Table 12-3: Causes of Symptoms in HIV/AIDS Patients

Symptom	Causes		
	Disease	Procedure	Treatment
Pain	■	■	
Nausea	■		■
Anorexia	■		■
Vomiting	■		■
Diarrhea	■		■
Constipation	■		■
Fatigue	■		■
Fever	■		
Dyspnea	■		
Cough	■		
Bleeding	■		
Seizures	■		
Anxiety	■	■	■
Fear	■	■	■
Depression	■		
Sleep disturbance	■	■	■
Skin lesions	■	■	■

Managing symptoms follows a logical approach: assessment, treatment, and reassessment. Health care providers should repeat this sequence of actions rapidly until symptoms are controlled and then on a routine basis to assure maintenance of control.

## Preventing Iatrogenic Pain and Symptoms

The clinician's first obligation is to prevent the pain and symptoms associated with the tests and treatment provided to patients. This means being conscious of these symptoms and acting preemptively to prevent or control them. The most common procedure-associated symptom is pain due to needle sticks (injections, phlebotomy, intravenous access, lumbar punctures). EMLA cream (eutectic mixture of local anesthetics) is readily available and easy to use for all of these indications. A barrier to its use is a provider perception that there is not enough time for it to work. Usually the lack of time for application of EMLA is a result of providers' failure to anticipate the need for EMLA at the beginning of a clinical encounter. Some families successfully apply EMLA at home prior to traveling to a clinical appointment; again, this is possible when providers anticipate the predictable need for topical pain relief and spend the time and effort ahead of time to implement a strategy for prevention.

Anticipatory fear and anxiety are common procedure-associated symptoms in pediatric patients, as in adults. With children, preparation for procedures using medical play is very effective in reducing fear, improving a sense of mastery and control, and thereby improving the patient's cooperation with procedures. *Child life specialists* are trained professionals who provide developmentally appropriate psychologic preparation and can provide direct support to the child throughout the procedure. Techniques include the use of dolls, medical equipment that the child can touch and manipulate, pictures and books, and role-playing with the child taking the role of the health care professional. Distraction, imagery, relaxation, music, and hypnosis are techniques used during procedures to complement analgesia and preparation.

Many medications have the potential to cause side effects. HAART regimens are common culprits, causing nausea, vomiting, diarrhea, headache, dysphoria, or paresthesia. Children initiating therapy early in the course of HIV disease may feel well until starting medicine and *then* feel sick. For children with progressive disease, medicines may add or obscure symptoms. Whenever possible, providers should minimize treatment-associated symptoms through thoughtful prescribing, patient preparation, and medical management.

## Assessing Symptoms

The first step is to determine whether a patient is experiencing any symptoms and, if so, which? Each symptom must be assessed regarding the following factors:

- Onset
- Severity
- Duration
- The presence of precipitating, aggravating, and relieving factors

While this assessment can be challenging with adult patients, it can seem impossible in children.

Direct observation of the child and the report of a parenting adult are essential components to pediatric assessment. In preverbal children, behavioral observation of crying, irritability, withdrawn or depressed affect, tense body position or facial grimacing, and fearfulness may each

point to underlying pain. Adults who spend a lot of time with the child are able to describe changes or patterns in behavior suggestive of pain. But it is almost never too early to ask the patient directly. Even very young children can provide important information. Their descriptions can be charmingly accurate and to the point. Unfortunately, they also learn quickly that telling the doctor or nurse about a problem may lead to more tests that cause further pain and discomfort, so a child's denial of a symptom that seems likely to be present must be taken in context as well. For instance, a therapeutic trial of analgesia is sometimes the best way to sort out how much pain is contributing to the patient's current condition.

## Pain Assessment

Pain comes in many forms. Remarkably, patients may not report pain unless a provider asks whether it is present. Pain is an important symptom for alerting providers to problems that require further investigation and treatment. Pain is also a problem in and of itself for the patient and requires specific management, regardless of its underlying etiology.

Pain assessment logically begins with location. Providers should ask, "Where does it hurt?" "What other pains do you have?" A list of all the pains helps the provider organize an approach to assessment.

Possible pains in children and adolescents include the following:

- Headache
- Stomach Ache or Abdominal Pain
- Chest Pain
- Back Pain
- Ear Ache, Sore Throat, Mouth Pain, or Tooth Pain
- Extremity Pain

Knowing when a child has multiple pains helps the provider address each type of pain with appropriate modalities and allows specific reassessment to assure the patient's optimal response to each intervention.

The severity or intensity of the pain can be assessed using the behavioral rating scale, FACES scale, or the 1-10 scale. (See Figures 4-2 to 4-5 in Chapter 4: Pain.) Pain rating scales help providers to determine when a patient's pain is getting worse and when interventions are providing relief.

The character of the pain may be more difficult to elicit. Some children are able to use adult descriptors that suggest an etiology of the pain, such as aching versus shooting pain. However, many children will simply say it hurts. Some can describe onset and frequency, but others will only be able to tell the provider if the pain is present now and whether it is sometimes not there. Colicky pain may require adult observation of the exacerbation/remission cycle of the pain.

## Physical Examination and Verbal Questioning of Children to Assess Symptoms

Physical examination begins with the careful observation of the patient's position, spontaneous movements, and level of arousal/interaction. This phase of the exam is particularly important with children. Children become frightened and start crying even in anticipation of an exam that may cause them further pain. Once a child reaches this state, it is nearly impossible to discriminate areas of tenderness or to complete an adequate exam.

Simple preparation before touching the patient and respect for a patient's request to stop a portion of the exam will achieve a more informative evaluation than wrestling with a screaming child. Visual inspection (without touching!) of the skin reveals lesions or wounds. Palpation and manipulation helps to discriminate the presence and location of tenderness as well as other aggravating factors. Asking a child to help the examiner by telling him or her as soon as something hurts, so that further hurt can be minimized, helps include the child in the evaluation and promotes cooperation and improved feedback about symptoms.

Neuropathic pains may have associated motor and sensory changes. Sensory neuropathy causes hyperesthetic areas that cannot tolerate even light touch. The pain of nerve root compression may feel deep and aching but not be made worse by direct palpation in the area of referred pain.

The assessment of symptoms other than pain in children is less well studied. We rely on direct observation by parents and health care professionals and the subjective reports of the patients. Behavioral observations can make us suspicious that a child is experiencing a symptom, but may not indicate specifically which symptom. For this, providers need the child's feedback. However, the child's capacity to provide this feedback is limited by his or her developmental level. Adult proxies may not provide an accurate assessment. In addition, we have few reliable severity measures, inhibiting our ability to detect changes in severity over time other than by behavioral improvements in response to specific interventions. Sometimes the provider can only determine the presence or absence of a symptom. (See Table 12-4).

Table 12-4: Sources of Information about Symptoms in Children

Symptom	Presence	Severity
Pain	O, R	R
Vomiting	O, R	O, R
Nausea	R	R
Diarrhea	O, R	O, R
Constipation	O, R	R
Fatigue	O, R	O, R
Anxiety	O, R	O, R
Depression	O, R	R
Skin lesions	O, R	O, R
Anorexia	O, R	O, R
Insomnia	O, R	O, R
Dyspnea	O, R	O, R
Fever	O, R	O
Cough	O, R	O, R
Bleeding	O, R	O, R
Seizures	O	O

O = Direct observation by caregiver or health professional; R = Patient report

Infants and young children are dependent on adult caregivers for their activities of daily living. These patients are too young to use the bathroom independently, change their clothes, or prepare and eat meals. Therefore the presence and severity of symptoms that require adult attention can be ascertained by asking a parenting adult. This person certainly will know whether a young child is experiencing vomiting, diarrhea, infrequent stools, decreased appetite, decreased activity, disturbed sleep, or fussy behavior.

As discussed above, behavioral observations regarding changes in appetite, activity, sleep, and mood do not necessarily indicate the presence of a specific symptom. For instance, pain or nausea could cause the same spectrum of behaviors; identifying the correct symptom is necessary for effective symptom management.

Providers need to ask older children directly about their symptoms, in addition to asking adult caregivers for their observations. Children may not recognize or accurately use “medical” descriptors. Nonetheless, their reports are critical pieces of symptom assessment. Nausea is difficult to describe or explain. Constipation may be missed because children do not keep track of their bowel movements. Fatigue may be misinterpreted by adults as laziness. Anxiety, fear, and depression can cause behaviors that adults could label as oppositional or “limit-testing” without exploring their underlying etiology.

## Treating Symptoms

An effective symptom management plan will include both pharmacologic and non-pharmacologic modalities. Pharmacologic treatment of infants, children, and adolescents entails challenges uncommon in adult medicine. The safety and efficacy of many common medications have not been established in the youngest age groups. Similarly, pharmacokinetics, dosing levels and intervals are unavailable for many drugs. This is particularly true for patients who fall into the two periods of rapid physical growth and maturation: infancy and puberty. Pediatricians often extrapolate information from adult studies, using promising medications in difficult situations and “guesstimating” doses. However, adult medications may not be available in formulations that young children can swallow or doses that young children can take. Some routes of administration may be frightening or painful.

## Pain

Managing pain involves identifying and treating any reversible causes of pain (e.g. infections responsive to antibiotic therapy). Specific pain management should complement curative therapies until the underlying problem is resolved and no longer causing pain. Many pains, especially in advanced disease, will elude clear delineation of etiology or be due to conditions for which there is no effective therapy. In these circumstances, specific pain management is the preeminent therapy. (See Chapter 4: Pain.)

Within the field of pediatrics, we have experience with non-pharmacologic approaches such as distraction, relaxation, and breathing techniques for procedure-associated pain. Health care providers treating children and adolescents need to expand and refine the use of these techniques for chronic and complex pain syndromes.

Providers also need to be comfortable with the use of analgesics (Table 12-5). Having a few basic medicines in our armamentarium will go a long way toward relieving patient pain. Understanding their mechanisms of action, dosing options, and potential for synergistic effects, side effects and toxicities reduces the barrier of provider ignorance and discomfort.

Pediatric pain specialists are available to help manage more complex or unresponsive pains in children.

Table 12-5: Analgesics for Pain Management in Children and Adolescents

Basic oral analgesics	Dose	Formulation
Acetaminophen	10-15 mg/kg/dose q 4-6 hours	Drops (80mg/0.8ml)
		Syrup (160mg/5ml)
		Chewable tab (80mg)
		Tablets (325mg, 500mg)
Ibuprofen	5-10 mg/kg/dose q 6-8 hours	Drops (40mg/ml)
		Syrup (100mg/5ml)
		Chewable tab (50mg, 100mg)
		Tablets (200mg, 300mg, 400mg, 600mg, 800mg)
Oxycodone	0.2 mg/kg/dose q 3-4 hrs	Solution (5mg/5ml, 20mg/ml)
		Tablets (5mg)
Morphine	0.15-0.3 mg/kg/dose q 4 hrs	Solution (10mg/5ml, 20mg/5ml, 20mg/ml)
		Tablets (10mg, 20mg, 30mg)

Source: Adapted from World Health Organization. *Cancer Pain and Palliative Care in Children*. Geneva: World Health Organization, 1998.

### Nausea and Vomiting

Provide frequent sips & small meals. If possible, discontinue offending medications. Provide the patient with antiemetics (Table 12-6).

Table 12-6: Antiemetics for Nausea and Vomiting in Children and Adolescents

Basic antiemetics	Dose	Formulation
Metoclopramide	0.1-0.2 mg/kg/dose q 6 hours	Solution (10mg/ml)
		Syrup (5mg/5ml)
		Tablets (5mg, 10mg)
Prochlorperazine	0.1-0.2 mg/kg/dose q 6 hours	Syrup (5mg/5ml)
		Suppository (2.5mg, 5mg, 25mg)
		Tablets (5mg, 10mg, 25mg)

Source: Adapted from World Health Organization. *Cancer Pain and Palliative Care in Children*. Geneva: World Health Organization, 1998.

### Diarrhea and Constipation

Dietary fiber helps control both conditions. Laxatives should be prescribed with opioids to prevent painful constipation. Skin care is very important when diarrhea or incontinence threaten skin integrity. (See Chapter 7: Gastrointestinal Symptoms.)

## Anorexia

Appetite can be stimulated using megestrol acetate (200 to 800mg/day)<sup>2</sup> or corticosteroids. However, parents need reassurance that decreased food intake will not cause death; it is to be expected at the end of life. The body has decreasing nutritional requirements as death approaches. Forcing a child to eat or drink can be uncomfortable at this time, causing choking, abdominal pain, nausea, vomiting, or diarrhea. (See Chapter 5: Constitutional Symptoms.)

## Fatigue and Sleep Disturbance

Promote sleep through adequate symptom control, a peaceful and comfortable environment, and orders not to awaken the child unless he or she is taking around-the-clock pain medication. Move as quickly as possible to long-acting agents. Offer quiet activities. Encourage the child to play, walk outdoors, and remain awake during the day to promote sleep at night. Stimulant medication (methylphenidate 0.1-0.5 mg/kg/dose) can be prescribed to promote arousal during the day.<sup>1</sup> (See Chapter 5: Constitutional Symptoms.)

## Skin Care

Bathing, moisturizing, and massage all promote skin integrity and prevent skin breakdown. Cushion the child's pressure points and change his or her position frequently to prevent pressure sores. (See Chapter 25: Prevention of Skin Breakdown.)

## Dyspnea

Several strategies exist to help relieve the sensation of shortness of breath: humidified air, oxygen, nebulized saline or bronchodilators, opioids (systemic or nebulized), positioning, and assistance with ambulation. (See Chapter 6: Pulmonary Symptoms.)

## Anxiety and Depression

The value to a patient of another human presence should not be underestimated. Encourage the patient to use both verbal and non-verbal avenues for expression. Anxiolytics and antidepressants have important roles in relieving these symptoms. Drug interactions are common with protease inhibitors and NNRTIs so the choice of agent will depend on the child's other current medications. Lorazepam (0.02-0.04mg/kg/dose q 4-6 hours)<sup>1</sup> can generally be used concomitantly with protease inhibitors. However, midazolam is contraindicated. (See Chapter 10: Psychiatric Symptoms.)

## CARING FOR CHILDREN WITH ADVANCED DISEASE

### Prognostication: How Do We Know When the End of Life is Near?

Accurate prognostication requires knowledge about disease trajectory, the range of individual variation, and the potential impact of therapeutic interventions. Although we know that HIV is ultimately a fatal disease, there are wide ranges of severity and survival within the pediatric and adolescent age groups. Declining CD4 counts and clinical complications indicate progressive disease.

In the era prior to HAART, we were able to predict moderately well when a child was approaching the end of life. Children experienced recurrent hospitalizations with new and evolving infections and end organ disease. Their recoveries with each exacerbation never returned them to



their precomplication baselines; the progression of disease was like a roller coaster ride with an overall downward slope. Now we are learning all over again. If a child is deteriorating, we must ask ourselves whether we have provided the best primary therapy for his or her disease. Changing HAART regimens and assuring 100% adherence continue to make remarkable improvements in children and adolescents who have what would otherwise be end-stage disease.

Children and adolescents are very resilient. They tolerate many therapies better than adults do. They recover more quickly and completely from injury or surgical interventions. They sometimes prove our predictions wrong and recover from complications we predicted would be fatal. On the other hand, children and adolescents sometimes die suddenly, unresponsive to full attempts at resuscitation.

Health professionals sometimes have difficulty acknowledging how poor a patient's prognosis is. We generally err on the side of optimism, thinking that our patients have much longer to live than they actually do. Our need to feel that we have "done everything" and not "given up" is magnified when working with young people who have only begun their lives. Although provider optimism feels hopeful and positive, it must not blind us from the work to be done providing excellent palliative and end of life care.

### Role of Antiretroviral Therapy in End-of-Life Care

The role of antiretroviral therapy in palliative and end-of-life care is not clearly defined. The advent of protease inhibitor combination therapies caused the same dramatic clinical improvements in children that were observed in adults with HIV/AIDS. And in younger populations we are seeing the same disappointments when HAART does not achieve complete viral suppression.

However, laboratory values do not tell the whole story. We see immunologic benefit in the apparent absence of virologic control. We see clinical improvement in the absence of immunologic improvement. Clearly these changes translate into improved quality and longevity of life for patients with HIV/AIDS. When highly active combination therapies fail to keep a patient feeling well or cause intolerable pill burden or side effects, they should be discontinued. "Suboptimal" regimens can be considered if they offer some slowing of disease progression without undue burden. These regimens would not be considered if decisions were based solely on medication treatment history and genotypic analysis. But in palliative care, we have permission to look to the patient first and offer care that is helpful, even if it is not "standard" in the traditional sense.

### Withholding or Withdrawing Life-Sustaining Therapies

A broad range of invasive, high technology therapies are used in pediatrics to support vital functions while a child recovers from injury, surgery, or treatable illness. Interventions such as artificial ventilation play an important role in supporting children with HIV through treatable crises. However, the use of such therapies should not be automatic, just as they should not be routinely withheld. The likelihood of benefit must be considered and balanced against the risks and burdens of the intervention. This balance will shift over the course of a child's disease trajectory.

The values and beliefs of the child and family regarding life, illness, suffering and death form the foundation for their consideration of our medical information and recommendations. Parents and health care providers alike need to know that they have done everything within their power

to provide the best life possible for the child in their care. We do not and should not “give up” on children. But we must keep in mind that regardless of our interventions, HIV is ultimately fatal. When life-sustaining therapies become death-prolonging, we can support families in deciding to forgo or withdraw such therapies, knowing such decisions are a means toward their goal of providing the best quality of life possible for their child.

### Providing Care: Who and Where?

Most care for children and adolescents occurs in the home. Home is a familiar place of comfort where family members come together to love and care for the child. Current practices in pediatric home care and hospice care are based on this foundation. Home care professionals provide in-home assessment and training, permitting parents and other caregiving adults to provide even highly technical and specialized care outside the hospital setting.

Accessing home care or hospice services is sometimes difficult depending on the child's health insurance and health status. Many insurance plans require patients to be “homebound” to receive home care services. Yet the health care provider's goal of keeping children active and functioning in a developmentally appropriate way may clash with traditional definitions of “homebound.” Advocating that services should be rendered and reimbursed based on need and least restrictive setting is consistent with pediatric principles of care.

Unfortunately the AIDS epidemic has disproportionately hit vulnerable families who may not meet this pediatric ideal. Some children live with parents who also have progressive HIV disease, with resulting weakness, confusion, repeated hospitalizations, and early death. There may be serial caregivers both short and long term, causing discontinuity in the child's basic care and medical care. Some children live in substandard housing, some without utilities. However, none of these conditions is a contraindication to home care if there are caring adults willing and available to provide care for the child. Palliative care is generally “low tech” and depends more on “high touch.” As long as the child is warm, dry, safe, and comfortable, the other aspects of care can be addressed.

In situations where there is no reliable adult and no safe place to live, we need to look to residential and inpatient alternatives. These are in particularly short supply for children. There are almost no pediatric hospices in the United States. Adult hospices are not prepared to accept pediatric inpatients.

Home hospice services vary in their capacity and readiness to provide child-centered services. At a minimum, they need pediatric training and backup to provide pediatric home hospice care. We should look for opportunities for partnership between community-based hospice services and children's hospitals or other pediatric specialty and tertiary care facilities to build the capacity to care for these children and adolescents.

### Health Care Decisions

#### Collaboration with the Family

Making good decisions depends on the collaboration of the patient, family, and health care providers. Each person brings unique information and perspective to the choices posed at points along the disease trajectory. Identifying these key individuals and preparing them to participate effectively is a critical component of palliative care.

Health care providers are responsible for gathering relevant information about the patient's clinical status and possible treatment and management options. Providers should be able to present all of the different options that exist and to articulate the following aspects of each option:

- What the patient will have to do
- Implications for the patient's daily routine and level of comfort
- Any restriction of activities
- The “downside” of each option such as side effects, need for procedures or hospitalization
- The alternatives, including “doing nothing”

One way to think about this process is to imagine standing at a fork in the road and considering which pathway to take. What is the destination? Do all paths lead to the same or different destinations? What good or bad things might be encountered along the way? Will the path be smooth and flat or steep and rocky? What if there is an unanticipated problem, e.g., a landslide blocks the way, you get a flat tire, the weather turns cold and wet? Can you turn back? Or is there a point of no return? What is unknown?

Providers must have specific knowledge of treatments for specific problems and be able to answer questions including the following:

- Which medicines can be used to treat this problem?
- What are the dose, route and schedule?
- What are the side effects and interactions?
- Can this problem be treated at home? As an outpatient? As an inpatient?
- How long will the treatment last?
- How likely is it to work?
- How will you know if it worked?
- Will the problem recur?
- What will happen if no medicine is given?

These are considerations for each treatment we offer throughout the course of a patient's disease. Practicing conscious consideration of all the relevant issues from the time of diagnosis lays a strong foundation for open consideration of all issues at advanced stages of disease. Which choices are made may change over time as the patient's disease progresses. (See Table 12-7: Health Care Decisionmaking: Case Example.)

It is critical for the treatment team to discuss all the options and come to consensus prior to presenting information to a patient and family. Hearing conflicting and fragmented information causes distress and confusion for patients and families. As HIV disease progresses, it involves more body systems and therefore more specialists. The burden for organizing the input of multiple specialists and making coherent recommendations falls to the primary health care provider. This burden should not be shouldered by the patient and family.

The process of decisionmaking is collaborative. Health care providers need to grapple with which option they think is the best for this particular patient at this particular time, recognizing that some patients and families will disagree and choose another option, and some families will look

to the provider for guidance: “what would you do in my situation?” Health care providers are in a powerful position to influence decisions, even unconsciously, by the content of the information they provide and the manner in which it is provided. We must be vigilant to maintain honesty and truthfulness while providing guidance as needed by the patient and family. We should not abdicate our responsibility as the health care experts to provide our best recommendations.

Table 12-7: Health Care Decisionmaking: Case Example

<b>Situation</b>	Mary is a three-year-old with advanced AIDS and her third central line infection. She has candida esophagitis, wasting, diarrhea, neurodevelopmental delay, and cardiomyopathy. Due to previous difficulty with peripheral and central venous access, her line is currently her only venous access for hydration, antibiotics and parenteral nutrition. Her blood pressure is lower than usual and the house staff are preparing to send her to the ICU for pressor support.
<b>What are the options?</b>	<ol style="list-style-type: none"> <li>1. Transfer to the ICU for full support</li> <li>2. Maintain current level of care</li> <li>3. Arrange home hospice care</li> </ol>
<b>Analysis</b>	<p>Any of these options might reasonably be considered. Prognosis and parent-provider collaboration are critical.</p> <p><b>Option 1</b> provides the best chance of fighting her presumed sepsis. But it has its own burdens, such as physical transfer to a new unit, disconnection from familiar care personnel, an increased number of invasive procedures, and a risk of complications. The benefit is not guaranteed.</p> <p><b>Option 2</b> allows her to remain in a familiar care environment, but may not effectively treat her underlying infection.</p> <p><b>Option 3</b> provides the opportunity for the child and parents to shift the focus of care to being home together as a family for the precious time she remains living.</p>

## Including Children in Decisions

The ethical tenet of autonomy supports the inclusion of even young children in decisions regarding their health care. There is a strong tradition within the field of pediatrics to talk with children of all ages in a developmentally appropriate way about what is happening. Children are often excellent sources of information for how they are feeling and what they can and cannot tolerate. They are better able to cope with treatments and procedures when prepared and supported for these interventions.

The legal age of majority varies from State to State and with the clinical situation. State law may allow minors to seek care for certain conditions, such as sexually transmitted diseases, repro-

ductive health, prenatal care, substance abuse, and mental health, without parental consent. Some States allow provider discretion regarding notification of a parent about treatment of a minor. Minors cannot consent to experimental treatment or research independently, regardless of their cognitive maturity.

The maturity of a particular child or adolescent helps determine the level at which they can participate in their care planning. Just as with physical and emotional development, the developing ability to understand, ask questions, consider future implications is a continuum, not a yes/no switch. Hence it is unnatural to assume that a 15-year-old has no ability to decide what care is best for her or him, just as it is unnatural to assume that an 18-year-old no longer needs the support of family or friends when considering life-threatening issues.

## Disclosure of HIV Diagnosis to Infected Children and Adolescents

It is assumed in our western culture that adult patients with life-threatening conditions have been informed of their diagnosis and treatment options, and offered some prognosis. This is not true for children and adolescents. Well-meaning adults often try to “protect” young people from the truth. They believe that sharing this information will take away the child’s hope and will to live. However, decades of experience in the field of pediatrics support the opposite conclusion. Children with cancer diagnoses, the most commonly studied, are better prepared and less anxious if they receive developmentally appropriate information about what is happening to their bodies and why. Providing developmentally appropriate choices and control over interventions improves a child’s ability to cooperate and make choices that best enhance his or her quality of life.

Only the patient himself or herself can say what is most important, what hurts, and what helps. This truth holds, regardless of the age of the patient. If we approach all people as unique individuals and communicate in the most effective and appropriate way for them, we will provide better opportunities for all patients to participate meaningfully in their own care.

With young HIV/AIDS patients, anticipating questions early in the disease process allows information to be shared in stages of increasing complexity and detail (see developmental section above). For most children, information about whether they need blood tests, have to stay in the hospital, or how many medicines they have to take, is most critical. These issues can be discussed in great detail without disclosing the name of the diagnosis. As children’s cognition advances, more detailed information about what blood tests are or how medicines work becomes appropriate. Ultimately, describing and naming the child’s health condition permits him or her to become a partner in care.

The fear of telling is primarily an adult fear. We fear the reaction we might get. We fear the questions we cannot face answering. We fear our own emotional reaction to the disclosure and project that onto the child. We fear that the secret will be shared with others. Disclosure may force us to face the truth when we would rather brush it aside for another day. But children should not be held captive to our fears. Information and inclusion need to be based on the child’s interest and ability to be involved. Information should not be withheld, just as it should not be forced.

There are natural opportunities to disclose information to a child. The time of diagnosis is an obvious one. This is the time when health professional and parent are learning the diagnosis. It makes sense that the person who owns the diagnosis should learn about it as well. Because the time of diagnosis can be fraught with so much emotion among the adult family members, it may

make sense to approach the child in the context of initiating therapy. In this way the diagnosis is discussed in the context of what can be done to control it and at a time when adults have had some time to adjust to the situation.

For children whose diagnosis and initial therapy occurred when they were very young, natural opportunities arise when they ask questions about why they take medicine or go to the doctor's office more often than their friends do. It is critical at these times that adults tell the truth, including partial truths only if that is all that the adult can provide at the time. For example, it is better to say, "You need to ask Dr. Smith about that" than to lie to a child. Children need to know they can trust the adults in their lives, and this need increases as children enter adolescence.

Another natural opportunity to discuss a diagnosis occurs when therapies need to change, especially when they are becoming significantly more complex. Children will naturally be curious about why this change is occurring. It is respectful to answer this question honestly in a developmentally appropriate way. These natural opportunities are far preferable for discussion of an HIV or AIDS diagnosis to times of crisis, such as hospitalization or admission to the ICU, or the onset of sexual activity.

Sometimes providers encounter parents or guardians who refuse to tell their children even as the children enter mid-adolescence. This is clearly beyond the range of "normal" secrecy or protectiveness and requires active intervention by a health care team in order to prevent harm to the adolescent. Awareness of his or her diagnosis is a prerequisite for including the child or adolescent in decisions about his or her care at the end of life.

### Including Guardians in Decisions

Guardianship is where many child and adolescent patients are left in limbo. Many have had serial caretakers and the current caretaker may lack a sense of the child's life history and values. The guardianship may not be clear or well documented. The guardian may be a government agency rather than an individual adult with an investment in the well-being of the child.

Providers should take practical steps to determine who should participate in decisionmaking regarding an infected child or adolescent's health care, based upon answers to the following questions:

- How old is the child?
- What is his or her ability to understand the issues at hand?
- With whom does he or she live? Who is the responsible adult? (Is it a parent? Is there a responsible adult at all? Is the role shared, or does it shift around among family members?)
- Is a parent still living. If so, does she or he have parental rights? Has this parent been involved in the child's life?
- Is the adult with whom the child lives a relative? Has that person formally been granted guardianship? The health care provider should ask to have a copy of the court order.
- Is the child in foster care? Living with a family? Long-term? In a group home? Usually a foster parent at best has limited guardianship for purposes of enrolling the child in school and seeking routine medical care. The foster care

agency or state government may be the legal guardian. A foster parent who has raised a child may be best suited to be the adult proxy decisionmaker for the child. In that case, petitioning the court to bring the legal documents in line with the human relationship may be the best strategy for the child.

- Does the responsible adult with whom the child lives (and/or the guardian) have the competence and capacity to make health care decisions? Many adults with advanced HIV disease experience complications that diminish their capacity, such as dementia (memory loss, confusion). Many children have been raised by grandparents or other senior family members. These seniors may now be facing their own health concerns, which may include dementia.

## Supportive Care for Children Affected by HIV/AIDS

AIDS is a family disease. More than any other, this disease tears at the very fabric of vulnerable families, causing illness and death within and across generations in the same family. All family members, whether infected with HIV or not, are deeply *affected* by the illness and loss of others. Grandparents may continue to care for surviving grandchildren with evolving social and emotional needs, even while they are themselves aging and encountering personal health problems. As the elder caregiving generation dies, the children left behind experience another wave of losses. (See Chapter 16: Grief and Bereavement and Chapter 20: Care for the Caregiver.)

One of the most heart-wrenching situations is a dying mother who cannot ensure that her surviving children will be safe, loved, and cared for. Permanency planning is a crucial but emotionally difficult responsibility for parents with life-limiting conditions. Care providers should encourage and support parents to honestly consider the possibility that they may become disabled or die. There are concrete steps that parents can take to plan for their children's futures. Standby guardianship (see Chapter 18: Legal and Financial Issues) was created in response to the AIDS epidemic to enable HIV-infected parents to identify another trusted adult to care for minor children in the event of temporary or permanent disability or at the time of death. For parents living in States with these statutes, this process facilitates seamless transition of legal authority to care for children at a time of crisis. When planning has not been done, children may be placed in foster care. Siblings may be separated. Placements may change repeatedly. These additional losses can be catastrophic for children who have just lost a parent.

Legacy building can occur when families acknowledge the possibility that life will be shortened. Parents can write letters or leave videotapes for their young children to read and view when they are older. Hand molds can be made, regardless of the age of the dying patient, becoming keepsakes for those who survive him or her. Photographs, artwork and poetry can be part of a rich cache of memories. Creating these legacies can be directly beneficial for the person who is dying and are enormously valuable to those whom he or she leaves behind.

## Communication

Clear and effective communication is a mandatory component of palliative care. It is so integral to excellent care that commenting on it seems to state the obvious. Yet most of the preventable distress and anger on the part of patients, families, and care providers can be traced to ineffective or nonexistent communication. (See Chapter 21: Patient-Clinician Communication.)

Communication among care providers must be accurate, timely, and respectful of the interdisciplinary nature of the care we provide. Challenges to effective interprofessional communication can include the following:

- Different care venues
- Different work schedules
- Different views of a patient's health status
- Different views of the options for treatment and care
- Different levels of skill in communication
- A lack of unified or continuous information systems

The benefits of effective team communication among providers include the following:

- Greater efficiency
- Greater satisfaction
- Reduced errors
- More complete assessment of the patient
- More coordinated treatment
- Improved discharge planning

Important communication occurs within family units. In optimal situations, these roles and relationships among family members are clear and supportive of providing the best care for the child patient. Unfortunately, there are families in which relationships are rancorous, sometimes erupting into arguments at the child's bedside. In other families, the breadth and depth of family communication and involvement may be almost invisible to the care team. Asking openly about a family's communication, and supporting ongoing communication within families, will facilitate the best assessment and plan for care for all concerned.

Communication with the child patient is discussed earlier in this chapter but needs reiteration. The child *is* the patient and deserves to be the center of attention. Asking questions, sharing information, and supporting the child's inclusion and involvement in decisionmaking can and should be tailored to the child's developmental and physical capacity as discussed above. Communication between the health care team and the child-family team then has the best chance for success.

### Impact on Pediatric Health Care Providers

This chapter is not complete without acknowledging the deep commitment of pediatric health care professionals to promoting the best care for children and adolescents infected and affected by HIV/AIDS. This work is as deeply rewarding as it is remarkably difficult. If we are to provide the best palliative and end of life care, we must know and understand the paradoxical world in which we work.

Death remains the exception in the practice of pediatrics. Just as it is unnatural for children to predecease their patients, so it is unnatural for our child patients to die. Although efforts are now increasing, providers receive little training in how to care for children and families who are dying. This often leaves us feeling incompetent to provide the expert care we know our patients deserve.



HAART has complicated this emotional dynamic enormously. We have seen dramatic clinical improvements in children with end stage disease who begin HAART therapy. We also see children and families who simply cannot successfully adhere to these complicated regimens. How far should we go to assure that young patients have had the best available treatment to keep them healthy? Do we recommend, or insist on, the placement of gastrostomy tubes for medication administration? Do we recommend, or insist on, a child being removed from a mother's care because her failure to assure medication adherence is medical neglect? How do our answers change depending on where the child is on his or her disease and treatment trajectory? When is enough enough, despite sub-optimal social circumstances? How can we as health care providers feel we have “done everything” we should to control our patient's HIV, and still have the time and wherewithal to provide palliative and end-of-life care? We must continue to engage in this struggle to define a path to walk with our patients and their families.

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# Spiritual Care

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### INTRODUCTION

■ Illness is a major life event that can cause people to question themselves, their purpose, and their meaning in life. It disrupts their careers, their family life, and their ability to enjoy themselves; three aspects of life that Freud said were essential to a healthy mind. Illness can cause people to suffer deeply. Victor Frankl noted when writing about concentration camp victims that survival itself might depend on seeking and finding meaning:

*Man is not destroyed by suffering; he is destroyed by suffering without meaning.*<sup>1</sup>

Palliative care has long recognized that, in addition to physical and psychological symptoms, patients with advanced illness will suffer existential distress as well. Existential distress is probably the least understood source of suffering in patients with advanced disease, for it deals with questions regarding the meaning of life, the fear of death, and the realization that they will be separated from their loved ones.<sup>2</sup> These issues take on greater importance in HIV/AIDS because of the stigma and judgment that still accompany people living with this disease.

In our own clinical experience, we have found that people cope with their suffering by finding meaning in it. Spirituality plays a critical role, because the relationship with a transcendent being or concept can give meaning and purpose to people's lives, to their joys and to their sufferings.

A number of surveys and studies demonstrate the importance of considering spirituality in the health care of patients and document the relationship between patients' religious and spiritual lives and their experiences of illness and disease.<sup>3,4</sup> These findings are particularly relevant in the delivery of palliative care.<sup>5,6</sup> From the very early years of the modern hospice movement, spiritual aspects of health, illness, and suffering have been emphasized as core aspects of care. Several studies support the relevance of spirituality in the care of seriously ill patients.

A 1997 Gallup survey showed that people overwhelmingly want their spiritual needs addressed when they are close to death. In its preface, George H. Gallup, Jr., wrote, "The overarching message that emerges from this study is that the American people want to reclaim and reassert the spiritual dimensions in dying."<sup>7</sup> Other studies have found spirituality to be an important factor in coping with pain, in dying, and in bereavement.<sup>8,9</sup> Patients with advanced cancer who found comfort from their spiritual beliefs were, for example, more satisfied with their lives, were happier, and had diminished pain compared with those without spiritual beliefs.<sup>10</sup> An American Pain Society survey found that prayer was the second most common method of pain management after oral pain medications, and the most common non-drug method of pain management.<sup>11</sup>

Quality of life instruments used in end of life care measures often include an existential domain which measures purpose, meaning in life, and capacity for self-transcendence. Three items were found to correlate with good quality of life for patients with advanced disease:

- If the patient's personal existence is meaningful
- If the patient finds fulfillment in achieving life goals
- If life to this point has been meaningful<sup>12</sup>

In HIV, patients struggle with existential crises as do other patients with chronic illness. However, the social stigma of the illness may affect how patients view their illness, particularly for those patients who are religious. In a study of patients with HIV, those who were spiritually active had less fear of death and less guilt about their illness. Fear of death was more likely among the 26% of religious patients in this study who felt their illness was a punishment from God. Fear of death diminished among patients who had regular spiritual practices or who stated that God was central to their lives.<sup>13</sup>

## WHAT IS SPIRITUALITY?

■ In a study of spirituality among the terminally ill, Reed asserted, "Spirituality is defined in terms of personal views and behaviors that express a sense of relatedness to a transcendent dimension or to something greater than self."<sup>14</sup> Another, more clinical, definition is:

*Spirituality is recognized as a factor that contributes to health in many persons. The concept of spirituality is found in all cultures and societies. It is expressed in an individual's search for ultimate meaning through participation in religion and/or belief in God, family, naturalism, rationalism, humanism, and the arts. All of these factors can influence how patients and health care professionals perceive health and illness and how they interact with one another.<sup>15</sup>*

How people find meaning and purpose in life and in the midst of suffering varies. Whatever form spirituality takes, its active practice can help patients cope with the uncertainty of their illness, instill hope, bring comfort and support from others, and bring resolution to existential concerns, particularly the fear of death. It is important that the palliative care team accepts and honors all approaches to existential concerns. This requires open-mindedness, cultural sensitivity, and a willingness to learn from the life experiences of others.

For many, these existential questions are mainly expressed in a formal religion by belief in a deity, the theology of the religion, the concept of an afterlife, and the rituals and practices of the religion used to express those beliefs. Many religions have a rich tradition and experience in giving meaning to the cause of suffering and in restructuring suffering into a positive experience. Addressing the role of religion in medicine in the first decade of the last century, William Osler wrote:

*Nothing in life is more wonderful than faith, the one great moving force which we can neither weigh in the balance nor test in the crucible. Intangible as the ether, ineluctable as gravitation, the radium of the moral and mental spheres, mysterious, indefinable, known only by its effects, faith pours out an unending stream of energy while abating nor jot nor tittle of its potency.<sup>16</sup>*

Osler concluded that not only did faith have important effects on health outcomes but that practitioners should seek to encourage and incorporate faith as part of clinical care.

By definition, palliative care focuses on aspects of treatment that are not intended to achieve cure. Much of medical training has to do with finding a cure or fixing a problem. In chronic illness and end-of-life care, this may no longer be possible. The oft-quoted phrase “there is nothing more I can do for you” comes out of that medical “fixer” model. In fact, there is a lot we can do for our patients, and it is also our obligation as physicians “to continue to care for patients even when disease-specific therapy is no longer available or desired.”<sup>17</sup> This is where spiritual care becomes so critical. It allows us to care for our patients even when cure is not possible.

The basis, then, of spiritual care is compassion—being present to our patients in the midst of their suffering. By being present and caring for our patients, we connect to them as individuals. That interconnectedness at the level of our humanity helps to provide hope and comfort to our patients. By discussing issues of suffering, spiritual values, and conflict with our patients, we provide them the opportunity to find a sense of resolution and perhaps peacefulness; we help them heal. At its core, palliative care recognizes that healing can occur even when cure or recovery is impossible. Although illness may disrupt a person’s life, it can also offer a person the opportunity to see life in a different way. Many people with serious and terminal illness talk of seeing a richness and fullness in life that they had never seen before. Some people find new priorities in their life and new appreciation for aspects of their life that they never noticed before.

In dying, for example, healing or restoration of wholeness may be manifested by a transcendent set of meaningful experiences while very ill and a peaceful death. In chronic illness, healing may be experienced as the acceptance of limitations.<sup>18</sup> A person may look to medical care to alleviate his or her suffering, and, when the medical system fails to do so, begin to look toward spirituality for meaning, purpose, and understanding. It is the combination of both good clinical-technical care and good spiritual care that can provide the best chance for healing at any stage of illness.

## SPIRITUAL CARE

■ It is important to include a spiritual assessment or history as part of the overall clinical assessment of a patient. Doing so enables the provider to assess spiritual needs and resources, mobilize appropriate spiritual care, and enhance overall caregiving. Spiritual assessment has been included in coursework on spirituality and medicine<sup>19</sup> and is performed by many practicing clinicians in the U.S.

The acronym FICA—for faith and belief, importance, community, and address in care—can be helpful for structuring an interview regarding a patient’s spiritual views. Table 13-1 presents a format providers can use for a FICA interview.

Table 13-1: FICA: Faith and Belief, Importance and Influence, Community, and Address/Action in Care

<b>F</b>	<b>Faith, Belief, Meaning</b>
	“Do you consider yourself spiritual or religious?”
	“Do you have spiritual beliefs that help you cope with stress?”
	If the patient responds “no,” the physician might ask, “What gives your life meaning?”
<b>I</b>	<b>Importance and Influence</b>
	“What importance does your faith or belief have in your life?”
	“Have your beliefs influenced you in how you handle stress?”
	“Do you have specific beliefs that might influence your health care decisions?”
<b>C</b>	<b>Community</b>
	“Are you a part of a spiritual or religious community? Is this of support to you and how?”
	“Is there a group of people you really love or who are important to you?”
	Communities such as churches, temples, and mosques can serve as strong support systems for some patients.
<b>A</b>	<b>Address/Action in Care</b>
	“How should the healthcare provider address these issues in your health care?”
	Referral to chaplains, clergy and other spiritual care providers.

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Providers can obtain more information about spiritual assessment and FICA from the George Washington Institute for Spirituality and Health (GWISH), 2300 K Street NW, Suite #303, Washington, D.C. 20037, (202) 994-0971; [www.gwish.org](http://www.gwish.org).

A compassionate spiritual assessment helps to integrate spiritual concerns into therapeutic plans. Clinicians should strive to discuss these concerns in a respectful manner and as directed by the patient. Providers should always respect patients' privacy regarding matters of spirituality and religion and must be vigilant to avoid imposing their own beliefs. Providers can encourage religious and spiritual practices with their patients if these practices are already part of the patient's belief system. However, a nonreligious patient should not be told to engage in worship any more than a highly religious patient should be criticized for frequent church attendance.<sup>20, 21</sup>

Patients may ask health care providers to pray with them. It is appropriate to allow a moment of silence or a prayer. Not respecting such a request may leave the patient with a sense of abandonment. If the provider feels conflicted about praying with patients, he or she need only stand by quietly as the patient prays in his or her own tradition.

Once a spiritual assessment has been made, then the appropriate spiritual intervention should be offered. While spiritual and religious interventions can be provided by any clinician, integrating a pastoral care provider in the health care team will ensure that the team becomes familiar with religious and spiritual issues and that patient's spiritual needs are met. Some examples of spiritual practices are meditation, guided imagery, art, journaling, spiritual direction, pastoral counseling, yoga, religious ritual and prayer.

Appropriate referrals to chaplains and other pastoral care providers are as important to good healthcare practice as are referrals to other specialists. It has been argued that discussions with patients about spiritual matters should be initiated solely by chaplains.<sup>21</sup> Others recognize that healthcare providers can use spiritual histories as a screening tool to understand the role that a patient's beliefs play in his or her health and illness. Some patients may have complicated ethical and spiritual issues. Providers need not feel that they must solve these dilemmas; most physicians are not trained to deal with complex spiritual crises and conflicts. Chaplains and other spiritual caregivers are, and often work with physicians in the care of patients.

It is important that healthcare providers be aware of their own values, beliefs, and attitudes, particularly toward their own mortality. A spiritual perspective on care recognizes that the clinician-patient relationship is ultimately a relationship between two human beings. Confronting personal mortality enables a provider to better understand and empathize with what the patient is facing, to better handle the stress of working with seriously ill and dying people, and to form deeper and more meaningful connections with the patient.

## PASTORAL CARE

### The Role of the Chaplain

In recent years the chaplain has become an increasingly important member of the healthcare team. Traditionally, the role of the chaplain has been to administer to the patient certain prayers and rites particular to the patient's religion. Today the role of a chaplain is often much broader. The chaplain can act as an extension of the patient's personal and community support system, as well as be a source of spiritual support for the patient. When the chaplain has a regular presence in a healthcare setting, the opportunity exists to provide support to the staff as well. William Hulme, a Christian minister and author, defines pastoral care as the following:

*Pastoral care is a supportive ministry to people and those close to them who are experiencing the familiar trials that characterize the world, such as illness, surgery, incapacitation, death and bereavement.*<sup>22</sup>

It is the spiritual aspect of human nature that raises questions about ultimate meaning and purpose, questions for which medicine and science have no answers. These issues require a unique language in which symbolism, story, and ritual are often involved. Chaplains have expertise in this form of communication and are often best able to answer such questions.

Some of these questions and concerns might be stated in the language of faith or religion. Here the patient might invoke God, and in this instance statements of faith would be used to deal with the questions. At other times, questions dealing with the purpose of one's life might be more appropriately answered in existential terms. The chaplain can deal with these issues in terms of how the world works, spirituality, and what we consider the essence or meaning of life.<sup>23</sup>

The main goal of a chaplain is to support the patient and to be present for him or her emotionally. This is what is called a ministry of presence, which is centered on a caring acceptance, a nonjudgmental stance, and physical and emotional availability. It is important that the chaplain give the patient complete autonomy in the relationship. To this end, the health care provider should be familiar with the capabilities, attitudes, and philosophy of a chaplain or spiritual practitioner before making a referral—not all religious practitioners are capable of allowing autonomy and respecting divergent points of view. A chaplain certified in clinical pastoral education (CPE) is a good referral. CPE-certified chaplains have been trained to address the spiritual issues presented in a clinical setting. Chaplains are not necessarily clergy, although they can be, but all CPE-certified chaplains know how to work with patients with different religious or spiritual beliefs. These chaplains can also work with atheists and agnostics.

More information about chaplains can be obtained from the following organizations:

- National Association of Catholic Chaplains, 3501 South Lake Drive, PO Box 07473, Milwaukee, WI 53235-0900, [www.nacc.org](http://www.nacc.org)
- Association of Professional Chaplains, 1701 E. Woodfield Road, Suite 311, Schaumburg, IL 60173, [www.professionalchaplains.org](http://www.professionalchaplains.org)

Dying patients have no control in the progress of their illness, and enabling them to have control in the relationship is especially important.<sup>23</sup>

### Pastoral Care Models

Health practitioners working in hospitals and other institutions should be familiar with models of pastoral care. There are basically two approaches: *denominational* and *one for all*. In the denominational model, the chaplain of a specific religious denomination or faith serves all the patients of his or her faith or denomination. Though this is the more prevalent and traditional model, a disadvantage is that it is logistically difficult for the chaplain to be integrated into the treatment team. In the one-for-all model, a chaplain is designated to one or more specific units in the clinical setting, becoming part of the treatment team and providing pastoral care for all patients and staff on the assigned unit. The disadvantage of the one-for-all model is that the chaplain may not be able to meet the specific needs of all denominations or faiths. Many institutions provide a mixture of these two systems as a way of offering a continual integrated presence and meeting specific denominational needs.<sup>23</sup>

### Religious Counseling

For patients who are not religious, there are many nontraditional forms of spiritual expression that the pastoral care provider can offer or that the patient may already practice. These will help the patient have a sense of meaning and connectedness with the surrounding world and include the practice of meditation or guided imagery, journaling and the reading and writing of poetry, and other creative arts such as music and gardening.

For religious patients, one of the services that chaplains can provide is religious counseling. This is defined as the explicit interaction between the chaplain and the faith system of the patient and family members. It consists of four main tasks: assessment, emotional faith support, intellectual faith support, and interpretation.<sup>23</sup>



## Assessment

Assessment is necessary to learn about a patient's beliefs. If the patient is religious, it is helpful to ascertain if the individual believes in God or a higher power and to gain their unique perspectives. Some people primarily see God as a doer, a God of action who creates, destroys, heals, inflicts, etc. Other people see God as a supporter, one who although capable of doing things, is primarily involved in making sure we get by. The patient's perception of his or her disease, suffering, and death can be significantly influenced by these beliefs.

If the patient is not religious, it is important to find out about other spiritual beliefs and practices. In either case, religious or spiritual, what may ultimately give a patient a sense of meaning and purpose may be within the context of the particular identified beliefs or outside of that context. Patients may talk of career, relationships, pets, or other aspects of their lives. Connections to a community, religious or otherwise, may be important to patients. The assessment should, therefore, enable the chaplain to ascertain the parts of the patient's belief system that are supportive, as well as those that may hinder the patient's coping ability.<sup>23</sup> In a hospital or hospice setting, there are CPE-certified chaplains who know how to facilitate the ongoing connection with patients' religious communities.

## Emotional Faith Support

The chaplain's role also includes supporting the patient's faith system as it is, helping to strengthen it, and helping the patient deal with the emotions related to issues of faith. Here the chaplain tries to reinforce the positive aspects of the faith system by accepting and affirming them but also by clarifying them. A patient who is having doubts in his or her faith as a result of the crisis he or she is in needs to be reassured that these doubts are normal and not to be feared. Patients need to feel that there is hope, if not for physical healing, then certainly to know that they will not be abandoned, will be able to bear their sufferings, and will always be cared for and loved by their caregivers and the community.

In summary, emotional faith support is not intended to change the patient's faith system but to help the patient maximize the support it provides.<sup>24</sup>

## Intellectual Faith Support

Intellectual faith support involves changing the patient's faith system or refocusing on its positive aspects rather than simply supporting it. This is a cognitive process in which both the patient and the chaplain work together to change parts of the patient's faith system that both agree are not helpful.

## Interpretation

The final part of the religious counseling is the interpretive function of the chaplain. This involves representing the faith issues and systems of patients to the staff, so that better communication can be achieved and proper medical care can be administered, while at the same time respecting the traditions and beliefs of the patients. The medical staff may also want information on certain religious beliefs and customs that are foreign to them, such as the beliefs of Jehovah's Witnesses about receiving blood, or the beliefs of Santería, an increasingly prevalent

religion in Southeast Florida. The chaplain can also become a mediator between patients and staff when misunderstandings concerning faith questions occur. It is important that the chaplain have some knowledge of psychology, so that his interpretive function can be spoken in both the language of religion and the language of psychology. The chaplain will then become the liaison between the arena of faith and the arena of science.<sup>23</sup>

## RELIGIOUS AND CULTURAL RITUALS

■ Every faith or cultural tradition is rich with practices and rituals that are of great support to the believer, particularly in moments of crisis. The most common religious ritual is prayer. Many patients have set times in the day when they pray and are helped by having this practice included in their care plans so that the ritual is facilitated.

It is entirely appropriate (and should be encouraged) to invite caregivers who would like to pray with their patients to do so, if the patients agree to it. Prayers need not be formal. They can be a single thought or a wish that the patient and caregiver have been talking about. It may be a simple blessing or simply the silent presence of the caregiver while the patient articulates the prayer.

Along with prayer, the reading of texts sacred of the patient's spiritual tradition can be of great support. This too should be included in the care plans so that the patient has time set aside for this reading. When a patient is too infirm to read texts on his or her own, a caregiver can offer to read to the patient from the selected texts.

Both prayer and reading serve as effective methods of relaxation. There are also many rituals that patients may find comfort in from their own cultures, and some families and patients have rituals they have created themselves.

Other rituals can be provided either by the chaplain or by the patient's spiritual or cultural leader. It is important that there be good communication between chaplaincy services and the patient's community in order to help the patient remain connected with his or her community.<sup>25</sup>

Religious and cultural beliefs may impact practical decisions as well. For example, diet may be an important aspect of a patient's religious observances. Many hospitals make provisions to meet these special dietary needs as long as the patient's health is not compromised. Some religions recommend that articles of clothing be worn in the hospital or offer ways to prepare the bodies of the deceased once death occurs. Chaplains are good resources to find out this information, as is a resource booklet prepared by The University of Virginia Health Sciences Center.<sup>26</sup>

Whatever form it takes, the active practice of spirituality can bring resolution to existential concerns, particularly the fear of death.

## CONCLUSION

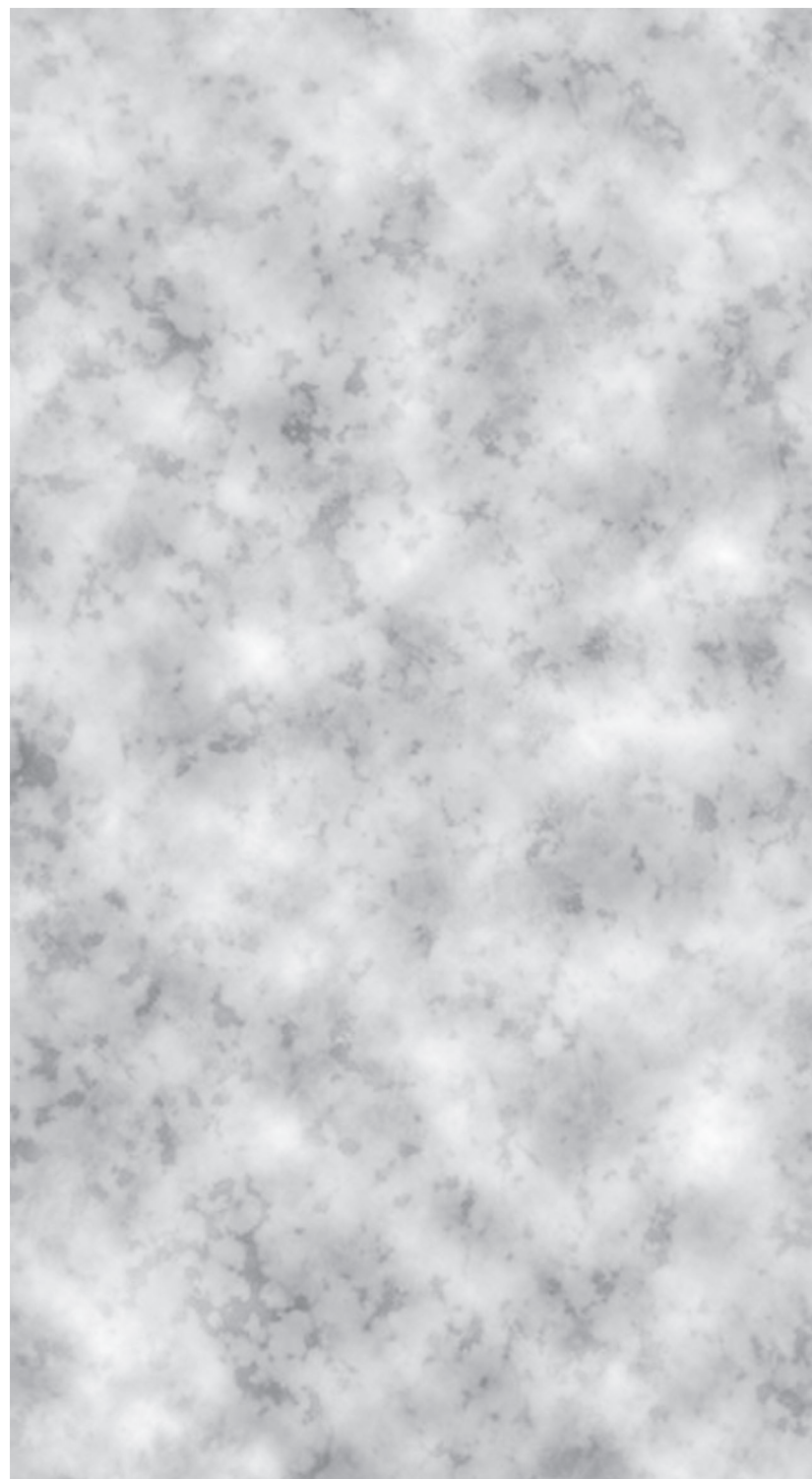
■ Spirituality can be an important dimension of a person's life, particularly when he or she is dealing with chronic illness and suffering. Spirituality is that aspect of all human beings that seeks to find meaning in life and, hence, it is a way that people heal.

All care providers (doctors, nurses, chaplains, social workers, therapists, family, faith communities) can participate in the spiritual dimension of a patient's life. Each professional is trained to deal with spiritual issues in a different way. The interdisciplinary model of palliative care that includes spiritual support is intended to ensure that patients receive the best care and opportunity for healing possible in a compassionate, caring health care system.

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# Culture and Care

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## INTRODUCTION

■ What is culture? Culture refers to learned patterns of behaviors, beliefs and values shared by individuals in a particular social group. It provides human beings with both their identity and a framework for understanding experience.<sup>1</sup> When we refer to culture in its broadest sense, we usually think about a group of people with similar ethnic background, language, religion, family values, and life views.

Culture and nationality, however, are not synonymous. The United States, for example, is a country made up of individuals from many countries and traditions, each with a unique culture. For many years we have viewed this country as the great “melting pot” of the world; however this vision is being rejected.<sup>2</sup> The truth is that the U.S. is a multicultural or pluralistic society, made up of members of different ethnic, racial, religious or social groups, living side by side, sharing aspects of the dominant U.S. culture, but maintaining their own values and traditions.

Since culture provides individuals with a framework for understanding experience, it is of great importance to consider culture in the medical setting. Each cultural group has its own views about health, illness, and health care practices.<sup>3</sup> These views affect how individuals respond to illnesses and their symptoms, including pain; identify and select medical care; and comply with prescribed care.<sup>4,5,6</sup>

In his acclaimed book, *How We Die*, S.B. Nuland said

*There has never been a disease so devastating as AIDS. Medical science has never before confronted a microbe that destroys the very cells of the immune system whose job it is to coordinate the body's resistance to it.*<sup>7</sup>

As the HIV epidemic enters its third decade, rates of infection continue to rise in much of the world and in certain minority communities in the U.S. While HIV has only recently ceased to be the leading cause of death for persons between 25 and 44 in the U.S.,<sup>8</sup> this is not the case in many parts of the developing world, particularly sub-Saharan Africa. In the U.S., HIV is rapidly becoming a disease of minorities, particularly African Americans and Hispanics.

Considering the impact of culture is very important in managing HIV disease. Today, as earlier in the epidemic, a diagnosis of HIV infection or AIDS is universally feared. The consequences of HIV are well known and they are usually associated with increasing debilitation and suffering as the disease progresses. In addition, HIV often has psychosocial consequences for the patient and can lead to subtle or overt discrimination, abandonment by family and peers, loss of employment and other negative consequences. In spite of the advances in medical management of HIV,

it remains an incurable condition. Often, the diagnosis brings to the forefront issues such as homosexuality or substance abuse, which many patients have concealed from their loved ones. How patients confront these issues is affected by their culture. Therefore, if we are to provide appropriate and effective palliative care for persons with HIV/AIDS it is important that we have an understanding of the cultural context within which such care will be provided. It is beyond the scope of this chapter to cover all or even any culture in the U.S. in depth. The intent of focusing on Hispanic and African American cultures is, rather, to increase familiarity with some important aspects of these cultures as well as to exemplify the importance that cultural variables can play in the delivery of palliative care.

## HISPANIC CULTURAL VALUES AND HIV DISEASE

■ In 1990, the Census Bureau reported that there were about 22 million Hispanic Americans in the U.S., comprising about 9% of the total population. In the subsequent decade, the Hispanic population grew an estimated 58% to represent about 31 million of the country's residents. Hispanics will soon surpass African Americans as the largest minority group in the country.

The first point that must be considered when referring to Hispanics is that the term is a label of convenience for a cultural group with a common cultural heritage stemming from Spain's colonization of the Americas.<sup>9</sup> Hispanics can be of any racial group (e.g., indigenous American, Negroid, Asian, Caucasian, or of multiple racial ancestry). Hispanics include several subgroups, each with important social and cultural differences. The major Hispanic subgroups in the United States traditionally have been Mexican Americans, Puerto Ricans and Cubans. However, the dramatic increase in Hispanics observed in the 2000 census was fueled primarily by immigration from Central and South America.

There are some differences among Hispanic subgroups, related to country of origin, that country's racial/ethnic makeup, different histories of immigration to this country, or, as in the case of Puerto Rico, the population's experience with colonization.<sup>10</sup> However, these subgroups share a common language, religion, traditional family structure, and several common Hispanic values. Incidentally, Brazilians, a product of Portugal's colonization in the Americas, speak Portuguese, and are therefore not Hispanic; however, they too are emigrating to the U.S. in significant numbers and share many family values and cultural, racial, and religious characteristics with Hispanics.

In addition to differences in subgroups, Hispanics in the U.S. also differ in terms of their level of acculturation or assimilation into mainstream culture. Language use is one very good example of these differences. For instance, while many Hispanics in the United States are bilingual, the degree to which they speak either Spanish or English varies considerably. It can range from virtually no English in recent immigrants and many of the elderly, to full bilingualism in acculturated Hispanics, to very limited Spanish in second and third generation Hispanics. These patterns are observed across different Hispanic cultures.

One value shared by most Hispanics is their religion. Although individuals' degree of practice and church participation varies, the majority of Hispanics are Christian, predominantly Roman Catholic.<sup>11</sup> However, many Hispanics practice other religious beliefs that they have incorporated into their Christianity, such as forms of ancestor worship with rituals dating back to pre-Columbian times in Central American Indians. Many Caribbean Hispanics practice *Santería*, a syncretism of Catholicism and the Yoruba religion brought to Cuba by African slaves.<sup>12</sup> Hispanic religious/spiritual beliefs include views on dying and death. For example, it is common to hold a contin-



ued vigil over an older family member with a terminal illness. After death, it is common practice to offer daily masses or light candles in honor of the deceased.<sup>13</sup> These and other practices honor the loved one and form part of the bereavement ritual.

Family plays a very strong role for most Hispanics, with ties that exist within an extended network of uncles, aunts, cousins, grandparents, and family friends.<sup>14</sup> Included in the important role the family plays is the concept of *familismo*, emphasis of the family welfare over that of the individual.

In addition to language, religion and family, there are five more cultural themes that influence Hispanic culture. These are the following:

- **Personalismo:**  
Trust building over time based on the display of mutual respect.
- **Jerarquismo:**  
Respect for hierarchy.
- **Presentismo:**  
Emphasis on the present, not the past or the future.<sup>15</sup>
- **Espiritismo:**  
Belief in good and evil spirits that can affect health and well-being.
- **Fatalismo:**  
The belief that fate determines life outcomes, including health, and that fate is basically unbeatable.<sup>16</sup>

An example of the importance of understanding the interaction between Hispanic culture and HIV disease is the impact of cultural values upon beliefs and norms around homosexuality. This is an important issue because the majority of HIV and AIDS cases among Hispanics are men who have sex with men.<sup>17</sup> Rafael Diaz, in his book *Latino Gay Men and HIV*, identified several cultural barriers or competing factors that will have a direct impact on gay and bisexual Hispanic men with HIV/AIDS. Among them we have *familismo*, poverty, and racism.<sup>18</sup> While *familismo* leads Hispanics to care and support family members, it can become a source of conflict, isolation and abandonment, if homosexuality is perceived as immoral or shameful.<sup>18</sup> Furthermore, the marginalization caused by poverty and racism will lead Hispanics to self-perceptions of powerlessness, and this, coupled with fatalism, will prevent many from seeking adequate medical care.

## End-of-Life Care Preferences

How do Hispanic values, beliefs and practices influence end-of-life preferences? While research is limited, we will review the following: patient autonomy, advance directives, life-prolonging treatments, and the role of hospice. It must be noted, however, that these studies reflect end of life issues in general, not specifically related to HIV/AIDS. The stigmatic nature of this illness cannot be overlooked, and would have a direct impact on some patient preferences.

### Patient Autonomy

In a study in Los Angeles comparing Mexican, Korean, African, and European Americans on several issues relating to patient autonomy, researchers found that Mexican and Korean Americans were less likely to believe that a patient should be told about a terminal diagnosis or make

decisions about using life support. Instead, the researchers found that Mexican and Korean American elders were more likely than African and European American elders to want family members to make these decisions.<sup>19</sup>

This study also found differences among Mexican Americans by income, degree of acculturation, and age; that is, younger and more acculturated respondents and those with higher incomes were more likely to favor truth-telling about the diagnosis.<sup>19</sup> In a series of focus groups exploring general medical treatment decisions with a random sample of 50 Mexican American elders in San Antonio, Talamantes and Gomez found that 46% of the elders wanted their doctor to make these decisions, 24% would prefer to make their own decisions, and 18% would discuss the decision with their families. When asked whether it bothered them to talk with their families about these issues, 84% said that it did not.<sup>20</sup>

## Advance Directives

The aforementioned Los Angeles study on patient autonomy among Mexican, Korean, African and European Americans also compared knowledge on completion of advance directives. They found that while Mexican and European Americans were significantly more knowledgeable than Korean and African Americans on advance directives, only 22% of the Mexican Americans actually possessed advance directives, in comparison to 40% of the European Americans. They also found that the Mexican Americans who had advance directives were more highly acculturated than the ones who did not.<sup>21</sup> Three years earlier, at the University of Miami in Florida, Caralis, Davis, Wright, and Marcial had conducted a multicultural study examining the influence of ethnicity on attitudes toward advance directives, life-prolonging treatments and euthanasia. Regarding advance directives, the researchers found that Hispanic Americans, the majority being of Cuban heritage, were less knowledgeable than African and non-Hispanic white Americans regarding living wills.<sup>22</sup>

## Life-Prolonging Treatments

When it came to the issue of life-prolonging treatments at the end of life, Caralis, et al. found that Hispanic and African Americans were more likely than non-Hispanic whites to report wanting their doctors to keep them alive regardless of how ill they were (42% and 37% vs. 14%, respectively). Furthermore, only 59% of Hispanics and 63% of African Americans agreed to stop life-prolonging treatment, compared to 89% of non-Hispanic whites.<sup>22</sup> This disparity may have been due partly to the Bible commandment “Thou shalt not kill;” a religious Christian might interpret withdrawing or withholding treatment as an infraction of this commandment.

## Hospice

A few studies have suggested that Hispanics are low users of hospice services. This may be due to unfamiliarity with hospice, insurance coverage issues, language barriers, unpleasant experiences with or distrust of the health care system.<sup>23</sup> In addition, Wallace and Lew-Ting proposed that the low utilization of hospice among Hispanics may be due to physician referral patterns; that is, a physician might not refer Hispanic patients to hospice because they observe families providing care themselves and believe that hospice might be unnecessary or culturally inappropriate.<sup>24</sup>

## Interventions

Taking into account Hispanic core values, aforementioned barriers, and end-of-life preferences, what can the health care provider do to improve palliative care for the Hispanic client? First, it is important that health care professionals increase their knowledge about Hispanic culture, by becoming familiar with the history of the subgroups they are dealing with, along with the family, social, and religious values associated with Hispanic culture. This as well as learning to speak Spanish will help providers display respect and build trust.<sup>10</sup>

Second, the provider should include family members in discussions with the patient regarding palliative care. Needless to say, there may be situations in which the patient may not desire to have the family included, and this, of course, should be respected.<sup>15</sup>

Finally, it is important to have open and clear communication with the patient and family, since deference and respect to the provider due to *jerarquismo* may lead the Hispanic patient to withhold information or hesitate to communicate honestly. The provider must ascertain whether the patient understands the treatment being offered, and whether he or she fully agrees with the treatment plan.<sup>25</sup> This is particularly important when it comes to end of life decisionmaking and advance directives, as research indicates that there are several factors that discourage discussions on these topics.<sup>22, 23, 19</sup> *Jerarquismo* may lead the patient and family to have unrealistic expectations as to what conventional treatment can offer. The family may be expecting a miracle cure for the terminally ill patient, and thus may refuse to consider palliative care treatment options. Further, perceived conflicts between the patient's religion and withdrawing or withholding of treatment may be addressed and clarified by including a clergy member in decisionmaking.

The role of community education cannot be overstated, particularly when one considers the degree of marginalization many Hispanics face due to language, racism and other socio-economic barriers, including legal status. Education should be provided directly by the health care team because of the value placed on *personalismo*, and the target audience should include the entire community: patients, families, and community leaders, including clergy. The provider can share with the Hispanic community not only general information about HIV/AIDS, but also information about end-of-life issues, palliative care and the role of hospice. Education can also be enhanced by identifying members of the community living with HIV/AIDS to serve as role models to share their own experiences with the illness. The provider should not rely on brochures alone for education, since the language used in many brochures may be above the reading level of many Hispanics, may only exist in English, or may be poorly translated.<sup>26</sup>

Table 14-1 presents a framework of issues to be considered with regard to Hispanic patients and palliative care.<sup>15,27</sup>

Table 14-1: Hispanic Cultural Themes That Can Influence Palliative Care

<b>Theme for Provider</b>	<b>Meaning</b>	<b>Implication</b>
<b>Familismo</b>	Emphasis on the well-being of the family over the individual  Patient isolation due to family homophobia	Include family members in health care and end-of-life discussions
<b>Personalismo</b>	Trust-building over time, based on the display of mutual respect	Learn about patients and their culture  Personal and open communication
<b>Jerarquismo</b>	Respect for authority  Patient and families may have unrealistic treatment expectations	Check whether patient is withholding information out of deference to provider
<b>Presentismo</b>	Emphasis on the present, not on the past or the future	Patient and families may avoid end-of-life discussions and advance directives
<b>Espiritismo</b>	Belief in good and evil spirits that can affect health and well-being	Patients may seek spiritual healers such as <i>curanderos</i> , instead of standard treatment
<b>Fatalismo</b>	Fate determines life outcomes, including health, and is unbeatable	Patients may be reluctant to seek care

Source: Adapted from references 15 and 27.

## AFRICAN AMERICAN CULTURE AND HIV DISEASE

■ In 2000, the population of the U.S. was approximately 281 million, of which 35 million were African Americans. They are the largest minority group in the U.S. While the term African American refers to a racial group, like Hispanics, they are heterogeneous and are comprised of several subgroups. Most African Americans are the descendants of slaves and were part of the U.S. population even before this country's independence from England. Some are immigrants from other places in the Americas, particularly the West Indies. More recently, there has been an influx of immigrants from the African continent. To one degree or another, African Americans share a legacy of slavery, segregation, and discrimination, and like most minorities, they experience a high degree of unemployment and overall poverty.<sup>28</sup>

These challenges are reflected in a lower life expectancy and higher death rate for African Americans. In a 1996 CDC report, the 1993 age-adjusted death rates for African Americans were higher than those for the Caucasian population for all causes of death combined and for eight of the 10 leading causes of death. Life expectancy for African American males was 8.5 years less than that for Caucasian males; this difference is attributed to higher death rates for homicide, heart disease, cancer, HIV/AIDS and perinatal conditions.<sup>29</sup> The life expectancy for African American females was 5.8 years less than that for Caucasian females for similar conditions. And while African Americans only represent 13% of the American population, the number and proportion of annual AIDS cases reported among African Americans exceeded that among whites. The CDC *HIV/AIDS Surveillance Report* for 2000 reported 13,218 new cases of AIDS in African American males, versus 11,466 in non-Hispanic Caucasians and 6,285 in Hispanics.<sup>17</sup>

### African American Core Values

Despite a long history of adversity, African Americans have remained strongly bound together by the importance they place on family, which they view as an extended network of kin and community,<sup>30</sup> and a series of core values described by Sudarkasa as the *Seven Rs*,<sup>31</sup> defined as follows:

- **Respect:**  
The respect of others from parents and relatives to elders or leaders in the community.
- **Responsibility:**  
Being accountable for self and for those less fortunate in one's own extended family and even one's community.
- **Reciprocity:**  
Giving back to family and community in return for what has been given to one (mutual assistance).
- **Restraint:**  
Giving due consideration to the family or community/group when making decisions.
- **Reverence:**  
Deep awe and respect firstly toward God, toward ancestors, and toward many things in nature.

- Reason:  
Taking a reasoned approach to settling disputes within the family or the community.
- Reconciliation:  
The art of settling differences; that is, putting a matter to rest between two parties.

## The Role of Religion

Religion is another core value among African Americans, just as it is among Hispanics. Historically, the church has been the center of the African American community serving as the single most important institution advocating improvements in health, education, and financial welfare.<sup>32</sup>

*As the center for the extended family, reinforcing the sense of self and self-esteem within the culture, the church offers opportunities for the whole family's development.*<sup>33</sup>

While the majority of African Americans are Protestant Christians, a large proportion being Baptist, some are Roman Catholic.<sup>34</sup> Certain African American subgroups, however, such as those from Haiti, have beliefs in voodoo, hexes, curses, which will also have a direct effect on health care views and practices. The history of deportation from the African continent, slavery and oppression in the new world, coupled with their Christian heritage, have determined how African Americans view end of life decisions. Many believe in the God of the Old Testament, an all-powerful and fighting God, who liberated the Hebrews from the oppression of the Egyptians, and who liberated African Americans from slavery. From this comes the notion of *divine rescue* and thus the belief that God's power can conquer all and that miraculous interventions can occur when all hope seems lost.<sup>35</sup> The notion of divine intervention and rescue might influence patients to oppose continuing aggressive medical treatment, in order to allow "God's will" to be done.<sup>36</sup>

## End-of-Life Care Preferences

How does the African American experience influence end-of-life care preferences? Research findings indicate that African Americans are less likely than other groups to trust health care providers, communicate treatment preferences, complete advance directives, and withhold/withdraw life-prolonging treatments in the face of futility.

## Issues of Trust

The long history of past and even current discrimination has led African Americans to display distrust in the institutions established by the dominant Caucasian society, including those institutions that provide health care. This institutional distrust is not without foundation, as there are several studies which document minorities' lack of access to available health care. Studies have suggested that certain procedures such as coronary bypass operations and organ transplants have been performed less frequently on African Americans than on Caucasian Americans.<sup>37</sup> A study documented lower survival rates in African Americans with Stage I lung cancer, the second most common cause of death among African Americans, and suggested that this was

in part due to lower referral rates for African Americans for potentially curative surgical procedures as compared to Caucasian Americans.<sup>38, 39</sup>

Some authors have suggested that these differences are due to discriminatory practices that have led African Americans not to trust Caucasians or their social institutions.<sup>40</sup> The 40-year-old Tuskegee Syphilis Study, in which the U.S. Public Health Service lied to and denied standard treatment to 400 poor African American sharecroppers, is a reminder of why African Americans feel they cannot trust the health care system. In fact, one recent study of 520 African American males sampled door-to-door showed that 27% believed that HIV/AIDS was a government conspiracy against black people.<sup>41</sup>

Discriminatory practices also extend to pain management. In studies in various medical settings, such as emergency rooms<sup>42, 43</sup> and cancer centers,<sup>44, 45</sup> pain severity was more likely to be underestimated and effective analgesia less likely to be prescribed for African Americans and Hispanics than for Caucasian Americans. These and other studies clearly document a racial bias on the part of medical care providers. Thus the distrust demonstrated by African Americans is warranted, as subtle discrimination continues.<sup>46</sup> In addition, the studies document that the medical care received by minorities is less than optimal, which has led to African American distrust of health care institutions and has affected how African Americans view end of life care.

## Communication of Treatment Preferences

The same distrust appears to have inhibited many African Americans from effectively communicating end of life decisions. In a study of communication of treatment preferences among 1,031 AIDS patients, researchers found that Caucasian patients were twice as likely as African American patients to have discussed their treatment preferences with their physicians. Perhaps not coincidentally, the study also found that African Americans were half as likely as Caucasians to prefer a treatment approach that focused on pain relief as opposed to extending life.<sup>47</sup> Suspicion about proposed palliative treatments may deter African American patients from honest, open communication with health care providers. Without adequate communication, the patient and family inadvertently give the decisionmaking power to the health care provider, which becomes a form of “paternalism by permission”<sup>48</sup> and decreases patient autonomy.

## Advance Directives

A retrospective chart review of 1,193 frail elderly in South Carolina found that African Americans were less likely than Caucasians or Hispanics to have completed advance directives,<sup>49</sup> while in another study African Americans were less likely than Caucasians or Asians to complete durable power of attorney for health care.<sup>50</sup> While reasons for this are several, lack of access to medical care in general is of primary importance. If an advance directive to withhold life-prolonging therapies is seen by African Americans as yet another way of limiting their access to adequate health care, then they might be more inclined not to complete one.<sup>51</sup>

Along with the decreased use of advance directives among African Americans is a low use of hospice services when compared to Caucasians. This is partially due to lack of access to and lack of education regarding hospice care.<sup>52</sup>

## Life-Prolonging Treatment

In an article concerning the implementation of the Patient Self-Determination Act of 1991, Young and Jex pointed out that African Americans tend to equate life support with life, and view the withholding of any life-sustaining therapies as another attempt at genocide by the system.<sup>53</sup> Therefore, African Americans might be reluctant to consider palliative care as a treatment option for fear that it might result in neglect or being allowed to die prematurely.<sup>28</sup>

In a study comparing attitudes toward life-prolonging treatments among 139 patients at a general medicine clinic, only 63% of African Americans approved of stopping life-prolonging treatments, compared to 89% of Caucasians. Furthermore, 35% of Caucasians approved of physician-assisted suicide, compared with only 16% of African Americans.<sup>22</sup> Finally, Caralis, et al. in their 1993 study found that African Americans were more likely than the general population to choose life-prolonging treatments, even in the face of a poor outcome.<sup>22</sup>

## Interventions

In view of the long history of discrimination to which African Americans have been subjected over the years, the single most important intervention that must be made is to develop a sense of trust and reliability. This ongoing process will require open and continuous communication between the health care provider and the African American community. The recruitment of more African American health care providers, preferably members of the local community, will help overcome distrust of institutions by the African American community, and will establish better lines of communication between the community and the health care organization. Community-based organizations should be developed to identify and address the specific health care concerns of local African American communities.

One such organization is the Harlem Palliative Care Network in New York City, whose specific objectives are as follows:

- To increase access to palliative care services for patients and their families residing in Central and East Harlem who are facing progressive, life-threatening illness
- To overcome cultural and environmental barriers among minority populations in receiving timely intervention
- To enhance the continuity and coordination of care through greater integration of community-based and institutional services
- To improve the quality of life for Harlem patients through better pain and symptom management
- To provide support services to meet the emotional and spiritual needs of the patients and their families<sup>54</sup>

Since research has shown that many African Americans lack knowledge about palliative care and hospice programs,<sup>55</sup> education is of prime importance. Physicians should be included in education because many lack knowledge of the broad range of palliative care interventions, particularly pain management. For this there are resources for up-to-date training on palliative care, such as Education for Physicians in End of Life Care (EPEC), <http://www.epec.net>.



Because religion and spirituality play such important roles in the African American community, the involvement and education of the clergy and local church community cannot be overemphasized. This education should include prevention, intervention and life enhancement in HIV/AIDS. It should also include a thorough understanding of palliative care and the role of hospice. Thus empowered, the church will be able to deal with controversial issues associated with HIV/AIDS, such as drug abuse, sexual promiscuity and homosexuality, as well as help African Americans overcome the perception that palliative care treatment modalities are an abandonment of care.<sup>56</sup> The church can provide not only spiritual support, but also, practical social support through its various lay organizations.

Finally, whenever possible, recognition should be made of the role African American family members play in the treatment, care, and support of patients living with HIV/AIDS. It is in the family and the core values that bind it together that African American patients will find the strength and support they need to face end-of-life issues.

## CONCLUSION

■ While health care providers treating persons with HIV/AIDS cannot become familiar with every cultural issue related to medicine, they can become more sensitive to the role that culture plays in how people access and experience palliative care services. Recognizing the role of culture and being familiar with the core values of a cultural group will not only aid in eliminating barriers to treatment, but also optimize patient care, particularly end-of-life care.

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# Chapter 15.

## Special Populations

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### INTRODUCTION

■ People who are young or old, homeless, new immigrants, incarcerated, or newly released from jail or prison may have needs that differentiate them from other people living with HIV/AIDS. Clinicians should recognize that these needs may prevent such people from following routine clinical pathways for palliative care. Individuals within each group have internal and external barriers to being in care. Recruiting and maintaining them in care requires personal contact and often involves outreach. Otherwise, patients may fall out of care and die too soon, in pain, and without support.

Young gay men and young heterosexual women, as well as people over 65 years of age, all have unique issues that may limit their access to palliative care. Even greater barriers are encountered by people who are homeless, those who have immigrated from other countries legally or illegally, and individuals who are incarcerated or recently have been released from jail or prison. People with substance abuse problems, who also experience barriers to care, are discussed elsewhere in this guide. (See Chapter 11: Substance Use Problems.)

A need common to all these individuals is assurance that their healthcare providers understand and accept their particular circumstances. Establishing a trusting relationship is often critical before they will accept care. The following recommended interventions are applicable to all of the vulnerable groups discussed in this chapter and can be crucial in establishing trust and promoting the individual's engagement with care:

- Establish a personal connection with the individual during the initial visit.
- Arrange for the person to meet with a case manager, social worker or outreach worker during the initial visit.
- Obtain contact information for at least two people close to the person so that if she or he does not return, follow-up can occur.
- Arrange to be in contact with the person the day following the first visit, at least by phone if not by return visit.

Providing palliative care to special populations has an additional level of complexity. Many people who are marginalized from society and already underserved by the health care system have become mistrustful of “the system” or have difficulty understanding the HIV disease process, much less the highly technical aspects of highly active antiretroviral therapy (HAART). People who belong to marginalized groups may perceive palliative care as second-class care, which they are being offered instead of aggressive acute medical care. Palliative care should be the result of an individual's empowered choice. The importance of gaining the trust of individuals in special populations becomes even more apparent when this dimension is added.

## THE YOUNG AND THE OLD

■ The young and the old can have developmental, generational or cultural issues that may keep them from seeking and remaining in care.

### Adolescents

Adolescents feel omnipotent and immortal, have not completely internalized the concepts of cause and effect, and may mistrust adults in authority. A common adolescent response to a diagnosis of HIV, which is often given by an adult, is to reject the diagnosis, believing that avoiding the issue is avoiding the illness. For young gay and bisexual men, fear of their sexual orientation being revealed because of a diagnosis of HIV might also prevent their seeking care. (See Chapter 12: The Care of Children and Adolescents.)

Young mothers tend to allow their babies' care to take precedence over their own. If they are in denial that they might die, young mothers may avoid planning for the guardianship of their children. (See Chapter 18: Legal and Financial Issues for discussion of permanency planning.)

The following interventions may promote adolescents' acceptance of care:

- Offer to assist them with making decisions about disclosure of their status to parents, children and other family members.
- Arrange for peer support by other teens living with HIV if possible; otherwise, link them with other teens via the Internet.
- Begin discussions with adolescent mothers about who will care for their children; bring in other team members and agencies to assist them with permanency planning.

Other services that can facilitate a teen mother accepting care for herself include parenting skill classes, respite care, family support and homemaker services.<sup>1</sup> Resources for training staff about permanency planning are the National Pediatric and Family HIV Resource Center ([www.pedhivaid.org](http://www.pedhivaid.org)) and The Family Center ([www.thefamilycenter.org](http://www.thefamilycenter.org)).

### Older People

Senior citizens may not seek care because they fear the stigma of HIV/AIDS as well as because they may be dealing with other health problems. The initial discussion of palliative care might confirm their fears that "nothing more can be done for them." If they have been receiving care at a private physician's office, they may feel uncomfortable in a clinic situation. For older gay men, who may have lived a "closeted" lifestyle, sharing their sexual orientation with health care providers may make them uncomfortable. For example, an older gay man may not be comfortable receiving palliative care at home because he doesn't want his providers to know he lives with his partner.

For people with HIV who are older, the following interventions may be useful:

- Encourage them to contact the National Association on HIV Over Fifty (NAHOF), an organization for both consumers and providers that has a newsletter ([www.hivoverfifty.org/](http://www.hivoverfifty.org/)).
- For patients who resist receiving palliative care services from an HIV-associated hospice agency, consider having their primary care clinicians provide the palliative care with consultation from a palliative care expert or agency when needed.

- For men who are gay but closeted, indicate acceptance of gay relationships by speaking openly with both partners, acknowledging the importance of their relationship and assuring respect for their privacy.

## PEOPLE WHO ARE HOMELESS

■ A good definition of homelessness is not having a stable residence in one's name. The term homeless applies equally to a person who has a temporary hotel room paid by a city program for indigents, a person sleeping in a shelter or in a car, and a person who is staying with a relative because she or he cannot afford to pay rent. People who are homeless are as varied in socioeconomic, ethnic and demographic characteristics as the general population; most lack stable housing because of their economic situation.<sup>2</sup> However, a high proportion of those who are visible on street corners in cities and towns across the U.S. suffer from mental illness, chemical dependency problems, or both.

In some cities, mobile vans or walk-in clinics bring services to the most visible people who are homeless, but in most cities the people must come to the services instead. They often wait until their health problems are quite severe before going to emergency rooms for help. Palliative care, which is by definition continuous and involves an ongoing relationship between the provider and patient, may not be a familiar process.

Providing palliative care to people who are homeless is difficult because of the multiple physical, economic and social problems they already face and because of their transience. However, they have the same emotional and spiritual needs as others and can benefit greatly from this type of supportive care throughout the trajectory of their illness.

### Medical Care

To provide palliative care to people who are homeless, the clinician may have to address a number of practical matters. The interventions suggested at the beginning of the chapter are essential. Having social workers, case managers, outreach workers and pastoral care providers on the team facilitates these interventions and increases the possibility of linking homeless people to services that can meet their basic survival needs. The following interventions may also help to improve treatment outcomes:

- *Relax the clinic structure for people who are homeless.*  
Individuals who are homeless may be unable to keep appointments. Make exceptions for certain people, seeing them on a drop-in basis for more frequent, shorter visits. Offer incentives such as food vouchers when they come for appointments to increase their motivation to obtain health care on a regular basis rather than only when emergencies occur.
- *Assess all new patients for homelessness.*  
When assessing new patients, assume that they might be homeless or living in temporary quarters. Ask whether they go home to the same place every night, and whether they have a permanent address where they can be contacted.
- *Consider prescribing small amounts of medication.*  
Ascertain whether they will be able to keep their medications safely. Some shelters or group homes will set out residents' pills each day. Pain medications may need to be provided in smaller quantities than usual to prevent theft or loss.

- *Address specific issues pertaining to adherence with HIV medications in homeless individuals.*

Certain medications require refrigeration (e.g., ritonavir), may need to be taken with food (e.g., nelfinavir, ritonavir), or may require large amounts of fluid intake which can pose problems if there is limited access to toilet facilities (e.g., indinavir). All of these practical considerations, which can be very challenging for homeless patients, with a predictable adverse impact on adherence, should help inform decisions about choosing specific treatment regimens.

- *Monitor closely and frequently.*

Be especially concerned about adequate nutrition, appropriate hygiene and wound care, and the need for personal care. Be ready to hospitalize homeless people more frequently than other people living with HIV for conditions such as malnutrition, exposure and wound infection.

- *Link with food programs.*

Linking homeless individuals with food programs is an important intervention. In addition, obtaining food or food vouchers to provide to people at clinic appointments can increase their attendance.

- *Link with housing programs.*

Clearly, arranging for housing facilitates more effective palliative care for the homeless. Even if the person rejects housing, anticipate the possible need for a protected environment in the future, such as a long-term care facility, and work slowly towards that goal.

- *Be honest and frank.*

Be willing to be honest with people who are homeless. Make attempts to refer them to mental health and/or substance abuse services if their condition appears to warrant such assistance. If they are engaging in self-destructive behaviors, explain how these behaviors are shortening their lives. Have a knowledgeable member of your team discuss the merits of harm reduction with both the patient and other staff members.

- *Educate about the expected course of disease.*

Patients may feel that seeking care is useless if they believe they are dying. Discussing the stage of their illness allows them to begin to gain control of their own situation. Offer simple, concrete suggestions about self care. Sometimes physical deterioration and chronic pain, or the sudden real prospect of death, can be turning points that motivate people to make startling changes. A person might for the first time accept pastoral counseling, substance abuse treatment, or housing in a hospice facility.

- *Discuss advance directives (a medical term not often understood by those outside the medical system).*

After forming trusting relationships, it will be possible to ask homeless persons if they have thought about what might happen to them at the end of life. Many clinicians tend not to ask about this, perhaps assuming that homeless people have limited capacity. However, this denies individuals the opportunity to address the issues of how they want to live and to die. This is another potential



turning point for a person taking control of her or his life. If the person is not in contact with family, it is helpful to ask whether there are friends or others who should be contacted if the person becomes ill.

## Emotional and Social Support

### Biological Family

Homeless people frequently have been estranged from their families of origin and from spouses and children. However, when they are dying, they may want to re-establish connections with their families and attempt to mend fences. Clinicians should always ask whether homeless persons would like to have their family members contacted when it is clear that they are not expected to get better. Although some health care providers may feel uncomfortable asking or may not think to ask, resuming contact with family members may be an important aspect of an individual's closure. If a palliative care team is in place, any team member who is trusted by the patient can ask the initial question and bring in others to share responsibility for following through on the patient's wishes.

It is important to remember that reconciliation can be time-consuming. Not only may the homeless person need support, but family members who are contacted may feel guilt because of the estrangement and may need support as they re-establish relationships with the homeless and dying individual.

### Shelter Staff as Surrogate Family

For many people who are homeless, the staff of shelters and other service agencies become support systems. These may be the most consistent, nonjudgmental people in their lives, and the ones from whom they want comfort when they are dying. It is therefore important to find out who should be contacted and included in an individual's care team. In fact, shelter and other service agency staff may need a support group or other bereavement services, either because of their involvement in a single individual's care, or because they are experiencing multiple losses as numerous clients with HIV become sick and die. The stress and distress of being unable to do more for people who are homeless and dying can take a terrible toll on social service providers in community-based agencies. (see Chapter 20: Care for the Caregiver.)

### Other Homeless People

Some people who are homeless have close relationships with other homeless individuals who have become their families and may become dying person's caregivers in his or her last days. For this reason clinicians should respect and support close personal relationships, while also being alert to potential abuse, such as a "friend" taking the patient's pain medications herself or himself.

### Incarcerated Family and Loved Ones

For homeless people who recently have been released from jail or prison, their closest relationships may be with people who are still incarcerated. This may be an unfortunate result of "compassionate release" for the dying. Other homeless people may have close family members who are in jail or prison. Resolving this isolation is difficult, because the penal system rarely allows prisoners to visit family members on the outside, much less loved ones who are not related, even when those people are dying.

## Spiritual Support

Spirituality is an important aspect of the lives of people who are homeless. Many grew up in families that were deeply religious, and even if they are not actively practicing today, they may carry those religious beliefs with them. Others have been exposed to the spiritual principles of 12-Step programs such as Alcoholics/Narcotics Anonymous and find support and comfort in a higher power. Addressing the spiritual aspects of palliative care is as important with the homeless as with other people.

Clinicians should inquire about the religious background and current spiritual beliefs of people who are homeless. Sometimes this is the first step toward bringing in other members of the palliative care team, such as pastoral counselors or clergy. Asking these questions not only demonstrates personal interest in patients, but gives them permission to discuss this aspect of their lives.

## PEOPLE WHO ARE NEW IMMIGRANTS

■ Immigrants come to the U.S. and to other countries from all over the world. Many are from countries where the spread of HIV/AIDS has been exacerbated by poverty or civil unrest resulting in social dislocation and economic disruption; for example, Guatemala, Myanmar, Russia and Rwanda. Some come seeking safe asylum, while others seek educational and economic opportunities. They all hope for a better life for themselves and their children. However, some already have become infected with HIV.

People living with HIV who have immigrated to the U.S. from other countries may have cultural and legal issues that restrict their ability to access and accept palliative care. The cultural issues may include language barriers and differences between their cultures of origin and the mainstream culture upon which the American health care system is based. The legal issues relate to whether or not they are in the country legally and, if they are, whether their HIV status endangers their legal status and thus their access to benefits. An additional concern may be whether their visas allow them choices regarding whether to stay in the U.S. or to return home to die. Such issues are also relevant for immigrants in other countries.

Unless palliative care providers are sensitive to immigrant clients' cultural differences and can identify legal barriers to their clients' accessing care, they risk losing clients before follow-up or leaving them outside any system of care. The clinician's first intervention with people who may be immigrants should include assuring them that their relationship with the clinician and the health care agency is completely confidential. Only then will it be possible to determine each individual's situation and provide referrals to agencies that can provide immigration counseling and legal assistance. As with all special populations, obtaining contact information for family members or close friends is important so that follow-up can take place.

## Cultural Issues

Immigrants may face many of the cultural issues common to minority groups in the U.S. (See Chapter 14: Culture and Care.) In addition, however, their status as immigrants may compound some of the issues they face, as opposed to people who have lived in the community for a long time.

## Language

Immigrants often do not speak English, especially when they first arrive. If they come to a large community of people from their country of origin, that community may have interpreters within the health care system. However, language barriers may compound other cultural differences between individuals and their care providers. Language difficulties may also make it more difficult for them to sort out the complexities of the system upon which they depend for health care.

## Family Support

In many traditional cultures, strong extended family networks provide support when members become chronically or terminally ill. When individuals, or even nuclear families, move to another country, they leave these family networks behind and are left without the physical, financial and emotional support systems that would normally be available. Thus, recent immigrants are isolated at a time when they most need family help. Moreover, in many cultures where family privacy is valued, the concept of volunteers becoming involved in personal caregiving may be unacceptable.

## Burial

The issue of burial is complicated for people who come from other countries and wish to be buried in their native soil. Advance planning can help facilitate this, if providers include some specific questions: When a person becomes terminally ill, does he or she want to return home to die to ensure burial there? If a person dies here and the family are available, will they be allowed to follow their religious and cultural practices in how the body is handled? If the family wish, can the body be sent back to their native country? If the cost is prohibitive, are there funds available from local agencies that might be used? If there are no family members, who will arrange for the body to be buried locally? What resources will pay for burial? If family arrive after the body has been sent to the morgue, what are the options?

## Africans and African Americans

In recent decades, many people from Africa, the continent most ravaged by HIV/AIDS, have come to the U.S. to study and work. It thus comes as no surprise that some African immigrants are HIV positive. Moreover, some immigrants living with HIV come to the U.S. and other industrialized countries to obtain up-to-date treatment for their illness. Africans do not usually identify with African American culture; in many cases, they may be better educated than African American patients at the clinics where they receive care. They might feel uncomfortable if their health care providers were to treat them as if they were African American.

## Legal Issues

The legal issues confronting immigrants living with HIV may involve not only their status and legal right to remain in a country, but their ability to take advantage of the public benefits and entitlements available for citizens (see Chapter 18: Legal and Financial Issues). Two U.S. federal laws passed in 1996 created much more stringent regulations for immigrants.<sup>3</sup> Immigrants need referrals to agencies that provide immigration counseling or to experienced immigration lawyers so they can learn about their legal options and the services that might be available to them.

## Legal Status

People who are not citizens may have various types of legal status or no legal status at all. The U.S. Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (also called the illegal immigration reform bill) established procedures for determining the admissibility of immigrants. Even non-citizens who are legally in the U.S. may risk being deported by the Immigration and Naturalization Service (INS) because of their positive HIV status. It is essential that non-citizens talk to an immigration law expert before speaking to the INS. In addition, it is essential that health care providers be able to assure their clients that everything they say, as well as everything in their medical records, will be kept confidential and not reported to the INS.

## Public Benefits

The U.S. Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (which created the welfare-to-work program, TANF, described in Chapter 18: Legal and Financial Issues) established new and complex eligibility rules for public benefits for legal immigrants. This law also made several categories of previously eligible legal immigrants ineligible for most federal public benefits. The illegal immigration reform bill established certain procedures for determining the admissibility of immigrants and heightened immigrants' fears that using public benefits, even legitimately using Medicaid, could jeopardize their ability to become legal permanent residents or U.S. citizens. A recent study determined that immigrants are less willing to apply for Medicaid, even if they are eligible, or to access primary care as a result of these laws. Barriers such as poverty, language differences, and lack of transportation compound the difficulties for immigrants in accessing public benefits.<sup>4</sup>

## Legal Resources

Although local resources are absolutely necessary for individuals needing legal counsel, the following national resources may be useful for clients in the U.S., as well as for providers attempting to understand their clients' problems:

- The National Immigration Project of the National Lawyers Guild published an updated version of *HIV and Immigrants: A Manual for AIDS Service Providers*, funded and distributed by the San Francisco AIDS Foundation.<sup>3</sup> The manual provides a comprehensive and detailed presentation of issues and is available free of charge from the San Francisco AIDS Foundation, P.O. Box 426182, San Francisco, CA 94142; phone (415) 487-3080, fax (415) 487-3089, [www.sfaf.org/policy/immigration/appendix\\_c.html](http://www.sfaf.org/policy/immigration/appendix_c.html).
- For referrals to local immigration advocates or for a legal training packet designed for immigration practitioners, contact The National Immigration Project of the National Lawyers Guild at (617) 227-9727 or [nip@igc.apc.org](mailto:nip@igc.apc.org). The project lacks the resources to assist individual clients but will provide advice and information to AIDS service providers.
- To receive an update on public benefits and the rights of non-citizens arrested by the INS, you can e-mail the above-mentioned National Immigration Project at [nip@igc.apc.org](mailto:nip@igc.apc.org). Include the following information: name, organization, address, city, state, zip code, telephone, fax and e-mail address.

- The Immigration and Refugee Services of America (IRSA) Medical Case Management Program provides technical assistance to organizations that are resettling refugees with special healthcare needs. In the current phase of the program, IRSA is working with national and community based resettlement agencies to enhance organizational capacity to provide care for HIV-positive clients and to create partnerships with AIDS service providers. Call (202) 797-2105 or contact [irsa@irsa-uscr.org](mailto:irsa@irsa-uscr.org)

## PEOPLE WHO ARE INCARCERATED OR NEWLY RELEASED

### Background

More than two million people are currently incarcerated in jails and prisons in the U.S. African Americans and Hispanics constitute an overwhelming 75% of all new admissions. In 1997, an estimated 8,900 inmates had AIDS and 35,000 to 40,000 inmates were living with HIV, representing a prevalence of infection and disease five times higher than that of the overall population. The HIV rate among inmates is disproportionately high for racial and ethnic minorities: rates are as high as 11.3% and 11.1% among Hispanic and African American inmates, respectively, compared to 3.7% among white inmates.<sup>5</sup> The proportion of inmates living with HIV varies by region as well as by institution.

As the management of HIV has improved with antiretroviral therapy, HIV has become a chronic as well as terminal illness; in either case, palliative care is an important aspect of care. Providing palliative care within correctional institutions poses unique challenges. The concern for security in jails and prisons determines how medical care is provided in those settings. Palliative care, with the goals of preventing further deterioration and maximizing the patient's comfort and function rather than curing disease, is less readily adapted than primary medical care to the rigid hierarchical structure and culture of a corrections environment.<sup>6</sup> For example, for security reasons it may be appropriate for most inmates to be transported in shackles. While putting a dying inmate in shackles would be unnecessary and unreasonable from a health care standpoint, corrections protocols may require such treatment.

In 1976 the U.S. Supreme Court ruled that prison and jail inmates have a right to health care while incarcerated.<sup>7</sup> However, palliative care is difficult to provide behind bars in a manner that meets both the individual's need for symptom relief and the institution's need for security and control.

By definition, compassionate care requires deviation from the correctional norm whose goals are segregation, stigmatization, and punishment. Dying inmates need increased medical attention, expanded visiting hours with family and clergy, access to special foods, and relaxation of routine restrictions.<sup>8</sup>

Jails and prisons differ in both structure and motivation in terms of how they provide medical care to inmates. Jails are temporary quarters for persons who have been arrested and are awaiting trial, and turnover is generally fairly rapid. Therefore, with nonacute medical problems, cost-shifting can occur; if a medical problem is not immediately addressed, the inmate may be discharged without the jail having expended resources. Prisons, on the other hand, are permanent quarters to which people are sentenced for long periods of time. The prison assumes re-

sponsibility for financing health care, even if the person would be eligible for insurance such as Medicare on the outside. Therefore, it is in the interest of a prison to provide or manage their inmates' health care rather than refer inmates to outside health care institutions that will bill the prison for care provided.

## Palliative Care in Correctional Institutions: Unique Issues

Whether a patient is in jail or prison, certain issues affecting palliative care stand out:

- *Patient autonomy.*  
If patients are to provide true informed consent for palliative care, they must also be assured of continued access to curative care. Medical prognosis combined with prisoner wishes and values will determine the relative balance of curative and palliative interventions. Palliative care should be an adjunct to curative care plans.
- *Confidentiality.*  
Protecting an inmate's medical confidentiality is difficult even when access to medical records is restricted to medical staff. Correctional staff, as well as other inmates, who observe an inmate being taken for special appointments or taking certain medications, can figure out his or her diagnosis. Also, corrections officers may be involved in discussions with medical staff about patient care for security reasons. Correctional staff should receive special training in safeguarding medical information. In some institutions, they are required to sign agreements regarding the protection of confidential medical information.
- *Medical advocacy and negotiation.*  
The clinician should be the advocate for the individual inmate in designing and pursuing a palliative care plan. However, the plan must be approved by corrections staff, who may not be willing to support the plan.
- *Pain management.*  
Providing access to appropriate analgesic medication is perhaps the most problematic area for clinicians providing palliative care within corrections.
- *Advance directives.*  
The issue of advance directives is extremely delicate in penal situations, where self-determination is by definition abridged. Care providers must be assured that a patient's decisions are voluntary and uncoerced regarding access to and withholding of life-sustaining treatment. Health care proxy appointments risk setting up conflicts of authority in a correctional institution unless the proxies are family members or friends.
- *Compassionate release.*  
Compassionate release is the release of a terminally ill inmate to the community so that she or he can die in an appropriate setting, with appropriate care. Although the process of review for compassionate release exists in many institutions, it is often so time-consuming that most inmates die in prison before release is approved.<sup>9</sup>

- *Volunteer assistance.*  
Volunteers are used in prison hospice programs, and inmates benefit greatly from the opportunity to be trained and volunteer within prison hospice programs. Nevertheless, the possibility for abuse exists, especially for volunteers to be used rather than professional staff.
- *Clustering.*  
Instituting hospice programs may provide the specific services needed by inmates who are chronically and terminally ill, but it also creates a problem. Clustering inmates requires that many of them be moved from the institutions in which they have been housed. This separates them from others with whom they may have formed close bonds. If a state has only one hospice program, a patient/inmate may be taken to an institution very far from family and close friends in his or her community, further isolating the patient at a time when he or she most needs the support and comfort of loved ones.
- *Discharge planning.*  
The boundary between correctional health care systems and health care systems that inmates re-enter upon discharge into the community is distinct. Because it is impossible to make pre-release application for Medicare or Medicaid, inmates experience a hiatus in medical coverage between incarceration and their return to the community. Programs on the outside that facilitate discharge planning for soon-to-be-released inmates find that the work is labor-intensive and linkages are difficult to establish.

## Standards of Care

HRSA has funded the development of standards of care for palliative care in correctional institutions by the American Public Health Association (APHA), the National Commission on Correctional Health Care (NCCHC), and Guiding Responsive Action for Corrections at End of Life (GRACE). Copies of the APHA standards are available from the APHA publications department, (202) 777-APHA. The GRACE Project standards can be obtained by phone, (703) 341-5000, or on the Web at [www.graceprojects.org](http://www.graceprojects.org). The GRACE Project, part of the non-profit agency Volunteers of America, also has other resources for end of life care for incarcerated or recently released people living with HIV/AIDS. These include a handbook for caregivers and managers, a brochure on grief for people in prisons or jails, articles, and a videotape for training institutional staff.<sup>10,11</sup>

## Clinical Pathway for the Recently Released Inmate

The transition from a correctional facility to the community often involves a break in the continuity of health care. A red flag should immediately go up when a person who has just been released from jail or prison presents for care, with the following concerns in mind:

- The person may have been discharged from the facility because he or she was in advanced disease.
- If the person has been prescribed antiretroviral medications, he or she may have only a few days' supply or none at all.
- The person may have no one in the community for support and thus may have no resources or place to stay.

- If the person is chemically dependent, his or her first impulse may be to seek drugs to relieve the anxiety of so much uncertainty.

Clinicians should have a specific clinical pathway for persons recently released from jail or prison. The clinical pathway should involve the following immediate actions:

- *Assessment.*  
Obtain a baseline assessment and lab work immediately.
- *Connection with social services staff.*  
Arrange for the person to meet with a case manager or social worker during this visit, and establish contact with an outreach worker. Expect the person to need to apply for a range of entitlements and services, especially emergency housing.
- *Reconnection with family.*  
Identify at least one family member and begin the process of reconnection.
- *Continued personal contact.*  
Make a plan for how to maintain contact. Do not expect the person to return in two weeks for a follow-up visit; agree to have a next-day conversation.

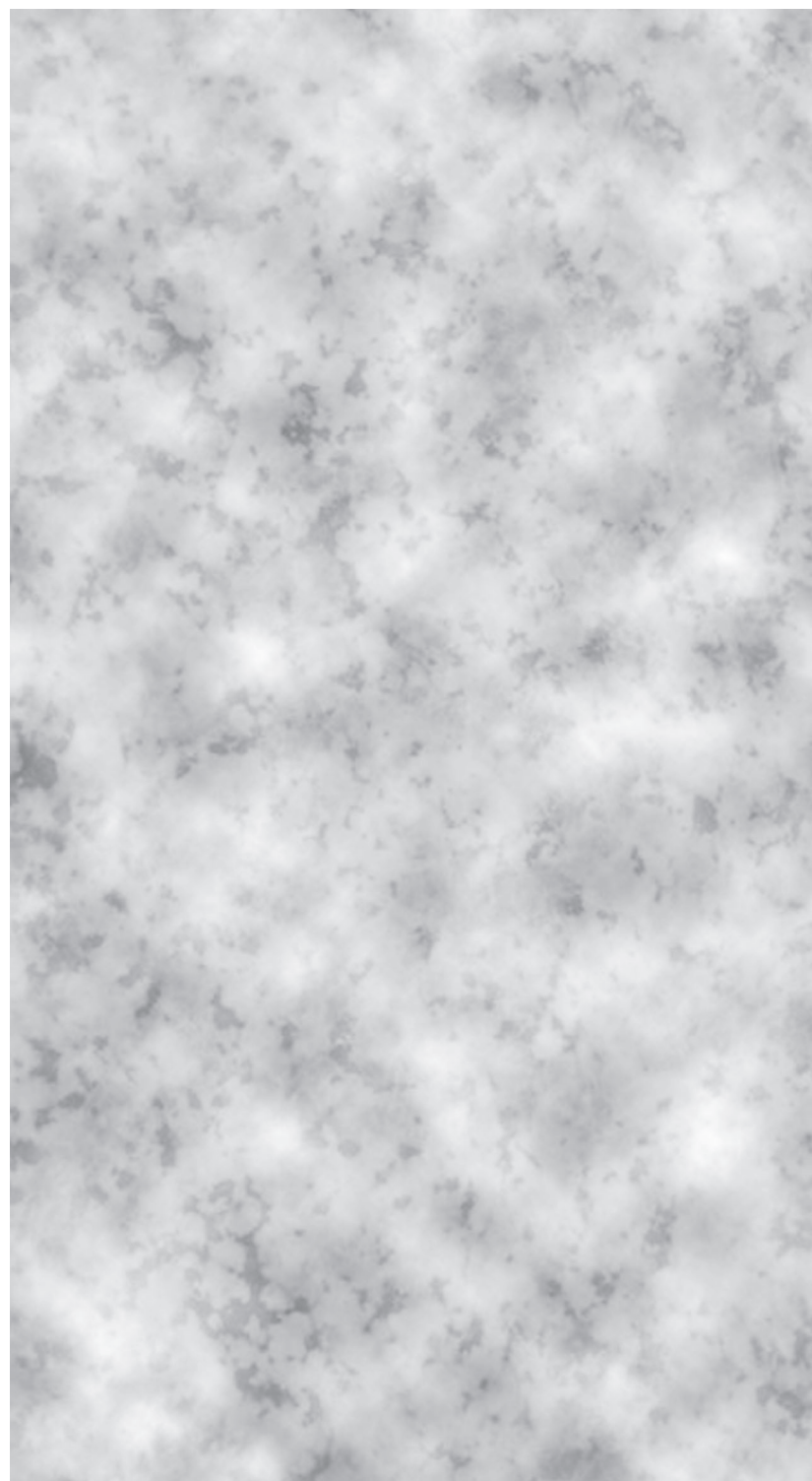
### Linking Recently Released People with Community Care: Models

The U.S. Health Resources and Services Administration HIV/AIDS Bureau (HRSA/HAB) Special Projects of National Significance is collaborating with the Centers for Disease Control and Prevention on an initiative to develop models to enhance prevention and care services for incarcerated people at risk for HIV or living with HIV.<sup>12</sup> Two key components of the model programs that link inmates to community services are discharge planning while the inmate is still in prison or jail, and case management either inside the institution or outside in the community. For HIV-positive prisoners in the San Francisco County Jails, for example, The Homebase Project arranges to have a case manager meet individuals at the gate when they are released and provides them with up to three months' housing in a single-room occupancy hotel, while linking them with social and medical services in the community. This immediate assistance is an excellent example of an intervention for the clinical pathway described above. While incarcerated individuals in the early stages of HIV disease may benefit from such interventions, persons with advanced HIV disease are in even more critical need of the continuity of care that such interventions afford. Unfortunately, these models are not the norm at correctional facilities in the U.S.



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## Chapter 16.

# Grief and Bereavement

Elizabeth A Keene Reder, MA

*“Can it be in a world so full and busy that the loss of one creature makes a void in any heart so wide and deep that nothing but the width and depth of vast eternity can fill it up?”*

CHARLES DICKENS

■ Most of us answer “yes” to Dickens’ question. The experience of a death of a loved one can be one of profound sadness and loss. The multidimensional responses to a loss are all part of the grief process. This process is often complicated when the death is AIDS-related. If the death of *one* individual can be as devastating as Dickens’ question presupposes, what happens when people experience multiple significant deaths, as most bereaved in the HIV community do? There are unique challenges and needs in the bereavement process for people coping with AIDS-related deaths. This chapter will explore the nature and process of grief and identify interventions for use by the palliative care team in helping the bereaved cope with their losses, adjust to a changed life, and be open to personal growth and transformation.

### THE LANGUAGE OF GRIEF

*Grief* is the normal, dynamic process that occurs in response to any type of loss. This process encompasses physical, emotional, cognitive, spiritual, and social responses to the loss. It is highly individualized, depending on the person’s perception of the loss and influenced by its context and concurrent stressors.<sup>1</sup>

*Mourning* is often used interchangeably with grief, but mourning more specifically refers to the public expression of grief. This public expression (perhaps crying or wailing) does not necessarily relate to the significance of the loss; it is usually related to cultural and religious values and encourages social support for the mourner.<sup>2</sup>

*Bereavement* is the state of having suffered a loss. This incorporates the period of adjustment in which the bereaved learns to live with the loss. The root of the word “bereaved” means to be robbed of something valuable.<sup>2</sup>

*Complicated mourning* arises from an interrupted or obstructed grief process. Rando<sup>3</sup> uses this term to refer to potentially harmful outcomes, from somatic discomfort to chronic emotional distress, and even the possibility of death, when grief is unaccommodated. There are risk factors that can lead to complicated mourning; many of these factors apply to AIDS-related deaths.

## ANTICIPATORY GRIEF

■ Grief responses do not begin at the death of the loved one; rather, they begin as soon as symptoms develop that people perceive as life-threatening. Lindemann referred to these responses as anticipatory grief.<sup>3</sup> Both the person with AIDS and those who care for that person experience anticipatory grief. However, the anticipatory grief does not replace the necessity of grieving after the death.<sup>4</sup> Rando delineates these responses from postdeath grief and asserts that the term *anticipatory* grief is misleading because “anticipatory” connotes future losses, whereas in actuality people are dealing with past and present losses as well.<sup>5</sup>

Anticipatory grief includes changing assumptions, adapting to role changes, finding a balance for staying separate from, yet involved with, the patient, and experiencing feelings of sadness, depression, and anxiety.<sup>6</sup> The patient and caregivers have the opportunity to absorb the impending loss gradually over time. Often the people involved must change their assumptions about the way the world works and what their future will hold. Statements such as “*I always thought...*” or questions like, “*What will I do?*” and “*How will I live?*” are examples of this process.

Patients and caregivers also struggle with secondary losses: loss of health, security, employment, relationships, meaning, and the future. As the disease progresses, the losses increase and intensify. Facing these losses can be overwhelming for all involved.<sup>7</sup>

One benefit of this process is the opportunity for people to complete unfinished business, whether practical, emotional, or spiritual. The opportunity to get affairs in order, make wishes known, prepare for final arrangements, reconcile with loved ones, express gratitude, and say goodbye can be meaningful for the patient and the caregiver.<sup>6</sup>

If the illness is prolonged, the period of anticipatory grief may become problematic. Those caring for the person with AIDS may emotionally withdraw too soon and experience ambivalence about the length of the illness and caregiving responsibilities. This can lead to feelings of guilt during the illness and during bereavement.<sup>8</sup>

Another complicating factor is that often the caregivers are HIV positive as well. In dealing with their own physical health issues, the threat of personal loss and facing their own mortality are very real.<sup>8</sup>

There have been conflicting studies as to whether the opportunity to grieve before the death impacts the bereavement process by lessening the length of bereavement and/or easing the pain of grief.<sup>9</sup> Worden notes that grief is multidimensional and it would be too simplistic to claim that a time to prepare for the death of a loved one correlates positively with a shortened bereavement period.<sup>8</sup>

However, the palliative care team should be aware of the process and common themes that emerge during anticipatory grief because the responses may have an effect on caregiving and the emotional status of the person with AIDS.<sup>8</sup> Brown notes that suffering surrounds loss and death over the entire illness trajectory.<sup>4</sup>

Health care professionals can facilitate the anticipatory grief period by:

- Identifying and legitimizing feelings of sadness, anger, guilt, and anxiety
- Encouraging expression of feelings in private, comfortable settings
- Redefining terms related to expressions of grief (“lose control” or “break down” can be reframed into “emotional releases,” which are normal, expected aspects of coping with stress and grief)
- Enabling people to complete unfinished business
- Encouraging people to live fully and enjoy life whenever and wherever they can<sup>10</sup>

As people face their death, they want to know that they will be remembered and that their life had meaning. Engaging patients and caregivers in life review and memory work are effective interventions in coping with anticipatory grief.<sup>11</sup> Zulli suggests religious rituals, meditation, use of photography and/or videos, and journeys (one last trip to a favorite place) as therapeutic tools.<sup>12</sup>

## FACTORS THAT AFFECT THE GRIEF PROCESS

■ Several factors affect the length and intensity of the grief process. These may help or hinder the bereaved move through the grief process. For those dealing with AIDS-related deaths, many of the factors experienced indicate significant risks and often complicate the grief process, leading to potentially dangerous health outcomes.

### The Nature of the Relationship between the Deceased and the Bereaved

This is a crucial factor during the grief process. Generally the greater the bond between the deceased and the bereaved, the greater the grief experienced. The type of bond (parent, child, partner, sibling) does not necessarily indicate the intensity of grief; every relationship is unique. However, the death of a child is usually always considered a high risk for the bereaved parent(s).<sup>2</sup> If there was an ambivalent or codependent relationship, this can also complicate the grief process, as the bereaved may face intensified emotional responses.<sup>8</sup>

For those dealing with AIDS-related deaths, another complicating factor is that often the relationship may be *disenfranchised*, or not socially recognized as a valid relationship for which to grieve.<sup>13</sup> These disenfranchised relationships can include the death of a partner, an ex-spouse, a friend or co-worker. Additionally, young children, the elderly, and the developmentally disabled are often considered unable to comprehend the loss, therefore unable to grieve. Anyone who is able to create a bond is able to grieve when that bond is threatened or broken.<sup>13</sup>

Often these disenfranchised grievers need additional support due to the risk factors experienced during their loss and yet are denied even general sympathy from society. Some are excluded from the postdeath rituals, denying them an opportunity to say goodbye to their loved one and limiting the social support at a crucial time.<sup>8</sup>

### The Manner of Death

The perception of preventability of the death is a crucial factor that can complicate the grief process. For those grieving deaths from early in the AIDS pandemic, the fact that the loved one did not live long enough to benefit from new treatments is difficult to reconcile.<sup>7</sup> And for those

grieving recent AIDS-related deaths, there are different preventability issues to be faced: medication noncompliance, accessibility of treatment, and efficacy of treatment.<sup>7</sup> If the bereaved believe the death could have been prevented, the risk for a complicated grief process increases.<sup>2</sup>

Length of illness is another important factor. Now that living with AIDS is often a chronic illness, there is a longer period of uncertainty about the future. Trends seem to indicate that death from AIDS is now met with disbelief rather than as an anticipated fact.<sup>7</sup> Chronic or prolonged illness often means the entire family structure is changed in order to accommodate care. People may have to rearrange work schedules or not work at all; they may need to find additional caregivers and/or financial support. These stressors on the family system can also complicate the grief process.<sup>2</sup> As treatment advances, health care professionals may find that their anticipatory grief and bereavement period are affected by closer bonds that have developed as a result of patients who are living longer.<sup>7</sup>

Symptoms and side effects of the disease may also affect the grief process. Doka identifies two symptoms that correlate positively with complicated grief: disfigurement and mental disorientation.<sup>11</sup> The challenge of coping with these symptoms can create ambivalence and premature detachment from the patient. People with AIDS are at risk for both symptoms.

Unfortunately, an AIDS-related death is still a disenfranchised death in most societies (along with deaths from homicide, suicide, and drugs). Patients sometimes choose not to inform family members or friends of their diagnosis and AIDS is often not mentioned in obituaries or at funerals. The social stigma associated with AIDS-related deaths can lead to complicated grief responses.<sup>14</sup>

The time of death experience is an individualized factor. Some may experience increased guilt if they were not able to be present at time of death; some may experience increased distress depending on their perception of the dying experience.

## Social Variables

A key indicator in how the bereaved will cope is the availability and use of a good support system. The support system may include family, friends, coworkers, neighbors, religious communities, pets, and professional support. Many families come to rely on the support of the health care team during the patient's illness; in fact, due to the disenfranchised nature of the death, other typical sources of support may be lacking. Once the patient has died and the health care team is no longer regularly involved, the family is coping with not only the death of a loved one, but the loss of their main support as well. Reinforcing or feeding into the anger felt by the bereaved at the lack of family and community support only further distances them from potential sources of future support. Rather, encourage and strengthen connection with family, friends, and the community.

Cultural and religious beliefs and practices may provide comfort for the bereaved but may also intensify grief responses. Regardless of cultural and ethnic background, the family of origin plays a significant role in how the beliefs inform the bereaved's coping style. (See Chapter 14: Culture and Care.) Familiarity with the beliefs and practices of other cultures and religious groups will provide a general framework for the palliative care team.<sup>15</sup> Cultural differences should be considered before judging a person's grief style as "abnormal" or "pathological," but stereotyping grief responses of an individual based on a cultural group can be inaccurate and offensive.<sup>16</sup> It is best to ask the individual person how their beliefs and practices are affecting their grief process.

The personality traits and coping style of the bereaved will also impact on the bereavement period. There is no “right” or “wrong” way to grieve (as long as it is not harmful to the bereaved or another); the key is to find ways that work for that particular person. Some people will never shed a tear publicly, others will cry every day for months. Talking about the loss and expressing feelings related to the death can be very healthy for some people, yet threatening for others. Doka and Zucker are exploring different styles of grief and define a continuum of grieving styles from highly intuitive (process, feeling-oriented) to highly instrumental (linear, task-oriented).<sup>17</sup> Identifying styles on the grief continuum will have implications for grief support. For example, a highly instrumental griever who is focused on cognitive responses and benefits from accomplishing tasks may not find a bereavement support group that encourages expressions of feelings particularly helpful.<sup>17</sup>

Some communities are coping with a disproportionate number of AIDS-related deaths. This can lead to *bereavement overload*, when the bereaved experience a series of losses and accumulate unaccommodated grief that may lead to unhealthy physical, emotional, and spiritual responses.<sup>18</sup> In addition to experiencing the deaths of many loved ones and friends, the bereaved may also experience other losses. These losses may include loss of their community, loss of meaning and purpose, loss of privacy, loss of role in society. Coping with bereavement overload and multiple losses increases the risk of a complicated grief process.<sup>2</sup>

Other stressors that can complicate the grief process are mental health issues, substance abuse issues and problems with physical health. If the bereaved survivor is also living with HIV, he or she may be experiencing normal physical grief reactions that can mirror AIDS symptoms. For example, a typical physical grief response is weight loss, yet a symptom of AIDS is wasting. A common cognitive response to grief is the inability to concentrate and this can mirror the AIDS symptom of dementia.<sup>19</sup> It would be important to refer the bereaved for appropriate medical evaluation in these circumstances.

Substance abuse issues can complicate the grief process in several ways. Survivors may experience guilt related to participating in activities that increase the risk of transmission of HIV.<sup>8</sup> Corless notes that, “In the gay community, bereavement tends to occur among members of the same generation. In communities where injecting drug use is high, members of different generations of a family are dying of the same disease.”<sup>20</sup> Unfortunately, many children are orphaned when parents, and even other siblings, die from AIDS. In other situations, drugs and/or alcohol are used as coping mechanisms during bereavement and this often leads to complicated grief because these methods of coping mask the actual grief responses and can limit the opportunities for the bereaved to deal fully with their grief issues.

Again, it is important to note that grief itself is not pathological but the factors noted above can interfere with, or *complicate*, the grief process. Various terms that have been ascribed to obstructed grief: “*morbid, atypical, pathological, neurotic, unresolved, complicated, distorted, abnormal, deviant, or dysfunctional.*”<sup>22</sup> The inconsistency of terms mirrors the issues in defining and treating grief that has been complicated.<sup>2</sup> (See Chapter 10: Psychiatric Problems.)

## TASKS OF THE GRIEF PROCESS

■ Many grief theorists use attachment theory to develop their understanding of how grief works. British psychiatrist John Bowlby proposes that human beings tend to make strong affectional bonds with others as part of a need for security and safety.<sup>21</sup> When these bonds are threatened or broken, strong emotional reactions occur; we name these responses grief.

Recent grief theorists have built on Bowlby's work (see Table 16-1). There are distinctions among each theory, but most include an initial phase of shock or numbness, a time of disorganization and a process of reorganization.

These traditional models have been challenged in recent years. One issue is the use of "stages" to describe the grief process; this term implies a passive reaction to loss, and critics assert that moving through grief is an active process.<sup>5</sup> Some believe that traditional models focus too heavily on emotional responses to loss and de-emphasize cognitive responses.<sup>5, 17, 22</sup> Another concern is that in these models the aim of the grief process is for resolution, or a return to the premorbid state of being. Rando encourages the term *accommodation* rather than *resolution*, *recovery*, or *completion*.<sup>2</sup> Accommodation implies an active process of adapting to fit specific circumstances, rather than a linear process with a final endpoint. Recent models of bereavement highlight grief as a dynamic process around which certain themes can be distinguished and personal growth and transformation emerge as possible outcomes.<sup>23</sup>

Traditional bereavement models usually describe grief that results from a single loss; AIDS-related grief experiences of multiple loss and bereavement overload challenge these frameworks.<sup>1</sup>

The work of William Worden is used to illustrate the grief process in this chapter. His "tasks of mourning" are a way to understand the grief process more fully.<sup>8</sup> The word "tasks" is used intentionally to emphasize that dealing with the responses to grief takes effort; hence "grief work." Worden acknowledges that the tasks do not have to follow a specific order and that people can work on more than one task at a time.

### TASK I:

#### ACCEPT THE REALITY OF THE LOSS

The first task of grieving is to acknowledge and accept the reality that the person is dead and will not return. This task can take time, as the bereaved often experiences a period of numbness, shock and disbelief *even if the death was expected*.<sup>8</sup> The bereaved may experience a period of searching or yearning for their loved one. Some people report they expect to see their loved one when they arrive at home, or attempt to contact them by calling out or reaching for the telephone before remembering that the person is gone. Many people find themselves continuing their old routine, such as setting the table for two people even though one spouse/partner has died. The bereaved may even refer to their deceased loved one in the present tense or use the present and past tense together in the same conversation. These are all examples of working to accomplish the first task: accepting the reality of the loss.

Traditional rituals such as funerals or memorial services can help people accomplish this task. This public method of saying good-bye helps people confront the finality of the death. Often the first visit to the cemetery reinforces the finality of the loss as well.



Table 16-1: Contemporary Theories of the Grieving Process

<b>Bowlby (1961): Phases of Grief</b>	<b>Parkes (1974): Phases of Grief</b>	<b>Worden (1982): Tasks of Grief</b>	<b>Rando (1983): Grief Processes</b>	<b>Sanders (1989): Phases of Grief</b>
Numbing	Disbelief	Accept the reality of the loss	Recognize the loss	Shock
Searching/yearning	Searching/yearning	Experience the pain of grief	React to the separation	Awareness of the loss
Disorganization/despair	Isolation/loneliness	Adjust to life without the deceased	Recollect/re-experience the deceased	Withdrawal
Reorganization/new life	Mitigation	Withdraw emotional energy and reinvest in life	Relinquish old attachments	Healing
	Reinvestment/new identity		Readjustment	Renewal
			Reinvestment	

Sources: References 6, 8, and 35.

The primary aim of grief support at this task is to help people accept the reality of the loss in their own time and at their own pace. It may take days or weeks for the reality to be accepted, even longer for it to be fully absorbed.

## TASK II:

### EXPERIENCE THE PAIN OF GRIEF

The second task of mourning is for the bereaved to allow the pain of grief some form of healthy expression. The pain of grief includes physical, emotional, behavioral, cognitive, spiritual, and social responses to the loss (see Table 16-2). This task is crucial because if the bereaved cannot, or does not, acknowledge the pain of grief in some way, these responses could manifest themselves in unhealthy ways.<sup>8</sup>

Coping with the pain of grief will be unique to every individual. These responses are common themes that occur during bereavement; not every person will experience every response.

People do experience actual physical responses to a loss. Although Stroebe reports that the physical health of the bereaved is at risk after a loss, many of the symptoms reported to physicians during bereavement are normal, expected responses to grief, not pathological.<sup>24</sup> This can lead to inappropriate use of health care services.<sup>25</sup>

As noted earlier, in AIDS-related deaths, often the survivors may be HIV positive and experience both normal physical responses to loss, as well as symptoms of AIDS<sup>19</sup> and appropriate medical evaluation is warranted.

Emotionally, people tend to experience a wide range of feelings. The initial shock and numbness usually subside after a few weeks or months and thoughts and feelings that were present all along begin to surface. Many bereaved report significant emotional responses 6 months after the loss as the reality is fully absorbed: *“I thought everything was fine but now I feel like things are worse.”* While some people need to express their feelings and talk about the loss repeatedly, others do not experience grief emotionally as their primary response and therefore do not need to process their feelings. Some may even experience dissonance if painful feelings are experienced but are unable to be expressed: *“I may appear normal on the outside but on the inside, I’m screaming.”*<sup>11</sup>

Sleep disturbances and appetite changes are the most common behavioral responses. Behavioral responses may vary due to cultural and gender factors,<sup>8</sup> but most cultures include crying as an acceptable response to death.<sup>16</sup> The bereaved should be wary of the risk of increased use of alcohol, tobacco, and tranquilizers.<sup>25</sup>

Recent grief theories are emphasizing the cognitive responses to loss.<sup>5,23</sup> This may be the primary way some people experience grief (the “instrumental griever”<sup>17</sup>). Initially many bereaved report a fear of “going crazy;” education and normalization of the grief process may help assuage this fear.

Spiritual responses to loss are also highly individual. Even those who have a strong spiritual or religious belief system may not be comforted by their beliefs. One of the crucial aspects of the spiritual response to loss is the ability to make meaning from the experience.<sup>23,26</sup>

An aspect of grief that is often ignored is the social response to loss. In AIDS-related deaths, people may be coping with social isolation due to stigmatization.<sup>1</sup> Neimeyer highlights the importance of the social unit in his work on using constructivism to facilitate the grief process.<sup>27</sup>

Table 16-2: Common Reactions to Grief

Physical	Emotional	Behavioral	Cognitive	Spiritual	Social
<ul style="list-style-type: none"> <li>• Dizziness</li> <li>• Breathlessness</li> <li>• Hollowness in the stomach</li> <li>• Tightness in the throat/chest</li> <li>• Dry mouth</li> <li>• Changes in energy level</li> <li>• Loss of sexual desire</li> </ul>	<ul style="list-style-type: none"> <li>• Numbness</li> <li>• Yearning</li> <li>• Sadness</li> <li>• Anger</li> <li>• Guilt</li> <li>• Anxiety</li> <li>• Loneliness</li> <li>• Relief</li> </ul>	<ul style="list-style-type: none"> <li>• Indecisiveness</li> <li>• Sleep disturbance</li> <li>• Changes in appetite</li> <li>• Absent-minded</li> <li>• Social withdrawal</li> <li>• Crying</li> <li>• Sighing</li> <li>• Searching</li> <li>• Increased use of alcohol, tobacco or tranquilizers</li> </ul>	<ul style="list-style-type: none"> <li>• Disbelief</li> <li>• Confusion</li> <li>• Sense of “going crazy”</li> <li>• Preoccupation with the deceased</li> <li>• Sense of presence</li> </ul>	<ul style="list-style-type: none"> <li>• Search for meaning</li> <li>• Loss of faith</li> <li>• Comfort from faith</li> <li>• Changes in relationship with God</li> <li>• Alienation</li> </ul>	<ul style="list-style-type: none"> <li>• Passive</li> <li>• Hyperactive</li> <li>• Withdrawn</li> <li>• Unpredictable mood swings</li> </ul>

## TASK III:

## ADJUST TO THE LOSS

The third task refers to the work of developing the skills and filling the roles necessary to move forward without the deceased being physically present.<sup>8</sup> Usually this task can only begin after several months of dealing with the loss. It may include adjusting to living alone, being a single parent, getting a job, learning to manage finances, or taking on household tasks. For those dealing with HIV, it can also mean needing to find other caregivers.

Some bereavement support groups use the image of Janus, the Roman god of departures and returns, beginnings and endings, as a symbol for their group. This two-faced god, who looks both forward and backward, is an appropriate symbol for this task as the bereaved struggle with looking back to acknowledge what has been lost and beginning to look ahead to see what is possible in their lives.

Part of adjusting to the loss is facing all the significant “firsts” that occur in the first year of bereavement. Coping with the first holiday, birthday, or anniversary without the loved one can trigger a temporary upsurge of grief.<sup>2</sup> Grief responses can be triggered by cyclic precipitants such as holidays or anniversaries, linear precipitants that are one-time occurrences related to experiences or age (i.e., not being present at an important function), and stimulus-cued precipitants, including reminder-inspired reactions (“*we always used to...*”) and music-elicited reactions.<sup>2</sup> An upsurge of grief may include a return of physical symptoms, various emotional responses, changes in social behavior, and spiritual distress. These temporary reactions must be distinguished from complicated grief, and should not be misdiagnosed as pathological responses.

## TASK IV:

## REINVESTING ENERGY FROM THE DECEASED INTO NEW LIFE

The fourth task of mourning refers to the ability to transfer the emotional energy invested in the relationship with the deceased into new, healthy approaches to life.<sup>8</sup> This does not mean that the deceased is now “forgotten” or that the bereaved has “obtained closure.” Rather this task refers to the bereaved’s ability to establish a new connection with the deceased, one that can transform their new life. Browning explains this concept as “saying good-bye to grief, without saying good-bye to the loved one.”<sup>28</sup>

Reinvesting the emotional energy into new life may include a variety of methods. Simple gestures such as considering the deceased’s perspective in a difficult situation or wearing a locket with a picture of the deceased are examples of this reinvestment. Others reinvest the energy outward in sociopolitical actions such as working for justice, fundraising, or creating a memorial for the deceased.

Signs that a person is learning to accommodate their grief include:

- A return to good health (or their health status before the death of their loved one)
- Acknowledgment of the reality of the loss
- Redefined identity
- Emergence of new skills or roles

- Establishment of or reconnection with a social support system
- Ability to cope effectively with temporary upsurges of grief
- Comfort with the quest to find meaning
- Personal growth/transformation

Those who grieve the death of a loved one never truly “get over” the loss. Even after people accomplish the tasks of grieving, the pain of the loss is still present though hopefully less intense and more manageable.

## UNIQUE ASPECTS FOR CHILDREN

■ As noted earlier, children are often disenfranchised grievers because they are considered “too young” to understand what has happened. This is compounded when dealing with AIDS-related deaths, another type of disenfranchised grief. The age, intellectual and emotional developmental stages, and circumstances of the loss will all affect the child’s grief process. Wolfelt notes that initially children often experience shock and disbelief, then experience similar physiologic responses to adults: fatigue, changes in sleep patterns, appetite changes, headaches, tightness in the throat.<sup>29</sup> They also tend to experience a wide variety of emotions and cognitive responses. One unique aspect of children’s grief is regressive behavior (such as wanting to nurse, sleep with a parent, use baby talk, suck their thumb even though they have not exhibited such behavior for a while). Wolfelt attributes this to a desire to return to an earlier time when the child felt protected and secure.<sup>29</sup> He also describes the phenomena of a child approaching their grief “in bits and pieces”—crying or calling out for the loved one and then returning to play within minutes. This coping mechanism works well for the child but can be difficult for the family to understand.

Often children will “act out” in an attempt to get attention. Even if a child is not able to comprehend the loss, she can respond to the changes in the emotional status of the family.

Developmentally, children must come to understand that death is final, irreversible, inevitable, unpredictable, and universal. They must also perceive the concept of nonfunctionality and deal with causality.<sup>29</sup> Table 16-3 illustrates children’s developmental stages, possible responses and suggested interventions.

Children dealing with AIDS-related deaths may be coping with the deaths of other family members or have HIV themselves. They are at risk for complicated grief because of the multiple disenfranchised nature of their grief experience. (See Chapter 12: The Care of Children and Adolescents.)

## SUPPORT FOR THE BEREAVED

■ The palliative care team can provide support to the bereaved by acknowledging the loss, sharing memories of the deceased, normalizing grief responses, and encouraging good self-care.<sup>1,14</sup> To do so, the palliative care team should be familiar with the dynamics of the grief process and be able to identify healthy and unhealthy coping behaviors.

Immediately after the death, it is important to reach out to the bereaved, acknowledge the loss, and give permission to grieve. In AIDS-related deaths there may be conflicts among the biological and chosen families. The palliative care team should appreciate the perspectives of both families, without taking sides or judging their actions.<sup>2</sup>

Table 16-3: Children's Developmental Stages of Grief

Age	Thoughts	Feelings	Actions	Interventions
0–3 years			<ul style="list-style-type: none"> <li>• Cry</li> <li>• Exhibit clinging behavior</li> <li>• Exhibit regressive behavior</li> </ul>	<ul style="list-style-type: none"> <li>• Hold the child</li> <li>• Offer words of reassurance in a calm tone of voice</li> </ul>
3–5 years	<ul style="list-style-type: none"> <li>• Loved one will return</li> <li>• Loved one is just away</li> </ul>	<ul style="list-style-type: none"> <li>• Confused</li> <li>• Anxious</li> <li>• Fearful of separation</li> <li>• Sad or angry</li> </ul>	<ul style="list-style-type: none"> <li>• Cry</li> <li>• Temper tantrum</li> <li>• Nightmares</li> <li>• Exhibit regressive behavior</li> <li>• Exhibit clinging behavior</li> </ul>	<ul style="list-style-type: none"> <li>• Provide extra attention</li> <li>• Offer reassurance calmly, don't worry about the "right words"</li> </ul>
6–9 years	<ul style="list-style-type: none"> <li>• Wonder if loved one can return</li> <li>• Deceased can still function</li> <li>• Their actions or words caused death</li> </ul>	<ul style="list-style-type: none"> <li>• Confused</li> <li>• Anxious</li> <li>• Fearful of separation</li> <li>• Sad or angry</li> <li>• Fearful they might die too</li> </ul>	<ul style="list-style-type: none"> <li>• Cry</li> <li>• Temper tantrum</li> <li>• Nightmares</li> <li>• Exhibit regressive behavior</li> <li>• Difficulty concentrating</li> <li>• Exhibit clinging behavior</li> </ul>	<ul style="list-style-type: none"> <li>• Provide extra attention</li> <li>• Tell the truth; give only appropriate information</li> <li>• Reassure the child they were not responsible for the death</li> <li>• Encourage physical or artistic expression of grief</li> <li>• Maintain structure, limits and rules</li> <li>• Use children's books about death to normalize feelings</li> </ul>

Table 16-3: Children's Developmental Stages of Grief (continued)

Age	Thoughts	Feelings	Actions	Interventions
9–12 years	<ul style="list-style-type: none"> <li>Understand finality and irreversibility of death</li> <li>Their actions or words caused the death</li> </ul>	<ul style="list-style-type: none"> <li>Sad</li> <li>Confused</li> <li>Anxious</li> <li>Withdrawn</li> <li>Lonely</li> <li>Guilty</li> </ul>	<ul style="list-style-type: none"> <li>Exhibit aggressive or impulsive behavior</li> <li>Engage in risky or dangerous behavior</li> <li>Decline in grades</li> <li>Difficulty concentrating</li> </ul>	<ul style="list-style-type: none"> <li>Provide extra attention</li> <li>Tell the truth; give only appropriate information</li> <li>Reassure the child they were not responsible for the death</li> <li>Encourage physical or artistic expression of grief</li> <li>Maintain structure, limits and rules</li> </ul>
12–18 years	<ul style="list-style-type: none"> <li>Understand finality, irreversibility, nonfunctionality of death</li> <li>Their actions or words caused the death</li> </ul>	<ul style="list-style-type: none"> <li>Sad</li> <li>Confused</li> <li>Anxious</li> <li>Withdrawn</li> <li>Lonely</li> <li>Guilty</li> </ul>	<ul style="list-style-type: none"> <li>Exhibit aggressive or impulsive behavior</li> <li>Engage in risky or dangerous behavior</li> <li>Decline in grades</li> <li>Difficulty concentrating</li> </ul>	<ul style="list-style-type: none"> <li>Seek community and school support</li> <li>Maintain structure, limits and rules</li> <li>Encourage physical or artistic expression of grief</li> </ul>

After the death of a patient, families appreciate general expressions of condolence and sympathy. Telephone calls, cards, and notes are all appropriate responses from the health care team.

An acknowledgment of the death and expression of sympathy are meaningful, but another way the health care professional can help the bereaved accept the reality of the death (Worden's Task I) is by providing details and information about the illness, as appropriate. Many families do find it helpful to meet with the physician or members of the health care team after the death of a loved one to review the course of treatment or ask questions about the plan of care. The bereaved need reassurance and affirmation that they did everything possible to help their loved one and they did not hasten the death of their loved one (perhaps by administering the “last dose” of medicine or providing inadequate care). Malacrida reported survivors are often not satisfied with the information provided about the cause of their loved one's death.<sup>30</sup> It appears that the communication and information provided to the bereaved by the palliative care team may also influence their bereavement recovery.<sup>31</sup>

Some people may not need, or want, further contact with the palliative care team. It may be a painful reminder of the illness and death, especially if they have not accepted the reality of the loss. Take cues from the bereaved before assuming they wish to remain in contact.

Educating about the grief process and normalizing appropriate grief responses can lessen some of the stress and anxiety experienced by the bereaved as they face Worden's second task of mourning—experiencing the pain of grief. Often the image used to describe the grief process is that of a “roller coaster ride.” This image highlights that those moving through grief do not necessarily feel better and stronger each day but experience “ups and downs” and “twists and turns” that are normal for the ride. The bereaved need to learn what typical physical, emotional, spiritual, cognitive, and social responses they can expect, but also be allowed to experience and express their own process.

- Reassure them that it is normal to experience upsurges of grief related to significant days or events such as birthdays, anniversaries, and holidays, as well as some upsurges that will occur at random.
- Educate them that anticipation of the significant day is usually worse than the day itself.
- Encourage them to divert the energy from worrying about the significant day into making plans for how to spend the day.
- Remind them that the grief journey takes as long as it takes; there is no time frame for grief.

Tables 16-4a and 16-4b suggest techniques for supporting the bereaved during the grief process.

Good self-care is a significant part of learning to adjust to the loss (Worden's Task III). Remind the bereaved the grief affects their entire person: physically, emotionally, cognitively, and spiritually. Encourage physical exercise (as appropriate), proper diet, and proper rest. Explore their spiritual responses to their losses and accompany them as they search for meaning. Know that they are not looking for external answers; they need to find their own answers, or learn how to live with the questions. Help them develop the creative aspect of their beings by encouraging them to keep journals or incorporate art and music techniques as part of working through their grief.<sup>32</sup> Strengthen their support systems and be aware of the community resources in the area. Nord notes that “social support, community involvement, and fostering a sense of purpose are useful” in learning to accommodate a loss.<sup>33</sup>



Table 16-4a: Supporting the Bereaved during the Grief Process

What NOT to Say	Because
“I know just how you feel.”	Even if others experienced a similar loss, every relationship is unique. No one knows exactly how the bereaved feel.
“You’ll get over this in time.”	People do not “get over” their grief. They can learn to manage it and learn to adjust to life. Many bereaved equate “getting over it” with forgetting their loved one.
“Don’t cry.”	Though meant as reassuring, this is often perceived by the bereaved as an attempt to “shut down” their grief.
“It was God’s will.” Or “God knows best.”	This can offend nonreligious people and even religious people may not be comforted by this. Avoid clichés.
“You can have another child.” Or “You’ll find someone else.”	The idea of replacing the loved one is abhorrent to the bereaved.
“If you need anything, call me.”	This puts the effort on the bereaved. Since most people experience decreased energy during bereavement, they are unlikely to call.
“You should be glad s/he didn’t suffer more.”	The length of time a person suffers is irrelevant to the bereaved; their focus is on the death of that loved one.

(See next page for Table 16-4b.)

At various points along the grief journey, it may be appropriate to encourage use of ritual. Van de Hart states that rituals can provide therapeutic expressions that symbolize transition, continuity, and healing.<sup>34</sup> Therapeutic bereavement rituals are usually rituals of transition or continuity.<sup>2</sup> Rituals of transition may relate to the separation of the loss or the transition to adjusting to life without the loved one. These symbolic actions may include writing letters to the deceased and then perhaps burning them, taking off a ring or melting it into another piece of jewelry, and putting away photographs of the deceased. Transition rituals may be most appropriate during Worden’s Tasks I and II. Rituals of continuity may be related to the transformed relationship with the deceased as a new type of connection is established.<sup>2</sup> These rituals may include visits to the grave, mentioning the deceased’s name during a prayer, or creating a square for the AIDS quilt, and may be most effective during Tasks III and IV.

The elements of a ritual include the people involved, the symbols to be used, the ritual action and the characteristics of the ritual. The ritual, like the grief process, is a personal experience and must be created for the individual. It will arise from the circumstances, the personality, and the beliefs of the bereaved.<sup>2</sup>

Table 16-4b: Supporting the Bereaved during the Grief Process (continued)

What to Say	Because
"I'm sorry."	Acknowledges the loss. A lack of response or acknowledgement is hurtful to the bereaved.
"I don't know how you feel but I do care about you." "I'm sorry that you are hurting." "I can't imagine what you are going through right now."	Acknowledges the pain the bereaved is experiencing and affirms your care for them.
"Go ahead and cry. It's okay. I'm here for you."	Gives permission for expression of grief and offers reassurance of support.
Refer to the deceased by name.	Bereaved often fear that people will forget their loved one. It does not upset them more to hear the name of the deceased; the worst has already happened.
Share specific stories that you remember about the deceased.	Validates the importance of the life of their loved one. Offers reassurance that the person will not be forgotten.
Use open-ended questions: "How has losing your partner to AIDS affected you?"	Allows for individualized responses.
Use superlative phrases in questions: "What has been the worst part for you?" "What has been most helpful?"	Encourages the bereaved to prioritize and focus.
Use third-person statements to initiate the conversation:  "Some people tell me that coping with loneliness is the most difficult thing for them. What has it been like for you?" <i>or</i> "Many people tell me they find it difficult to concentrate. What has your experience been?"	Normalizes grief responses but also invites individualized responses.

Sources: References 1, 24, and 35.

It is possible to experience personal growth and positive transformation through the grief process. Trends indicate that people who are able to create meaning in the death, have a sense of connectedness with life, and are flexible in coping with change are likely to be positively transformed by their grief.<sup>26</sup> Neimeyer builds his grief model on constructivism, asserting that humans need to find meaning and organize their lives around basic assumptions. The grief process can be a time to explore this more deeply.<sup>27</sup>

The health care team can help facilitate this process, recognizing that positive transformation develops as people move through the grief process and should not be expected within the initial grief response. Three questions can be raised to help the bereaved work on this transformation process:<sup>35</sup>

- What do you want to bring from your old life into your new life?

- What do you need to leave behind?
- What do you need to add?

In summary, interventions suggested to help people coping with AIDS-related death include:

- Reaching out to the bereaved
- Giving the bereaved permission to grieve *in ways that work for them*
- Normalizing responses to grief
- Educating about the grief process and what to expect, especially during the first year
- Encouraging good self-care
- Referring for appropriate medical evaluation
- Encouraging use of creative techniques such as keeping a journal, art and music
- Encouraging use of ritual
- Exploring spiritual responses, especially the search for meaning
- Strengthening and encouraging use of a support system
- Affirming efforts to re-engage in life
- Helping the bereaved recognize opportunities for personal growth and transformation

In reaching out to the bereaved, the palliative care team may experience their own issues of grief and loss. This is a normal response; the important thing is to confront these issues separately so that one can be fully present to the bereaved in their time of need. It may be appropriate to cry with, or in front of, the bereaved *as long as they do not have to comfort members of the palliative care team*. Health care professionals have a responsibility to process their own grief work in order to be present to others who are grieving. Good self-care and identification of healthy, appropriate coping mechanisms are essential. (See Chapter 20: Care for the Caregiver.)

It is also important for the palliative care team to maintain a therapeutic perspective in reaching out to the bereaved. Remember:

- No one can take away the pain of grief.
- Don't let a sense of helplessness prevent outreach to the bereaved.
- Recognize the value of "being present" to the bereaved.
- Develop empathetic listening skills.<sup>2</sup>

In dealing with AIDS-related deaths, there are further challenges for the palliative care team. Mallinson notes that in addition to addressing grief issues, health care professionals must also address the concurrent stressors: substance abuse, mental health issues, and the effects of homophobia, racism, and stigmatization, and advocate for accessible services and community resources.<sup>1</sup>

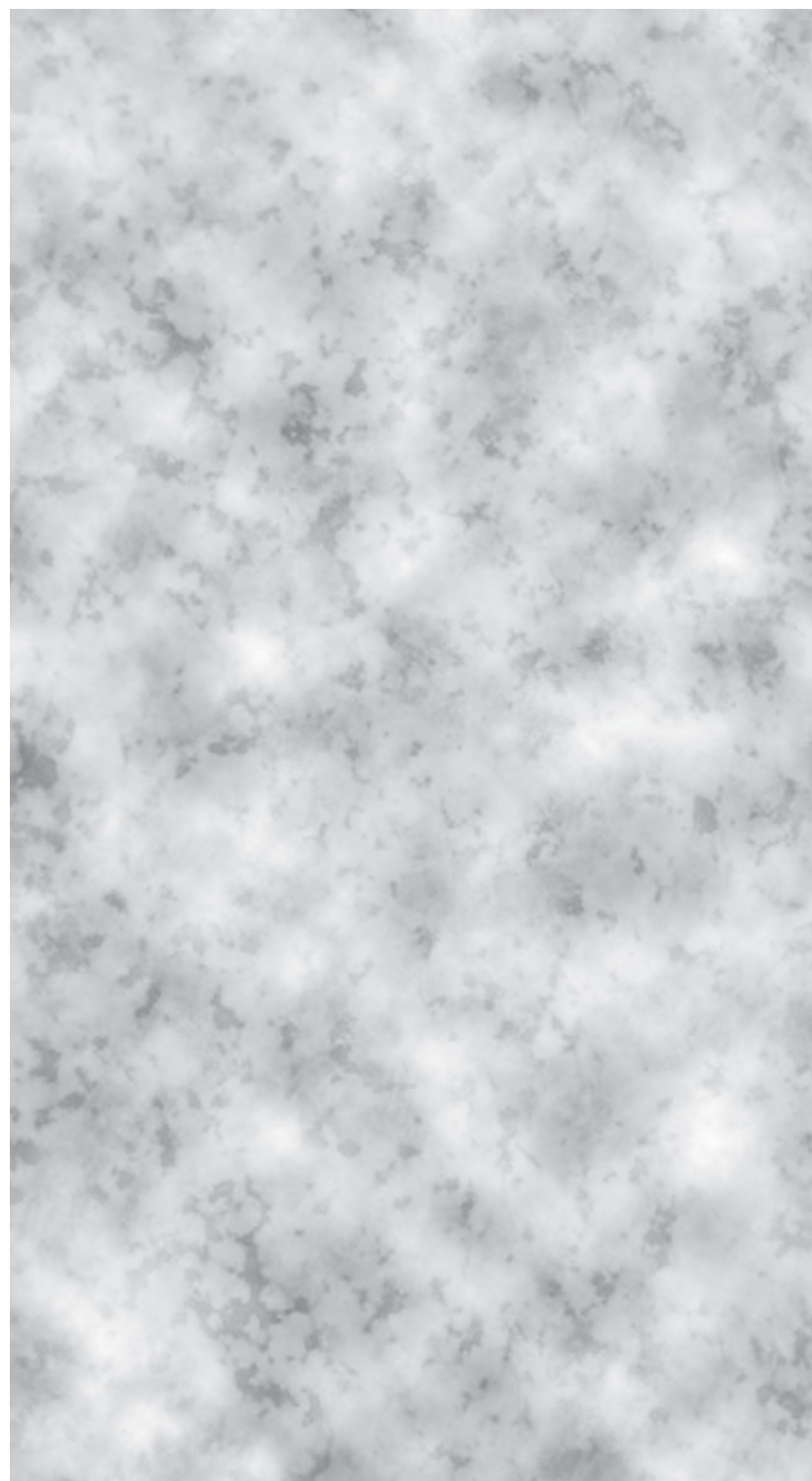
## CONCLUSION

■ Palliative care is a holistic approach to medicine that does not end with the death of a patient. Caring for the bereaved is a responsibility and a privilege. In AIDS-related deaths, the bereaved face significant issues that can complicate their grief process. Interventions that incorporate a holistic approach to grief and loss can facilitate the bereavement process, possibly improving the bereaved person's ability to function, reducing some of the pain experienced, and providing an opportunity for transformation.<sup>1</sup>

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# Chapter 17.

## Ethical Issues

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*This chapter presents some of the important ethical issues that arise in palliative medicine and will pay particular attention to how these issues bear on the treatment of patients living with AIDS. This chapter is not intended to be either comprehensive or introductory. It does, however, provide a systematic approach to the ethics of palliative medicine—one that grounds the ethical principles appropriate for this field in the theoretical ideals of palliative medicine. It will show how these ideals and principles can be applied to resolve concrete cases involving patients living with HIV/AIDS.*

### THEORETICAL IDEALS

■ Like other fields of medicine, palliative medicine is informed by theoretical ideals<sup>1,2</sup> that guide clinical decisions. Two of these ideals are discussed in this section: the ideal of honoring patient dignity and the ideal of promoting patient well-being. Clarity regarding these two ideals is essential in properly framing and addressing some of the most troubling dilemmas that arise in the palliative care context.

The ideal of honoring patient dignity is sometimes identified with the need to respect the patient's autonomy. Patients in need of palliative care, like other patients, have desires about the kind of treatment they would like to receive. The need to respect these desires grounds a number of clinical duties, some negative and some positive. Negative duties include the duty not to impose unwanted treatment on the patient. For example, if a competent patient refuses life-sustaining therapy, physicians must not administer it, even if they believe that it is necessary to keep the patient alive. Positive duties include the duty to assist patients in becoming adequately informed about the treatment options open to them. It also includes the duty to assist patients in thinking about the medical treatment they would like to receive should they become incapacitated. This is normally accomplished by encouraging the patient to fill out an advance directive or to appoint a surrogate decisionmaker. (See Chapter 18: Legal and Financial Issues.) With respect to patients living with HIV/AIDS, obtaining an advance directive can present special challenges. Fear of social and family stigmatization can make these patients reluctant to engage in end-of-life planning with their physicians. For example, some patients may attempt to keep their diagnosis a secret from their family members. Physicians must be aware of this possibility. They should discuss these concerns of stigmatization with their patients early on in the disease process. They should encourage their patients to consider appointing a suitable health care proxy and to inform the health care proxy of their underlying HIV/AIDS status (see Case 1 on page 358).

Respecting patient autonomy is an important part of honoring patient dignity, but it is not the only part. Clinicians should not simply defer to the autonomous desires of their patients, whatever these desires may be. This is obvious in cases where patients ask their physicians to initiate interventions that are clearly medically inappropriate. If a patient asks his or her physician to administer treatment that the physician believes would set back the medical interests of

the patient, then the physician need not provide the treatment. This is particularly important to bear in mind when dealing with patients near the end of life. These patients may ask their physicians to shorten their lives because they have decided that continued life is no longer a benefit, but a burden (See Case 2 on page 359). Or they may ask for care that is biomedically futile. For now we wish to point out only that honoring a patient's dignity may, at times, require the physician *not* to comply with his or her patient's requests.<sup>3</sup>

This point is easily misunderstood. It is often said, for example, that human life is sacred or inviolable. Regardless of one's religious views, these expressions refer to the status of human beings as beings that command respect. Physicians, as well as others, must respond appropriately to this value. Consider, for example, the case of a patient living with HIV/AIDS who desires to participate in an experimental study with no known benefit and with excessive risk. A physician might reasonably refuse to enter the patient into the study, even if the patient desires to be enrolled, because the physician believes that to do so would be to fail to honor the patient's dignity. Of course, it will require ethical judgment to decide how, and when, a physician should defer to the desires of his or her patients. The point here is that honoring patient dignity is not exhausted by the need to respect patient autonomy.

The second theoretical ideal of palliative medicine is to promote the well-being of patients at the end of life. Patient well-being is promoted by advancing the patient's interests. But what are these interests? It is useful to divide patient interests into two broad categories. These are 1) phenomenological interests (those that directly relate to the actual experience of the patient) and 2) nonphenomenological interests (those that do not solely relate to the actual experience of the patient). The first category refers to the interests that patients have in being comfortable. A primary objective of palliative medicine is to provide relief for the pain and suffering that often are present at the end of life. Although in large measure these experiences are personal and subjective, good palliative care attempts to identify and measure them. Thus, to take just one example, patients in need of pain relief are asked to rank their pain on a scale of 0 to 10. Doing so provides guidance to clinicians who seek to restore them to a level of comfort.

To further the phenomenological interests of their patients at the end of life, then, health care providers must respond appropriately to pain. They must also, however, respond to suffering. The terms *pain* and *suffering* are related but are not synonymous. According to a standard definition, pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage.<sup>4</sup> By contrast, suffering is a broader condition—one that includes pain, but is not limited to it. An important dimension of suffering concerns the social and psychological consequences that result from the perceived sense of damage to one's identity.<sup>5</sup> For example, patients often suffer as a result of reflecting on their condition. Illness and disease may cause pain and deterioration in a patient's physical condition. The patient may then reflect upon the consequences of this for his or her life and sense of who they are. This may, in turn, lead to further suffering.

## ASSESSING PAIN

■ Pain is reasonably well understood. As several writers in this volume have already discussed (see Chapter 2: Overview of Clinical Issues and Chapter 4: Pain), there are standard measures for clinicians to assess pain and standard interventions for relieving it. Suffering is a different matter. It is an ill-defined, controversial, and poorly understood experience. As one writer has



noted, “there are no agreed-upon and validated standards or measurement instruments for health care providers to assess suffering and to discriminate how much there is. Similarly, there are no clear interventions that should be instituted and no clear understanding of when adequate palliative measures for suffering have been tried and failed.”<sup>6</sup> This uncertainty over the notion of suffering has important ethical implications in the delivery of palliative medicine, and we shall return to it when we discuss the practice of terminal sedation, below.

Much of palliative medicine is focused on the phenomenological interests of patients at the end of life. But the nonphenomenological interests of these patients should not be ignored. These are interests that are not well characterized in terms of maintaining the patient’s comfort. A patient’s interest in having his privacy respected or in remaining alert even if his pain is not fully controlled are examples of such nonphenomenological interests. These are discussed here because recent studies suggest that it is easy for clinicians to overlook them.<sup>7</sup> Taking these interests seriously often requires clinicians to engage in active deliberation with their patients about their treatment options.

The two theoretical ideals of palliative medicine that have been discussed—the ideal of honoring the dignity of the patient and the ideal of promoting the patient’s well-being—will sometimes come into conflict. Not everything that furthers the interests of a patient is compatible with honoring him as a being worthy of respect. Determining how to respond appropriately to these potential conflicts forms an important part of the ethics of palliative medicine.

## MEDIATING PRINCIPLES

■ The theoretical ideals of palliative medicine guide clinicians in determining which interventions and treatment options are appropriate for their patients. But, on their own, these ideals cannot resolve the ethical problems that arise in the palliative care setting. These situations require recourse to ethical or mediating principles. The term mediating is used because they intercede between the theoretical ideals discussed above and the concrete cases clinicians encounter.

There are several important ethical principles that are relevant to the practice of palliative medicine. This chapter will discuss three of them: 1) the Principle of Deliberation, 2) the Rule of Double Effect, and 3) the Principle of Proportionality. Each of these principles has been discussed in the medical ethics literature.<sup>9–15</sup> However, they have not been discussed systematically in the context of palliative medicine and in the treatment of patients living with HIV/AIDS.

Before discussing these principles a few words of caution are in order. First, the three principles that we shall discuss are not the only ethical principles relevant to palliative medicine. Given the space constraints of this chapter, we cannot present an exhaustive discussion of these principles. However, the three principles that we will discuss are very important; and an understanding of them should provide an understanding of how ethical principles can be applied to concrete cases in palliative medicine. Second, some of the principles that we will discuss—and in particular the rule of double effect—are controversial. We shall, however, indicate to the reader when we advance claims that not all medical ethicists would agree with and we shall provide references to alternative points of view.

## The Principle of Deliberation

The principle of deliberation concerns the manner or process by which physicians communicate with their patients. According to this principle:

*Physicians should take an active role in eliciting from the patient the patient's own understanding of his condition and the values that may or may not bear on its treatment. This dialogue should be critical and deliberative. It should be based on the recognition that patients often do not have fully formed values and that they often make mistakes in thinking about how their values translate into particular treatment decisions.*

This principle relies on a particular model of shared decisionmaking. Therefore, to explain this principle more fully, we must say a few words about shared decisionmaking in general. Shared decisionmaking depicts medical decision making as a collaborative process regulated by a division of labor between physician and patient.<sup>8-11</sup> In this process, the role of the physician is to use his or her training, knowledge, and experience to provide facts to the patient about the patient's diagnosis and prognosis if alternative treatments (or the alternative of no treatment) are pursued.<sup>8</sup> By contrast, the patient's role is to bring his or her values and preferences to bear on the assessment of these alternatives. In this way, shared decisionmaking enjoins patients to participate actively with their physicians in reaching decisions about treatment goals and options.

Shared decisionmaking is particularly important in palliative medicine. It has been well documented that good patient care at the end of life closely correlates with the willingness of clinicians to engage in discussions with their patients about prognosis and goals of care, advance directives, when to forgo specific treatment or diagnostic interventions and concerns about family support.<sup>1,7</sup> Applied to these specific areas, the model of shared decisionmaking can help clinicians honor the dignity of their patients and promote their well-being.<sup>16</sup>

This is true in two respects. First, in many areas of palliative medicine, there is a large measure of clinical discretion in decisions about which interventions are appropriate for specific patients. For example, there is no uniform appropriate response a physician must give to his or her patients regarding when to forgo medical interventions, how to best initiate an advance directive, or the most appropriate method for relieving end of life suffering. On these matters, research indicates that patients with AIDS have a wide variety of needs and understandings.<sup>16-20</sup> Accordingly, the correct or most appropriate response to these issues will be known only after the physician has engaged in a process of careful questioning designed to elicit the patient's goals and expectations about the dying process. Indeed, with respect to these issues, the quality of patient care will depend largely on the skill of the clinician in reaching an understanding of the patient's values and needs and coaxing them into clarity.<sup>1, 7, 16, 19</sup>

Second, the preparation and approach to death involves patients in a series of unique and novel experiences. The health care provider, in contrast, will probably have cared for a number of dying patients and be much more familiar with the dying process than will his or her patient.<sup>16</sup> The fact that every patient dies only once and every death is a new experience<sup>16</sup> presents a special justification for shared decisionmaking between the clinician and patient in the palliative care context. Through shared decisionmaking the clinician can promote patient well-being by realistically describing to the patient what he or she can expect from the dying process. Although the clinician may not be able to predict with certainty when a patient is going to die,

shared decisionmaking enables the clinician to assist the patient in setting reasonable and achievable goals. This model of decisionmaking also enables clinicians to identify mistaken beliefs that their patients may hold about what they should expect from the dying process. For example, some patients with AIDS-related pain may hold the belief that their pain is inevitable and that it is improper or useless to report it.<sup>11,17,21</sup> Collaborative discussion with their physician is necessary to identify and correct these mistaken beliefs.

The extent to which shared decisionmaking serves the ideals of honoring patient dignity and promoting patient well-being turns, in part, on how the role of the physician is conceived in the decisionmaking process. On this matter, there are competing understandings.<sup>9</sup> One might argue, for example, that physicians should provide their patients with adequate information and then simply let the patients decide for themselves which course of treatment should be undertaken. Against this, we believe that physicians—at least physicians in palliative medicine—should adopt a more “deliberative” stance with their patients. This means they should initiate a reflective and critical dialogue with their patients about how the patient’s values and preferences bear on the treatment options available to them. The point of such a dialogue should be to help patients come to reasoned decisions about the treatment options they face.<sup>11</sup>

It is important to understand that the principle of deliberation does not direct physicians to correct, modify, or change their patients’ values. Rather, it asks health care providers to take an active role in stimulating patients to deliberate about their values in a reasoned and well-informed manner. The goal of this is to improve the understanding of both the physician and the patient.

One objection to deliberative decisionmaking might be that it seems unduly time-consuming, hence clinically inappropriate. For those who specialize in delivering primary and palliative care to patients living with HIV/AIDS, however, these demands need not be excessive. Most HIV/AIDS clinicians as a matter of course already establish long-term relationships with their patients living with HIV/AIDS, providing both the physician and patient ample opportunities to engage in effective deliberation about the future palliative care needs of the patient.<sup>16</sup>

The fact that there is no uniquely correct treatment option for many situations at the end of life further underscores the importance of deliberation in this context. Depending on the values and preferences of the patients, a regimen that is good for one patient may be inappropriate for another, even though both have the same underlying HIV/AIDS diagnosis. Accordingly, in many instances, to determine the correct regimen for a particular patient, the physician will need to engage the patient in deliberative decisionmaking.<sup>11</sup> For these reasons, then, a strong case exists for holding that the principle of deliberation should be a fundamental ethical principle guiding palliative care.

### The Rule of Double Effect

Deliberative decisionmaking helps clinicians honor patient dignity and promote patient well-being through a process of reasoned dialogue that identifies, clarifies, and, where necessary, helps their patients to modify their preferences for care at the end of life. However, taken by itself, the principle of deliberation is insufficient for ethically appropriate palliative care. While the principle of deliberation enjoins clinicians to discuss their patients’ preferences with respect to end-of-life care, it offers no guidance on the type of ends or goals that clinicians may permissibly advance. Nor does it speak to the issue of when it is permissible for clinicians to refuse to comply with the desires of their patients that emerge in the deliberative process.

These limitations to the principle of deliberation are important. They reinforce the point that clinicians are not ethically required simply to defer to the autonomous desires of their patients, whatever these desires may be. Indeed, as was stressed earlier, honoring a patient's dignity may, at times, require the clinician *not* to comply with his or her patient's requests. These considerations suggest that clinicians must be capable of bringing other ethical principles to bear on the deliberative process.

One such principle that has special relevance in the palliative care setting is the rule of double effect. This rule has a long history in moral philosophy and in medical ethics.<sup>12-15, 22</sup> In palliative medicine, it is most frequently invoked by health care professionals to explain the moral difference between administering high-dose pain medication to a patient and euthanizing a patient as a means to treating his suffering.<sup>12, 13, 23</sup> According to the rule of double effect, the essential difference between these two acts rests on the important distinction between an intended effect and an unintended side effect of a clinical intervention. In the instance of administering high-dose pain medication to relieve suffering, the intended effect is pain relief, and the unintended side effect may be the hastening of death due to respiratory depression. By contrast, in the instance of euthanasia, the intended effect is the death of the patient as a means to the patient's pain relief.

Despite widespread acceptance of this rule among members of the medical community, many clinicians remain unsure of how to apply the distinction.<sup>23</sup> Indeed, research suggests that lack of certainty in this regard results in inadequate control of distressing pain symptoms in terminally ill patients.<sup>23, 24</sup> Because the distinction between an intended act and an unintended side effect is crucial to understanding the rule, it will be helpful to begin by considering a simple illustration, one that is not controversial and one that is not related to medical practice.

Consider the difference between the strategic bomber and the terror bomber.<sup>22</sup> Both are engaged in a war and both drop bombs that result in the deaths of innocent civilians. However, the strategic bomber, unlike the terror bomber, does not intend to kill any innocent civilians. He bombs a munitions factory, and although he is aware that doing so will have the side effect of killing innocent civilians, he does not intend to kill them. The terror bomber, in contrast, intentionally kills the innocent civilians as a means of weakening the resolve of the enemy. It is widely believed that the action of the terror bomber is morally worse than that of the strategic bomber. The rule of double effect explains why this is the case.

In medicine, physicians rely on the distinction between an intended effect and an unintended side effect all the time. For example, when a physician treats streptococcal pharyngitis with penicillin, he or she foresees the possibility that the patient may develop an anaphylactic reaction and die.<sup>13</sup> It is clear, however, that the intent is not to kill the patient. The foreseeable death of the patient in this kind of case would be an unintended side effect of the intervention.

Not every medical ethicist believes that the principle of double effect is as important to medical practice as is stressed here.<sup>15</sup> For example, it has been claimed that the rule of double effect is weakened because the intentions of clinicians are inherently ambiguous.<sup>15</sup> Even if this were the case it is most often clear both to clinicians and to others what their intentions are. And, when it is not clear what their intentions are, morally reflective clinicians will make some effort to clarify them.

We have said that the rule of double effect rests on a distinction between an intended effect and an unintended side effect of an action. Although it has been formulated in different ways, the full statement of the rule reads as follows:

*An action with 2 possible effects, one good and one bad, is morally permitted if the action: (1) is not in itself immoral, (2) is undertaken only with the intention of achieving the possible good effect, without intending the possible bad effect even though it may be foreseen, (3) does not bring about the possible good effect by means of the possible bad effect, and (4) is undertaken for a proportionately grave reason.<sup>13</sup>*

The statement on the rule of double effect notes four conditions that can be understood by returning to the example of the physician prescribing penicillin for streptococcal pharyngitis. The physician is intending to bring about a good effect: the destruction of the bacteria streptococcal pharyngitis. This action is not itself immoral. Indeed, it is an action that any competent physician would undertake in these circumstances. It therefore satisfies condition (1). The physician also does not intend the bad effect, although he may foresee it as a possibility. He realizes that there is some chance that the penicillin will kill the patient, but bringing about this possible bad effect is no part of his intention to act. His action therefore satisfies conditions (2) and (3) as well. The only remaining issue, then, is whether the physician's intervention was done for a proportionately grave reason. This means that if the intended good effect of the intervention is significant and if the foreseeable bad effect is either less significant or very unlikely to occur, then the intervention will count as one undertaken for a proportionately grave reason. Because the possibility that a patient will die from penicillin is very remote, the physician's intervention in this example satisfies condition (4).

The same analysis can be applied to distinguish aggressive pain management from euthanasia (see Case 2 on page 359 and Case 3 on page 361). Administering high-dose pain medication has both a possible good and a possible bad effect. The possible good effect is the relief of the patient's suffering. The possible bad effect is that the intervention will hasten the patient's death. If a physician were to administer the medication with the intent only of achieving the possible good effect, then his action would not be in itself immoral. It would satisfy conditions (1) and (2). If the patient's suffering were sufficiently intense, and if it were of the kind that is appropriately managed by pharmacological interventions (see discussion of the modified principle of proportionality on page 356), then the physician's intervention would be undertaken for a proportionately grave reason and would therefore satisfy condition (4). This leaves only condition (3). Unlike euthanasia, aggressive pain management does not aim to bring about the possible good effect by means of the possible bad effect of the intervention. In short, aggressive pain management does not kill the patient as a means to relieving his suffering. Rather, it administers medication to relieve his suffering that may have the foreseen, but unintended, bad effect of hastening his death.

The rule of double effect is ethically important in care of the terminally ill HIV/AIDS patient. In the previous section it was stressed that one of the theoretical ideals of palliative medicine is to honor the dignity of the patient. We claimed that this means that patients inherently have a status that commands respect. This status, in turn, grounds limits on how physicians may respond to their illness or disease. The rule of double effect adds content to this requirement in that it implies that physicians must never intend bad effects when treating their patients. This includes never intending to make one's patients dead. This point has particular relevance in the discussion of terminal sedation and its implications for the proper treatment of patients, including patients living with AIDS, at the end of life. When this rule of double effect is properly applied distinctions can be made that make clear the difference between physician-assisted suicide or euthanasia and appropriate treatment of intractable pain (which risks hastening death).

## The Principle of Proportionality

The rule of double effect is somewhat controversial. Not every medical ethicist believes that it is as important to medical practice as we have suggested.<sup>15</sup> But the fourth condition in the rule of double effect—the one that specifies that a physician must act for a proportionately grave reason—is widely accepted even by those who reject the rule of double effect. Therefore it can and should be considered on its own terms. So understood, we shall refer to it as the principle of proportionality.

This principle is very important to palliative medicine. A number of writers have appealed to this principle in their explorations of when, and under what conditions, a physician's obligation to relieve terminal suffering may justifiably override his or her obligation to prevent harm.<sup>12, 25</sup> According to Timothy Quill, Bernard Lo, and Dan Brock, for example, the concept of proportionality requires that the risk of causing harm bear a direct relationship to the danger and immediacy of the patient's situation and expected benefit of the intervention.<sup>25</sup> These writers have proposed the following formulation of the proportionality principle for regulating physicians' use of vigorous pharmacological measures in the palliative care setting:

*[T]he greater the patient's suffering, the greater risk the physician can take of potentially contributing to the patient's death, so long as the patient understands and accepts the risk.*<sup>25</sup>

This formulation of the principle, however, does not specify what type (or types) of suffering justifies a physician's use of pharmacological interventions to treat suffering. It simply instructs physicians to sum up the total amount or intensity of the suffering their patients are experiencing. In this formulation all terminal suffering is on equal footing and it is all subject to the requirements of proportionality.

This principle of proportionality can be extended and refined by considering the theoretical ideal of promoting patient well-being and distinguishing between different kinds of pain and suffering and the different sorts of therapeutic interventions they may require. For example, a patient living with HIV/AIDS who is nearing the end of life may experience suffering that results from his terminal condition as well as suffering that results from his own reflection on his condition. Suppose, for example, that this patient blames himself for his illness and this causes him great inner turmoil. The resulting psychosocial suffering may be as intense as, or even more intense than, the pain and suffering caused by his underlying physiological condition. It would be a mistake, however, simply to sum up his suffering as if it were all the same. Some of the suffering that this patient experiences—what we have referred to here as psychosocial suffering—is not appropriately managed by aggressive pharmacological measures. Unless these thoughts are symptoms of major depression, the patient's psychosocial suffering should be managed by appropriate psychological or spiritual counseling.

This point is important for all patients in need of palliative care, but it has particular force when applied to patients living with HIV/AIDS. Recent studies suggest that a high proportion of patients living with HIV/AIDS who desire euthanasia or assisted suicide do so for reasons other than the need to avoid pain.<sup>6, 26</sup> Depression, hopelessness, psychological anguish, distress caused by stigmatizing events related to their HIV status, and loss of community have been identified as key factors contributing to the suffering of these patients.<sup>26</sup> These forms of suffering, however, are not appropriately managed by high-dose narcotics.<sup>14, 27</sup> This strongly suggests that physi-

cians who treat patients living with HIV/AIDS at the end of life should not rely on a simple formulation of the proportionality principle if they are to diagnose and treat their patients' suffering appropriately.

A reformulation of the principle of proportionality that takes these issues into account follows:

*A physician's therapeutic response to terminal suffering is justified, even if it foreseeably hastens the patient's death, if and only if (1) the measures implemented properly correspond to the intensity of the patient's suffering; (2) the measures implemented are appropriate for the type of suffering the patient is experiencing; and (3) the patient understands and accepts the risks associated with the measures.<sup>14</sup>*

Clearly, the word "appropriate" in the second clause of this principle is crucial. It should be understood in light of the interest the patient may have in being restored (as much as their condition permits) to a state of psychosocial well-being. As has been suggested, one important way in which this interest can be ignored is when physicians prescribe high-dose narcotics to treat psychosocial suffering. Such interventions are effective in the sense that they alleviate suffering, but they are inappropriate in that the restorative interests of patients are ignored or set back.

The requirement that the therapeutic measure be appropriate to the kind of suffering the patient is experiencing calls for discrimination on the part of the physician in diagnosing suffering. In particular, it enjoins the physician to attempt to distinguish between the pain and suffering that is caused by the underlying physiological condition of the patient and psychosocial forms of suffering.<sup>5, 14, 27, 28</sup>

Additionally this modified principle of proportionality requires physicians to recognize the limits of their medical authority. Physicians can fulfill their duty to relieve certain types of suffering by relying solely on pharmacological measures, but these measures are inappropriate responses to other forms of terminal suffering that are likely to be experienced by patients living with HIV/AIDS. With respect to psychosocial suffering, patients may need other measures such as counseling or spiritual support.<sup>5, 14, 28, 29</sup> Some physicians are skilled in providing these interventions, but many are not. For those who are not, they best fulfill their obligation to relieve this kind of terminal suffering by involving other members of the palliative care team in the care of the patient.

The modified principle of proportionality therefore differs significantly from the simple formulation of the principle of proportionality introduced at the beginning of this section. It provides a more precise response to the specific types of ethical dilemmas surrounding pain and suffering that clinicians are likely to encounter in the palliative care context. These include dilemmas surrounding the use of terminal sedation and other measures that go beyond routine clinical interventions. Different types of suffering at the end of life may call for different therapeutic interventions. Thus, to comply with this reformulated principle of proportionality, physicians treating patients living with HIV/AIDS must develop skill in working as a member of an interdisciplinary team as well as in diagnosing, and appropriately attending to, the different types of suffering present at the end of life. The training clinicians should receive to develop these clinical skills is addressed in detail in other chapters of this guide.

## CASE STUDIES

■ The following three cases are presented to illustrate how the theoretical ideals and ethical principles that have been discussed can be brought to bear on clinical decisionmaking.

### Case 1: AIDS, Patient Confidentiality, and Surrogate Authority

Mr. A is 62 years old, is HIV positive, and has hepatitis C cirrhosis and chronic renal insufficiency. He has been on antiretroviral therapy since his diagnosis of HIV. He has attended clinic appointments regularly and he has stated that he does not want anyone in his family to know that he is HIV seropositive. End-of-life care issues were not documented in the record of these visits and Mr. A did not assign a durable power of attorney for health care nor did he write a living will. After being admitted to the hospital, Mr. A was eventually transferred to the intensive care unit (ICU) with a diagnosis of acute respiratory failure and anoxic encephalopathy. After numerous failed attempts at extubation, the medical team requested that the ear, nose, and throat (ENT) team evaluate the patient for tracheostomy. At this point a family meeting was held. In attendance were the patient's wife and two children. The patient's wife was the court-appointed surrogate decisionmaker for Mr. A and she consented to the tracheostomy. Given Mr. A's previously expressed wish to keep his HIV status confidential, the ICU physicians felt an obligation not to disclose this information to Mr. A's wife. The ENT surgeons, however, objected that she could not give informed consent to the tracheostomy unless she were informed of her husband's HIV status. They believed that Mr. A had active AIDS, and was not merely HIV positive, and that his surrogate decisionmaker needed to know this. An ethics consult was called.<sup>30</sup>

The central ethical question raised by this case is how physicians can respect a patient's interest in keeping his HIV status confidential when it conflicts with his surrogate's right to have full information about his condition. The patient's interest in confidentiality is an example of a nonphenomenological interest. Respecting this interest serves the patient's well-being. This remains true even when the patient has become incapacitated. The surrogate's right to be fully informed, however, is also an important right that serves both the patient's autonomy and his well-being. Finally, this case underscores the importance of the principle of deliberation for the palliative care of patients living with HIV/AIDS.

There is no clear consensus as to how this case should be resolved. Some have argued that if the knowledge that Mr. A is HIV positive is reasonably thought to be relevant to the medical decisions the surrogate decisionmaker must make, then this information must be disclosed to the surrogate.<sup>30</sup> Physicians have an ethical, and in many states a legal, duty to ensure that surrogates have complete and accurate information on which to base their decisions.<sup>30, 31</sup> This duty is not defeated by the patient's interest in confidentiality. The patient's interest in confidentiality, while certainly important, is not absolute. It can be overridden for a number of reasons.<sup>32</sup> For example, health care providers are required to report certain sexually transmitted diseases to public health authorities to allow for contact tracing.<sup>12</sup> Additionally, many state surrogacy statutes grant the surrogate the right to access the patient's medical records.<sup>30</sup> Thus, some conclude that if people with HIV/AIDS do not wish to have their condition disclosed to family mem-



bers, they must take active steps such as executing an advance directive or executing a health care proxy. This would assure that adequate care would be provided should they become incapacitated and that their interest in confidentiality would be fully protected.<sup>33</sup> Others, however, maintain that the patient's interest in confidentiality is not defeated by the surrogate's need to have full relevant medical information. They point out that given the fact that society has tended to stigmatize those who have AIDS, the presumption in favor of patient confidentiality is especially strong in this kind of case.<sup>34, 35</sup>

The intent of this case is not to resolve the ethical dilemma but to demonstrate how deliberative decisionmaking could have prevented it. It is clear that physicians and patients must devise strategies to avoid this kind of situation. The principle of deliberation is critical to such an approach. The fundamental mistake in Mr. A's case was made prior to his becoming incapacitated. His physician should have discussed with him early on the possible limits to patient confidentiality. He should have helped Mr. A understand that if he became incapacitated, then his surrogate decisionmaker would need to be fully informed about his condition. With this in mind, Mr. A and his physician could have discussed possible options for protecting his interest in not disclosing his HIV status. Empirical data suggest that virtually all persons with HIV do disclose their diagnosis to at least one nonphysician.<sup>36</sup> It is very likely, then, that there was some person who knew about his HIV status that Mr. A could have appointed as a surrogate decisionmaker. Alternatively, Mr. A could have written an advance directive that appointed a surrogate, but explicitly limited the surrogate's right to have full information.<sup>30</sup>

End-of-life decisionmaking is never easy for either the health care provider or the patient. This is especially true for physicians caring for patients who are HIV positive.<sup>16, 18, 20</sup> Because this disease is becoming increasingly chronic in nature, physicians may be tempted to put off having these discussions until late in the course of the patient's illness.<sup>30</sup> Moreover, they may be tempted to allow the health care surrogacy laws that many States have enacted in recent years to substitute for more deliberative discussions about durable powers of attorney for health care.<sup>30</sup> However, given the importance of the interests involved, health care surrogacy laws are a poor substitute for deliberative discussion between physicians and patients. To avoid the type of conflict illustrated by Mr. A's case, physicians should adhere to the principle of deliberation.<sup>30</sup> Specifically, they should take an active role in initiating discussions about advance care planning. This is the best strategy for respecting both the rights of patients and the duties of surrogates.

### Case 2: AIDS, End-of-Life Suffering, and Terminal Sedation

Mr. B is a 38-year-old patient who was first identified as HIV positive 10 years ago. Mr. B's condition has deteriorated over time and he has been admitted to the ICU after contracting pneumonia. Although his pain can be managed, Mr. B is bed-bound and near death. He is not clinically anxious or depressed, and a consulting psychiatrist asserts that he retains decisionmaking capacity. Mr. B fears what he sees as the impending loss of control over his life and becoming a burden to his family. He repeatedly asks his physician to induce a barbiturate coma, and to provide no artificial hydration or nutrition. After a prolonged consent discussion, his physician agrees to do so. Mr. B dies 14 days later.

An important goal of palliative medicine is to ensure that patients do not needlessly suffer in the dying process. Those living with HIV or AIDS often express the worry that their deaths will be slow and painful.<sup>26</sup> Many experience hopelessness, disintegration of self, and a loss of community. In responding to the terminal suffering of these patients, physicians frequently experience an ethical conflict between their duty to relieve suffering and their duty not to cause harm. The physician in this case administered terminal or palliative sedation.<sup>14, 25, 27</sup> An important ethical question for palliative care physicians who treat patients living with HIV/AIDS is when, if ever, such a practice is justified and can be distinguished from physician-assisted suicide.

Some may hold that because he respects the desires of his patient, the physician in this case acted correctly. However, as we have argued above, to honor the dignity of patients, physicians must do more than respect their autonomy. Recourse to the rule of double effect, accordingly, can assist the physician in thinking about what is morally permitted in this kind of case.

It might be held that in administering terminal sedation Mr. B's physician acted consistently with the rule of double effect in that he did not intend to hasten Mr. B's death but, rather, wanted to relieve his terminal suffering. This is a misapplication of the rule of double effect. It is clear from the description of the case that even if the physician's ultimate objective is to relieve Mr. B's suffering, he intends to hasten his death as a means to this objective. Importantly, however, the rule of double effect holds that one should never intend the bad effect of an intervention whether as an end itself or as a means to an end. This remains true even though Mr. B's physician intends his death as a means for bringing about an important treatment goal (the relief of suffering). If the rule of double effect is a valid rule, and the physician is opposed to euthanasia, then this intervention, even though motivated by good will, is ethically impermissible.

It has been noted above that the rule of double effect is controversial and that some medical ethicists deny its validity. A further analysis of this case is therefore warranted to explore other morally significant features. This case also raises the principle of proportionality.

From the description of the case, we know that Mr. B does not suffer from unmanageable physical pain but from his fear of losing control of his life and becoming a burden to his family. This kind of suffering is significant and can often be intense. The application of the unmodified principle of proportionality discussed (and rejected) above holds that in order to determine whether terminal sedation would be ethically appropriate for a patient like Mr. B, the total amount or intensity of his suffering should be quantified and weighed against the bad effect of shortening his life. If we do this, it may then be reasonable to conclude that Mr. B's suffering is sufficiently grave to warrant terminal sedation.

However, a refined principle of proportionality—one that discriminates between different kinds of pain and suffering—would lead to a different conclusion. Mr. B experiences different kinds of suffering. Some of these, such as the dyspnea that results from his AIDS-related pneumonia, are appropriately managed by opioids. Other kinds of suffering, however, are not appropriately managed in this way. For example, the psychosocial suffering that results from his fear of losing control of his life is best managed by psychological and spiritual counseling, which may help restore Mr. B to a state of psychosocial health.<sup>14, 27, 28</sup>

Restoration of psychosocial health is a central goal of palliative care regardless of the stage of illness. Patients confront many important issues in their approach to death. How should they face death? Should they pray or not? How should they say goodbye to loved ones and family members? Do they have outstanding concerns that have not been addressed? Mr. B, like other

terminally ill patients, has an important interest in responding to these questions in a manner that is consistent with his character and considered values. He has, therefore, an important interest in being in a psychosocial condition that makes this possible.<sup>14, 28, 29</sup>

For these reasons, a refined principle of proportionality rules out terminal sedation in this case. While his suffering is intense, it would be a disproportionate and, therefore, inappropriate intervention to sedate Mr. B into oblivion.

Importantly, it does not follow from this that terminal sedation—or as we would prefer to call it, the sedation of the imminently dying—is never justified.<sup>37</sup> There are circumstances in which hastening the death of the patient plausibly can be considered a morally permissible side effect of treating pain and suffering that is both unresponsive to standard palliative care and not appropriately managed by other interventions.<sup>13</sup> Many physicians, fearful of unwittingly participating in euthanasia, have become reluctant to prescribe high-dose opioids for pain relief.<sup>23</sup> The rule of double effect and the principle of proportionality are important to palliative medicine because they explain how physicians can conscientiously use potent drugs to treat terminally ill patients while maintaining a commitment to the value of human life.

### Case 3: The Principle of Proportionality and the Rule of Double Effect

Mr. C is a 30-year-old man with end-stage osteogenic sarcoma. Cure is no longer possible after years of struggle with surgery, radiation, and chemotherapy. In expert hands, he has required increasing doses of morphine for pain relief. However, he has now developed very bothersome myoclonus as a side effect of protracted high-dose opioids. He is bed-bound, dyspneic, and near death. Standard doses of muscle relaxants and benzodiazepines have not controlled the myoclonus and, despite adjuvant pain treatments, his pain is increasing and responds only to increasing opioids, thereby exacerbating his myoclonus. He is groggy, but alert. After a prolonged consent discussion with him and his family about the risk of complete sedation, his physician—who herself has principled objections to physician-assisted suicide and active euthanasia—prescribes increasing doses of benzodiazepines until the myoclonus is controlled. The dose required to do so precipitates a coma. Mr. C dies 2 days later.<sup>14</sup>

In this case the patient suffers from intractable pain that is caused by his deteriorating physiological condition. His physician has attempted to manage his pain by less drastic measures, but these have all failed. Mr. C is not experiencing any significant psychosocial suffering. The issue before his physician, then, is whether the need to respond to his intractable physical pain and myoclonus might justify administering high doses of sedating medication. The rule of double effect permits sedation in this case. Mr. C's physician has a duty to treat Mr. C's intractable pain and the myoclonus that treatment has precipitated. In discharging this duty she can plausibly construe an appropriate intervention (such as high doses of diazepam) that might hasten Mr. C's death to be an unintended side effect of the intervention. Thus, if relieving Mr. C's pain is a proportionately grave reason—and from the description of the case it appears to be so, then Mr. C's physician can permissibly administer the sedating medication. She can do this, moreover, while consistently maintaining her principled opposition to physician-assisted suicide and active euthanasia.

## CONCLUSION

■ Determining when physicians should violate their patient's interest in confidentiality or when physicians can and should administer high doses of sedating medication to dying patients are challenging and complex matters that require sound clinical comprehension of the patient's condition, good ethical judgment, and an understanding of the ideals and principles that have been discussed. Although certainly not definitive, the discussion of these cases has shown how the theoretical ideals of palliative medicine inform certain fundamental ethical principles, which in turn provide guidance in clinical cases.

These cases and the principles they illustrate are not the only ones relevant to the ethics of palliative medicine. We have not discussed a number of issues that raise important ethical problems for palliative care physicians, such as issues that surround decisions to withdraw or withhold medical interventions. To be sure, the principles that we have discussed in this chapter are relevant to these issues. For example, according to the rule of double effect, a physician should not withhold food and fluids from his patient as a means to hasten the patient's death. Nonetheless, she could withhold or withdraw feeding tube treatment from a patient whose medical condition had made him unable to eat if the treatment were disproportionately burdensome, even if this would foreseeably (but unintentionally) shorten the lifespan of the patient. We have not attempted to provide a full discussion of these issues here.

The cases that we have discussed in detail, however, are particularly important for several reasons. Studies indicate that ineffective communication between physicians and their dying patients is a major cause of inappropriate care for dying patients.<sup>6</sup> Likewise, uncertainty over the rule of double effect has been cited as a key factor in the inadequate control of distressing symptoms in terminally ill patients.<sup>23</sup> And—for HIV and AIDS patients in particular—the issue of patient confidentiality remains a vital one as physicians struggle to honor the dignity and promote the well-being of their patients as they approach death.<sup>38, 39</sup> With respect to each of these pressing issues, a good understanding of the considerations discussed in this chapter is essential if health care providers are to respond adequately to the difficult ethical challenges they now confront, and will continue to confront, in treating AIDS patients.

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# Chapter 18.

## Legal and Financial Issues

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### INTRODUCTION

■ Twenty years of living with AIDS has underscored the importance of careful planning on a number of fronts. One lesson learned is the necessity of addressing legal and financial matters as early and comprehensively as possible. This is crucial to maximizing the ability of people living with HIV to access financial and health care resources, maintain control over their lives, and protect their loved ones. At the advent of the AIDS crisis, too many people died without the benefit of planning around legal and financial issues. Two decades of battling a disease concentrated disproportionately within marginalized communities has made clear the importance of using all the legal and financial tools available, and fighting to expand the available legal and financial options whenever necessary, so that people living with HIV can enjoy the autonomy and sense of security to which they are entitled. The goal of this chapter is to provide information about the legal and financial planning tools available to people with advanced terminal HIV disease, although it is important to note that these tools are equally relevant for those individuals in the earlier stages of HIV/AIDS.

Fortunately, today there are many legal and financial planning options that provide people living with HIV in the United States with the power to make critical decisions involving their health care, finances, dependent children, and end of life options. Expanded access to Medicaid and other government-funded programs provides health care access to people living with HIV without requiring an AIDS diagnosis. Newly created government and private insurance programs give many people living with HIV access to much-needed financial support. Recently enacted standby guardianship laws in several States make it possible for a parent to appoint a caretaker for her children during periods of incapacity without forcing her to surrender her own parental rights prematurely. Court cases in many States have legitimized living wills, allowing for the termination of artificial life support when an individual has clearly expressed such a preference. Carefully drafted and properly executed wills provide people living with HIV with the opportunity to direct the disposition of their assets and personal belongings upon death.

For people living with HIV, estate and financial planning is central to maximizing control over personal decisionmaking and financial resources. Delaying important legal decisions too often results in the wishes of the person living with HIV being thwarted. For example, if it is believed that a standby or temporary guardian may be needed to care for children, delay in completing the legal process necessary to appoint one could eventually result in the court appointing a guardian other than the one the parent intended. Even worse, children could be placed in State custody. Similarly, when a person living with HIV fails to execute a health care proxy naming her best friend as her agent, it is likely that her health care providers will turn to her nearest biological relatives to make important medical decisions on her behalf. When a person living with HIV leaves employment and fails to exercise her rights to continued group health insurance (under the Consolidated Omnibus Budget Reconciliation Act of 1986, or COBRA), access to the most cost-effective and comprehensive health care coverage may be lost. Finally, if a person living with HIV lets a disability insurance policy lapse because of her inability to pay the premium, when in fact the policy contained a premium waiver for disabled people, unnecessary financial hardships may ensue.

All of the programs and legal options described in this chapter can enhance the sense of well-being of a person living with HIV. Knowing that all potential avenues of support have been utilized and that plans are in place in the event of incapacity or death is a part of the larger effort to ensure that persons with HIV live with respect and dignity.

## PART 1.

### ACCESSING INCOME AND HEALTH CARE SUPPORT PROGRAMS

Federal and State governments and the private insurance industry offer a broad range of programs designed to ensure that disabled individuals, including those living with HIV, have access to financial resources and health care and treatment programs. These programs provide support to people living with HIV, particularly those who find themselves without the ability to afford basic necessities, such as food, shelter, and clothing, let alone meet the high costs associated with the care and treatment of a debilitating illness such as HIV.

## A. INCOME SUPPORT

### 1. Federal Social Security Programs

The Federal Social Security Administration (SSA) provides two types of income support programs for disabled individuals: Social Security Disability Insurance (SSDI) and Supplemental Security Income (SSI). Both programs provide financial support on a monthly basis to disabled individuals. Individuals living with HIV may be eligible for one of these programs or both.

In order to be eligible for either SSI or SSDI a range of rules apply. For both programs an individual must be permanently and totally disabled. The SSA defines disability as a severe medical condition (physical or mental) that prevents or is expected to prevent an individual from engaging in any substantial gainful activity for 12 or more consecutive months, or will result in death. An AIDS diagnosis will often qualify an individual as disabled. The additional eligibility rules for both programs are discussed in detail below. More information on these programs is also available through the SSA at 1 (800) 772-1213 or on the SSA web site at [www.ssa.gov](http://www.ssa.gov).

#### ■ Social Security Disability Insurance (SSDI or SSD)

SSDI, often shortened to SSD, is a governmental disability insurance program. In addition to the eligibility requirement that an individual must be permanently and totally disabled as defined by the SSA, successful applicants must have a lawful immigration status and have a sufficient work history. Since SSDI is a federal insurance program and not a need-based program an individual's income or assets generally do not effect eligibility or monthly benefit payments.

The SSDI program pays a monthly benefit to disabled individuals with HIV who have made sufficient Social Security contributions through payroll deductions or self-employment tax premiums (under the Federal Insurance Contribution Act, or FICA). What qualifies as sufficient contributions depends upon an individual's age at the time she or he became disabled.

- Those 31 years of age or older must have paid sufficient taxes for at least 20 of the last 40 3-month periods or "quarters."
- Those between the ages of 24 and 30 must have paid sufficient taxes for at least half of the quarters between their 24<sup>th</sup> birthday and the time of disability.



- Those under 24 must have paid sufficient taxes for at least six quarters during the 3 years before becoming disabled.

Once determined to be eligible, an individual with HIV is entitled to monthly SSDI payments until death or until the individual is no longer disabled. An individual's monthly SSDI benefit can range from a couple of hundred dollars a month to over \$1500 per month. Monthly SSDI benefit levels vary greatly depending upon Social Security contributions, age at the onset of disability and date of disability. A monthly benefit is also available for the dependent spouse or children of an SSDI recipient.

There is a 5-month waiting period for SSDI. Monthly disability payments begin at the start of the 6<sup>th</sup> month after the onset of disability. Upon applying for SSDI an individual may be entitled to past due benefits if the SSA determines that the individual became disabled prior to application. Past due benefits are limited to up to 12 months.

Receiving past due SSDI benefits can have an adverse impact on an individual's SSI and Medicaid eligibility since both SSI and Medicaid are need-based programs with strict asset limits for eligibility. In such circumstances, consulting with a benefits expert or attorney is advised as steps can be taken to maximize a person's ability to both retain assets and remain eligible for need-based programs.

After a disabled person has received SSDI for 24 months, she is automatically entitled to Medicare coverage. The total Medicare waiting period for an SSDI recipient is 29 months, given the 5-month waiting period for SSDI benefits to begin. Depending upon her financial status, an individual may also be eligible for Medicaid.

### ■ Supplemental Security Income (SSI)

SSI is a need-based program that provides monthly benefits to individuals who are disabled, blind, or over 65 years old and who have limited income and assets. As with SSDI, once determined to be eligible for SSI, an individual with HIV is entitled to monthly payments until death or until the individual is no longer disabled.

For an individual living with HIV, in addition to the requirement that she must be permanently and totally disabled as defined by the SSA, there are strict citizenship and immigration status rules, and income and asset restrictions.

In general, in order to be eligible to receive SSI payments an individual must be a U.S. citizen, a noncitizen who was receiving SSI on 8/22/96, or a lawfully present noncitizen who entered the U.S. before 8/22/96.

An individual cannot have more than \$2000 in assets, excluding a home (if the individual resides there), and a car (if it is regularly used for transportation to medical appointments). If an individual is married and living with a spouse the asset limit is \$3,000. The asset limit is \$5,000 for a disabled child living with two parents.

Strict income limits also apply. To be eligible for SSI an individual's monthly "countable income" must be less than her SSI benefit level. Countable income over an individual's SSI benefit level will result in ineligibility for SSI for each month in which the income is received. Not every dollar received or earned by a disabled individual is countable income. In general, countable income includes unearned income (i.e., interest and dividends) and the value of in-kind gifts and services, minus a \$20 set-aside. It also includes earned

income, minus the \$20 set-aside, minus the first \$65 in earned income and one-half of the remainder. The calculations are a bit complicated, so here are a few examples:

- John is a disabled individual eligible to receive \$530 per month in SSI benefits. John receives \$25 each month as a gift from his sister and earns \$25 in interest from a small investment account he has. John will receive \$500 per month in SSI. ( $\$50$  in-kind income -  $\$20$  set aside =  $\$30$  deducted from his original  $\$530$  SSI award =  $\$500$ .)
- Jane is a disabled single individual eligible to receive \$530 per month in SSI benefits. She has started a small home business and earns \$245 per month. Jane will receive \$450 in SSI. ( $\$245$  in earned income -  $\$20$  set-aside -  $\$65$  earned income exclusion =  $\$160$ . One-half of the  $\$160$  =  $\$80$  of countable income. The original SSI award of  $\$530$  -  $\$80$  of countable earned income =  $\$450$ .)

A base SSI monthly benefit amount is set by the SSA, and State governments have the option to increase that amount through a State supplement. Nineteen States provide State supplementary SSI payments increasing the total SSI benefit received. Total SSI benefits therefore vary from State to State. Benefit levels also depend upon one's living arrangements. For example, an individual who lives in someone else's household will receive SSI at a lower level than an individual who lives alone. SSI will readjust the level of payment if an individual's living arrangements change. The Federal SSA monthly benefit for SSI is \$530 for a single individual, and \$398 for a member of a couple, who does not live in another person's household.

Only the disabled person may receive SSI. There are no benefits available for spouses or dependent children of a disabled person, unless they are also disabled. The disability of one or more parents may, however, entitle the remaining family members to some other form of government assistance. (See discussion of TANF below.) It is very important that individuals apply for SSI as soon as possible since there are no retroactive SSI benefits.

In many States, recipients of SSI are automatically eligible for Medicaid. In other States, an SSI recipient must independently apply for Medicaid. In those States, Medicaid applications are generally successful as most States use the same criteria for determining Medicaid eligibility as the SSA uses for SSI eligibility.

## 2. Temporary Assistance to Needy Families (TANF)

TANF is an income assistance program funded and regulated by both the Federal and State governments. The program provides cash and automatic medical assistance to poor families so they can provide basic necessities for their children. Because TANF is administered by State welfare departments, eligibility, calculation of benefits, work requirements, and exemptions vary from State to State.

Generally, TANF provides assistance to eligible families consisting of a single parent and one or more minor children. Most States also provide assistance to families with two parents (where one parent is disabled or unemployed, or income is below a given level), families where a child lives with a relative who is not a parent, and pregnant women. Nearly all States will allow some children, exclusive of any parent or guardian, to qualify for assistance.

Families are eligible for cash assistance if their income is below the established standard. Most States also take assets, excluding the family home, into consideration. In some States, receipt

of SSI benefits may affect eligibility. The maximum benefit amount varies according to family size, and is calculated according to State-determined guidelines.

One of TANF's key provisions is the time limit. Eligible families are permanently barred from the program after receiving assistance for 5 years. However, many States make exceptions for child-only cases, and families where a parent or guardian is disabled. The TANF standard of disability varies from State to State, although in many States it is an easier standard to meet than the SSI disability standard in that it only requires incapacity reducing or eliminating a parent's ability to work for at least 30 days.

TANF was created in 1996, to replace Aid to Families with Dependent Children (AFDC), under the Personal Responsibility and Work Opportunities Act of 1996 (often referred to as welfare reform). Families eligible for TANF may also be eligible for Food Stamps, Women, Infants and Children (WIC), School Breakfast and Lunch, Fuel Assistance and other programs available to low-income persons.

### 3. Other State-Run Income Support Programs

Many States provide need-based income support programs to individuals who for a variety of reasons are ineligible for SSI or TANF. These programs are wholly funded by States and therefore eligibility rules and program benefits vary from State to State. Several States operate programs that provide income support to individuals, including those living with HIV, who do not meet the SSI or TANF disability requirements. In some States, citizenship or immigration status requirements are more flexible. In general, information on the programs that exist in your State is available through the State welfare office and/or community-based AIDS organizations.

### 4. Private Disability Insurance

Private disability insurance is designed to replace income lost as a result of a health condition that prevents an individual from working. The insurance coverage is generally either short-term (up to 2 years) or long-term (up to age 65 or for life). For those who have a private disability insurance policy, upon disability, the policy will generally pay a monthly income benefit equal to a percentage of an individual's predisability earnings or to a maximum dollar amount.

Coverage terms vary greatly as private disability insurance companies have tremendous flexibility in setting the parameters of coverage. Policies include varying definitions of disability. Some policies consider a person disabled if she is unable to perform the main duties of her present job, others consider a person disabled only if she is unable to do any job. Policies include varying qualification periods. Some policies require that an individual be disabled for 30 days before receiving benefits, others preclude coverage for the first year of disability. Some policies include disability premium waivers that waive the payment of premiums after a person has been disabled and receiving benefits for a specific period of time. (It is extremely important to determine whether such a provision exists. Many individuals let their policies lapse and lose coverage because they could not afford the payments when in fact premiums could have been waived with coverage remaining in place.) To determine the exact terms and conditions of a specific policy it is often necessary to obtain a copy of the policy and have it reviewed by an attorney.

Disability insurance policies are generally obtained three ways: employer programs, group programs, and individual programs. Employer programs are the most common. They are disability insurance policies provided through an individual's employment. These policies vary from

employer to employer and not all employers have disability coverage for their employees. Even if a disabled individual is no longer employed, it is important to investigate whether or not she was part of an employer program. Often, individuals have coverage, leave their job because of disability, and never realize that they are entitled to monthly income from a disability insurance policy. If an individual has left her employment as a result of disability she may still be covered under the group plan if she was qualified for the coverage at the time she was an employee. Coverage will in part depend upon whether or not the policy contains a requirement that an application take place within a specified timeframe after the onset of disability.

Group programs are disability insurance policies provided through various professional, industry, fraternal, and other affiliation groups. Individual policies are purchased directly by an individual. In most cases, an individual will know if she purchased a group or individual policy as an individual tends to pay her own premiums and receives statements under these plans.

## 5. Life Insurance: Accelerated Benefits and Viatication

While life insurance policies are generally designed to provide income support to the survivors of a deceased life insurance policy holder, they can also provide much-needed income support to a person living with HIV. Many life insurance policies include an accelerated benefits provision that allows a terminally ill person with HIV to obtain a portion of the life insurance proceeds that would normally be reserved for the surviving beneficiaries. The remaining proceeds go to the surviving beneficiaries upon the terminally ill person's death. In general, in accelerated benefits provisions, the definition of terminally ill is defined strictly as a life expectancy of 1 year or less.

In addition, private viatical settlement companies are often willing to purchase the life insurance of a person living with HIV and pay a percentage of the value of the policy. The standard of what constitutes terminal illness is more flexible in viatication, but it is important to note that if a person's life expectancy is greater than 2 years the proceeds received will be taxable for Federal tax purposes. With viatication, the policyholder sells the policy to the viatical settlement company and upon the policyholder's death all of the life insurance proceeds are distributed to the company. An individual considering either an accelerated benefit or viatication should consult with an attorney or benefits expert. The viatical settlement industry, in particular, is largely unregulated and the transaction requires oversight to ensure that a person living with HIV receives satisfactory terms of sale.

## B. HEALTH CARE ACCESS SUPPORT

### 1. Medicare

Medicare is government health insurance covering people over 65, the blind, and the disabled. Since it is a Federally administered program, Medicare rules are consistent throughout the country.

Medicare coverage consists of two parts: Part A (which is free) covers limited hospital care, skilled nursing care, and hospice care; and Part B (which is optional and requires a monthly premium) covers doctor's services, outpatient hospital services, and other medical services. If an individual elects Part B coverage a monthly premium is deducted from the SSDI payment, although some States have a program for people living with HIV that covers the cost. Presently, neither Part A nor Part B covers outpatient pharmaceutical drugs.

Some individuals who are covered by Medicare buy private insurance, called “Medigap policies,” to cover medical costs not covered by Medicare. Medigap policies vary greatly, but many cover the costs of Medicare deductibles and/or health services and pharmaceuticals not covered by Medicare. Several States have a program that will pay for the purchasing of a Medigap policy for a person living with HIV.

### ■ Medicare Hospice Benefit

The Medicare program also offers a hospice benefit for those who have a terminal illness with a life expectancy of 6 months or less. The hospice benefit provides a range of valuable services, all of which concentrate on improving an individual’s quality of life as much as possible during the end stages of a terminal illness. The Medicare hospice benefit covers four categories of care: 1) routine home care, 2) continuous home-based nursing care, 3) respite care, and 4) general inpatient palliative care related to terminal illness. The hospice benefit includes services provided by a broad range of caregivers, including physicians, nurses, therapists, home health aides, clergy, social workers, and counselors. It also covers the purchase or rental of any durable medical equipment necessary to care for the individual in the home. In addition, the program covers the costs of services not typically covered by Medicare such as outpatient drugs, respite care, custodial care, and continuous nursing care in the home during medical emergencies. The Medicare hospice benefit generally covers all these programs and services in full. The amount of care received depends on the needs of the individual and the resources of the hospice—Medicare sets no maximum or minimum limits on the amount of care provided. There may be small copayments for respite care or prescription drugs. The Medicare hospice benefit does not cover curative treatment of terminal conditions for individuals who have elected hospice care. The program does, however, pay for curative treatment for unrelated conditions, such as injuries resulting from an accident or a fall.

In order to qualify for the Medicare hospice benefit, individuals must satisfy three basic program requirements. They must 1) have Medicare Part A, 2) be certified by their attending physician and the medical director of a Medicare-certified hospice to have an advanced, terminal illness with a life expectancy of 6 months or less if the disease runs its normal course, and 3) consent in writing to choosing palliative care rather than curative care. Despite these requirements, it is important to note that patients DO NOT NEED to be in a severely deteriorated physical condition or in an irreversible medical crisis in order to choose hospice. Choosing hospice earlier in the process, as long as the above requirements are met, often results in greater comfort and satisfaction for individuals suffering from a chronic, terminal condition. Moreover, a patient’s decision to pursue hospice care rather than curative care is not final. Any individual who has chosen hospice may return to curative treatment under the traditional Medicare program at any time by withdrawing from the hospice program.

Hospice care is divided into the following benefit periods: two 90-day benefit periods and an unlimited number of 60-day periods. These benefit periods may be used continuously or at separate intervals. Regardless of how an individual’s periods of hospice care are timed, she must be certified as terminally ill with a life expectancy of 6 months or less at the beginning of each period by the medical director of the hospice. If an individual chooses to withdraw from hospice during a benefit period, then any remaining days in that benefit

period are lost. For example, a patient who opts out of hospice care in the middle of the second 90-day benefit period loses the remaining days in that period, but is still eligible for an unlimited number of 60-day periods. If an individual has chosen hospice and her prognosis changes during the course of hospice enrollment, the hospice may discharge her or not recertify her for a subsequent benefit period.

Medicare-certified hospices may be located by contacting the State Health Department, the discharge planning office of a hospital, or the National Medicare Hotline at 1-800-MEDICARE. Information about hospice care is also available from the Hospice Association of America at (202) 546-4759 or the National Hospice Organization at 1-800-658-8898.

## 2. Medicaid

Medicaid is government health insurance funded jointly by the Federal and State governments and administered by State government. Under State administration, States have many options regarding who is covered by the program and what services are provided. Medicaid rules vary greatly from State to State.

All States must provide the following Federally mandated Medicaid services: inpatient hospital services, outpatient hospital services, laboratory and x-ray services, skilled nursing facility services, physician's services, early and periodic screening, diagnosis and testing services, and family planning services and supplies.

Federally optional Medicaid services include the following: prescribed drugs; hospice services; home health care services; nursing home services and intermediate care facility services; durable medical goods; private day nursing services; clinical services; podiatry; dental services; physical, occupational and speech therapy; optometrists; and hearing aids.

In general, Medicaid's resource or asset limitations are similar to the SSI limitations. To be eligible for Medicaid an individual cannot have more than \$2000 in assets, excluding a home (if the individual resides there), a car (valued at \$4,500 or higher if it is regularly used for transportation to medical appointments), and a few other exceptions. (Under some circumstances there are strict ineligibility rules regarding the transferring of assets in an attempt to secure Medicaid eligibility. A transfer of assets to meet Medicaid's resource rules could result in a prolonged period of ineligibility and thus should never be attempted without seeking professional guidance.)

There is no income limitation for Medicaid eligibility. However, if an individual's countable income exceeds the SSI level, most States will consider this surplus income and not pay for an equivalent value of medical expenses.

Historically, the path to Medicaid eligibility for disabled individuals was closely tied to SSI eligibility. More recently, States, with the cooperation of the Federal Centers for Medicare and Medicaid Services, have implemented health care access expansions and waivers. In several States, pre-disabled persons with HIV are now eligible for Medicaid. In others, income and asset restrictions have been eased, allowing those with greater resources access to Medicaid.

Since the rules regarding access to Medicaid and the range of services provided vary greatly from State to State it is important to contact the State Medicaid office to determine the parameters of the program in your State and to obtain assistance with the application process.

### 3. Private Health Insurance

Many individuals have private health insurance policies that provide a range of health care benefits. In most cases, individuals have obtained private group health insurance through their jobs or are covered because a family member has group insurance coverage from work. In some instances, individuals have purchased their own individual policies. In either case, the types of policies offered can differ widely in terms of cost and coverage. Private insurance companies offer a broad range of plans so the particular terms will depend upon the plan selected.

Many health insurance policies include benefits limits, including specific limits on coverage or a maximum benefit for the policy as a whole. Others include copayments, deductibles or other “out-of-pocket” expenses that an individual is responsible for paying. Some allow individuals to choose any doctor, whereas others restrict access to health care professionals under contract with the plan.

Understanding the specific health insurance terms under any individual policy is difficult. Often questions can be answered by customer service staff provided by the insurance company or through the human resources department of an employer who provides group health insurance. An in-depth analysis of the terms of a policy often requires obtaining a copy of the policy for review by an attorney or benefits expert.

Finally, many States operate programs that pay the private health insurance premiums for people living with HIV. It is, therefore, always important to see if such a “buy-in” program exists before an individual decides to terminate her private health insurance. The specific eligibility rules vary from State to State, but some cover individuals receiving and/or eligible for SSI, SSDI, private disability insurance, Medicaid, and Medicare. For many people living with HIV buy-in programs represent an opportunity to maintain their preferred choice of health care access and support.

### 4. The Consolidated Budget Reconciliation Act of 1985 (COBRA)

COBRA is a Federal law that requires employers who sponsor a group health plan to allow their employees and/or their dependents to remain covered under the group plan after they leave employment or are no longer qualified for coverage under the plan’s rules. In general, continued coverage is available to employees who were covered under the plan and reduce their work hours, leave their employment, or are terminated for reasons other than gross misconduct. This continuation of coverage is also available to the spouse and/or dependent children of the employee if they were covered under the plan. This coverage is very important because access to group health insurance is generally cost-effective and provides a broader range of benefits than those typically found in individual policies.

For many disabled individuals leaving employment, COBRA offers the most cost-effective and comprehensive health insurance available. This is true despite the fact that individuals are generally required to pay the premiums or costs of this private group health insurance. (As discussed above, in the private insurance section, many States have programs that will cover these costs.)

In the context of HIV, whether paid for through a government program or by an individual, COBRA offers much-needed insurance coverage to those ineligible for the need-based Medicaid program. For those eligible for Medicare through SSDI, COBRA can provide coverage during the 29-month Medicare waiting period. (See SSDI discussion on page 366 for an explanation of the waiting period.)

In general, under Federal law, COBRA applies to employers who offer a group health care plan and employ 20 or more employees. Generally exempt are churches, small employers who employ less than 20 people, and the Federal government. COBRA does not apply to life insurance or disability insurance plans. Several States, however, have COBRA laws that cover employees with less than 20 employees, so it is important to check if your State has such a law.

COBRA coverage must be elected by the later of 60 days after leaving employment or within 60 days of receiving notice of COBRA rights by the employer. Employers are legally required to provide written notice of COBRA rights within 45 days after a person loses coverage.

The length of COBRA coverage depends upon several factors. In general, COBRA coverage lasts for 18 months. For those determined to be disabled by the Social Security Administration for SSI or SSDI purposes, at any time within the initial 18-month period, COBRA is extended to 29 months. In general, COBRA coverage is 36 months in the event of the death of a covered employee, for the loss of dependent child status under the plan, for divorce or legal separation of the covered employee, or when the covered employee becomes eligible for Medicare.

## 5. State-Run Health Care and Treatment Programs

Many States support health care programs for individuals living with HIV who have no other means of accessing treatment. Through a combination of Federal and State funding, including the Ryan White Comprehensive AIDS Resources Emergency (CARE) Act, many States operate programs that provide early intervention health care and access to medications. These programs are administered by States and, therefore, the services provided vary greatly. Information on the programs in your State is available through the State health department and/or community-based AIDS organizations.

### PART 2.

## LEGAL OPTIONS FOR MAXIMIZING CONTROL OVER DECISIONMAKING DURING PERIODS OF INCAPACITY AND IN DEATH

Several important legal tools are available to people living with HIV who are concerned with maintaining control over important personal, financial, and health-related decisions. Health care proxies, living wills (also known as directives to physicians), powers of attorney and declarations as to remains all provide an individual living with HIV with the opportunity to clearly express her wishes with respect to crucial personal matters. They also allow a person living with HIV to appoint a trusted friend or family member to carry out those wishes on her behalf. A critical point regarding each of these legal options is that *none* of them acts to replace the individual's own judgment or curtails her decisionmaking capacity so long as she remains competent and able to act on her own behalf. All of the documents are easily amendable and revocable, so a person can change her mind about any decisions at any time. Generally, to revoke the document any person previously appointed should be notified in writing of the change and the original document should be destroyed.

### 1. Health Care Proxy

A health care proxy is a written instrument in which an individual legally delegates authority to another person (referred to as “the agent”) to make certain health-related decisions on her



behalf. This can include conventional medical treatment decisions, decisions to change providers or to pursue a second opinion, and decisions regarding levels of pain-relieving medications and other palliative care. The agent can also make decisions regarding the priority and extent of visitation by friends and family members during periods of hospitalization.

It is important to note that the health care proxy document only permits the agent to make these decisions when the individual who appointed her is either unable to make, or unable to communicate, those decisions herself. Indeed, a good health care proxy should contain a provision directing that physicians and other health care providers make every attempt to communicate with and solicit a response from the patient first, before relying on the agent to act on the patient's behalf. Of course, the patient may also choose to direct her health care providers to consult with or defer to the health care agent even during times when the patient is able to communicate but finds it difficult or stressful to do so. What is critical in such a situation is that the choice to include the agent remains firmly with the patient, so long as she remains legally competent and able to communicate.

In the absence of a properly executed health care proxy, decisionmaking authority regarding health-related matters generally defaults to a person's "next of kin," often the spouse or the closest adult biological family member that can be found. The advantage of the health care proxy is that it vests control in a trusted individual specifically chosen by the patient, thus increasing the likelihood that the patient's wishes regarding health-related matters will be honored. A person living with HIV is free to choose any competent adult to serve as her health care proxy. One can also name two co-agents in the health care proxy, who can share the responsibility for decisionmaking. A person naming two agents is advised to evaluate the ability of the two agents to work together and to consider naming one whose decision would control in the event of a disagreement. It is not advisable for a person to appoint his or her health care provider as a health care proxy. The primary purpose of the appointment is to choose someone with a strong personal relationship to the person living with HIV, who can work with the provider to make difficult health care decisions.

An additional advantage of a health care proxy is that it can be specifically tailored to express a person's preferences, beliefs, and instructions regarding health-related matters. This has the benefit of giving a person living with HIV an opportunity to clearly communicate her wishes to the health care agent before a health-related crisis occurs. Such communication between the patient living with HIV and her health care proxy is crucial, because the health care proxy's job is to make health care decisions that accurately reflect the preferences and wishes of the patient, and not the proxy's own preferences.

In most States, the health care proxy is authorized by statute and that statute will specify the mechanical requirements that must be met in order for the document to be legally valid. Typical requirements include the number of witnesses that must be present for the signing of the document, the minimum age of the appointed agent, and the signature of the individual making the appointment in one or more places on the document itself. It is recommended that the health care proxy document be notarized, regardless of whether notarization is a formal requirement under a particular State's health care proxy law. Notarization lends an additional level of legitimacy to a document that may protect against future challenges from family members or health care providers.

## 2. Living Will (Directive to Physicians)

A living will (also known as a “directive to physicians” or “advanced directive”) is a legal document authorizing the removal of artificial life-support systems for an individual who has been diagnosed with brain death or whose condition has been deemed terminal and irreversible. The living will is directed to an individual’s physician, and constitutes written evidence of the individual’s intent not to be kept alive by artificial means. A living will may also specify that a patient elects to forego other life prolonging treatments, such as artificial hydration and nutrition via IV, antibiotics, and in, some cases, blood transfusions. Exceptional care should be taken when explaining these options and their effects to a terminally ill patient, so that the living will precisely represents the patient’s intent with respect to these life-prolonging treatment options.

People living with HIV who are opposed to being placed on prolonged life support despite the occurrence of brain death or a terminal diagnosis are advised to execute a living will that clearly communicates their opposition. In the absence of a living will evidencing a clear intent, physicians can find themselves both ethically and legally bound to do everything they can to keep a person alive – even if the person is clinically brain dead and being kept alive solely through technological life support measures. By the same token, many physicians, particularly those experienced in working with people with HIV, are familiar with and generally respectful of the intent expressed by those who choose to execute living wills. It is a good idea for an individual’s treating physician to be aware of the existence of a living will when one has been prepared.

Bear in mind that some hospitals with particular religious affiliations may be reluctant to honor a patient’s expressed wishes even if a living will has been prepared and presented to the medical staff. In some cases, particularly where there is no law or statute authorizing the creation of a living will, the religious institution that participates in setting hospital policy directs medical staff not to recognize living wills. Thus, people living with HIV who are strongly opposed to being placed on prolonged life support should consider where they receive their care, and whether the religious affiliation of their provider is likely to affect that provider’s willingness or ability to honor the living will.

Laws in this sensitive area vary widely from State to State, and, in many States, there is no statutory authority for living wills. There have been, however, many important legal cases involving a person’s right to be taken off artificial life support and those cases have generally favored honoring a person’s desire to terminate life support when it can be proven that the desire was *clearly expressed* in advance. Still, it is advisable to work with someone familiar with the law in your particular state when preparing and executing a living will.

State-specific forms for living wills and for health care proxy (assigning power of attorney for health care) can be downloaded free from the web site of Partnership for Caring. Contact Partnership for Caring on the web at [www.partnershipforcaring.org/Homepage/index.html](http://www.partnershipforcaring.org/Homepage/index.html) or by phone at 1-800-989-9455. Five Wishes is a document that helps patients express how they want to be treated if they are seriously ill and unable to speak for themselves. Five Wishes can be ordered for \$5.00 from Aging With Dignity, P.O. Box 1661, Tallahassee, FL 32302-166, [www.agingwithdignity.org](http://www.agingwithdignity.org) or 1-888-594-7437.

### 3. Durable Power of Attorney

A person living with HIV may appoint someone else to manage her finances and to make economic decisions on her behalf by executing a durable power of attorney. As with the health care proxy, the person appointed in the power of attorney document is referred to as the “agent.” The person making the appointment is referred to as the “principal.” The power of attorney document can grant broad authority to the agent, allowing the agent to have broad access to and control over the principal’s financial and legal matters. Or, the authority granted can be limited and specific, such as allowing the agent to sell the principal’s home and use the proceeds for a particular purpose designated by the principal. A power of attorney that is broadly given may be more useful for someone who anticipates a long period of hospitalization or incapacity and who needs an agent who can access bank accounts, pay bills, pick up checks and mail, and handle other daily financial matters as they arise. In either case, the agent has a legal responsibility, known as “the fiduciary duty,” not to abuse the assets of the principal for her own personal benefit.

As with the health care proxy, the absence of a properly executed power of attorney can greatly interfere with the ability of a person living with HIV to make her own choice about who she trusts to handle her financial and legal matters. It should be noted, though, that where a person is incapacitated, a court *may* appoint a guardian or conservator for that person (typically acting on a petition filed by a family member) who is different from and whose authority takes priority over the power of attorney. Still, in many cases, the durable power of attorney manages the economic affairs of the principal through periods of incapacity or absence without incident.

The authority granted to the agent by the power of attorney document does not survive the principal’s death. The authority under the power of attorney dies with the principal, and, assuming the principal has a valid will, power transfers to the executor (also known in some states as the “personal representative”), who then assumes responsibility (with judicial oversight) for dealing with financial matters, paying debts, and distributing assets in accordance with the will’s provisions.

### 4. Declaration as to Remains

The declaration as to remains is a document that, in essence, allows a person living with HIV to plan her own funeral and decide what will happen with her body upon death. By clearly expressing choices and preferences regarding burial, cremation, funeral services, memorial services, and other arrangements, a person living with HIV can ensure that her wishes are carried out and can also avoid potential controversies between biological family members and life partners or close friends. Because it is a less familiar document to most people, as compared with a will or a health care proxy, it is a good idea for a person who executes a declaration as to remains to make the existence of the document known to the person or persons who are designated to carry out the wishes and plans specified within it.

Unfortunately, in some States, there is no statutory authority or law authorizing the creation of a declaration as to remains and, in others, the law states that a person’s remains automatically become the possession of the person’s “next of kin,” a legally defined relationship that does not

include one's life partner (except in the State of Vermont) or close friends. This means that even with a carefully thought out and well-executed declaration as to remains, an individual may not be able to completely insure that her dying wishes regarding funeral and burial or cremation are honored. It is still advisable, however, to execute a declaration as to remains because 1) several courts have found that a competent adult has the legal right to plan her own funeral and decide what will happen with her body upon death despite the existence of contrary laws; 2) it provides clear direction to loved ones regarding an individual's funeral and burial wishes; and 3) if a controversy does emerge, either between "next of kin" and life partners or close friends, or within biological families as is also often the case, the presence of the declaration as to remains may be persuasive in resolving the dispute.

### PART 3.

## INSURING PROPER DISTRIBUTION OF FINANCIAL ASSETS, PROPERTY, AND PERSONAL BELONGINGS

Comprehensive estate planning is the *only* way to insure that the financial assets, real property, and personal belongings of a person living with HIV are distributed in accordance with her wishes. The advantage of estate planning is that, using conventional tools such as wills, trusts, bank accounts, and life insurance policies, an individual living with HIV is free to distribute assets to anyone she chooses,\* and thus she can protect and provide for loved ones even where there is no biological or marital relationship. Without an estate plan in place, the assets of a deceased individual are distributed in strict accordance with State intestacy laws – laws that specify who inherits, and in what order, and which do so in a manner that recognizes only spouses and biological relatives as proper heirs.

Despite the obvious advantage of estate planning, it is often difficult to convince a person living with HIV of the need to make a will or of the importance of financial and benefits planning that would ultimately provide for a smoother transfer of assets. There are many barriers to such planning, including the natural resistance to thinking about one's death and the very common myth that estate planning is only necessary for people who are wealthy or who have significant assets available to distribute to loved ones. A person of limited means may convince herself that an estate plan is unnecessary because she does not have anything that her loved ones would want or value. In reality, however, this is almost never the case. Irrespective of financial assets, most people living with HIV will have personal belongings that carry important meaning for those who are left behind. Over the years, there have been far too many stories of battles within families, or between family members and life partners or friends, over items of deep sentimental value such as diaries and other personal writings, photographs, books and jewelry. A will that specifically designates who is to receive such items, or a plan that includes giving some of these items away during one's lifetime, can guard against future heartache and strife.

\* There are a limited number of exceptions to the general rule that a person may distribute assets to anyone she chooses. In many states, a person may not use her will to disinherit a spouse. The specific laws vary from state to state, but the general remedy granted in these cases is the "elective share." Elective share statutes provide that a specific portion of the decedent's estate be made available to the disinherited spouse. In addition, several states have statutes that protect children when it appears that they were unintentionally disinherited. Finally, some states have statutes that limit a person's ability to leave her estate to charity if she is survived by a spouse, parent, or children. Nonetheless, the presence of these statutes does not bar an individual from leaving money, property, or other personal belongings to other loved ones, such as a friend or life partner. These laws simply limit the amount available to others by virtue of providing a mandatory share of the estate to spouses, parents, and minor children.

Thus, it is important for palliative care providers to emphasize the many advantages of estate planning and to support patients through the often painful process of thinking about how best to distribute assets and personal belongings. What follows are the areas that should be covered in nearly every estate plan. Because laws vary from State to State, it is critical to locate an attorney familiar with estate planning to assist with the drafting of wills and other estate planning documents.

## 1. Probate versus nonprobate assets

When a person dies, some of the property they leave behind will be “probate” and some will be “nonprobate.” “Probate” is the legal term for the process whereby property that passes through a will is accounted for, gathered, and then distributed to the persons named in the will. If there was no valid will the probate assets will be distributed under the intestacy laws to the heirs specified under the State laws where the person living with HIV was domiciled. “Nonprobate” assets are those assets that pass automatically to a chosen beneficiary upon death. Examples of nonprobate assets include life insurance policies with named beneficiaries, joint and “in trust for” bank accounts, and trusts created outside of a will.

There are many advantages to nonprobate assets. Because they pass outside of the will and are not subject to the probate process, loved ones do not have to endure a long wait before they can access the assets that have been left to them. In addition, the distribution of nonprobate assets is much more difficult to challenge than the terms of a will. Whereas wills are filed with probate courts and subject to challenge and scrutiny, nonprobate assets pass to the intended beneficiaries quickly and quietly, without the need for a public accounting. Also, assets included in the probate of an estate can become subject to the claims of creditors. Creditors have 1 year to bring claims of debt to the attention of the court where the estate has been probated. Thus, it is clearly advisable for persons living with AIDS to examine their assets and determine which assets can and should be moved into the “nonprobate” category.

### ■ Bank Accounts

Bank accounts are an excellent example of the type of asset that can easily be moved into the nonprobate category. If a person has a bank account with only her name on it, the contents of that bank account will automatically become subject to probate upon her death. There are two primary options available for turning a bank account into a nonprobate asset: a joint account, or an in trust for account. A joint account is an account that lists two account holders on the same account. Both account holders have full and equal access to the funds in the account. If one co-holder becomes incapacitated, the other has easy access to the funds. If one co-holder dies, the funds automatically become the property of the surviving account holder. Probate is avoided, and, except in very limited circumstances, creditors cannot get access to the funds to satisfy debts of the decedent. The downside of a joint account is that joint co-holders both have immediate access to the funds at all times and thus, if one co-holder wanted to, she could withdraw all the money at any time and leave nothing for the other account holder.

An in trust for account avoids the problem of two people having full access to the same funds in the present. Instead, an in trust for bank account allows a person to name a beneficiary who will receive the proceeds from the account upon her death. The

beneficiary of the account is similar to the beneficiary of a life insurance or retirement policy. She has no access to the funds in the account during the principal account holder's lifetime, but the proceeds of the account avoid probate and become immediately available to the beneficiary upon the death of the account holder.

### ■ Life Insurance and Pension Plans

Proceeds of life insurance and pension plans that pay out to a named beneficiary after a person's death are nonprobate assets. The key here is to make sure that a beneficiary has been named. Most plans and policies will allow the policyholder to name more than one beneficiary. For example, a person living with HIV might designate her life partner and her two children as the beneficiaries of her life insurance policy. Some policies will allow the policyholder to specify the shares allotted to each beneficiary (i.e., 50% to spouse and 25% each to two children). An important part of estate planning is periodically checking to make sure that the company holding the policy has the correct information regarding intended beneficiaries. If there are no beneficiaries named, or if the beneficiary named predeceases the policyholder, the ability to control who receives the asset may be lost. Without a beneficiary named, many benefit plans will automatically distribute the proceeds to the policyholder's next of kin, or distribute the proceeds to the policyholder's estate to be accounted for and distributed along with the other probate assets.

### ■ Forms of Real Property Ownership

If a person living with HIV owns real property with another person, it makes sense to examine the deed to determine the form of ownership. There are two forms of real property co-ownership that avoid probate and allow the property to pass automatically to the survivor upon death of the co-owner. The first form of co-ownership is "tenancy by the entirety" and is only available to legally married couples. Property owned as a tenancy by the entirety is often the best possible option for married couples because not only does it avoid probate and allow the property to automatically pass to the surviving spouse, but it also avoids taxation upon the death of one spouse (that is, the surviving spouse is not taxed on the inheritance because she already owned the "entirety").

For unmarried partners and other co-owners who prefer automatic passage of the property to the other co-owner upon death, the best available tool is owning property jointly "with rights of survivorship." Under this form of ownership, the title to the property automatically passes to the survivor upon the death of the joint owner. Property that is held jointly with the right of survivorship allows the surviving owner to sell the property immediately without seeking court approval in probate after the co-owner's death. In addition, jointly held property does not bear the risk of a challenge that accompanies the probate of a will. Thus, joint ownership with rights of survivorship is an excellent estate planning tool.

It is critically important to be aware that if two unmarried people jointly own property together and the deed does not specifically refer to rights of survivorship, a tenancy in common will be presumed. With a tenancy in common, the co-owner *does not* inherit the property upon the death of the other owner. This may be an appropriate form of ownership for co-owners who do not intend to have the other co-owner inherit upon their death, and who might prefer that their half of the property be distributed to other friends or family members in accordance with the terms of their will.

## ■ Trusts

A trust is a flexible legal instrument into which a person living with HIV can transfer her assets (money, property, proceeds of a life insurance policy) during her lifetime or upon death. Once the trust is created and “filled” with the designated assets, the assets no longer belong to the individual who created the trust. Instead, the assets “belong” to the trust. The person with control over the distribution of the assets within the trust is the trustee. The person living with HIV who created the trust may make the trust revocable, name herself as the trustee, and name herself as the sole beneficiary during her lifetime. This will give her complete control over the assets within the trust during her lifetime. This type of revocable living trust is often the best way for a person living with HIV to maintain control of her assets during her lifetime and ensure the easy transfer of the assets upon her death. As long as there is a successor trustee and a successor beneficiary or beneficiaries named in the trust, the successor trustee can transfer all of the property or assets to the named beneficiaries without any probate court proceedings after the death of the person who created the trust.

In order to be a valid legal document, the individual creating the trust must sign it and have it notarized. The document does not have to be witnessed or recorded. Most attorneys familiar with estate planning can assist a person living with HIV in creating a trust.

## 2. Wills

A will is a central component of any estate plan. It is a legal document that allows a person to leave any portion of her estate, and any specific possessions, to any other persons or organizations. Despite the emphasis placed on removing assets from probate, there will almost always be property held by the individual that cannot practically be held as joint property or placed in a trust. When a person dies without a valid will, all of her probate property passes in accordance with the intestacy laws of her state. Because intestacy laws universally favor biological relatives and do not recognize unmarried partners, close friends, or other people that an individual might want to inherit all or part of her estate, a valid will is crucial.

In most States, there are very few formal requirements for drafting and executing a valid will. In general, a will must sufficiently describe an individual's possessions and who she wants to inherit them. The will must be signed and dated by the person and then by two witnesses who are not beneficiaries under the will. Despite the fact that executing a will is relatively straight forward, absent emergency situations, individuals should not attempt to execute a will without the assistance of an attorney.

## 3. Homesteading

Many States have homestead laws that allow homeowners to protect their primary residence from creditors. Filing a petition for homestead exemption (literally, a filing that exempts your property from access to creditors) can be an important part of estate and financial planning for people living with HIV, particularly those who are worried about high levels of consumer debt. Filing early is strongly advised, as many States only exempt debts incurred after the filing of the homestead petition. The extent of the homestead exemption varies from State to State, as do filing requirements, so it is a good idea to consult with an attorney in the State where you reside.

## 4. Dealing with Debts and Creditors

Many people living with HIV need assistance dealing with creditors and deciding how best to handle accumulated debt. Often people living with HIV are worried about mounting debt levels and assume that there is no solution to protect them from financial ruin and from the incessant barrage of threatening letters and phone calls from creditors. In fact, several options exist and attorneys and/or debt counselors can provide many services to assist persons living with HIV in addressing their debt issues.

Under many State fair debt collection laws, notification of representation by an attorney bars creditors from further collection efforts aimed directly at debtors. In effect, the first step taken can often eliminate threatening letters and phone calls.

Next, an assessment of the persons debts and the potential for at least partial repayment must be evaluated. While many debts can easily be forgiven, through a discharge by creditors or through the courts, some types of debt are very difficult to discharge. Discharging outstanding student loans and Federal, State and local tax debts is quite difficult. Also, secured debts, where the creditor owns an interest in the property held by the creditor, such as car loans and home mortgages, will generally result in loss of the secured property. Credit card debts, on the other hand, are generally easily dischargeable.

With this in mind several courses of action can be taken. Many disabled individuals, particularly those who are not earning income, who have limited assets and who are dependent on need-based public benefits (i.e., SSI, TANF), are effectively “judgment proof.” Often, simply contacting creditors and informing them of this situation will result in a disability-related discharge or forgiveness of the debt. In other cases, when a person’s assets or income are too high, or when a creditor refuses to forgive the debt, personal bankruptcy may be the best option.

An attorney can assist a person living with HIV in negotiating with creditors or filing a personal bankruptcy petition. The filing fee for a personal bankruptcy petition in the bankruptcy court is \$200, and ironically it is one of the filing fees that the court will not waive. In most cases, through a bankruptcy court proceeding, a bankruptcy court judge will discharge the debts of a disabled person living with HIV. Most bankruptcy judges, however, will allow the debtor to pay the filing fee in periodic installments upon request.

### PART 4.

#### PERMANENCY PLANNING: SECURING THE FUTURE OF AFFECTED CHILDREN

There may be no more sensitive issue for parents living with HIV than how to plan for the future of their minor children. No parent wants to contemplate a time when she may become unavailable to care for her children. Indeed, parents living with HIV often resist permanency planning for their children because it is overwhelming to think about someone else raising their children and also because of a lack of information about parent-friendly planning options.

In addition, some parents living with HIV may have minor children who are HIV-positive. When children also have HIV, the permanency planning must take into account the ability of the proposed guardian(s) to meet each child’s specialized medical, social, and emotional needs.



There are steps that parents with HIV can take in the present to insure that, if they die or become incapacitated, their children will be cared for by loving friends or relatives. It is strongly advised that parents work with an attorney with expertise in estate planning and family law when formalizing a permanency plan.

## 1. Standby Guardianship Proxy Laws

In States where it is available, the standby guardianship proxy law is an excellent planning tool for parents living with HIV. Under the standby guardianship laws, parents with HIV who have minor children in their care can legally arrange for someone to step in and care for their children during periods of incapacity, without giving up their own parental rights. To date, 16 States have enacted standby guardianship proxy laws.<sup>§</sup> Parents living with HIV should check with an attorney in their State to see whether standby guardianship is available.

Standby guardianship allows a parent or legal guardian to designate an adult to care for her minor child during periods of incapacity without forcing the parent to give up custody or relinquish any of her parental rights. As such, it is a particularly useful tool for parents living with HIV who may, at times, require long hospitalizations or find themselves unable to care for their children but who anticipate recovering enough to resume parental responsibilities. The process for appointing a standby guardian typically involves filing a petition with the appropriate court (often a family or probate court) along with supporting documentation. In most States, the petition will require the signature of the parent(s) or legal guardian(s) as well as the signature of the person who is being appointed the standby guardian proxy for the child(ren). If the child is above a certain age, his assent is required. The court may also inquire into the fitness of the proposed standby guardian proxy, by examining her criminal history or looking into any prior involvement with the State agency overseeing the welfare of children. If there is another legal parent, other than the custodial parent seeking to appoint the proxy, that parent must be notified. If the other parent is fit to care for the child and objects to the appointment of the proxy, the court is unlikely to approve the standby guardianship petition. It should also be noted that, in some States, standby guardianship is only available to parents or legal guardians who are suffering from a chronic, disabling or fatal illness. In those States, the petition for standby guardianship must present evidence of the health condition that may interfere with a parent's caretaking duties.

Once the standby guardian proxy is approved by a court, the proxy's authority to act in a parental role begins upon the death of the parent, the consent of the parent, or the inability of the parent to care for the child as certified by a health care provider. There is no need to return to court once one of these triggering events occurs. Once effective, the proxy may act on the child's behalf for the period of time specified in the statute. Here again, laws vary considerably from State to State. Some States allow the standby guardian proxy to act in the parental role for up to 90 days (for example, Massachusetts), while others allow for a greater period of up to 6 months (for example, New Jersey). If the parent's incapacity to care for the child extends beyond the statutory period, or if the parent dies, the standby guardian proxy must go to court and file a petition for permanent guardianship of the child now in her care.

<sup>§</sup> States that have standby guardianship proxy laws are Arkansas, California, Colorado, Connecticut, Florida, Illinois, Maryland, Massachusetts, Minnesota, Nebraska, New Jersey, North Carolina, Pennsylvania, Virginia, West Virginia and Wisconsin. Advocates are working to introduce and insure passage of standby guardianship legislation in many of the states where it is not yet available.

## 2. Permanent Guardianship of Minor Children

Permanent guardianship offers a parent with HIV the option of permanently placing her minor child in the care of another person. This may be a wise option for a parent who has become too incapacitated to provide regular care for her child, and who does not anticipate recovering to a point where she will be able to resume traditional parental duties. If the parent is so ill that she can no longer care for her children, or anticipates that she will soon be unable to care for them permanently, one advantage of initiating the permanent guardianship proceeding while she is still living is that she can participate in the court proceedings and let the judge know her reasons for selecting a particular person as the guardian. This level of involvement in the decisionmaking process is important in that it allows the parent living with HIV to maintain a sense of control over the future of her children. Once the permanent guardianship is established, the parent no longer has to worry about who will care for her child if she dies.

The process for appointing a permanent guardian is similar to the standby guardianship process in that they both require the filing of a petition with supporting documentation, a hearing before a judge, and notice to, or assent of, the other living parent where applicable. A court will investigate the proposed guardian's background, including criminal history and any involvement with child welfare authorities. Some judges might scrutinize the fitness of the proposed guardian more carefully than they would in a standby guardianship proceeding because of the permanent nature of the appointment. Once the permanent guardianship is approved, the guardian's authority to make decisions and care for the child is effective immediately and lasts until the child turns 18 years old.

Children above a certain age must also consent to the appointment, and States vary as to whether older children must appear in court and consent orally or whether a notarized signature will suffice. States also vary as to the age at which the minor's consent is required. Fourteen years of age and above is typical, but some States require a minor's consent beginning at age 12.

## 3. Transfers of Custody/Modification of Custody Orders

Modifying existing custody orders to transfer physical or legal custody to another parent is a planning tool available only to those parents whose children's custodial status was subject to a prior determination by a court. When a married couple with children divorces, the court that approves the divorce agreement – or that hears the case in the event of a contested divorce – also enters a judgment, called an “order,” regarding custody of the children. The custody arrangement is then fixed by law and can *only* be changed by another subsequent court order.

There are many variations of custody arrangements. One of the more common arrangements is for two parents to have “joint” or “shared” legal custody with physical custody resting with one parent. This means that both parents have equal parental status, rights, and responsibilities in the eyes of the law, but the children live with the parent who has physical custody, also referred to as the “custodial parent.” In such an arrangement, the parent without physical custody, or the “noncustodial parent” will typically have visitation on a regular basis. In cases where the children maintain a good relationship with the noncustodial parent, and where the noncustodial parent has expressed a willingness to care for the children in his home should it become necessary, a custodial parent living with AIDS who becomes unable to care for her children might seek to modify the custody order to transfer physical custody to the other parent. Most courts will require that a motion to modify the prior custody order contain an explanation for the proposed

modification. Many courts may also require a hearing on the matter, even where, as in this example, the proposed change is agreed to by both parents.

#### 4. Testamentary Guardians

Every parent living with AIDS should have a will that names a testamentary guardian for her children. Even if a parent living with AIDS has successfully appointed a standby guardian proxy, and that proxy has physical custody of the children at the time of the parent's death, a will that specifies who the parent wishes to have permanent custody of her children upon death is important for a number of reasons. First and foremost, some parents may choose a testamentary guardian who is different from the standby guardian proxy. For example, a parent may select a close friend and neighbor to serve as the standby guardian proxy, so that her children may continue to attend the same schools and programs during any periods that the parent is hospitalized or incapacitated. Such an arrangement also facilitates the type of short-term "co-parenting" envisioned by the standby guardianship laws, as the disabled parent is still nearby and able to communicate her parenting preferences and concerns to the standby guardian proxy. The same parent, however, may have an entirely different wish for her children's care in the event of her death. Upon her death, she may express a desire that the children be raised by a close relative, perhaps an aunt or a grandparent, who lives farther away. Thus, it is important to make sure that her will clearly expresses this desire.

Although there is no requirement that a person disclose the contents of her will to anyone before death, it is wise to consider a frank discussion with a proposed testamentary guardian. Certainly, it is best if a person who is in line to become the permanent caretaker of one's minor children is aware of the situation beforehand. Moreover, if the parent anticipates a challenge to her testamentary guardian from a relative, it is a good idea to prepare the testamentary guardian for the possibility of such a challenge in advance.

It is very important to note that naming someone in the will as a testamentary guardian is not dispositive of the issue. The question of who will become a child's permanent guardian upon the death of a custodial parent must be finally determined by a probate or family court judge in the State where the child resides. The person who is named as the testamentary guardian should file a petition seeking permanent guardianship and attach the relevant provisions of the parent's will to the petition as evidence of the parent's intent for the child(ren). If the petitioner demonstrates an ability and willingness to care for the child, and meets the State's requirements (typically the petitioner must be of a minimum age and not possess a criminal history that might indicate the inability to responsibly care for a minor), she will be approved by the court as the permanent guardian.

It may be the case, however, that other interested family members will petition the court seeking permanent guardianship, even though they were not named as guardians in the will. In the overwhelming majority of states, when parents are deceased, the law recognizes a child's grandparents as the nearest living relatives or "next of kin" and will take very seriously a petition from a grandparent seeking permanent guardianship *even if* the petitioning grandparent was not named as the testamentary guardian by the deceased parent. For advance planning purposes, a parent living with HIV should work with an attorney to prepare affidavits clearly explaining her choice of guardian if she is concerned that her children's grandparents, or any other close relatives that have standing, will seek guardianship despite her clearly expressed wishes to the contrary.

## CONCLUSION

■ Palliative care providers are in a good position to discuss financial and legal planning options with people living with HIV. Presenting these options provides people with HIV with the opportunity to make careful decisions that will protect themselves and their loved ones in the event of incapacity or death.

In discussing financial and legal planning issues, it is important to bear in mind that laws vary considerably from State to State. Although many of the legal planning tools described herein are available to people residing in every U.S. State, requirements for utilizing the laws are likely to vary. Also, court cases interpreting those laws may lead to different, even conflicting, conclusions in different States. For these reasons, it is strongly recommended that people living with HIV consult with an attorney in the State where they reside if they are planning to make a will, appoint a health care proxy for themselves or a standby guardian for their children, or take any of the other legal steps suggested in this chapter. Similarly, entitlement and benefits programs are administered differently from State to State, and it is advisable to contact an agency in the State familiar with these programs.

## Chapter 19.

# Palliative Care in Resource-Poor Settings

Kathleen M Foley MD, Felicity Aulino, and Jan Stjernsward, MD, PhD, RRCP

### OVERVIEW

*“Nothing would have a greater impact on the care of patients with advanced incurable disease than instituting the knowledge we have now to improve their quality of life.”*

JAN STJERNSWARD

■ Over 60 million men, women and children have been infected with HIV to date and more than 22 million people have died of AIDS. AIDS is now the primary cause of death in Africa.<sup>1</sup> Prevention efforts initially dominated the public health agenda as the most realistic approach to reducing morbidity and mortality. Currently, however, attention to the need for care and treatment is increasing, allowing for the integration of these approaches into national health policies and priorities.<sup>2, 3, 4, 5</sup>

There is an urgent need to extend the benefits of disease-specific therapy to people living with HIV/AIDS in developing countries. This includes antiretroviral therapy (HAART) and prophylaxis and treatment of opportunistic infections. Increased availability of these therapies should not only have a positive impact on survival; such treatment should also promote the key palliative care goals of pain and symptom management and improved quality of life, since disease-specific therapies in HIV/AIDS should have desirable effects on, and go hand-in-hand with additional care for, the palliation of suffering. As efforts to provide HIV-specific therapies to resource-poor countries continue, there remains a critical need to provide palliative care for the large numbers of HIV-infected persons in these countries who may or may not have access to anti-retroviral and other new therapies.

Palliative care is crucial in every care setting, rich or poor, for it is a philosophy of care that centers on improving quality of life for patients and their families. In this chapter, we focus attention on the need to integrate palliative care into national government strategies in order to address the pandemic in resource-poor settings, which includes many developing countries and low-income areas in some industrialized countries.

## Defining Palliative Care

The World Health Organization (WHO) initially defined the term “palliative care” in connection with its initiatives to develop National Cancer Control Programs.<sup>6</sup> According to WHO:

*Palliative care is the active total care of patients whose disease is not responsive to curative treatment. Control of pain, of other symptoms, and of psychological, social and spiritual problems is paramount. The goal of palliative care is the achievement of the best possible quality of life for patients and their families. Many aspects of palliative care are applicable earlier in the course of the illness, in conjunction with [other] treatment. Palliative care:*

- *Affirms life and regards dying as a normal process*
- *Neither hastens nor postpones death*
- *Provides relief from pain and other distressing symptoms*
- *Integrates the psychological and spiritual aspects of patient care*
- *Offers a support system to help patients live as actively as possible until death*
- *Offers a support system to help the family cope during the patient's illness and in their own bereavement*

WHO recently updated this definition to reflect the full scope of palliative care, defining it as “an approach which improves quality of life of patients and their families facing life-threatening illness through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual.”<sup>7</sup>

In this chapter, the term “palliative care” refers to a philosophy of care that includes pain relief, symptom control, and supportive therapies for adult and child patients and their families.

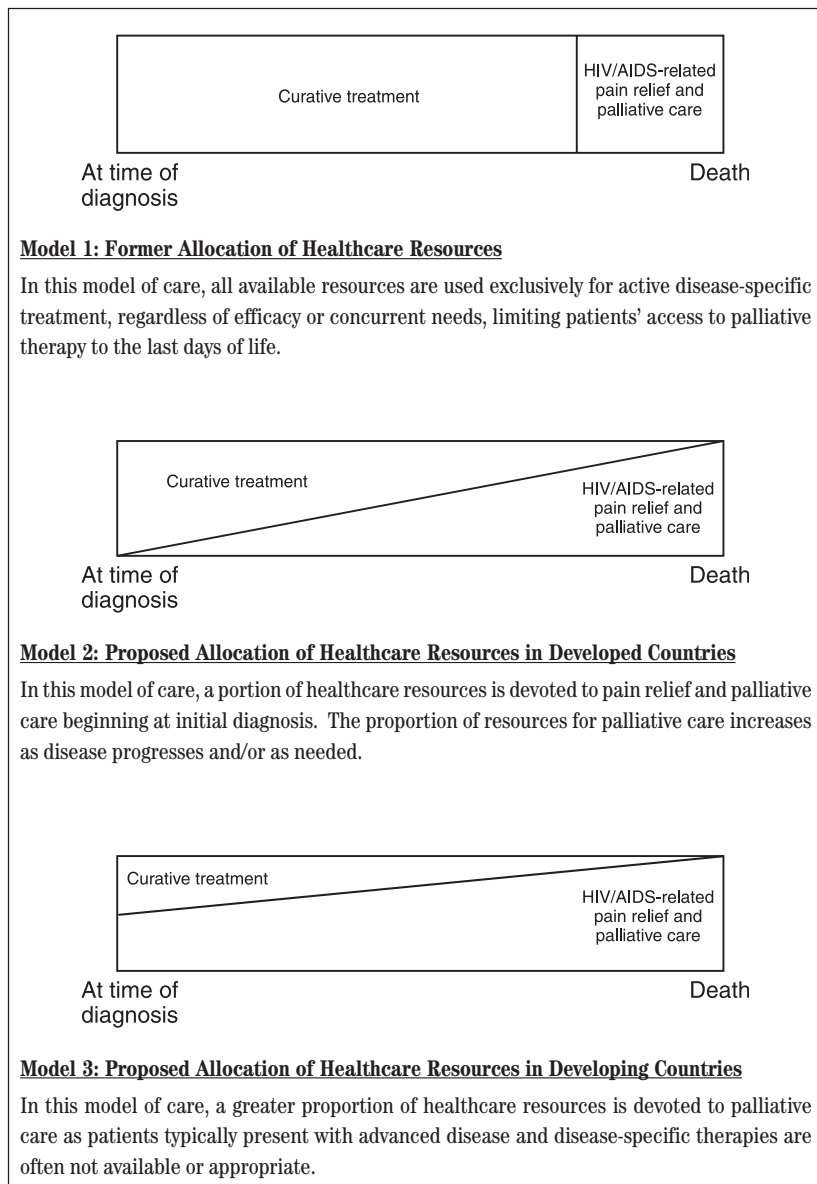
Both WHO and the Joint United Nations Programme on AIDS (UNAIDS) list palliative care “as an Essential Activity for Care and Support.”<sup>8</sup> These two UN agencies and the U.S. Agency for International Development (USAID), the development agency of the United States, conceptualize palliative care as a fully integrated component of a care system that emphasizes patients’ quality of life by ensuring symptom control and supportive therapies combined, when possible, with disease-specific therapies. The provision of palliative care is also considered crucial in the framework of integrated community- and home-based care.

## Palliative Care Services in Industrialized and Developing Countries

Palliative care services need to be integrated and balanced with other care services to address the needs of patients and their families. Symptom control and supportive therapies are necessary throughout a patient’s illness, although the proportion of palliative care services varies with the patients’ trajectory of illness and the setting in which they receive care. For example, in developing countries, where many patients with cancer and/or HIV/AIDS first seek treatment when they are already in a far advanced stage of disease, palliative care may be the major form of therapy provided to control a patient’s symptoms, support the patient and family, address their psychological, cultural and existential distress, and serve as a prevention intervention. In settings with early diagnosis where disease-specific therapies are available, palliative care services will support such therapies, increasing as needed along the disease trajectory. For many people with HIV/AIDS, the lack of available disease-specific therapies increases their

need for symptom control and supportive therapies to improve their quality of life. Figure 19-1 illustrates existing and ideal distribution of resources between active disease-specific therapies and palliative services for people with HIV/AIDS along the trajectory of their illness.<sup>6</sup>

Figure 19-1: Models for Allocation of Curative and Palliative Care Resources



Source: Adapted from World Health Organization. *Cancer Pain Relief and Palliative Care*. Technical Report Series No. 804. Geneva: WHO, 1990.

In resource-poor countries, where both cancer and AIDS are typically diagnosed very late in the course of a patient's illness, palliative care services may dominate the available services. In settings where disease-specific therapies are available, palliative care services are balanced with disease-specific therapies.

It is important to stress that National AIDS Programs should avoid viewing palliative care and disease-specific therapies as an either/or phenomenon. The more modern and ethically appropriate approach is to view active disease-specific therapies and palliative care as part of a continuum in which patient needs and available resources determine the prioritization and balanced use of care strategies. Attention must also be given to how the available resources can be fairly distributed to the largest population in a cost-effective and efficient system of healthcare delivery.

## Barriers to Implementing Palliative Care in Resource-Poor Settings

Numerous reports have outlined the major barriers in resource-poor settings to implementing the key elements of HIV/AIDS care and support.<sup>9,10</sup> These barriers range from serious limitations posed by scarce monetary, nutritional, and human resources to the low priority placed on AIDS care in national health budgets. Medical, religious, gender, social, and cultural barriers also exist—including the social- and self-stigmatization of HIV/AIDS—as well as behaviors and practices that impede the implementation of prevention and care policies.

People with HIV/AIDS often suffer significant psychosocial distress related to their experience of serious life-threatening illness at an early age, social ostracism associated with their illness, and the common and concurrent organic mental disorders caused by the HIV infection. They also suffer significant physical distress due to complications of opportunistic infections and tumors, which may include major symptoms such as pain, nausea and vomiting, fatigue, insomnia, anxiety, depression, and delirium.<sup>11</sup> In addition, major environmental and geographical factors may add barriers to providing HIV/AIDS care and treatment; for example, many people living with HIV/AIDS in the developing world reside in rural areas far from available treatment resources.

An estimated 50% to 60% of people with HIV/AIDS worldwide have no access to healthcare professionals to address their medical needs. In Uganda, for instance, 88% of the population lives more than 10 kilometers from any kind of health facility, and many of these facilities lack trained personnel and the most basic medical supplies and medications.<sup>12</sup> This lack of medical resources occurs in a setting where many people are also deprived of the most basic necessities of food, water, housing, and income.

WHO and UNAIDS have summarized major barriers to implementing the key components of HIV/AIDS care and support:<sup>8</sup>

- Low priority of financial support to the health sector nationally and internationally
- Low priority of HIV care within national health budgets
- Globalization policies that prohibit a strong emphasis on HIV care in practice
- Lack of investments in building infrastructure
- Serious managerial weaknesses at all levels of the health sector
- Insufficient remuneration and support for care professionals
- Loss of staff due to high HIV-related mortality and morbidity



- Shortages of relevant HIV information and HIV training opportunities
- Irregular and inadequate supplies of drugs, reagents, and equipment
- Insufficient local production of drugs and other commodities, given the weakness of local pharmaceutical manufacturers, markets and patent protection
- Lack of essential drug lists and drug procurement not adapted to needs of people with HIV/AIDS

## A NATIONAL PUBLIC HEALTH APPROACH TO PALLIATIVE CARE

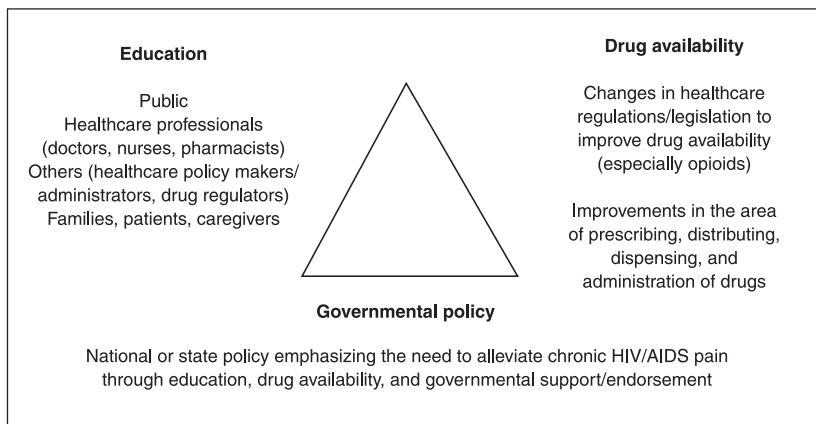
■ Although it is far beyond the scope of this chapter to address ways of eliminating these barriers, we can offer some models for providing palliative care in developing nations. Against what appear to be overwhelming odds, several model programs suggest that care and treatment can be provided and that palliative care services can readily be instituted for the care of patients; however, a national strategy is needed to implement these models effectively.

WHO endorses a national program strategy that requires an initial three-part process for improving palliative care.<sup>4</sup> The foundation measures for this public health approach are:

1. Governmental policy: adoption of a national palliative care policy
2. Education: training of healthcare professionals and the public
3. Drug availability: assuring availability of drugs for pain control and symptom management

Figure 19-2 provides a schematic representation of this three-pronged approach, which is discussed in the following sections. All three of these foundation measures together are necessary, along with committed leadership, to achieve an effective national program.

Figure 19-2: Foundation Measures Necessary for an Effective National Program



Source: Adapted from Stjernsward J, Pampallona S. Palliative medicine—a global perspective. In Doyle D, Hanks GWC, MacDonald N, eds. *Oxford Textbook of Palliative Medicine*, 2<sup>nd</sup> ed. Oxford: Oxford University Press, 1998.

National palliative care policies and programs do not need to be specific to HIV/AIDS; they can address the needs of patients with any serious life-threatening illness, such as AIDS, cancer, congestive heart failure, neuro-degenerative disorders, and cerebrovascular disease. In fact, generic palliative care programs can allow for the coordination of a variety of policy agendas and may help reduce stigma associated with AIDS care. A strategic national program for palliative care offers the most rational and effective means of improving the quality of life for the greatest number of patients and families, even where resources are severely limited.<sup>13, 14</sup>

## STEP 1:

### GOVERNMENTAL POLICY

#### Adoption of a National Palliative Care Policy

Establishment of a national policy for palliative care is the best way to ensure quality standards, funding, and accessibility of adequate care for the greatest number of patients and families. A national policy serves as the official recognition of a commitment of financial support; it can play a major role in facilitating the availability of essential drugs, as well as the necessary educational initiatives for healthcare professionals and the public alike, as part of its mandate. Numerous governments have already adopted a national palliative care policy, including Australia, Canada, Spain, Uganda and the United Kingdom.<sup>4</sup>

A national policy should set priorities that address access to palliative care across all healthcare settings, including hospitals, clinics, and home-based care. Palliative care needs to be available in both urban centers and rural areas as an integral part of the essential primary healthcare services that people can expect. These palliative care services should be sustainable and supported by healthcare professionals. Government budgets should appropriately address the need for essential drugs and provide medications and services ranging from durable medical goods to counseling programs.

A number of resources exist to aid the development of a national health policy. WHO's *National Cancer Control Programs: Policies and Managerial Guidelines* can be used as a model for the development of specific policies, as well as national palliative care and/or AIDS programs in general.<sup>15</sup>

To integrate palliative care into a national healthcare policy, governments should ensure that:<sup>18</sup>

- Palliative care programs are incorporated into their existing healthcare systems
- Healthcare workers are adequately trained in palliative care and the relief of HIV/AIDS-related pain
- National health policies are revised so that equitable support is provided for programs including home-based palliative care
- Hospitals are able to offer appropriate back-up and support for home-based care
- Both opioid and nonopioid analgesics, particularly morphine for oral administration, are available

Establishment of a national program, in which national healthcare policy is situated, may include the following activities:<sup>15</sup>

- Identification and consideration of the capacities of existing healthcare systems

- Consultation with non-governmental organizations (NGOs)
- Inclusion of steps to ensure community involvement
- Recruitment of leaders
- Reviewing the role of existing organizations
- Identification of resources
- Development of a communication strategy
- Preparation of a draft national plan
- Drawing up a budget for palliative care
- Organization of a national conference
- Changing legislation if needed
- Launching the program with workshops

The functions of an established national program to provide palliative care are to:<sup>15</sup>

- Recommend legislative action
- Recommend priorities for the investment of additional resources
- Encourage the systematic development and coordination of specific palliative care activities to ensure the best use of available resources for the whole population
- Forecast future trends and coordinate the strategic development of health services, health systems such as quality assurance systems, and training and supply of health professionals
- Develop and support palliative care programs for smaller populations for jurisdictions within the area it covers
- Coordinate the work of all agencies that can contribute to palliative care in the area

UNAIDS has developed a four-guide series for the strategic planning process for a national response to HIV/AIDS, including situation analysis, response analysis, strategic plan formulation, and resource mobilization.<sup>16</sup> The Canadian Palliative Care Association's consensus document on *Standardized Principles and Practice of Palliative Care* presents guidelines for national committees to follow in developing palliative care standards; it is a clear framework for this process, with sample goals, objectives, essential steps, accompanying policies and procedures, and desirable outcomes (see also <http://www.cpcanet.net>).<sup>17</sup>

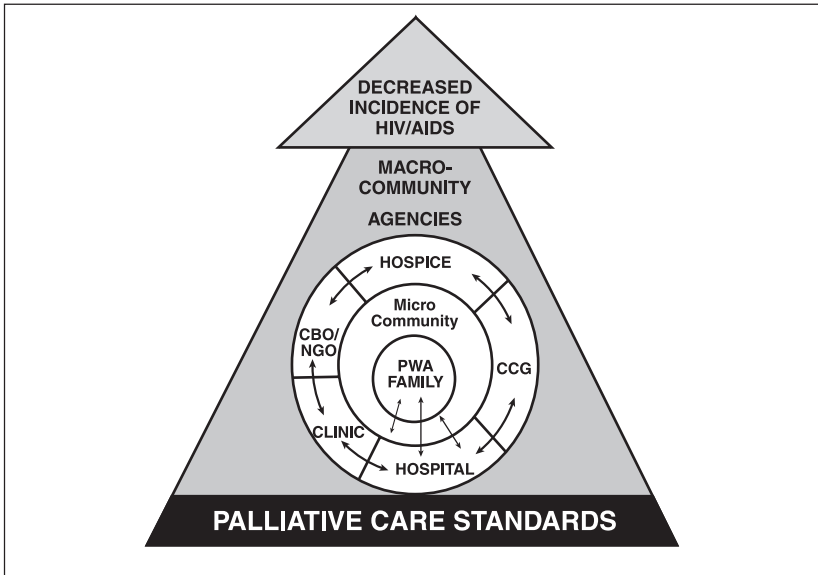
### Integrated Community- and Home-based Care Policy

In order to make services sustainable, the national policy should allocate resources to home-based care as well as to in-patient palliative care services and outpatient clinic services. Successful national HIV/AIDS palliative care programs that focus attention on integrated community- and home-based care are seen as the most efficient and cost-effective approach to healthcare delivery.

Throughout Africa, model programs are demonstrating the beneficial integration of hospice, community- and home-based care for people with HIV/AIDS.<sup>18</sup> For example, the South Coast Hospice in KwaZulu-Natal, South Africa, developed an integrated care program in which patients with HIV/AIDS are referred to teams of nurses and trained community caregivers who care for them in their own homes.<sup>19</sup> The program has halved average patient stays at the local hospital, and extended care provided at home costs less than a 2-day stay in the hospital.<sup>20</sup> The

Hospice Association of South Africa (HASA) was supported by the National Department of Health to replicate this model in seven pilot programs.<sup>21, 22</sup> People with HIV/AIDS and their families are cared for by and in their immediate communities with help from outside agencies and healthcare professionals who are committed to implementing palliative care standards. HASA is now demonstrating the physical, financial, and social benefits of linking micro-community and hospice care to the formal care system of hospitals and clinics, empowering communities to better deal with the burden of disease as well as to decrease incidence and stigma. HASA's integrated community-based home care model is depicted in Figure 19-3.

Figure 19-3: An Introduction to the Integrated Community-Based Home Care Model (Hospice Association of South Africa)



Source: HASA. *An Introduction to the Integrated Community-Based Home Care Model (ICHC)*. Hospice Association of South Africa, 2001. Videotape produced by ASI, email: magweni@kindsley.co.za Reprinted, with permission, from the South Coast Hospice, South Africa.

Hospice Uganda promotes similar work through its government-supported community-based hospice program, providing home care and serving as a resource center to the community for healthcare professional training, public education, and advocacy for hospice services.<sup>49</sup>

**STEP 2:****EDUCATION**

The second foundation measure in a national public health approach to palliative care involves healthcare worker training and public education.

Training Healthcare Workers

Education of healthcare professionals is crucial for the dissemination and implementation of existing palliative care knowledge. Training programs should exist for medical students, residents, practicing physicians, nurses, pharmacists, social workers, pastors, community-based home-care workers, and rural health workers. Successful experiences in several countries indicate that palliative care education can be incorporated into existing healthcare system training programs.<sup>23, 24, 25</sup> Distance learning and certification programs developed for each group of healthcare workers will further increase education coverage. Education must be appropriate to the situation in which they are performing their activities.

Training in palliative care focuses on six major skill sets:

1. Communication
2. Decisionmaking
3. Management of complications of treatment and the disease
4. Symptom control
5. Psychosocial care of patient and family
6. Care of the dying

WHO recommends that multi-dimensional education include at least a minimum of learning in three important areas:<sup>6</sup>

1. Attitudes, beliefs and values:
  - The philosophy and ethics of palliative care
  - Personal attitudes towards HIV/AIDS, pain, dying, death, and bereavement
  - Illness as a complex state with physical, psychological, social, and spiritual dimensions
  - Multi-professional team-work
  - The family as the unit of care
2. Knowledge base:
  - Principles of effective communication
  - Pathophysiology of the common symptoms of advanced disease
  - Assessment and management of pain and other symptoms
  - Psychological and spiritual needs of seriously ill and dying patients
  - Treatment of emotional and spiritual distress
  - Psychological needs of the family and other key people

- Availability of community resources to assist patients and their families
  - Physiological and psychological responses to bereavement
3. Skills. Opportunities should be provided for the application of learned knowledge through practice in the classroom, making use of role-plays and discussion of real case-histories. Important areas for practice include:
- Goal-setting in physical, psychological, social and spiritual dimensions
  - Development of a family care plan
  - Monitoring of pain and symptom management

Various programs in resource-poor settings for the training of healthcare professionals have illustrated how the above-mentioned program components can be implemented. HASA initiated a model program for medical student training with a Diploma in Palliative Medicine at the University of Cape Town. With no palliative medicine journals, minimal undergraduate and post-graduate training, and very few palliative care physicians in the country, this program is beginning to develop a standardized knowledge base within a group of educated professionals. HASA also trains professional nurses in palliative care at nine campuses in South Africa.

The Mildmay Centre for AIDS palliative care in Uganda provides specialist outpatient palliative care and rehabilitation, using a train-the-trainer approach to disseminate its program and philosophy of symptom control throughout sub-Saharan Africa.<sup>11, 26, 27</sup>

### Educating Family and Volunteer Caregivers

In developing countries, empowerment of family members and volunteers to be effective palliative caregivers may be the most realistic approach for meaningful coverage, especially in rural areas. Experts emphasize that home care should not become a version of acute care delivery at home: it should rather “encompass personal care, personal services, social companionship, and applied medical care,” as reflected in education and training.<sup>4</sup> Training for volunteer caregivers is available through hospices and other care-giving bodies. St. Luke’s Hospital in South Africa, for example, runs intensive trainings for community volunteers who will work with professional teams to provide care in home-based settings.

### Educating Traditional Healers

In developing countries, traditional healers are a potential professional resource for the dissemination of palliative care knowledge. Government-sponsored education of these healers has sought to increase coverage areas of effective palliative care and symptom control awareness in Mozambique, Zimbabwe, Uganda, and South Africa. For example, in KwaZulu-Natal, South Africa, the AIDS Foundation’s collaboration with traditional healers resulted in a training curriculum to increase the impact of AIDS prevention, education and management.<sup>12</sup>

### Resources for Education

WHO’s Cancer and Palliative Care Unit developed a series of monographs addressing the principles and practice of palliative care for both child and adult cancer patients, which can be adapted for National AIDS Programs. These include publications on cancer pain relief, guidelines for opioid availability, symptom relief in terminal illness, and palliative care for children, all suitable for professional education in palliative care for HIV/AIDS.<sup>6, 28, 29, 30</sup>

*Professionals.* In addition to the WHO monographs, the following international documents are available for the education of professionals worldwide.

- *The Education of Physicians in End of Life Care (EPEC)* is a train-the-trainer curriculum comprising four 30-minute plenary modules and 12 45-minute workshop modules, available on CD-ROM ([www.epec.net](http://www.epec.net)).<sup>31</sup>
- The *Oxford Textbook of Palliative Medicine* is a useful comprehensive medical textbook with chapters devoted to AIDS and various cultural settings.<sup>32</sup>
- A Canadian training module is available, devoted exclusively to palliative care for HIV disease.<sup>33</sup>
- The International Association for the Study of Pain published a core curriculum for professional education in pain.<sup>34</sup>
- Guides for the use of analgesics also exist and should be widely distributed.<sup>35, 36, 37, 38</sup>

*Pediatric clinicians.* In the arena of pediatric palliative care education, the US National Pediatric and Family HIV Resource Center (NPHRC), a non-profit educational center, has focused on educating professionals who care for children and families affected by HIV/AIDS ([www.pedhivaid.org](http://www.pedhivaid.org)).<sup>39</sup> NPHRC's François-Xavier Bagnoud International Pediatric HIV Training Program has trained nearly 120 doctors, nurses, social workers, and other healthcare professionals from around the world in the care of children with HIV/AIDS ([www.fxbcenter.org](http://www.fxbcenter.org)).<sup>40</sup>

*Nurses and midwives.* Training resources are available specifically for nurses and midwives that are particularly useful in resource-poor settings.

- The International Society of Nurses in Cancer Care has a core curriculum in palliative nursing care.<sup>41</sup>
- A train-the-trainer course similar to EPEC for nurses, *End of Life Nursing Education Consortium (ELNEC) Project*, consists of nine content modules available on CD-ROM ([www.aacn.nche.edu/elneec](http://www.aacn.nche.edu/elneec)).<sup>42</sup>
- WHO created a series of 13 fact sheets for nurses and midwives—including a module on palliative care—with general key issues, challenges and detailed information on care-provision issues (see [www.who.in/HIV\\_AIDS/Nursesmidwivesfs/index.html](http://www.who.in/HIV_AIDS/Nursesmidwivesfs/index.html)).<sup>43</sup> WHO encourages programs to disseminate these documents, adding illustrations and/or adapting the information to fit specific contexts.

## Public Education

Palliative care education needs to be made available at the family, community and national levels. Patients, families and caregivers need good information regarding the illness, symptom control, options for care and how care can be provided. Community and religious leaders, legislators and other community members, as well as government officials, policymakers and NGOs, need information about the essential components of palliative care and how and where it is provided to allow them to be effective supporters and advocates of palliative care at both the community and national levels.

There is a major need for public education campaigns to facilitate community members' awareness of the nature of HIV disease and to provide them with information and knowledge for choosing care options when disease-specific therapies are unavailable or no longer appropriate. Such

campaigns must emphasize that palliative care is focused on preventing needless suffering. There is also a particular need to educate the public about the role and appropriate use of analgesic drugs in pain management. According to WHO, it is essential that the public be made aware of the following:<sup>6</sup>

- Palliative care will improve a patient's quality of life, even when disease is incurable.
- There is no need for patients to suffer prolonged and intolerable pain or other distressing symptoms.
- Treatments exist that can relieve pain and many other symptoms of advanced disease.
- Drug therapy is vital to pain management.
- Drugs for pain relief can be taken indefinitely without losing their effectiveness.
- Psychological dependence ("addiction") does not occur when morphine is taken to relieve pain.
- The medical use of morphine does not lead to abuse.

Public palliative care education need not be AIDS-specific. It must be delivered in a culturally sensitive manner that is accessible to every segment of the population. Media campaigns can be effective in promoting awareness of palliative care issues, as can resource centers and overall community participation in care. Where illiteracy precludes written educational materials, video and theater are possible dissemination options. In settings where written materials are typically unavailable and radio is a common method of communicating information, major radio campaigns would be appropriate. "Scribes" or literate members of volunteer groups may also participate in education efforts.<sup>12</sup> All arenas of public education should give special consideration to stigma reduction. Distance learning and certificate programs for volunteer caregivers in the community can further advance education efforts.

### STEP 3:

#### A NATIONAL POLICY FOR DRUG AVAILABILITY

A national palliative care strategy should include basic directives that focus on both the necessary legislation and the administration process for drugs essential to the care and treatment of people with HIV/AIDS. To provide appropriate symptom control and supportive therapy, a national palliative care program must include policy measures regarding the need for a wide range of drugs to effectively address and control opportunistic infections and the major symptoms that patients with HIV/AIDS report, including pain, nausea and vomiting, delirium and agitation, insomnia, fatigue, depression and anxiety. Such national policies should reflect laws that address the importation and distribution of needed supplies, and also determine the appropriate amount of drugs to be imported and distributed.

Particular attention should be given to pain management. Numerous studies suggest that more than 80% of HIV/AIDS patients with advanced illness have significant pain, which is currently both under-assessed and under-treated. In a recent study in Uganda, hospice members found that pain was the first major source of distress for both cancer and AIDS patients and their relatives.<sup>20</sup> An excellent resource for the necessary legislative and administrative process for pain medications is the *Guide To Opioid Availability*, published in the WHO monograph *Cancer Pain Relief*.<sup>20</sup> This document can help governments focus attention on developing a national policy for drug availability for palliative care drugs, particularly opioids.



Psychological symptoms vary in prevalence, occurring in 10% to 60% of patients during the course of their illness. Both delirium and dementia are common features of advanced AIDS, and the use of psychotropic drugs to manage these symptoms must be included in a country's Essential Drug List. (The WHO Action Programme on Essential Drugs recommends that every country maintain an Essential Drug List that includes the basic drugs needed to treat the diseases and conditions in that country. This assures that decisions regarding resource priorities are based on medical needs of the majority of the population.)

Other chapters in this book describe a wide range of drug regimens for particular symptoms in patients with HIV/AIDS.<sup>28</sup> These drugs, preferably in their generic form when available, should be incorporated into Essential Drug Lists. Essential Drug Lists should also include medications for patients' palliative care needs, such as non-opioids, opioids, and adjuvant analgesic drugs

Table 19-1: Basic Drug List for HIV/AIDS Palliative Care

<b>Analgesics</b>	<b>Basic Drugs</b>	<b>Alternatives</b>
Nonopioid analgesics (mild pain)	-Acetylsalicylic Acid (ASA) -Paracetamol -Ibuprofen -Indomethacin	-Choline magnesium trisalicylate -Diflunisal -Naproxen -Diclofenac -Celecoxib -Rofecoxib
Opioid analgesics (mild-to-moderate pain)	-Codeine	-Dihydrocodeine -Hydrocodone -Oxycodone -Tramadol
Opioid analgesics (moderate-to-severe pain)	-Morphine	-Hydromorphone -Oxycodone -Fentanyl -Methadone -Buprenorphine -Pethidine
Opioid antagonists	-Naloxone	-Nalorphine
<b>Adjuvant Drugs for Analgesia and Symptom Control</b>	<b>Basic Drugs</b>	<b>Alternatives</b>
Antiemetics	-Prochlorperazine	-Metaclopramide -Ondansetron
Laxatives	-Senna -Sodium docusate -Mineral oil -Lactulose -Magnesium hydroxide	-Bran -Bisacodyl -Dantron -Sorbitol

Table 19-1: Basic Drug List for HIV/AIDS Palliative Care (continued)

<b>Adjuvant Drugs for Analgesia and Symptom Control</b>	<b>Basic Drugs</b>	<b>Alternatives</b>
Antidiarrheal agents	-Loperamide -Diphenoxylate HCl/ atropine sulfate	-Paregoric (0.4 mg/mL of morphine)
Antidepressants (adjuvant analgesics)	-Amitriptyline	-Imipramine -Paroxetine
Anticonvulsants (adjuvant analgesics)	-Gabapentin -Carbamazepine	-Valproic acid
Antihistamines	-Hydroxyzine	
Antipsychotics	-Chlorpromazine -Haloperidol	-Methotrimeprazine
Psychostimulants	-Methylphenidate	-Pemoline
Corticosteroids	-Dexamethasone -Prednisone	-Prednisolone
Benzodiazapines	-Diazepam -Lorazepam -Midazolam	-Clonazepam
<b>Antibiotics and Antivirals for prophylaxis</b>	(See treatment chapters)	

based on the WHO three-step analgesic ladder. A model Essential Drug List for cancer patients can be easily adapted for patients with HIV/AIDS but should also include cost-effective drugs for the treatment of opportunistic infections and their serious side effects, antidepressants, neuroleptics and anti-convulsants, as illustrated in Table 19-1.

National drug policy should address the handling of medications. A model of such a document is Uganda's *Guidelines for Handling Class A Drugs*.<sup>44</sup> WHO has suggested essential components for guidelines that regulate health professionals who dispense opioid drugs:<sup>30</sup>

1. *Legal authority.* Physicians, nurses and pharmacists should be legally empowered to prescribe, dispense and administer opioids to patients in accordance with local needs.
2. *Accountability.* They must dispense opioids for medical purposes only and must be held responsible in law if they dispense them for non-medical purposes.
3. *Prescriptions.* A prescription for opioids should contain at least the following information:
  - Patient's name and address
  - Date of issue
  - Drug name, dosage strength and form, quantity prescribed
  - Directions for use
  - Physician's name and business address
  - Physician's signature

4. *Patient access.* Opioids should be available in locations that will be accessible to as many patients as possible.
5. *Medical decisions.* Decisions concerning the type of drug to be used, the amount of the prescription and the duration of therapy are best made by medical professionals on the basis of individual patients' needs, and not by regulation.
6. *Dependence.* Physical dependence, which may develop when opioids are used to treat chronic pain, should not be confused with psychological dependence.

Financing must be secured for essential drugs. In Latin America, the “South-South Cooperation” Initiative is using a strategy of partnership among neighboring countries to become more powerful advocates for cheaper medications, particularly AIDS drugs. The Bamako Initiative is a revolving fund for financing essential drugs, with countries joining together to decrease prices and maintain commitment to buy and distribute them. In India, the production of cheap immediate-release morphine has aided the distribution and affordability of this essential drug.<sup>45</sup> The cooperation of the pharmaceutical industry is needed to spread this practice to other nations.

Drug availability must include medications appropriate for pain relief and symptom control, regardless of the availability of other types of treatment. Access to palliative care services will always be essential, whether or not people have had access to other therapies including ART. In 1997, the UNAIDS HIV Drug Access Initiative (DAI) was developed to improve access to ART in resource-poor areas. Until 1999, DAI focused exclusively on ART, but it now is also promoting other means of treatment—including palliative care (see [www.unaids.org/](http://www.unaids.org/)).<sup>46</sup>

## MODEL INITIATIVES TO ADVANCE PALLIATIVE CARE IN RESOURCE-POOR SETTINGS

### Palliative Care in Uganda

The Ugandan Ministry of Health included palliative care as an integral part of all Essential Clinical Care in its National Health Sector Strategic Plan 2000/01–2004/05.<sup>47</sup> <sup>48</sup> Table 19-2 details the palliative care component of the Ministry of Health's mandate for essential clinical care. Palliative care is in the core budget of the minimum healthcare package, with set goals for implementation and verification. Uganda has an essential drug program, and the revision of restrictive drug laws now allows for trained palliative care nurses to prescribe and administer oral morphine in home-based settings.

The program has developed a broad public education policy for AIDS that includes professional education in palliative care at all healthcare levels. The government supports “Hospice Uganda” as a resource and training center for community- and home-based palliative care.<sup>49</sup> Various NGOs, including The AIDS Support Organization (TASO), provide counseling, care and support services, further increasing the reach of palliative care in underserved areas. Uganda's Partnership for Home-Based Care in Rural Areas and the Mildmay Center for Palliative HIV/AIDS Care in Kampala have been cited in UNAIDS' Best Practice Collection.<sup>27</sup>

### The Enhancing Care Initiative

The Enhancing Care Initiative is a collaborative effort of the Harvard AIDS Institute with AIDS Care Teams in Brazil, Puerto Rico, Senegal, South Africa and Thailand. The focus of this initiative is to implement continuity of care programs in 10 care areas. These include prevention approaches with HIV counseling and testing, basic medical care services, and community-based

Table 19-2: Palliative Care Component of the Uganda National Health Sector Strategic Plan

Output	Verifiable Indicators	Means of Verification	Activities at the Operational Level
Accessibility of palliative care for chronically and terminally ill persons increased	<ol style="list-style-type: none"> <li>1. Proportion of patients receiving palliative care</li> <li>2. Number of health providers trained in palliative care</li> </ol>	<ol style="list-style-type: none"> <li>1. Field visits, feedback from communities, district and health facility reports</li> <li>2. Training reports, performance appraisal reports</li> </ol>	<ol style="list-style-type: none"> <li>1. Carry out training of health providers on palliative care</li> <li>2. Provide supplies for palliative care at all levels of healthcare</li> <li>3. Integrate palliative care into the curricula of training institutions</li> <li>4. Provide technical backup to the districts</li> </ol>

Source: Reprinted with permission from Ministry of Health, Republic of Uganda. *National Sector Strategic Plan 2000/01 – 2004/05*.

care with care for the dying and care for caregivers. All 10 care areas have concurrent professional educational programs. Each team has developed a unique approach to meet regional needs, working to integrate a comprehensive AIDS care program into every level of the healthcare system, including communities and families (Available at [www.eci.harvard.edu](http://www.eci.harvard.edu)).<sup>50</sup>

### WHO: A Community Health Approach to Palliative Care for HIV and Cancer Patients in Five African Countries

WHO is developing a Community Health Approach to Palliative Care for HIV and Cancer Patients in five African countries (See Table 19-3 for prevalence rates in participating countries).<sup>51</sup> The program is unique in combining policy advocacy for both AIDS and cancer patients within a national healthcare program. Each participating country is asked to develop and integrate palliative care initiatives into their national health policies. The program's long-term goals are to foster national policies in palliative care, provide public and professional education on

Table 19-3: Countries Involved in the WHO Community Health Approach to Palliative Care for HIV and Cancer Patients in Africa

Country	Population Millions 2000	Life Expectancy at Birth (years) 1999	Cancer		HIV/AIDS in 1999		
			Incidence	Mortality	Adult prevalence rate %	People living with	Death
Ethiopia	62.9	42.4	64,657	39,920	10.63	3,000,000	280,000
Tanzania	35.1	45.0	33,409	21,002	8.09	1,300,000	140,000
Uganda	23.3	42.1	17,058	10,504	8.30	820,000	110,000
Zimbabwe	12.6	40.4	13,030	8,648	25.06	1,500,000	160,000
Botswana	1.5	39.4	1,168	810	35.8	290,000	24,000

Source: World Health Organization. *A Community Health Approach to Palliative Care for HIV and Cancer Patients in Africa*. Working Document, November 2001.

palliative care, and increase drug availability for the appropriate treatment of patients with cancer and AIDS. The Pain and Policy Studies Group at the University of Wisconsin is providing technical support to this project through its resource center to help facilitate drug availability for opioids.<sup>52</sup>

## The United States

The Ryan White Comprehensive AIDS Resources Emergency (CARE) Act is a national policy of the US government funding healthcare and support services—including counseling, home and hospice care—for underserved and resource-poor populations affected by HIV/AIDS.<sup>53</sup> In 1999, the Health Resources and Services Administration (HRSA) awarded five grants specifically for palliative care through the Special Projects of National Significance (SPNS) portion of this legislation.<sup>54</sup>

As part of its development assistance, the U.S. government advocates palliative care through its Leadership and Investment for Fighting an Epidemic (LIFE) Initiative by supporting the expansion of palliative care in community-based treatment of HIV/AIDS and opportunistic infections along with the innovative use of ART and TB prevention and care. USAID, the Department of Health and Human Services (HHS), and the Department of Defense collaborate in this \$100 million initiative by funding care and treatment improvements, primary prevention, and capacity and infrastructure development in 13 target countries in Africa and India.<sup>55</sup>

## The United Kingdom

The National Health Service (NHS) of the UK supports hospice and specialist palliative care services, including professional educational programs. This is an evolving national policy that is working to provide better access to care and the development of care pathways for patients with various diseases who can benefit from palliative care. Patients with AIDS, cancer and a wide range of other chronic illnesses are currently included in government-supported palliative care programs. The program provides a seamless continuum of care from in-patient palliative care services to community- and home-based hospice programs.<sup>56, 57</sup>

## RECOMMENDATIONS

■ Based on experience to date, the following recommendations may be made regarding palliative care in resource-poor settings.<sup>6</sup>

1. Governments should establish national policies and programs for HIV/AIDS palliative care.
2. Governments should ensure that HIV/AIDS-related pain relief and palliative care programs are incorporated into their existing healthcare systems; separate systems of care are neither necessary nor desirable.
3. Governments should ensure that healthcare workers (physicians, nurses, pharmacists, or other professional groups appropriate to local needs) are adequately trained in palliative care and pain relief.
4. Governments should review their national health policies to ensure that equitable support is provided for programs of palliative care in the home.

5. In light of the financial, emotional, physical and social burdens carried by family members who are willing to care for people with HIV/AIDS at home, governments should consider establishing formal systems of remuneration for the principal family caregivers.
6. Governments should recognize the singular importance of home-based care for people with HIV/AIDS and ensure that hospitals are able to offer appropriate back-up and support.
7. Governments should ensure the availability of both opioid and nonopioid analgesics. Further, they should make realistic determinations of their opioid requirements and ensure that annual estimates submitted to the International Narcotics Control Board reflect actual needs.
8. Governments should ensure that their drug legislation makes full provision for the following:
  - Regular review, with the aim of permitting importation, manufacture, prescribing, stocking, dispensing and administration of opioids for medical reasons
  - Legally empowering physicians, nurses, pharmacists and, where necessary, other categories of healthcare workers to prescribe, stock, dispense and administer opioids
  - Review of the controls governing opioid use, with a view to simplification, so that drugs are available in the necessary quantities for legitimate use

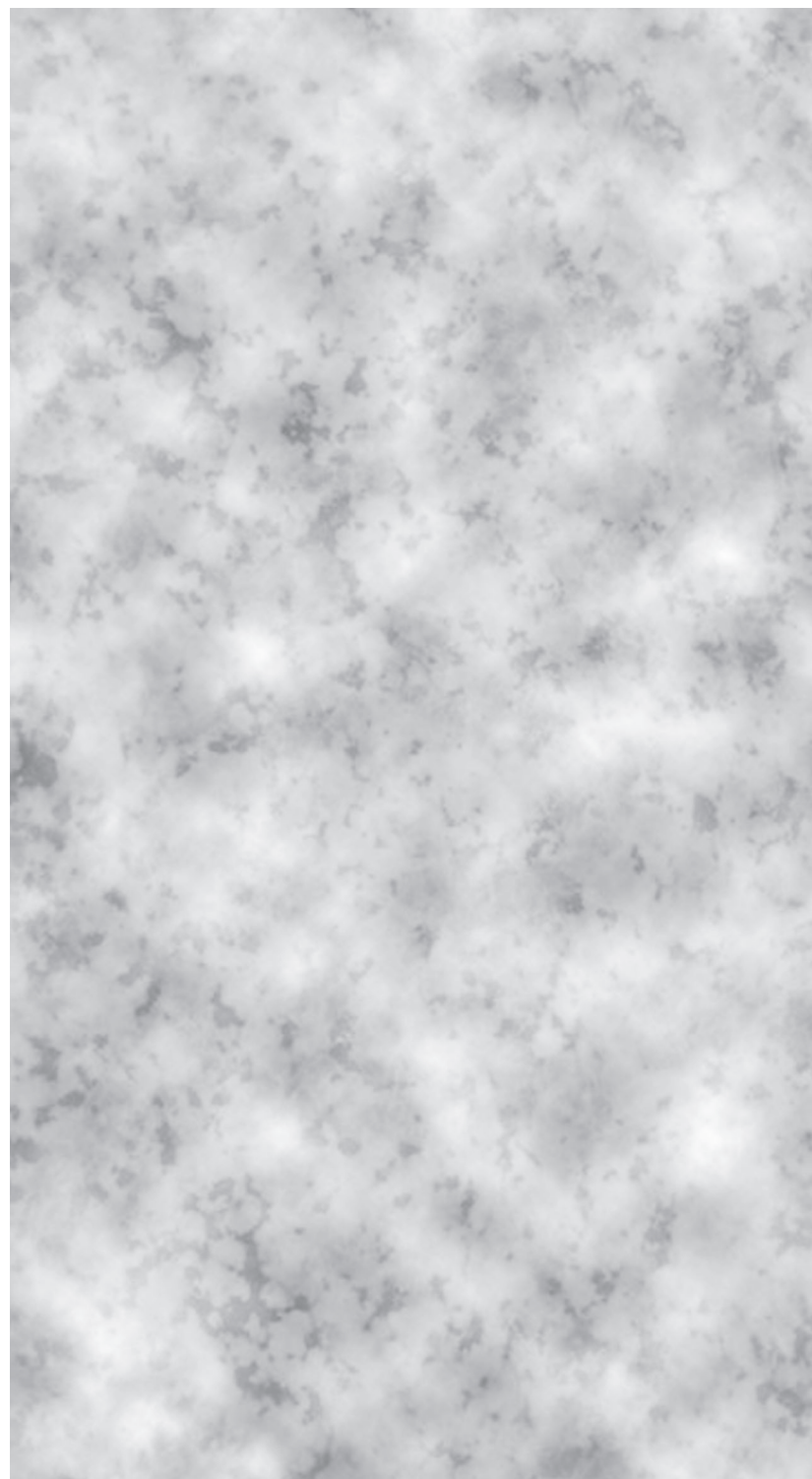
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## Chapter 20.

# Care for the Caregiver

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### INTRODUCTION

■ Major advances in highly active antiretroviral therapy (HAART) have dramatically altered the nature and duration of HIV/AIDS caregiving in the United States. Although scientists have not yet discovered a drug combination that can completely eradicate the virus, the new HAART regimens are helping many HIV-positive individuals live longer and enjoy a better quality of life. Marked declines in rates of opportunistic infections and deaths have brought the hope that HIV can be managed as a chronic disease.

The populations that require HIV management also are changing. Growing numbers of HIV-positive Americans are poor, marginalized, and uninsured or publicly insured.<sup>1</sup> African Americans and Latinos now represent the majority of new AIDS cases and people living with AIDS in the United States.<sup>2</sup> Women and youth are experiencing rapid rates of increase in HIV infection.<sup>3</sup> HIV incidence remains high among men who have sex with men (MSM) and injection drug users, with young African American MSM experiencing particularly high rates of new infections.<sup>3,4</sup>

The changing demographics of the HIV epidemic, along with the growing complexity of medical care, have created major challenges for the health professionals who provide curative and palliative care and the informal caregivers who provide emotional and practical support to relatives and friends living with the disease. Although an estimated two-thirds of U.S. adults living with HIV infection are aware of their serostatus, only one-third are receiving regular medical care.<sup>5,6</sup> For those who are in care, decisions must be made on when to start antiretroviral therapy, which drug combinations to use, and how to manage viral resistance and drug-specific toxicities. Therapeutic regimens often must be adapted to meet the needs of homeless individuals and patients with comorbidities, such as mental illness and chemical dependence.

As treatment options have expanded, so have the stresses experienced by caregivers. The prolongation of the disease course, uncertainty about overall prognosis, and a “roller coaster” pattern of repeated exacerbations and remissions in later stages of HIV disease have intensified the emotional and physical demands of caregiving. In-home caregivers increasingly are being asked to help patients manage sizable pill burdens, frequent and complicated dosing schedules, and therapy-related side effects. Many of these caregivers face the added burdens of poverty, inadequate housing, and lack of knowledge about available resources. Some are themselves HIV-positive. These developments underscore the importance of recognizing and meeting the needs of HIV/AIDS caregivers over the long term—both for their benefit and for the well-being of people in their care.

This chapter discusses the challenges of providing HIV/AIDS care and ways of helping caregivers manage stress and maintain quality of life. The first section describes the types and prevalence of HIV/AIDS caregiving. The next two sections examine the burdens and rewards of caregiving and factors that contribute to burnout. The last two sections discuss strategies for preventing

and managing burnout among informal and formal caregivers. While this chapter focuses on HIV/AIDS caregiving in the United States, the burdens experienced by caregivers are of worldwide concern. Many of the suggestions for counteracting burnout in informal caregivers may prove useful in resource-limited countries where family caregivers have little or no access to formal support systems.

## OVERVIEW OF HIV/AIDS CAREGIVING

■ Two types of caregivers provide clinical care and supportive services to people with HIV/AIDS. Formal caregivers include health professionals, behavioral health specialists, and social workers who are trained and compensated for their caregiving activities. The trained volunteers and spiritual counselors associated with AIDS service organizations, AIDS care teams, and hospice programs also fall in this definitional category. Informal caregivers include relatives, spouses/partners, and friends who provide in-home care – usually on an unpaid basis. These caregivers vary in the types of tasks performed, the amount of time devoted to caregiving, and living arrangements (i.e., same or separate household).

### Prevalence of Informal Caregiving

More than 54 million people – 27% of the adult U.S. population – served as informal caregivers for people with chronic illnesses or disabilities between August 1999 and September 2000.<sup>7</sup> Fifty-six percent of these caregivers were female, and 37 percent lived in the same household as the care recipient. As compared to the total U.S. population, informal caregivers were more likely to have annual household incomes of less than \$30,000 (43% vs. 35%).

No current data are available on the proportion of U.S. adults providing in-home care to people with HIV/AIDS. However, telephone interviews conducted with a probability sample of U.S. adults between June 1990 and February 1991 found that three percent of all adults and six percent of central-city residents were caring for HIV-positive relatives or friends.<sup>8</sup> Nationally, 59 percent of these caregivers were female, and 22 percent were people of color. The vast majority were under age 40 (74%) and heterosexual (90%). Thirty percent had annual household incomes of \$20,000 or less.

Findings from the HIV Cost and Services Utilization Study (HCSUS), a nationally representative sample of U.S. adults receiving medical care for HIV disease, indicate that 21 percent used in-home nursing and supportive services during early 1996.<sup>9</sup> AIDS-diagnosed individuals were much more likely to use home care services than people in earlier stages of disease (40% vs. 10%). Of the home care users with AIDS, 42 percent used unpaid (informal) care only, 35 percent used paid (formal) care only, and 23 percent used both types of care. The most common sources of unpaid care were family members other than a spouse or partner (38%) and friends (27%). While most AIDS-diagnosed individuals relied upon relatives and friends for help with household tasks and personal care, 22 percent received in-home nursing services (e.g., injections, infusion therapy, parenteral nutrition) from informal caregivers.

### Economic Value of Informal Caregiving

Two studies offer important insights on the economic value of informal caregiving. The first study<sup>10</sup> estimated the national economic value of all informal care provided to people with chronic illnesses or disabilities during 1997. Using a midrange estimate of caregiving prevalence (25.8 million), a national average of 17.9 hours per week spent on informal caregiving, and a wage rate

of \$8.18 per hour, the researchers determined that this care was worth \$196 billion, an amount equivalent to 18% of total health care spending.

An older study<sup>11</sup> estimated the economic value of housework and personal care tasks performed by HIV/AIDS caregivers during 1990. The informal caregivers in this study reported spending an average of 8.5 hours per day on personal care tasks (e.g., meal preparation, bathing and toileting, companionship) and 19 hours per week on housework. Based on the market value of these services, the researchers estimated the annual per capita value of informal HIV care to be \$25,858.

## Roles of Informal Caregivers

Informal caregivers perform a variety of roles that help people with HIV/AIDS adhere to treatment regimens, avoid unnecessary hospital admissions, reduce reliance on formal caregivers, remain at home longer, and maintain quality of life. Traditionally, family members have served as the primary caregivers for seriously ill individuals. Because HIV care involves more diverse social networks, many HIV-positive individuals have redefined family boundaries to include lovers, friends, and other “chosen kin.”<sup>12, 13</sup>

Findings from a 1997 national survey indicate that the typical caregiver devotes more than 20 hours per week to caregiving tasks.<sup>14</sup> These tasks may include:

- Emotional support (e.g., comforting, empathizing, and providing encouragement)
- Help with activities of daily living (e.g., feeding, bathing, dressing, and toileting)
- Help with instrumental activities of daily living (e.g., cleaning the house, running errands, providing transportation)
- Management of financial and legal matters
- Health care advocacy (e.g., linking the care recipient with formal and informal services, communicating with health professionals)
- Nursing care (e.g., dispensing medications and monitoring use, administering injections, inserting catheters)

Although informal caregivers increasingly are being asked to administer pain medications, manage epidural catheters and home infusions, and provide wound care, relatively few studies have examined their contributions to palliative care. Informal caregivers can play an important role in identifying and managing symptoms and side effects, yet most are thrust into these roles with little or no training.<sup>15</sup>

## BURDENS AND REWARDS OF CAREGIVING

■ Psychologists use the term “caregiver burden” to describe the physical, emotional, financial, and social problems associated with caregiving.<sup>16</sup> Burden can be assessed in terms of objective or subjective impact. Objective burden assesses the extent to which caregiving disrupts daily routines and social relationships and negatively affects resources.<sup>17, 18</sup> Examples include forced changes in household routines, missed days of work, family frictions, reduced social contacts, loss of income, and/or reduced energy. Subjective burden assesses the caregiver’s perceptions of and reactions to caregiving demands.<sup>17, 19</sup> Caregivers with high levels of subjective burden may report “feeling trapped,” “feeling nervous or depressed about their relationship with the care recipient,” or “resenting caregiving tasks” even when their objective burden is relatively low.

## Causes of Burden for Informal Caregivers

Multiple factors contribute to caregiver burden. First, caregiving usually comes as an unexpected role, one for which people are neither socialized nor prepared.<sup>20</sup> To assume this new role, caregivers must restructure preexisting role obligations and social activities and the ways in which they relate to the care recipient.<sup>20, 21</sup> Interpersonal strains may intensify as the caregiver and care recipient attempt to resolve issues of autonomy and reciprocity within the context of an increasingly asymmetrical relationship.<sup>22</sup> Progressive enlargement of the caregiver's role over the course of illness may require further adjustments in family, work, and social commitments.<sup>23</sup>

The physical demands of informal caregiving also contribute to burden. Unlike formal caregivers, the relatives and friends providing in-home care often are “on call” 24 hours a day.<sup>24</sup> While working this 24-hour shift, caregivers may be required to perform multiple, and sometimes conflicting roles.<sup>25</sup> Those who have never cared for a seriously ill person must learn basic nursing skills, often under extremely stressful circumstances. They must also find ways to oversee complex medication schedules while meeting their own home and work obligations. Some have the added burden of caring for entire families infected/affected by HIV disease.

The emotional issues surrounding caregiving are a third source of burden. Because HIV is most prevalent among people under age 40, the caregivers also tend to be relatively young.<sup>22, 24</sup> The non-normative experience of caring for someone with a terminal illness can be a major source of stress for these young adults.<sup>8</sup> For people of all ages, HIV/AIDS caregiving creates the emotional strain of dealing with an unpredictable and currently incurable disease.<sup>26</sup> Some caregivers are burdened by fears of contracting HIV even when they know there is little basis for concern.<sup>27</sup> Those who are already infected may worry that no one will be around to care for them when they become ill.<sup>24</sup> Adjusting to disease progression can be especially difficult for caregivers who have experienced multiple losses and the attenuation of social support networks.<sup>8</sup>

The financial impact of caregiving can be a major source of burden. Many families suffer severe economic hardships when a key wage earner is forced to reduce work hours or leave paid employment to care for a sick partner or relative.<sup>28</sup> As bills accumulate, the family's most basic needs may go unmet. The loss of income also makes it difficult for caregivers to access formal resources, such as home health and respite care, that could make their tasks more manageable.

A final source of burden is the stigma surrounding HIV disease. Community rejection of HIV-positive individuals because of their disease or the mode of transmission often extends to the relatives and friends who provide care.<sup>28, 29</sup> Rather than face stigmatization, some caregivers try to conceal their caregiving activities by withdrawing from social relationships. Those who do acknowledge their caregiving status may find it difficult to obtain support from familial or social networks.<sup>8, 22</sup>

HIV-positive parents face additional challenges that increase their sense of burden.<sup>30, 31</sup> These challenges include arranging for guardianship of the children, balancing the needs of “sick” and “healthy” family members, and helping their children cope with the disease and possible discrimination.<sup>25</sup> If a child is HIV-positive, the mother's guilt about transmitting the virus can be overwhelming.<sup>32</sup> HIV-positive parents also may have unmet needs for social support. For example, in one multi-city study, only 30 percent of the HIV-positive mothers were aware of childcare

services, and only 8 percent had used these services.<sup>33</sup> In another study of African-American and Latino families with HIV-positive children, seropositive parents reported more isolation and fewer financial and support resources than uninfected caregivers.<sup>34</sup>

### Causes of Burden for Formal Caregivers

Many of the burdens experienced by formal and informal caregivers are the same. For example, fear of exposure is a major source of stress for some health professionals.<sup>35, 36</sup> Formal caregivers may experience a lack of support from their families and professional colleagues due to concerns about contagion or “stigma by association.”<sup>35, 37</sup> They also may share the informal caregiver’s emotional distress about not being able to “cure” the disease.

The unpredictable course of HIV disease and the wide range of potential complications can create significant burden, particularly for clinicians with limited HIV management experience. While attempting to control chronic symptoms and conditions, clinicians also must be prepared to treat episodes of acute illness and therapy-related side effects. Additional sources of burden include repeated exposure to the death of young patients, ethical dilemmas, and finding the time to counsel and support informal caregivers.<sup>38, 39</sup> Formal caregivers also may be burdened by workplace-related stressors, such as work overload, unrealistic expectations of what can be accomplished, lack of decisionmaking autonomy, communication problems and role conflicts, and inadequate medical resources and referral arrangements.<sup>35, 40, 41</sup>

### Consequences of Caregiver Burden

Caring for an individual with a chronic disease, such as HIV/AIDS, leaves little time or energy for self-care. The multiple tasks performed by caregivers may cause them to neglect nutrition, exercise, socialization, and sleep.<sup>42</sup> One study of women caring for people with physical or mental disabilities found that caregivers with high levels of subjective burden were less likely to eat balanced diets, exercise, and participate in stress management and health-promoting activities.<sup>18</sup> Another study of women caring for HIV-positive relatives and friends found that almost two-thirds had experienced at least one chronic physical symptom.<sup>27</sup> A third study of Latinas caring for family members with HIV/AIDS documented high levels of physical health problems and affective disorders.<sup>43</sup>

Caregiver burden often produces high levels of chronic stress. The literature on caregiving distinguishes between two types of stress.<sup>20, 44</sup> Primary stressors arise from the actual tasks of caregiving. These stressors may result from caregiving demands (i.e., number and intensity of caregiving activities), role overload, and/or the sense of being coerced into caregiving. Secondary stressors are influenced by the caregiving role but arise outside that role. For example, caregiving may adversely affect outside employment, exacerbate family frictions, and/or reduce social contacts.

Caregivers under stress exhibit a wide range of signs and symptoms (Table 20-1). The extent to which caregivers experience these symptoms depends on their personalities, belief systems, health and energy levels, and coping skills.<sup>42</sup> Additional factors affecting caregivers’ response to stress include the severity of the care recipient’s illness, the duration of caregiving, and the accessibility of social support and financial resources.<sup>20, 27, 45</sup>

Table 20-1: Common Signs of Stress

<b>Physical</b>	<b>Psychological</b>	<b>Behavioral</b>
• Backaches	• Anger and frustration	• Emotional outbursts
• Change in eating patterns	• Loss of self-confidence and self-esteem	• Withdrawal from friends and family
• Diarrhea	• Loss of interest in and commitment to work	• Loss of punctuality and neglect of duty
• Elevated blood pressure	• Feelings of inadequacy, helplessness, and guilt	• Decrease in judgmental ability
• Fatigue	• Feelings of restlessness	• Inability to focus on tasks
• Gastrointestinal problems	• Depression	• Tearfulness
• Headaches	• Sense of being overwhelmed or overloaded	• Increased use of alcohol or other drugs
• Insomnia	• Mood swings	• Difficulty getting along with people
• Muscle tension	• Sense of failure	• Impaired work performance
• Weight loss	• Anxiety about the future	• Resistance to change

### Rewards of Caregiving

Although studies of caregiving tend to focus on the “burden” of caring, there also are many rewards. When asked about the positive aspects of providing HIV/AIDS care, informal caregivers cite opportunities to:

- Bring mission and purpose to one’s life<sup>25,46</sup>
- Develop empathy and self-knowledge<sup>12,37</sup>
- Gain a sense of personal effectiveness by demonstrating competence under very difficult circumstances<sup>25,37</sup>
- Experience the positive feelings associated with loving, caring, and feeling needed<sup>24,37</sup>

One study suggests that helping caregivers define the meaningful and valued aspects of their roles and become more attuned to “brief human moments” that create positive feelings can enhance both physical and psychological well-being.<sup>24</sup>



## CAREGIVER BURNOUT

■ Finding rewards in caregiving does not necessarily make these activities less stressful. A high degree of involvement, whether positive or negative, can produce stress. The term “burnout” is used to describe the process in which everyday stressors that are not addressed gradually undermine the caregiver’s mental and physical health.<sup>28</sup>

Psychologists define burnout in terms of three components: emotional exhaustion, depersonalization, and reduced personal accomplishment.<sup>47</sup> Emotional exhaustion represents the basic stress dimension of burnout. This condition is characterized by feelings of being emotionally overextended and lacking enough energy to face another day. Depersonalization represents the interpersonal dimension of burnout. Feeling drained and “used up,” the caregiver develops an emotional buffer of detached concern and interacts with others in a negative and callous manner. Reduced personal accomplishment represents the self-evaluation dimension of burnout. This dimension is characterized by a growing sense of inadequacy and may result in a self-imposed verdict of failure.

### Factors Contributing to Caregiver Burnout

The literature on caregiving suggests that both individual and situational factors increase the risk of burnout (Table 20-2). Empirical research suggests that situational factors are more strongly predictive of burnout than individual characteristics.<sup>47, 50, 51</sup> Caregivers experiencing work overload and interpersonal conflict over an extended period of time are particularly vulnerable to burnout.<sup>47</sup>

Table 20-2: Factors Contributing to Caregiver Burnout

Individual	Situational
<ul style="list-style-type: none"> <li>Age (younger caregivers more subject to burnout)</li> </ul>	<ul style="list-style-type: none"> <li>Role ambiguity (i.e., lack of clarity about what the caregiver is supposed to do)</li> </ul>
<ul style="list-style-type: none"> <li>High expectations of oneself and others</li> </ul>	<ul style="list-style-type: none"> <li>Conflict between role demands</li> </ul>
<ul style="list-style-type: none"> <li>High levels of commitment, dedication, and idealism</li> </ul>	<ul style="list-style-type: none"> <li>Work overload</li> </ul>
<ul style="list-style-type: none"> <li>The need to work hard</li> </ul>	<ul style="list-style-type: none"> <li>Job tension</li> </ul>
<ul style="list-style-type: none"> <li>The need to prove oneself</li> </ul>	<ul style="list-style-type: none"> <li>Interpersonal conflict (with care recipient, family members, colleagues, or supervisors)</li> </ul>
<ul style="list-style-type: none"> <li>Strong goal orientation</li> </ul>	<ul style="list-style-type: none"> <li>Inadequate preparation for caregiving</li> </ul>
<ul style="list-style-type: none"> <li>Difficulty saying no</li> </ul>	<ul style="list-style-type: none"> <li>Insufficient resources to meet the demands of caregiving</li> </ul>
<ul style="list-style-type: none"> <li>Difficulty delegating responsibility to others</li> </ul>	<ul style="list-style-type: none"> <li>Inadequate social support</li> </ul>
<ul style="list-style-type: none"> <li>Propensity toward self-sacrifice</li> </ul>	<ul style="list-style-type: none"> <li>Lack of recognition for the caregiving functions performed</li> </ul>
<ul style="list-style-type: none"> <li>Tendency to be a “giver” rather than a “receiver”</li> </ul>	<ul style="list-style-type: none"> <li>Workplace-related factors (e.g., unrealistic work targets, lack of decision-making autonomy, inadequate referral arrangements)</li> </ul>
Sources: References 25, 35, 48, 49.	Sources: References 28, 47, 49 – 51.

## Impact Of Caregiver Burnout

Caregiver burnout has serious consequences for the caregiver, care recipient, and health care system. Caregivers typically experience burnout in stages.<sup>48</sup> Early warning signs may include feeling less motivated, putting in more hours with poorer results, and/or voicing complaints about the caregiving role. During later stages, caregivers develop many of the physical, psychological, and behavioral problems listed in Table 20-1. Because burnout occurs gradually, caregivers tend to keep working until the downward spiral goes too far and the costs in performance and well-being become unacceptably high.<sup>47</sup>

Care recipients suffer when burnout leads to lower-quality care. Caregivers struggling with emotional exhaustion often become less sensitive to the care recipient's feelings and needs. This "compassion fatigue" increases the likelihood that the care recipient will be neglected; treated in a detached, mechanical fashion; or even subjected to mental/physical abuse.<sup>42, 52</sup> Burnout symptoms, such as decreased judgmental ability and difficulty focusing on tasks, make it more difficult for caregivers to competently perform clinical roles. As these changes occur, care recipients may be at increased risk for disrupted care or placement in a long-term care facility.<sup>50, 52</sup>

The health care system is negatively affected when burnout depletes the supply of experienced caregivers and creates a need for continual training of replacements. Burnout among caregivers who remain in the system may require greater commitments of resources for their physical and mental health care.<sup>10</sup> The health care system incurs additional costs when relatives and family members become too exhausted to provide in-home care and responsibility shifts to formal service providers.

## PREVENTING AND MANAGING BURNOUT IN INFORMAL CAREGIVERS

■ Health professionals historically have been trained to focus on the clinician-patient relationship, with little attention to the needs of the informal caregiver.<sup>48</sup> Newer educational models encourage health professionals to develop "partnerships" with informal caregivers that include periodic assessment of the caregiver and the patient.<sup>53</sup> By assessing the causes and levels of stress in informal caregivers, health professionals can more effectively tailor interventions to meet their needs.

## Assessing Caregiver Burden

Some informal caregivers accompany HIV-positive patients to medical appointments and can be easily identified. If a patient's sources of emotional and practical support are not known, this question should be asked when taking the family and social history. Once informal caregivers are identified, their level of perceived burden and the presence of affective disorders, such as depression and anxiety, should be assessed.<sup>52</sup> The availability, accessibility, and appropriateness of social support resources also should be evaluated.<sup>32</sup> Because caregiver burden tends to intensify over time, particularly among caregivers with the fewest personal and material resources, health professionals should periodically reassess each caregiver's problems and needs.<sup>45</sup>

The early detection of caregiver burden conserves resources by preventing or reducing medical visits for psychosomatic complaints.<sup>54</sup> In many cases, health professionals can assess the degree of burden by asking just a few questions. Parks and Novielli offer the following examples:<sup>52</sup>

- Do you feel you are currently under a lot of stress?
- What aspects of your day are the most stressful?
- Have you been feeling down or blue lately?
- Have you been feeling more anxious or irritable lately?
- Do your friends and family watch the care recipient for you so that you have time for yourself?
- Do you have any outside help?
- What do you do to relieve your stress and tension?

Information on caregiver stress and burden also can be obtained from self-administered questionnaires. For example, the American Medical Association has developed a caregiver self-assessment questionnaire for use in physician offices.<sup>53</sup> This questionnaire contains 16 yes/no items and 2 global scale items designed to measure indices of emotional and physical distress. Health professionals can use the caregiver's total score or scores on individual questions to assess the need for medical or counseling interventions and to recommend appropriate community resources.

### Counseling Caregivers

Information gained from the systematic assessment of caregiver burden places health professionals in a stronger position to help informal caregivers cope with stressors. Time should be set aside during each medical appointment to discuss what is happening in caregivers' lives and to give them a chance to express their feelings.<sup>32</sup> In addition to serving as empathic listeners, clinicians may be able to offer practical suggestions for eliminating or better managing stressors. They also can help caregivers recognize and build on aspects of their lives that contribute to physical, psychological, and social well-being.<sup>55</sup>

Caregivers of HIV-positive children require comprehensive assessments of emotional burden and social support.<sup>32</sup> One study of parents, relatives, and friends caring for HIV-positive children<sup>31</sup> identified six psychosocial needs:

1. Need to Maintain Physical Integrity  
*(i.e., desire to be knowledgeable about the modes of HIV transmission and ways of protecting the infected child from opportunistic infections)*
2. Need to Learn  
*(i.e., desire to know the different roles of the health professionals with whom they interact, to receive information on new HIV/AIDS treatments, to have their questions answered honestly, and to learn how to deal with stress)*
3. Need to Act According to a Set of Beliefs and Values  
*(i.e., desire to have health professionals respect them for doing what they believe is "right")*
4. Need to Communicate  
*(i.e., desire to be kept informed on the condition of the child and to be able to express their feelings. Desire for greater support from their informal social networks)*
5. Need to Feel Worthwhile and Useful  
*(i.e., desire to be supported by health professionals throughout the course of disease)*

## 6. Need for Continuity of Care

*(i.e., desire to develop and maintain relationships with the same group of health professionals)*

Caregivers experiencing guilt, hopelessness, or spiritual distress may need to be referred for religious or spiritual counseling. Discussions with clergy, hospital/hospice chaplains, or other spiritual counselors can help caregivers find comfort and peace even in the absence of strong religious or philosophical belief systems.<sup>56</sup> Caregivers with affective disorders or high levels of burden should be referred to mental health professionals for assessment and counseling.

Health professionals sometimes overlook the importance of extending counseling into the bereavement period.<sup>57</sup> If the relatives and friends providing care had a close relationship with the care recipient, grief may extend for two or more years after death.<sup>58</sup> Bereavement counseling can help caregivers mourn appropriately, cope with the changes resulting from their loss, and plan for the future. (See Chapter 16: Grief and Bereavement.)

## Strategies for Counteracting Burnout and Promoting Self-Care

The literature on caregiving describes a wide variety of strategies for preventing and managing burnout. Most of these strategies focus on ways of managing the caregiving situation rather than on eliminating or reducing stressors in the caregiving environment.<sup>59</sup> Caregivers are advised to reevaluate caregiving demands and resources, clarify values and priorities, and adopt coping strategies that match the nature of the stressors. Anecdotal reports from informal caregivers suggest that many of these strategies are effective; however, relatively few studies have been conducted to assess actual outcomes.<sup>47</sup> Six approaches to counteracting burnout and promoting self-care receive frequent mention in the literature:

### 1. Use Problem-Focused Strategies to Cope with Stress.

Research suggests that caregivers who use problem-focused strategies to cope with stressful situations are less likely to experience burnout than those who use emotion-focused strategies.<sup>16, 41, 60</sup> Problem-focused strategies include gathering information, planning, and taking direct action. Emotion-focused strategies include efforts to escape or avoid problems, emotional outbursts, and self-accusation. Health professionals often can assess informal caregivers' risk for burnout by asking hypothetical questions about coping strategies.<sup>52</sup> For example, an emotion-focused response to the question, "When something goes wrong with your partner's care, how would you react?" may signal a need for further assessment and counseling.

Specific examples of problem-focused approaches to stress can help caregivers move toward more active, engaged forms of coping. Books and web sites for caregivers offer the following suggestions: (See Table 20-3 for additional web sites.)

- *Educate yourself about your care recipient's condition.* Try to read at least one new resource on HIV/AIDS and/or caregiving each week. Understanding the disease process and caregiving issues will make it easier to deal with day-to-day problems.<sup>61</sup>
- *Ask questions.* When accompanying the care recipient to a medical appointment, don't be afraid to ask questions or to admit that you don't understand what the health professional is saying.<sup>61</sup> Use a journal to note changes in the care recipient's health so that you can confidently discuss these concerns during medical appointments.<sup>62</sup>

- *Keep a daily journal to record the events that cause stress in your life.* After several weeks, you should be better prepared to identify problems, evaluate the criticality of the situation, and weigh possible solutions.<sup>48</sup>
- *Discuss your problems with someone else.* In addition to learning how others deal with similar problems, you may be able to help them manage stress.<sup>63</sup>
- *If your coping strategies are not working, seek professional help.* A mental health counselor may be able to help you better understand your feelings and needs and suggest new ways of managing stress.<sup>48</sup>

## 2. Change Caregiving Patterns.

Informal caregivers sometimes get so involved with their work that they lose all perspective and burn out quickly.<sup>28</sup> This situation can be avoided by helping caregivers establish realistic goals based on an honest assessment of what they can and cannot do. Once goals are established, caregiving patterns can be changed by:

- Breaking down tasks into small acts of care<sup>64</sup>
- Learning how to adjust the pace of caregiving<sup>65</sup>
- Asking others to help with caregiving tasks<sup>61–63, 66</sup>
- Encouraging the care recipient to help with tasks and continue self-care as long as possible<sup>21</sup>

Caregivers with high levels of subjective burden should be reminded that no one expects them to be perfect. A “level of care prescription” from the physician may help them achieve a better balance between caregiving responsibilities and their own physical and mental health needs. One guide for caregivers offers the following advice:

*Let go. No one person can do it all. Acknowledge that as a human you have limitations just like everyone else. Allow others to help you; delegate responsibilities. Practice asking for help and saying no once in awhile. Lower your expectations and tolerate that things might not get done perfectly. . . . Prioritize tasks and learn to manage your time.*<sup>48</sup>

## 3. Adopt Relaxation Techniques.

Many caregivers use relaxation techniques to manage stress and prevent burnout. These techniques should fit with the individual caregiver’s interests, time, and resources. Some caregivers may wish to learn yoga or tai chi, while others may prefer to take a walk, listen to music, or soak in a warm bath. Armstrong describes a visualization technique in which caregivers close their eyes and imagine a scene of beauty and tranquility into which they project themselves. She also suggests reserving ten minutes each day for a “worry break.”<sup>28</sup> The idea is to consolidate all worries into this period and then to set them aside until the next day. Additional relaxation techniques recommended by caregivers include meditation, deep-breathing exercises, massage therapy, gardening, exercising, reading, and socializing with friends.

#### 4. Strive for Good Health.

Healthful lifestyles play an important role in burnout prevention. By eating three balanced meals each day, engaging in regular physical activity, and sleeping 7 to 9 hours each night, caregivers can increase their capacity to manage stress. In addition to promoting cardiovascular fitness and building muscular strength, exercise programs increase energy and provide a needed outlet for pent-up emotions. These programs may involve vigorous workouts, but significant health benefits also can be gained from just walking 20 to 30 minutes each day. One study of informal caregivers of HIV-positive minority women suggests that maintaining a regular exercise regimen, along with a spiritual focus, can be an effective coping strategy.<sup>67</sup>

Some caregivers react to stress by engaging in unhealthful behaviors such as smoking, drinking, and drug misuse. While these chemicals may provide a “quick fix,” their long-term use is likely to increase anxiety and health problems – particularly among caregivers who are not eating or sleeping properly. Caregivers should be informed of the harmful effects of these behaviors and encouraged to participate in counseling and/or treatment programs. Alternative and complementary therapies, such as acupuncture, aromatherapy, acupressure, and massage, also may help to relieve stress.

#### 5. Maintain a Life outside the Caregiving Role.

Caregivers often respond to stress by becoming over-involved with caregiving duties.<sup>28</sup> The constant demands of the job may cause caregivers to neglect friends, interests, and activities that once gave them pleasure. Health professionals should encourage caregivers to take regular breaks and to keep up with their interests and hobbies as best they can.<sup>62</sup> For some caregivers, outside employment may provide relief from everyday tensions. Others may simply need to get away for a few hours. Health professionals can help caregivers “jump-start” the self-renewal process by linking them with social support resources.

#### 6. Build a Support Network.

Although U.S. cultural norms emphasize self-sufficiency,<sup>68</sup> empirical studies suggest that caregivers with higher levels of social support are less likely to experience negative outcomes.<sup>69</sup> Social resources can provide emotional comfort and practical support; reduce social isolation; and offer humor, recognition, and encouragement.<sup>47</sup> They also can be a valuable source of new information and insights.<sup>59</sup>

Social support resources should be explored if the caregiver’s answers to screening questions suggest a need for outside assistance. Formal sources of social support include:

- AIDS service organizations (provide supportive services such as buddy/companion programs, case management, emergency financial support, food banks, housing assistance, nutritional counseling, and transportation assistance)
- Home health agencies (provide skilled nursing care, homemaker and personal care services, and rehabilitation services)
- Home-delivered meal programs
- Hospice programs (provide in-home or residential palliative and supportive care services for patients in the terminal stages of illness)
- Respite care programs (provide short-term, temporary nonmedical care for people with disabilities and chronic or terminal illnesses)

## Respite Care

Respite care provides short-term, temporary, nonmedical care to people with disabilities and chronic or terminal illnesses so that their primary caregivers can rest, take a vacation, or attend to personal tasks. Some respite programs send a caregiver to the care recipient's home; others require that the individual come to a respite care facility. Services are provided for varying lengths of time, depending upon the primary caregiver's needs and available resources.

Respite programs are provided by a variety of organizations, including adult day care centers, hospitals, home health agencies, nursing homes, local Red Cross chapters, schools, and faith communities. In some localities, the families of people with chronic illnesses have formed respite care exchange programs.<sup>65</sup>

The ARCH National Respite Network and Resource Center operates a national locator service (<http://www.chtop.com/locator.htm>) to help caregivers locate respite care providers in their states and communities. Contact information also can be obtained from AIDS service organizations, health departments, and United Way offices.

Studies of the impact of respite care have documented significant improvements in caregivers' emotional well-being and perceived ability to cope, but these effects may be short-lived without repeated use.<sup>42</sup> Many family caregivers who could benefit from respite services never request this help because of fears that they will be shirking their responsibilities, that something will go wrong during the stay, or that they will no longer feel needed if the temporary caregiver performs well.<sup>66</sup> Parents of HIV-positive children may be particularly reluctant to use respite services because of the guilt and stigma associated with the mode of transmission.<sup>32</sup> Discussions with health professionals and families who have used respite care may help informal caregivers overcome these obstacles.

Informal sources of social support include:

- Family members, other relatives, and friends
- Other caregivers who are willing to rotate caregiving responsibilities
- Faith communities
- Caregiver support groups

## Caregiver Support Groups

Support groups bring caregivers together to share feelings and experiences and to learn from one another. In contrast to group therapy, their purpose is not to change participants' behaviors but to enhance decision-making capacity and coping effectiveness.<sup>70</sup> Research suggests that support groups can significantly reduce caregiver stress; however, they cannot substitute for professional counseling or therapy when these services are needed.<sup>42</sup>

One of the major benefits of support groups is to provide an outlet for emotions that cannot be expressed in the home.<sup>48</sup> Support groups also provide opportunities to:

- Become better informed about HIV/AIDS, new treatments and community resources
- Share problems and brainstorm solutions
- Establish social contacts
- Lessen the sense of stigma associated with HIV care
- Obtain recognition for caregiving efforts
- Arrange respite care exchanges with other caregivers

To take advantage of these opportunities, the relatives and friends of HIV-positive individuals must be willing to divulge their caregiving status – something that may be very difficult to do in small, closely knit communities. They also must find the time to attend support group meetings, locate someone who can provide care in their absence, and make arrangements for transportation. Telephone support groups may be an option for caregivers who wish to maintain anonymity or who cannot attend meetings.

## Educating Caregivers

Many of the stressors contributing to caregiver burnout are caused by misinformation or the lack of useful information. After assessing the caregiver's level of knowledge about HIV/AIDS and the types of tasks performed, health professionals should offer appropriate education. The educational topics may include:

- Modes of HIV transmission
- Effects and side effects of medications
- Drug-taking schedules and strategies for improving adherence
- Basic information on nutrition
- Symptoms and problems to expect as the disease progresses

Informal caregivers also may benefit from instruction on infection control, pain and symptom management, and simple nursing techniques (e.g., administering injections, cleaning and dressing ulcers).

As new treatments are discovered and standards of care change, informal caregivers need to receive ongoing education. Topics should be introduced slowly, over an extended period, since individuals under stress can process only small amounts of information at a given time.<sup>42</sup> To the extent possible, these topics should be explained in nonmedical terms, with ample opportunity for caregivers to ask questions. The use of educationally and linguistically appropriate videos and written materials may help reinforce key concepts.

## PREVENTING AND MANAGING BURNOUT IN FORMAL CAREGIVERS

■ Counteracting burnout among formal caregivers requires a two-pronged approach. In addition to helping individual caregivers develop more effective coping strategies, interventions should target policies and practices in the workplace that create or exacerbate stress.<sup>28</sup> Formal caregivers can benefit from coping effectiveness training, but these techniques will be only partially effective if the work environment is not supportive.<sup>47</sup>

Situational strategies attempt to reduce the incidence of burnout by eliminating or modifying worksite stressors. These strategies promote engagement with work (i.e., high energy, strong involvement, and a sense of self-efficacy) by:

- Establishing clear job descriptions and good referral mechanisms
- Setting realistic work targets
- Restructuring jobs to make workloads more manageable
- Providing training on HIV management, new approaches to pain and symptom management, and effective ways of communicating with patients and family members
- Offering on-site health promotion programs
- Encouraging staff to participate in policy decisions that affect their work
- Providing regular time off and appropriate rewards
- Scheduling regular memorial services for staff wishing to remember and grieve lost patients

Conflict among formal caregivers can be prevented, or at least managed, by scheduling regular forums for case discussion.<sup>40</sup> Although these sessions reduce the time available for direct service,



they help promote collegiality, information sharing, and a consensual, comprehensive approach to care.<sup>40,42</sup> Case forums may need to be supplemented by support groups, where caregivers can openly acknowledge the stresses of their work and discuss ways of eliminating or coping with stressors.

## CONCLUSION

■ Over the past decade, improved antiretroviral regimens, concerns about the costs of inpatient care, and consumer preferences have shifted HIV care from hospitals to home and community-based settings.<sup>9,71</sup> This shift has placed heavy demands on the family and friends of HIV-positive individuals, many of whom have very little knowledge of HIV management or available resources. Formal caregivers also are faced with intense pressures as they struggle to keep pace with rapidly changing standards of HIV care.

Because informal caregivers experience varying types of burdens and have differential access to financial resources and social support, strategies for counteracting burnout and promoting self-care must be tailored to their individual needs. Many of the strategies recommended in the caregiving literature assume that caregivers are middle-income, fairly well educated, and surrounded by family and friends who are willing to help. As HIV continues to penetrate poor and marginalized communities, new or modified approaches may be needed to help caregivers manage stress and maintain good physical and mental health. These strategies are likely to require family-centered case management and integrated primary care and behavioral health services for patients and caregivers.

Strategies for counteracting burnout among formal caregivers must address both individual and situational factors. Formal caregivers may be able to change the ways in which they deal with stressors by developing a better understanding of their personalities, values, and coping strategies. However, their efforts will be only partially effective if negative policies and practices in the workplace remain unchanged. Finding ways to enhance the working environment may ultimately prove more effective in preventing burnout than teaching caregivers how to manage stress.

Advances in HIV antiretroviral therapy are changing but not necessarily improving the conditions of caregiving. Although HIV-positive individuals are living longer, many are developing therapy-related side effects that require monitoring and management in the home. By systematically assessing the causes and levels of stress in informal caregivers, health professionals can offer education and counseling that is more responsive to individual needs.

Table 20-3: Helpful Web Sites for Caregivers

Major Features & Resources	Caregiver.com www.caregiver.com	CaregiverZone www.caregiverzone.com	Caregiving.com www.caregiving.com	Empowering Caregivers www.care-givers.com
Web site focus	All diseases/age groups	Elder care	Elder care	All diseases/age groups
Online articles and/or recommended readings	■	■	■	■
Bulletin board	■	■	■	■
Chat room	■			■
Conferences and workshops	■			
Expert consultation on caregiver issues		■	■	
Newsletter	■	■	■ (\$)	■
Other publications	Magazine (\$)		<i>Caregivers Handbook</i> (\$)	
Support groups			■	
Other resources	Online store*	Resource locator service by city/state; online store	Educational packets (\$)	Journal exercises; prayer for healing circle; online store*

\$ indicates a charge for the resource/service

\*under development

Table 20-3: Helpful Web Sites for Caregivers (continued)

Major Features & Resources	Family Caregiver Alliance www.caregiver.org	Friends' Health Connection www.48friend.com	GriefNet www.rivendell.org	HealingWell.com www.healingwell.com	Health Cares Exchange Initiative www.hcei.org
Web site focus	Alzheimer's disease and other cognitive disorders	All diseases/age groups (Membership fee)	Grief support for all diseases/age groups	All diseases/age groups	All diseases/age groups but specializes in AIDS
Online articles and/or recommended readings	■		■	■	■
Bulletin board		■		■	
Chat room				(HIV-specific)	
Conferences and workshops		■ (New Jersey only)			■ (\$)
Expert consultation on caregiver issues	■				■
Newsletter	■		■	■	
Other publications	Reports on family caregiving			<i>HIV/AIDS Resource Directory</i> (\$)	
Support groups	■	Caregivers are matched for one-on-one support	E-mail support group for family/friends of PLWH (\$)		
Other resources	Conference webcasts	Bookstore	Bookstore	Bookstore; free e-mail and web pages	Organizes intercity AIDS caregiver exchanges (\$)

\$ indicates a charge for the resource/service

Table 20-3: Helpful Web Sites for Caregivers (continued)

Major Features & Resources	National Family Caregivers Association www.nfcacares.org	Queernet www.queernet.org	WebofCare.com www.webofcare.com	Well Spouse Foundation www.wellspouse.org
Web site focus	All diseases/age groups	Gay, lesbian, bisexual, and transgendered people	All diseases/age groups	All diseases/age groups (Membership fee)
Online articles and/or recommended readings	■		■	
Bulletin board			■	
Chat room			■	■
Conferences and workshops				■
Expert consultation on caregiver issues	■		■	Mentors available for new caregivers
Newsletter	■		■	■
Other publications	■		<i>Coping with Caregiver Worries</i> (\$) <i>Mainslay: For the Well Spouse of the Chronically Ill</i> (\$)	National network of support groups
Support groups		On-line support group for HIV/AIDS caregivers	Grief support groups	Letter writing "round robins"
Other resources	Caregiver kits; resource locator service; Rx discounts		Help with caregiving tasks; HIV resource database	

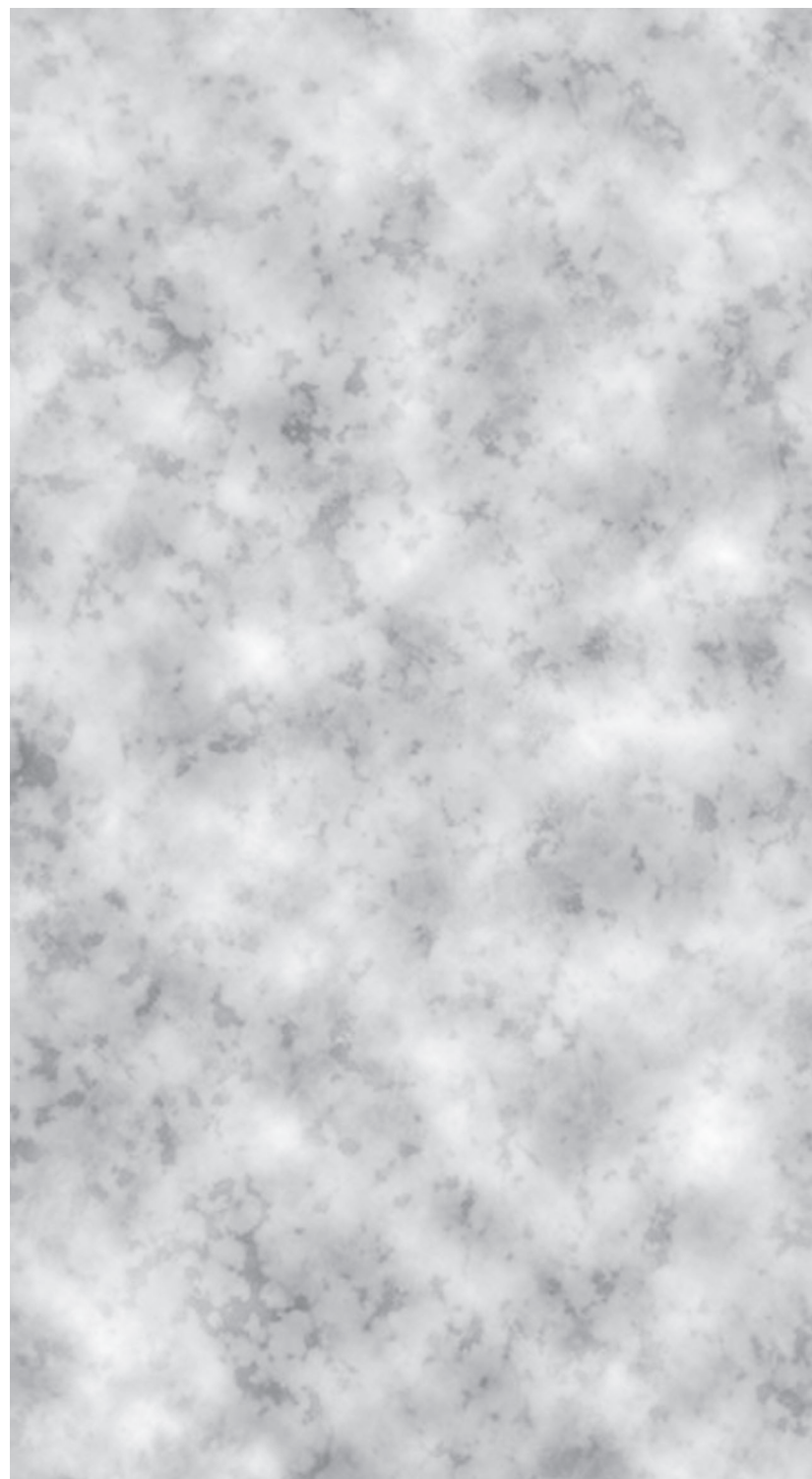
\$ indicates a charge for the resource/service

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# Patient-Clinician Communication

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## WHY PATIENT-CLINICIAN COMMUNICATION ABOUT PALLIATIVE CARE IS IMPORTANT IN HIV DISEASE

■ Patients with chronic and terminal diseases like AIDS, cancer, and end-stage lung and heart disease frequently do not talk with their clinicians about the kind of care they want at the end of their lives.<sup>1-4</sup> Randomized controlled trials of interventions to improve patient-clinician communication about end-of-life care have included use of advance directives,<sup>5</sup> educational interventions with patients and/or physicians,<sup>6,7</sup> and the provision of prognostic information to patients and physicians,<sup>6</sup> but have not been successful in improving communication about end-of-life care. The reasons these trials have been unable to improve communication are not entirely clear, but part of the reason is likely the complexity and difficulty of communicating about palliative care and particularly about dying and death.

Advances in the treatment of HIV infection have been dramatic and unprecedented with marked improvements in survival and quality of life.<sup>8,9</sup> The new antiretroviral regimens, however, are not successful for all patients; many patients find themselves facing a death from AIDS at the same time that many others are having favorable responses to antiretroviral therapy. Patients and clinicians have described death from AIDS as changing from fate during the early era of AIDS to tragedy during the era of highly active antiretroviral therapy.<sup>10</sup> In this way, caring for the patient dying of AIDS has become more similar to caring for patients dying of other chronic diseases and some clinicians report that these changes have made it harder to talk with patients about dying and end-of-life care.<sup>10</sup>

Similar to the data on patients with other chronic diseases, most patients with AIDS have not discussed with their primary care clinicians the kind of care they want at the end-of-life. In a survey completed in 1985 of patients with HIV infection, although 73% wanted to discuss life-sustaining treatment with their physicians, only one-third of patients reported having had such a discussion.<sup>11</sup> In a study of 1031 persons with AIDS published in 1990, 68% knew of advance directives, but only 11% had talked with their provider about advance directives.<sup>12</sup> More recently, in a U.S. probability sample of 2864 patients representing 231,400 adults receiving care for HIV, 50% of patients reported having some discussion about end-of-life care with their provider and 36% of patients reported having an advance directive.<sup>1</sup> Although these proportions may be increasing over time, still at least half of patients with HIV infection or AIDS have not discussed end-of-life care with their primary care provider and two-thirds have not completed advance directives. Furthermore, many of these studies document important differences in the proportion of patients who discuss end-of-life care with their primary care clinicians according to HIV risk factor, race, and ethnicity. Gay men are more likely to have been counseled about and executed a prior directive than injection drug users<sup>1,12</sup> and whites are more likely to have discussed end-of-life care than blacks and Hispanics.<sup>1,2</sup> Furthermore, even when clinicians communicate about end-of-life care, injection drug users report lower quality of communication about end-of-life care than gay or bisexual men.<sup>13</sup> Therefore, many patients with HIV infection, particularly

minorities and injection drug users, represent important patients for whom to improve the quality of communication about end-of-life care. Since persons with AIDS who have discussed their preferences with their clinicians are significantly more likely to receive care in accord with their preferences,<sup>14</sup> these studies suggest patient-clinician communication may be an important step in providing appropriate end-of-life care but that this communication occurs infrequently.

Several surveys of HIV-infected individuals have examined patient preferences for life-sustaining treatment, and understanding these preferences may help clinicians discuss palliative care with their patients. Singer and colleagues showed that of 101 patients with HIV, 60% to 70% of patients would want mechanical ventilation and CPR in the event of an acute potentially reversible illness.<sup>15</sup> Mouton and colleagues showed that patient treatment preferences were associated with patient ethnicity in that whites were twice as likely to prefer a treatment approach that focused on relieving pain as opposed to extending life and that this association persisted even after controlling for education, income and HIV risk behavior.<sup>16</sup> Wenger and colleagues asked patients if they would prefer life-extending care or care focused on comfort and found that although 30% stated that they would definitely prefer to extend life, almost 25% stated they would definitely prefer to focus on relieving discomfort even if it meant not living as long.<sup>1</sup> While it may be useful for clinicians to be aware of these results, there is such diversity of preferences for patients with HIV infection as to make patient-clinician communication of utmost importance.

## COMMUNICATING WITH PATIENTS AND SIGNIFICANT OTHERS ABOUT PALLIATIVE CARE

■ A number of review articles and books provide clinicians with advice about how to communicate with patients and their significant others concerning the delivery of bad news<sup>17-20</sup> and palliative medicine.<sup>21</sup> Although these reviews provide valuable insights, they tend to focus on the delivery of bad news. Communication about end-of-life care with patients suffering a potentially life-threatening illness such as HIV infection or AIDS includes a spectrum of communication about prognosis, treatment options, goals of therapy, values, and treatment preferences.<sup>22</sup> Clinicians caring for patients with chronic and life-threatening diseases need to learn how to discuss end-of-life care with their patients.

In the acute care settings, these conversations may concern patients incapable of participating in these discussions because of the severity of their illness, and often clinicians must communicate with family members and friends of the patient.<sup>23-25</sup> The acute care setting frequently involves complicated, confusing, and even discordant data that can be overwhelming to patients' significant others and make them more dependent on the health care team for assistance with decisionmaking.<sup>26</sup> For example, a critically ill patient may have improvement in one organ system while showing deterioration in several others. There are also more likely to be discordant views about the appropriate treatment among hospital team members, consultants, and primary care providers as well as the significant others.<sup>26</sup> Finally, patients with HIV infection may be at higher risk of having estranged family members who are unaware of their HIV infection, let alone their treatment preferences. Injection drug users commonly have fractured social situations and poor social support that can also complicate these discussions. Therefore, clinicians practicing in these settings and caring for patients with HIV infection must be skilled at communicating with patients, extended family members, and significant others in the lives of their patients.

## ADVANCE DIRECTIVES

■ In the 1980s, many prominent investigators believed that advance directives would allow patients to inform their health care providers what kind of care they would want if they became too sick to speak for themselves.<sup>27-29</sup> Advance directives, including the living will and durable power of attorney for health care, were promoted as a way to improve end-of-life care. (See Chapter 18: Legal and Financial Issues.) A logical extension of this argument is that advance directives could diminish the need for clinicians to discuss end-of-life care with patients and their significant others. However, numerous studies have suggested that advance directives do not significantly affect the aggressiveness or costs of subsequent care<sup>5, 7, 30</sup> and do not change end-of-life decisionmaking in hospital settings.<sup>31-33</sup> These studies have led many to lose faith in advance directives.<sup>34-36</sup> However, despite a general disillusionment with the documents, they can play an important role in some circumstances. For example, patients who would want their surrogate decisionmaker to be a same-sex partner or friend rather than their legal next of kin should complete a durable power of attorney for health care. However, it is important that clinicians inform patients that completion of the document is only the first step; patients must also discuss their values and their treatment preferences with this person. Furthermore, recent evidence shows that the most important factor associated with whether patients with HIV infection have an advance directive is whether their primary care provider has discussed advance directives with them.<sup>1</sup> These data suggest that providers play an important role in increasing advance directive completion.

Advance care planning, defined more broadly as an ongoing discussion among patients, surrogate decisionmakers, and providers, may be a more effective means of allowing patients' wishes to be followed if they become too ill to speak for themselves. Although to date there are no data demonstrating the effectiveness of advance care planning, such communication is an important part of good quality medical care. Advance care planning incorporates a broad set of goals and involves having the communication discussed in this chapter.

## CURRENT QUALITY OF COMMUNICATION ABOUT PALLIATIVE CARE

■ There are limited data examining the quality of communication about palliative care with patients with HIV infection or AIDS. One study assessing the quality of communication suggests that patients are relatively satisfied with this communication,<sup>13</sup> but this may be due, in part, to patients' low expectations. Furthermore, in this study 25% of patients and their primary care clinicians did not agree about whether they had discussed end-of-life care, suggesting the quality of communication may be limited.

Previous researchers have assessed the quality of patient-clinician communication with general hospitalized patients about "Do Not Resuscitate" orders.<sup>37</sup> These studies found substantial shortcomings in the communication skills of clinicians, noting that physicians spent 75% of the time talking and missed important opportunities to allow patients to discuss their personal values and goals of therapy. These investigators also showed that the majority of these physicians felt that they did a good job discussing "Do Not Resuscitate" orders, but that they had very little training about how to hold these types of discussions with patients.<sup>38</sup> In a more recent study, these same investigators examined communication between primary care physicians and outpatients about advance directives.<sup>39, 40</sup> In this study, investigators again found that physicians

rarely elicited information about patient goals and values, avoided discussing uncertainty, and rarely asked patients to explain why they had specific treatment preferences or what was important to them about their quality of life after treatment. There is also some data to suggest that non-physician primary care providers such as nurse practitioners or physicians' assistants are no better than physicians at communication about end-of-life care.<sup>13</sup> In summary, these data suggest that the quality of patient-clinician communication about end-of-life care is poor and unlikely to improve under our current system of health care delivery and medical education. These studies challenge us to develop better ways to teach end-of-life communication skills to clinicians in training and in practice.<sup>26</sup>

## THE ROLE OF THE PATIENT'S SIGNIFICANT OTHERS IN COMMUNICATION ABOUT PALLIATIVE CARE

■ The western ethical principle of patient autonomy dictates that patients should be involved in decisions about their medical care and that communication about a patient's care should occur with the patient. However, it is important to recognize that many patients would like their significant others to be directly involved in discussions and even decisions about their care. In fact, when patients are asked for their preference in a circumstance where they could not communicate and where their advance directives differed from what their loved ones would like done, most patients stated they would rather that the wishes of their loved ones be followed.<sup>41</sup> This study shows the importance of involving patients' significant others in end-of-life decisionmaking. The importance of including the patients' significant others becomes even more important when patients are from cultures that focus on the family as the decisionmaking unit. Clinicians working with patients from cultures that focus decisionmaking on the family unit must develop the skills and expertise in communicating with the entire family.<sup>42</sup> (See Chapter 14: Culture and Care.)

If a patient can no longer communicate his or her wishes for medical care, the legal surrogate decisionmaker is usually identified in a hierarchical fashion. First priority usually goes to an individual named in a durable power of attorney for health care and then to family members. In most States and countries, the family members primarily responsible for decisionmaking are, in order, legal spouse, parent, adult children, and siblings. If there is more than one individual at a given level in the hierarchy, such as occurs in the family with several siblings, many States and countries require that the decision be based on group consensus. Although the law may specify a legal decisionmaker, in most cases the actual decisionmaking process occurs in a series of conferences and individual meetings with all individuals who have strong ties to the patient.<sup>43</sup> Decisionmaking is usually facilitated if all interested individuals are involved early and completely.

## THE ROLE OF THE HEALTH CARE TEAM IN COMMUNICATION ABOUT PALLIATIVE CARE

■ The health care team is made up of a number of health care professionals, including physicians, nurses, social workers, and others. Different team members may play varying roles in different settings. It is important that all team members who are directly involved in communication with patients and their significant others be aware of all communication about end-of-life care. Consensus within the team is an important step in the process of making decisions about withholding or withdrawing life-sustaining therapy regardless of whether the setting is an intensive care unit, hospital ward, or outpatient setting. Of the few legal cases brought against

health care providers for end-of-life decisions, most have been initiated by disgruntled colleagues. In addition, it is important that all team members are informed about the medical situation and plan of therapy so that patients and their significant others do not receive conflicting messages from different staff members.

Acute care nurses play a pivotal role in clinician-significant other communication in the acute care settings.<sup>44-46</sup> Significant others rate the nurses' skill at this communication as one of the most important clinical skills of nurses.<sup>47-50</sup> In a meta-analysis of studies assessing the needs of significant others who have a loved one in intensive care, 8 of the 10 needs identified relate to communication with clinicians, and the majority of these communication needs are primarily addressed by the nurses.<sup>47</sup> In the outpatient setting, nurses, nurse practitioners, and physicians' assistants also may play an important role. However, there are data to suggest that nurses are not better at communication about end-of-life care than physicians<sup>51</sup> and, in fact, in the outpatient setting nurse practitioners and physicians' assistant may actually not do as well as physicians in communication about end-of-life.<sup>13</sup> Consequently, it is likely that nurses, nurse practitioners, and physicians' assistants could also benefit from efforts to improve the quality of this communication.

In acute care settings, social workers often play an important role in identifying and contacting significant others, coordinating and scheduling family conferences, and keeping in contact with significant others during the hospital stay. This is a very important role in providing sensitive care and in communicating with patients' significant others. The person filling this role should be aware of the medical prognosis and plans and be an active part of the health care team. In the outpatient setting, social workers may be the ones primarily responsible for many of these discussions with patients and consequently need to develop the same skills and expertise in this communication.

## THE ROLE OF CULTURE AND ETHNICITY IN COMMUNICATION ABOUT PALLIATIVE CARE

■ Culture and ethnicity are important factors to consider in patient-clinician communication, and cross-cultural dynamics may be especially important in discussing palliative care for patients with HIV infection. Black and Hispanic persons, women, and injection drug users are disproportionately affected by HIV infection<sup>52</sup> and are at increased risk for receiving lower quality medical care.<sup>53, 54</sup> They are also less likely to communicate with their primary care clinicians about end-of-life care than white homosexual or bisexual men with AIDS.<sup>1, 2, 55</sup> Consequently, they represent important populations to target for improvements in the quality of communication. If this is to be done, it will be important to identify the barriers to communication unique to these patient groups and individuals. Nonwhite patients with AIDS are more likely to report that they don't like to talk about end-of-life care and are more likely to worry that talking about death could bring death closer than white patients with AIDS.<sup>56</sup> Similarly, injection drug users and women with high-risk sexual partners are also more likely to worry that if they talked about death it could bring death closer.<sup>56</sup> Clinicians should be aware of the diversity of barriers that may exist for patients from different cultures and be open to discussing these barriers openly with patients.<sup>56, 57</sup>

## WHEN TO TALK ABOUT PALLIATIVE CARE

■ It is impossible to be prescriptive about the “right” time to discuss palliative and end-of-life care, except to say that we should talk about it earlier than we usually do. Oftentimes, clinicians, particularly physicians, wait until they have decided that life-sustaining treatments are no longer indicated before they initiate communication about palliative and end-of-life care with patients or their significant others. Patients and significant others may be just beginning to think about withdrawing life-sustaining treatments while clinicians are feeling increasingly frustrated at providing care they believe is no longer indicated. Alternatively, the patients and significant others may be considering withdrawal of life-sustaining treatments well before the health care team. The team members may also vary in the timing with which they believe that life-sustaining therapy should be withheld or withdrawn. In the acute care setting, nurses often come to this conclusion earlier than physicians, which can lead to extreme frustration for some nurses<sup>58, 59</sup> and interdisciplinary conflict for physicians and nurses.

A potential solution to this difficulty is to begin discussions with the health care team, patients, and significant others early in the course of a chronic illness. However, early in the course of care these discussions may focus on prognosis, goals of therapy, and the patients' values and attitudes toward medical therapy. These early discussions may foreshadow or set the stage for subsequent discussions about transitioning to palliative care goals or about withdrawing or withholding life-sustaining treatments. These discussions can also be a way for clinicians to let patients and their significant others know that palliative care and end-of-life care are important topics that the clinician is willing to discuss.

## HOW TO TALK ABOUT PALLIATIVE CARE

■ Because discussing palliative care with patients and their significant others is an important part of providing high quality care for patients with life-threatening diseases, these discussions should be approached with the same care and planning that are given to other important medical procedures. For example, 1) time and thought should be put into the preparations needed prior to holding this discussion, 2) the location of the discussion should be planned, 3) if possible, a preliminary discussion should be held with the patient about who should be present and what will be covered during the discussion, and 4) what is likely to happen after the discussion should be anticipated. These four issues address the processes that ideally should occur before, during, and after the discussion. Table 21-1 outlines some of the steps that may facilitate good communication about palliative care and these are described in more detail below.

Table 21-1: Components of a Discussion About End-of-Life Care

### I. Making Preparations before a Discussion about End-of-Life Care

- Review previous knowledge of the patient and/or their significant others
- Review previous knowledge of the patient's attitudes and reactions
- Review your knowledge of the disease – prognosis, treatment options
- Examine your own personal feelings, attitudes, biases, and grieving
- Plan the specifics of location and setting: choose a quiet, private place
- Have advance discussion with the patient or family about who will be present

## II. Holding a Discussion about End-of-Life Care

- Introduce everyone present
- If appropriate, set the tone in a nonthreatening way: “This is a conversation I have with all my patients...”
- Find out what the patient or significant other understands
- Find out how much the patient or significant other wants to know
- Be aware that some patients do not want to discuss end-of-life care
- Discuss prognosis frankly in a way that is meaningful to the patient
- Do not discourage all hope
- Avoid temptation to give too much medical detail
- Make it clear that withholding life-sustaining treatment is NOT withholding caring
- Use repetition to show that you understand what the patient or their significant other is saying
- Acknowledge strong emotions and use reflection to encourage patients or their significant others to talk about these emotions
- Tolerate silence

## III. Issues That May Be of Special Importance for Some Patients with HIV/AIDS

- If patients have strong treatment preferences, discuss living will or other advance directive
- Consider durable power of attorney and importance of having discussions of treatment preferences, goals, values with that person
- Discuss cultural or religious views, attitudes, and preferences
- Consider discussing preferences regarding place of death and preferences regarding burial or cremation

## IV. Finishing a Discussion of End-of-Life Care

- Achieve common understanding of the disease and treatment issues
- Make a recommendation about treatment
- Ask if there are any questions
- Ensure basic follow-up plan and make sure the patient and/or significant others know how to reach you for questions

## Making Preparations Before the Discussion

A common mistake that some clinicians make is to embark on a discussion about palliative care with a patient or significant others without having made the necessary preparations for the discussion. Clinicians should review what is known about the patient's disease process including the diagnosis, prognosis, treatment options, and likely outcomes with different treatments. Clinicians should identify gaps in their knowledge by systematically reviewing this information and seek out the information they need before they find themselves in a discussion with patients or their significant others. Clinicians should also be aware of the communication that has occurred with other team members and of the plans for care established or agreed upon by any other care provider responsible for the patient's care.

It is also important for clinicians to review what they know about the patient and their family and social support network including their relationships with one another, their attitudes toward illness, treatment, and death, and their prior reactions to information about illness and death. If, for example, there are significant others who have had strong emotional reactions to bad news, it may be helpful to mobilize the aid of a family member, friend, or staff member, such as a social worker or chaplain, who can support them through and after the discussion with the clinician.

Finally, it is useful for clinicians to consider their own feelings of grief, anxiety, or guilt before holding a discussion about palliative care with patients or significant others. This may be especially important when the clinician has known the patient or significant others for a long time, when the clinician and patient or significant other have been through a lot together, or when the clinician has some feelings of inadequacy about the patient's condition or treatment. Acknowledging these feelings explicitly can help the clinician avoid projecting his or her own feelings or biases onto the patient or the significant others. In addition, the clinician's own feelings of guilt or inadequacy can lead him or her to avoid the patient or significant others or to avoid talking with them about death. Reviewing these feelings by oneself or with another clinician can be the first step to becoming more comfortable discussing dying and death with a patient or significant other.<sup>60, 61</sup>

An additional step in preparing for an end-of-life discussion is to plan where the discussion will take place and who will be there. Ideally, these discussions should take place in a quiet and private room where there is some assurance that people, phones, or pagers will not interrupt the discussion. It should be a room that is comfortable for all the participants without a lot of medical machinery or other distractions such as medical diagrams. All parties should be sitting at the same level around a table or chairs in a circle. It is best to avoid having a clinician sitting behind a desk with the patient and significant others in front of the desk. If the patient can participate in the discussion but is too ill to leave their hospital bed, efforts should be made to make the room comfortable for everyone present.

Before the scheduled conference about palliative care, the clinician, patient, and significant others should discuss who should be present for the conference. In addition, the clinician should make certain that all appropriate members of the staff are consulted about whether they should be present, including the medical staff, nursing staff, chaplains, and trainees who have been involved with the patient or significant others. Ideally, someone should take responsibility for scheduling the conference at a time when as many as possible can be present. It may be helpful to suggest that patients and their significant others write down any questions they have beforehand to be sure their questions are answered.



## Holding a Discussion about Palliative and End-of-Life Care

The first step in a discussion about palliative and end-of-life care is to ensure that everyone participating in the discussion has met everyone else present. For example, some staff members present for the discussion may not have met all family members or significant others. Take the time to go around the room to be sure everyone has met everyone else and knows their role either on the staff or in the patient's life.

Introducing the issue of palliative or end-of-life care can be a crucial and difficult part of these discussions. Often, by the time these discussions occur, everyone involved knows that the discussion will focus on how to help the patient transition to palliative care goals or even to die in comfort and with dignity. But sometimes patients or their significant others may not be aware that this is a part of the clinician's agenda. In those situations, the clinician should make the patient or significant others as comfortable as possible talking about dying and death. In these latter situations, it may be helpful to frame the discussion by saying that these are discussions that are held with all patients with HIV infection or, if appropriate, with AIDS.

Not everyone present will have the same level of understanding of the patient's condition; thus it is often helpful to first find out what the patient and significant others understand of the patient's situation. This can be a useful way for the clinician to determine how much information can be given, the level of detail that will be understood, and the amount of technical language that can be used. It can also be useful in some settings to ask the patient or significant others how much they want to hear on this day as a way to gauge how much information and detail to give. Clinicians should avoid unnecessary technical jargon and should be cautious about using technical jargon rather than saying words like "dying" or "death." Clinicians should also be cautious about using medical detail to cover the uncomfortable message about the patient's prognosis. However, some patients will be very familiar with technical details and will want sophisticated explanations of their condition. Therefore, it is important to assess the patient's knowledge and desire for information.

During these discussions, it is important to discuss prognosis in an honest way that is meaningful to patients and their significant others. For example, the term "median survival" is not very meaningful to most people. In discussing prognosis, clinicians should also be honest about the degree of uncertainty in the prognosis. Finally, it is important to provide honest information about the prognosis without completely discouraging hope from those patients or families who would like to maintain their hope. This can be a difficult balancing act for clinicians, but it is a part of the art of holding these discussions. There are several specific ways that clinicians can allow patients or their significant others to maintain their hope in the face of a poor prognosis. First, the clinician can allow the patient or significant other some time to get used to a poor prognosis. In the acute care setting, sometimes this can take days; in the outpatient setting this can take weeks, months, or even years. Regardless of how much time it takes, it can be helpful to patients or significant others if they are allowed to make this transition at their own pace. Second, the clinician can help the patient or significant other redirect their hope and move them from a hope for recovery to hope for other things such as quality of life in the time that remains, some quality time together, achieving a particular goal, or a comfortable death without pain or discomfort and with as much dignity and meaning as possible.

An important goal of palliative care discussions is to align the clinicians' and the patient's or significant other's views of what is happening to the patient. The discussions about palliative care that are most difficult are ones in which the patient's or significant others' views and the clinicians' views are dramatically different. Making the effort to discover these differences and working to minimize them can be time-consuming, but it is usually time well spent as it can greatly facilitate decisions about palliative care. This does not mean that clinicians should convince the patient or significant other of the clinicians' views, but rather identify the source of the differences and work toward compromise.

It is extremely important in a discussion about palliative care that the patient and/or their significant others understand that if the decision is made to withhold or withdraw a particular treatment, the clinicians themselves are not withdrawing from caring for the patient. While this may seem obvious to some clinicians, it should be stated explicitly to patients and families to avoid any misunderstanding.

After discussing prognosis and treatment options and the patient's or significant other's level of understanding, it is important to spend some time exploring and listening to the patient's and/or significant others' reactions to what was discussed. Clinicians should understand that patients and significant others will react to their perception of what was said and that they may not react in the way the clinician expects. There are several useful techniques that clinicians can use to explore patients' or significant others' reactions. First, it can be helpful to repeat what patients or significant others have said as a way to show that the clinician has heard them and test the clinician's understanding. This can be particularly useful when the clinician and the patient or significant other have different views of what is happening or what should happen. Second, it is important to acknowledge emotions that come up in these discussions. Whether the emotion is anger, anxiety, guilt, or sadness, it is useful for the clinician to acknowledge the emotion in a way that allows the person with the emotion to talk about their feelings. In acknowledging such emotions, it can be useful for the clinician to use reflection to show empathy and to encourage discussion about the emotion. For example, a clinician can say "it seems to me that you are very angry about the care you have received, can you tell me why that is?" In this way, the clinician can show empathy for a patient and allow that patient to talk about their feelings. Finally, another technique clinicians can use in these discussions is to tolerate silences. Sometimes, it is after what seems like a long silence that patients or significant others will ask a particularly difficult question or express a difficult emotion.

### Important Issues in Discussions About Palliative and End-of-Life Care in HIV/AIDS

There are some unique features about HIV/AIDS that warrant additional mention. First, the demographics of the HIV epidemic requires that clinicians caring for these patients have skills and experience in discussing palliative care with young patients, in cross-cultural circumstances, and with patients who do not have intact social support systems. If clinicians see a large proportion of patients from a specific culture, ethnicity, or religion, it behooves them to understand some of the cross-cultural issues that may arise around palliative care and end-of-life care for those patients. It is also important not to assume that a patients' race, ethnicity, or religion necessarily defines their attitudes toward death or the disclosure of prognostic information. In addition, it may not be possible for clinicians to be aware of the cultural attitudes concerning death for all cultures from which their patients may come. Therefore, a series of open-ended

questions may help clinicians explore these attitudes in order to provide culturally-appropriate care. An example of some of questions that might be helpful are listed in Table 21-2 from a recent review article<sup>65</sup> and adapted from an article by Kleinman and colleagues.<sup>64</sup> If patients lack social support, social services and social workers may be a vital component of the palliative care team. Finally, as noted above, the durable power of attorney may be of particular importance for patients with AIDS who may be more likely to wish to have a same sex partner or a friend make decisions for them if they are unable rather than have this task be the responsibility of their legal next of kin.

Table 21- 2: Exploring Cultural Beliefs in Discussing Palliative Care

1. What do you think might be going on? What do you call the problem?
2. What do you think has caused the problem?
3. What do you think will happen with this illness?
4. What do you fear most with this illness?

Source: Adapted from Kleinman A, Eisenberg L, Good B. Culture, illness and care: Clinical lessons from anthropologic and cross-cultural research. *Ann Intern Med* 88:251-8, 1978.

Second, the dramatic improvements in survival due to advances in anti-retroviral therapy over the 1990's requires clinicians to address palliative care with patients who may have varied and diverse experiences of the AIDS epidemic. Some patients may have confronted having a terminal disease only to respond to anti-retroviral therapy and come to believe their disease could be cured or controlled and then have to readdress the terminal nature of their disease. Other patients may have always viewed HIV/AIDS as a curable or controllable illness and may have disillusionment with the medical system if their disease progresses or may blame themselves for lapses in adherence with their treatments. Some patients may have friends and family who are responding well to anti-retroviral therapy at the same time that their own anti-retroviral therapy is failing them. These variations may each require different approaches on the part of the clinician caring for these patients. Many patients will benefit from open and direct communication about their concerns and worries.

Finally, many patients with HIV/AIDS have a history of drug addiction and this history may cause them great concern regarding the adequacy of pain assessment and management as they approach the end-of-life.<sup>66</sup> A drug addiction history may complicate pain management in these patients, but in general patients should be reassured that their history of drug addiction will not prevent adequate treatment of pain and other symptoms during the terminal phase of their illness. (See Chapter 11: Substance Use Problems.)

### Finishing a Discussion about Palliative and End-of-Life Care

Before finishing a discussion about end-of-life care, there are several steps that clinicians should make. First, it is important that clinicians make recommendations during the discussion. With the increasing emphasis on patient autonomy and surrogate decisionmaking, there may be a tendency for some clinicians to describe the treatment options to a patient or significant other but to then feel like they should not make a recommendation. On the contrary, it is important that clinicians offer their expertise to patients and their significant others, and part of offering their expertise is making a recommendation.<sup>62</sup> This is especially important in discussions with

significant others concerning withholding or withdrawing life support. It is a disservice to leave a significant other feeling like they were alone in making the decision to “pull the plug” on a loved one in situations where ongoing life support therapy is unlikely to provide significant benefit.

Clinicians should summarize the major points and ask patients and significant others if there are any questions. This is a good time to tolerate silence, as it may take some time for the uncomfortable questions to surface.

Finally, before completing a discussion about end-of-life care, clinicians should ensure that there is an adequate follow-up plan. This often means a plan for when the clinician will meet with the patient or significant other again and a way for the patient or significant others to reach the clinician if questions arise before the next meeting.

## UNDERSTANDING OUR OWN DISCOMFORT DISCUSSING DEATH

■ Discomfort discussing death is universal. This is not a problem unique to physicians, nurses, social workers, or other health care providers, but has its roots in our society's denial of dying and death. Medical schools and nursing schools have only recently begun to teach students how to help patients and families through the dying process and still do so in a limited way.<sup>63</sup> Major medical textbooks have had scant information about end-of-life care.<sup>42</sup> For all these reasons, it is not surprising that many clinicians have difficulty talking with their patients and others about palliative or end-of-life care. Furthermore, the medical culture is one of using technology to save lives, and for many clinicians discussing dying and death is even more difficult in this technologic, aggressive care era. To compound this difficulty, clinicians can also feel that a patient's death will reflect poorly on their skills as a clinician and represents a failure on their part to save or extend the patient's life.

It is important for clinicians to recognize the difficulty they have discussing dying and death. If clinicians acknowledge this difficulty, they can work to minimize some of the common effects that such discomfort can cause. For example, discomfort discussing death may cause clinicians to give mixed messages about a patient's prognosis or to use euphemisms for dying and death or may even cause clinicians to avoid speaking with a patient or their significant others. Recognizing this discomfort and being willing to confront it is the first step in overcoming these barriers to effective communication about dying and death with patients and their significant others. Resources exist to help clinicians address these issues.<sup>60, 61</sup>

## CONCLUSION

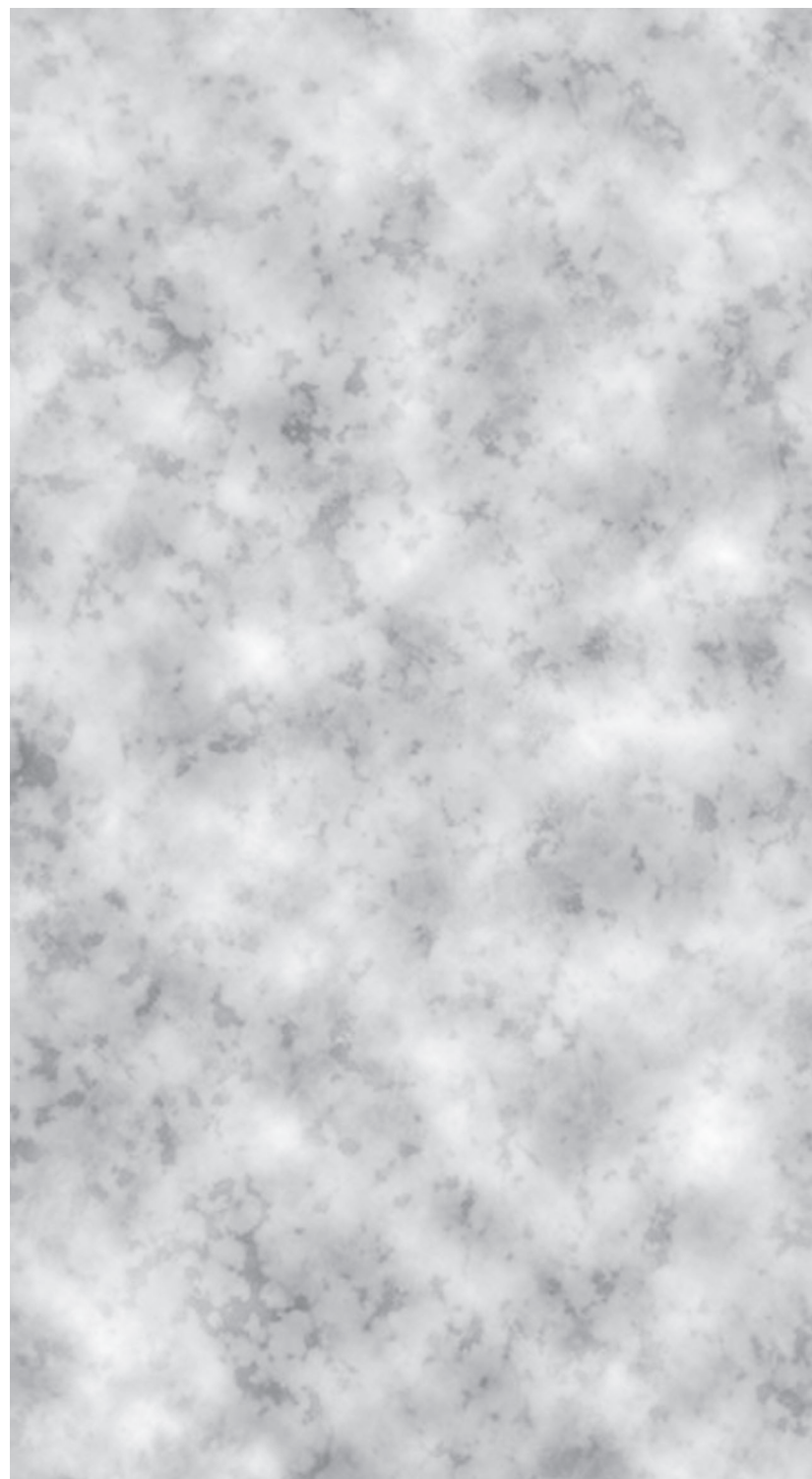
■ Discussing palliative care, dying, and death with patients and their significant others is an extremely important part of providing good quality care for patients with a chronic, life-threatening disease such as HIV infection or AIDS. While there is little empiric research to guide clinicians in determining the right time or the most effective way to have these conversations, there is a developing experience and an increasing emphasis on making this an important part of the care we provide and an important part of training for students. Much like other clinical skills, providing sensitive and effective communication about palliative care requires training and practice as well as planning and preparation. While different clinicians may have varying approaches and should change their approaches to match the needs of patients and their families, this chapter reviews some of the fundamental components of discussing palliative care and end-of-life care that should be part of the care of most patients with potentially life-threatening illnesses.

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## Chapter 22.

# Facilitating the Transition to Home-Based and Hospice Care

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### INTRODUCTION

■ The focus of this chapter is planning for and facilitating the transition from curative to palliative care, with emphasis on the initiation of either home-based support services or institutional care. The interdisciplinary team approach is described. Strategies for promoting patient, family, and staff education and support will be identified and institutional issues that facilitate or hinder provision of effective palliative care are explored.

The primary goals of palliative care are to maximize the patient's sense of control, strengthen relationships with loved ones and limit care burdens.<sup>1,2,3</sup> The importance of access to appropriate services in the successful delivery of palliative care to the chronically or terminally ill person with HIV cannot be overestimated. Knowledge of community resources such as government assistance programs, housing, personal finance, disability benefits, transportation, procurement of durable medical equipment, case management, food and shelter and emergency assistance is essential for helping the patient and family deal with the social sequelae of illness, disability, and death.

HIV is not just another terminal illness. If the same "too young" person presented with an equally life-threatening diagnosis of leukemia, health care teams would probably call family and friends for support. In contrast, people with HIV often choose to keep their diagnosis a secret.<sup>4</sup> As long as fear and discrimination exist, agencies may be reluctant to accept people living with HIV/AIDS. Stigma associated with HIV and, hence, disclosure of HIV status continue to be significant problems complicating care.

### THE INTERDISCIPLINARY TEAM

■ Palliative care, by definition, is provided by an interdisciplinary team that, in addition to the physician, nurse (including nurse practitioners and nurses), social worker, nutritionist, chaplain, and other professionals, includes the patient, family, caregivers and other individuals important to the patient. The interdisciplinary team is a group of individuals working together with a common purpose for the greater good of the patient with advanced disease and his or her family.<sup>5</sup> The goal of the interdisciplinary team is to provide the patient and family with a framework of emotional, physical, spiritual, and social support during the time of advanced disease.<sup>6</sup>

In the United States, the nurse, social worker or case manager often has the primary responsibility for the practical issues discussed in this chapter. It is important, however, that all individuals involved in the care of a person with advanced HIV disease be aware of these issues and be prepared to take the necessary steps to address patient and family needs related to facilitating the transition to palliative care.

While each member of the team has particular expertise, all share responsibility for advocacy, enabling, support, truthfulness, and mediation such that crises are prevented, priorities of the

patient and family remain paramount, and overall suffering is minimized. Team members share information and work interdependently to develop goals with the patient and family. Information is shared among team members on a regular, organized basis.

In 1999, Cummings described the interdisciplinary team as a group of individuals working together with a common purpose for the greater good of the patient with advanced disease and family. Interdisciplinary team members should include the combined efforts of competent, skilled practitioners who offer confidential, nondiscriminatory, nonjudgmental and culturally sensitive care. Each individual has particular expertise and training and is responsible for making decisions and contributions within the area of their experience and knowledge.

The following sections describe the various roles and functions of HIV palliative care interdisciplinary team members.

### Patient and Family Caregivers

The primary member of the interdisciplinary team is the person living with HIV, along with his or her family. Patients and their caregivers need to be active partners in developing and implementing the plan of care in order for the other members of the palliative care team to understand the complex care of families affected by HIV, their advanced care needs, patient and family caregiver concerns regarding approaching death, and HIV-specific bereavement needs.<sup>8</sup> Far too often, health care teams see themselves as the “providers” and the patient and family as simply the “recipients” of their care. Advanced HIV disease care planning cannot be conceptualized in this manner: patients, family members and the interdisciplinary team members must address care planning and support on a mutual, interactive and fluid basis.

### Medical Providers

Medical providers include physicians, residents, interns, fellows, nurse practitioners, and physician’s assistants. Responsibilities of these team members include the following:

- Diagnosis
- Prognosis
- Symptom prevention
- Design of treatment plan
- Education and communication with staff, patient, and family regarding status and response to treatment.

Medical providers’ decisions should be sensitive to cues of advancing condition related and unrelated to lab test values and diagnostic procedures. Consulting physicians are responsible to primary medical providers, and should work as part of the team, not as separate specialists. Specialists may include psychiatrists, ophthalmologists, neurologists, dermatologists, oncologists, gynecologists, orthopedists, or providers of any other specialty service.

### Nurses

Nurses include staff nurses, nurse practitioners, and clinical specialists in HIV, adult health, case management, palliative care, mental health, and home and community health. Nursing responsibilities include assessment of patients’ physical and mental capacity for self-care, iden-

tification of ongoing care needs, and ongoing education of patients and families. Hospital nurses teach the patient and family throughout the hospital stay and confirm patient and family knowledge prior to discharge in order to enhance comfort, safety, and competence in care at home.

Nurses often have the most frequent contact with the patient and family in the inpatient setting, outpatient clinic or at home. It is the nurse's responsibility to assist the patient in coping with the effects of advancing HIV disease. This includes attention to some of the most personal and intimate aspects of physical care: pain and symptom assessment and management, personal care such as bathing, control of odor, care of pressure areas, mouth care, bowel and bladder care, as well as patient and family education on anticipated care needs. Nurses also assess the patient's and family's level of knowledge of disease, symptom management, comfort care, and ability to differentiate emergencies from normally anticipated events, and develop a plan for changes in patient status and emergencies.

As patient advocates, nurses help ensure, in collaboration with social workers, that the wishes of the patient are met, enabling the dying person and the family to remain involved in key decisions.

### Clinical Liaison Nurses

Clinical liaison nurses promote up-to-date communication between providers in the outpatient setting and those in the inpatient unit, particularly for patients who are homebound and require home-based care services. Generally, the nurse's role is to supervise and monitor concurrent censuses of active patients receiving home care and hospice care services. Specific responsibilities may include the following:

- Monitoring for timely response from home care and hospice agencies for patient care coordination
- Tracking home care and hospice agency paperwork and medical orders to make sure the medical provider has access to the most current orders
- Making sure the agency has appropriate medical signatures

A clinical liaison nurse's activities also may include daily contact with home-based care supervisors and field staff regarding changes in patient status, streamlining of medication refills, verification of minor orders, and facilitation of urgent appointments. Because the care needs can change quickly, the liaison nurse provides troubleshooting for equipment approvals, special service approvals with HIV/AIDS programs, and contact of care providers. Updating interdisciplinary team members on the complex issues at home for each patient is an important role of clinical liaison nurses in support of the continuum of palliative care.

### Social Workers

The goal of social work in palliative care is to help the patient and family deal with the personal and social problems of illness, disability, and impending death, and to provide survivor skill-building and support. Social workers assess many important areas of need for both patient and family, and help the family develop realistic plans for the present as well as the future. The strengths and challenges of each family unit are assessed and referrals made to available resources.

Social workers have comprehensive knowledge of community resources such as housing, finances, disability benefits, transportation, case management, food and shelter resources, emergency assistance, Ryan White CARE Act entitlements, home care, hospice, legal aid, counseling and testing, primary care, emergency assistance, and extended and residential care facilities. If there are no HIV-specific resources in the community, the social worker should locate people or organizations that may be willing to provide assistance for the patient and family.

Social workers also assess cultural and sociocultural factors unique to the patient and family, such as use of folk medicine or alternative healing practices in the home, and the family's ability and desire to care for the patient in a specific setting. The family culture may be unable to accept a death at home and therefore not even the best hospice and personal care attendant support in the home will foster a peaceful death at home. In these circumstances, death in the emergency room or during a return admission to the hospital may be exactly what the family considers the "best death possible."

Social workers can be particularly helpful when there is dysfunction within the family. Issues of substance and alcohol abuse are increasingly common within HIV care. Social workers can assist with screening for use and abuse, assessment of desire and need for rehabilitation services, and gaining access to such services.

One of the most important roles of social workers is advocacy on behalf of the patient and family. Social workers promote continuity of care transitions between hospital and home by arranging residential placement, making referrals to experienced home care and hospice agencies, and arranging for durable medical equipment and supplies. Often social workers play a key role in naming the actual needs of the patient and family.

## Nutritionist

Nutritionists and dietitians work with patients in all stages of HIV disease, but are most needed as a patient's condition begins to deteriorate. Nutritional intake and hydration are very emotional issues for family members and interdisciplinary teams. Both weight loss and malnutrition increase as HIV disease progresses. Changes in body composition, body image perception, digestion, tolerance of food, and side effects from therapies contribute to a reduced quality of life for persons living with advanced HIV disease. Even when patients have adequate food, nutritional knowledge, resources, and support, they may be unable to maintain weight. Dietitians can assist with early detection of factors related to impaired nutritional status that accelerate physical decline. Integration of anabolic therapies, nutritional supplements, appetite stimulants, and nutritional counseling are important for comprehensive HIV palliative care.

In advanced stages of HIV disease, reduced intake may not be a primary concern for the patient. Identification of the point when the nutritional interventions are failing is pivotal for the patient, family, and interdisciplinary team members. Nutritional goals are different for the chronically ill and terminally ill patient. Registered dietitians can discuss body composition testing as related to the prediction of the end-of-life. They are trained to understand and address unique social factors, monitor the effects of HIV on body composition and the effects of medications on metabolism, and address the role of changes in body shape in end-of-life discussions with patients and families. Complex nutritional concerns are mediated by active substance use, poverty, dementia, homelessness, adolescent motherhood, and complex medication regimens. Nutritionists can be valuable in discussions of the pros and cons of end-of-life nutrition and hydration options.

## Pharmacists

Pharmacists with HIV expertise play a critical role in reviewing medication regimens of the treatment plan for up-to-date pharmacokinetics. They assist medical providers with dose adjustments to reduce side effects and increase the efficacy of medications, bring new information to the team, educate patients and families about medication plans, and remain available to assist, evaluate and consult complex care situations.

## Chaplains

Chaplains are available to assist the patient and his or her family in processing the meaning of illness in their lives as well as their fears, desires, and unfinished tasks. Responsibilities of chaplains include being a nonjudgmental resource for referrals for additional community support as desired by patient and family. Sympathetic chaplains are skilled listeners and able to meet patients and families without judgment. They are key team members in addressing the complex fears, stigma, chronic pain, symptoms and losses related to HIV. Chaplains provide a special presence with a focus and a stimulus for airing questions of meaning that are invariably present for patients and families with advanced disease. Issues of guilt for past events, feelings of meaninglessness, and the need to be listened to are important concerns for patient and family. Ideally chaplains offer a spiritual presence, not religious. Because so many of the other disciplines of the palliative care interdisciplinary team have many concrete as well as support tasks, chaplains are able to visit without any task agenda and follow the lead of the patient and family on a deep and existential level. Facilitating life review, dealing with regrets, giving thanks for what has brought love and meaning, naming life closure tasks, and preparing for what lies ahead are important responsibilities of this role.

## Physical Therapists

Physical therapists provide physical assessment, education for patients and caregivers, and resources to enable patients to transfer safely, stabilize gait, and be mobile. They also assess the need for durable medical equipment. As patients are living longer with HIV, more patients are living with neuromuscular deficits for longer periods of time. Home safety and independence are ongoing goals for the patient and family. In the palliative care setting, a revised physical therapy goal may be to maximize patients' changing and often diminishing physical resources rather than to improve function.

## Community Case Manager

The community case manager collects information about physical and psychosocial functioning and patients' social environments, develops care plans based on home assessment information and availability of resources, and links patients and families to community services, financial assistance, and medical and social services. In addition, a community case manager monitors patients on an ongoing basis, holds case conferences with other members of the outpatient team to evaluate the appropriateness of linked services for patient and family needs, and advocates to reduce barriers to services or generate needed services for individual families.<sup>9</sup>

## THE TRANSITION OF FOCUS FROM CURATIVE TO PALLIATIVE CARE

■ Attention to alleviation of suffering, be it physical, emotional, or spiritual, is consistent with the highest aspirations of all health care professions. The integration, therefore, of palliative care with its broad clinical, social, and spiritual support into the care of someone living with HIV/AIDS can promote quality of life and realistic life planning at any time in the course of the illness. There is, however, often a time in the course of care when a formal transition from curative to palliative care is made. In the U.S., because of the peculiarities of financing palliative care services, most often this involves a transition from traditional medical care to hospice care. Traditionally, palliative care was ‘saved’ for hospice care. With the advent of highly active antiretroviral therapy (HAART), new theories of resistance, and re-sensitizing clinical trials, all categories of patients can be considered equally eligible for palliative care as well as more disease-specific care. Integrating palliative care, clinical, social, and spiritual support services promotes quality of life and realistic life planning.

Discussions with patients and families about palliative and hospice care can be difficult for even the most experienced providers. Provider communication issues are discussed in depth in Chapter 21. Some providers find it useful to keep in mind a sequence of facilitating questions that lead into a discussion of palliative care, first blending discussion of disease specific therapies with palliative care, moving toward exclusive focus on palliative care, and eventually introducing hospice care (see Table 22-1). It is also helpful to give patients and families a description of hospice that explains how the care addresses their stated wishes and concerns before the term “hospice” is used, to reduce risk of rejection (see Table 22-2).

Planning for the transition into palliative care must begin with an understanding of the patient and family’s desires, expectations, and understanding of the patient’s illness. In our society, many believe that hospice care means giving up all medications and getting ready to die. Therefore, it is often a mistake to jump directly into a discussion of hospice *per se* because patients and families unfamiliar with contemporary hospice approaches may attach negative connotations to the term. If the health care provider begins a conversation about hospice care or palliative care without first learning the patient’s perception of his or her status, there is a great chance of the patient refusing such care. It is important that providers assess immediate needs and priorities as stated by the patient and family rather than assume that a problem that is obvious to the providers is of immediate concern to the recipients of care.<sup>10</sup> The most important goal of intervention at this point is to facilitate discussion so that the patient and family’s responses are as honest and realistic as possible. (See Chapter 21: Patient-Clinician Communication.)

### Advanced End-of-Life Planning Discussions

Each member of the interdisciplinary team must be able to initiate and discuss palliative care, end-of-life care, and hospice services. Understanding the patient and family’s perspective on their current and future needs and desires will help guide this planning and referral process. The following questions provide a guide for initiating a discussion about end-of-life-related experiences, desires and planning.

Begin by sitting close to the patient (preferably at eye level). Explain that you know he or she has been living with HIV for some time and that you would like to learn more about how he or she is doing. Explain that understanding more about his or her needs will help you advocate for the

most appropriate services. Focus on the patient's perspective on his or her condition, and make sure that you allow the patient to answer the questions rather than giving directive information as you begin this assessment conversation. The following questions are also listed in Table 22-1.

### **Question 1**

***What has your medical team told you about your condition? What does this information mean to you?***

This question is essential to assessing the accuracy of the patient and family's understanding of the current medical status and prognostic factors. Often a patient may state that he or she is getting worse, or not getting better, but that the medical team is telling him or her that he or she is going to get stronger. If the patient responds with little emotion or simply restates the medical team's words, ask, *What is your body telling you about how you are doing?* This question prompts a more introspective response that is always revealing of inner concerns and feelings.

### **Question 2**

***Tell me about your good days...What are you able to do on those days?***

The response to this question is equally revealing. The responses of the patient and family will let you know what gives them pleasure. By hearing about unique points of enjoyment and meaning, the team can learn whether and what pleasure activities are available to the patient and family. It is also a way for them to face the realities of how long it has been since they have had several of "those" good days in a week. Such information helps provide a perspective on the speed of loss of strength and other changes.

### **Question 3**

***When is the last time you had a day like that in the past two months?***

This assesses the degree of changes in physical strength, independence, and endurance. The most recent holiday is often a period of time that stands out memorably for families. They can recall where they were, what they wore and ate, and how they felt at the end of their activities. Because shortened prognosis is often connected to increasing weakness, assisting the patient and family to answer this question aloud helps them state in their own words how and in what ways things may be different now. This begins the patient and family's personal process of self-disclosure about important changes in current energy and needs in the present tense, which enhances realistic planning.

### **Question 4**

***Have you had any bad days lately? What makes them bad?***

Health care providers so often are concerned with a patient's viral load, adherence to medications, and weight stability that we forget to ask the patient what defines his or her hard times. Listening carefully to the patient's response, we learn about not only the patient and family's priority concerns but under-managed symptoms impairing the patient's quality of life that we may have been unaware of before. Patient and family responses also help to identify areas in which the family may need outside assistance, such as on-call nursing support, child care and respite assistance.

**Question 5*****What kind of assistance do you need on days when you do not feel well?***

In general most individuals and families do not like to depend on other people for care and assistance. They often are concerned about being a burden, inconveniencing others, and fearing they will use up their “personal favors” too soon. Give the patient and family permission to fantasize about what kinds of things may be helpful.

**Question 6*****If your condition worsens, do you wish to go back to the hospital?***

Traditionally, we tell patients, “If you get worse, go to the Emergency Room.” This is fine if there is an acute infection or event that will respond well to emergency attention. But the person with advanced HIV who has been hospitalized a number of times may already have considered not wanting to come back to the hospital. The patient’s response to this question also helps to guide home-based care options such as referring the patient to home care or hospice. The patient who is sure he or she wants to return to the hospital is a better candidate for home care where the on-call service is designed for emergency intervention.

**Question 7*****What are your most meaningful goals at this time in your life? Is there anything we can do to help you achieve them?***

Adults and children all have meaningful life goals. Some people are very open to discussing their goals, others have barely whispered them to their closest confidant if at all. By gaining an understanding of the patient’s goals, team members learn how to plan treatments and care supports. For example, a woman who needs to complete guardianship arrangements for her children may benefit from the support of blood transfusions for temporary strength, whereas a person who has settled his or her affairs might not consider it a benefit.

**Question 8*****In the event of your death, is there anyone or anything that you are worried about?***

When people think of the possibility of their own deaths, sometimes it is easier for them to think of the needs of others rather than themselves. This pertains to their children and other loved ones as well as cherished pets, plants, or any other living things that would suffer during a hospitalization, long-term placement or death. A hospital stay can provide a trial run for future custody or referral information. Sometimes, discussing these concerns provides a way for patients to express their anticipatory grief for meaningful aspects of their lives and their need to know that these will be cared for. Discussing such worries can facilitate people’s acceptance of hospice services so that their loved ones can benefit from the social work services and bereavement follow-up.

**Question 9*****Have you ever heard of a medical power of attorney or a health care proxy?***

Assignment of a health care proxy to make medical decisions on their behalf is an important safeguard for patients to know that their end-of-life wishes will be honored. Patients should select a person who knows and understands their personal desires for quality of life decisions that will affect the direction of their care. Providers should inform both the patient and his or



her health care proxy of the patient's condition and options for care so they can make decisions from the most informed perspective possible.

### **Question 10**

*Do you have a living will? Who in your family is aware of it and has a copy?*

A living will demonstrates a clear and deliberate desire not to have life prolonged beyond its natural limits, and most frequently denotes withholding invasive life-sustaining interventions. A true copy of this document should be placed in the patient's chart in the hospital, group residential facility, extended care, and home-based care settings. Patients should be informed whether their state honors this document as a legal determinant of care planning or merely as a guide that can be overruled by their primary provider.

### **Question 11**

*Are you having any chronic pain or distressing symptoms?*

At an advanced stage of any disease, chronic symptoms not only serve as a reminder of advancing illness and provide a negative distraction from enjoying the limited length of life available, but also become internalized as an intense task of spiritual coping. It becomes impossible for a person to relish quality time with loved ones or complete important tasks if he or she is constantly struggling with nausea, pain, diarrhea, itching, or other uncontrolled symptoms. The patient whose symptoms have been very difficult to control may benefit from the palliative symptom management of the hospice team, and such information can be stated in the explanation of hospice care.

### **Question 12**

*What can we do to make your life more comfortable / manageable?*

Listening to the patient and family's responses, repeating back their words, and letting them know that you have heard them provide powerful validation for patients and families when clear, reasonable requests have been stated. It is most important to respond to their requests as quickly as possible. A response may be as simple as letting the patient go home before the weekend to be with family and completing future tests on an outpatient basis. Or, it may be as complex as arranging for minor age visitors to visit their loved one in a room with contact isolation.

Table 22-1: Initiating Advanced Disease Planning Discussions

1. What has your medical team told you about your condition? What does this information mean to you?
2. Tell me about your good days. What are you able to do on those days?
3. When is the last time you had a day like that in the past two months?
4. Have you had any bad days lately? What makes them bad?
5. What kind of assistance do you need on these bad days?
6. If your condition worsens, do you want to go back to the hospital?
7. What are your most meaningful goals at this time in your life? Is there anything we can do to help you achieve them?
8. In the event of your death, is there anyone or anything that you are worried about?

Table 22-1: Initiating Advanced Disease Planning Discussions (continued)

9. Have you ever heard of a medical power of attorney or a health care proxy?
10. Do you have a living will? Who in your family is aware of it and has a copy?
11. Are you having chronic pain or other distressing symptoms?
12. What can we do to make your life more comfortable/manageable?

Only after these questions have been asked and answered is it time to explain hospice and other options for advanced disease care. From the content of this prompted conversation, care planners should have learned about the patient and family's concerns about the burden of care and approaching death, the presence of distressing symptoms, and after-hour, on-call needs. By listening to the patient and family recall the frequency of good days versus bad, the pace of progression to death can also be estimated. Any ambivalence about returning to the hospital when the patient's condition worsens should also have been clarified. Finally, the patient and family's own words, their personal examples of concerns, and their identification of life priorities will guide the wording to be used in explaining palliative care, hospice, home care and long-term care planning.

Table 22-2: Sample Explanation of Hospice

*Knowing that you wish to stay home and not return to the hospital, we would like to refer you and your family to a program of care designed specifically for patients and families in your condition, with your exact same desires. This program is designed especially for people who are living with advanced illness, wish to stay home, and may need after-hour, on-call assistance to stay comfortable.*

*Nurses are available 24 hours a day for support and guidance. They are specialists, knowing how to help individuals and families be as comfortable and as strong as possible at home. This service offers a nurse who is an expert in pain and symptom management, and knows how to prevent symptoms from getting out of control. The nurse will help educate you and your family on what to expect with time. Sometimes learning what is natural and expected can be very calming.*

*They also have a social worker who specializes in care of people who have been living with HIV for a long time. They provide support and referrals to community resources as you need and desire. Home health aides are also trained to work with people with weakness and advanced disease. They can assist with bathing, changing of bed linens and other personal care several times a week if you desire. All of the care services are designed to support your comfort and confidence at home. Additional services include spiritual support, volunteer help, and bereavement support.*

*This special program is called hospice. We believe this program is just right for your needs at this time. If your needs change, and you no longer need this special support, you may be discharged. If you receive services, and you decide this is not the type of care you want, you may be discharged at any time.*

Sometimes, patients and families refuse hospice care at the time it is offered. This is often frustrating for the referrers because they may want the patient to benefit from the clinical

expertise, on-call availability, support services and anticipatory grief work prior to active phases of dying. In these cases we must evaluate the degree to which we have given the patient and family the freedom to choose between home care and hospice with their full understanding of the differences.

Because of the terminal nature of hospice care, young people are often comforted by knowing that if hospice care does not feel right for them, they can go back to standard care. We must remind patients and family that HIV is an unpredictable disease, and that at this time we believe hospice care is best to meet their needs, but if in the future they get stronger, or they no longer need or wish the hospice's services, they may be discharged. Giving patients and caregivers the permission to think of hospice as a specialized care for their current condition and advanced care needs provides great relief since they may have only known hospice as a "last stop before you die," and with HIV that is not always true. A gentle personalized explanation of hospice as a care option can often improve acceptance of such services. Care providers must recognize that acceptance of hospice is not the absolute goal of care planning. Assuring patients and families of viable care options that match their values, resources, and desires remain our main priority.

## HOSPITAL DISCHARGE PLANNING

■ The decision to formally engage home care and hospice care services often occurs during the course of a hospitalization. Although eligibility for palliative care can be determined across any stage in the spectrum of HIV disease, HIV-related inpatient hospital admissions are frequently one of the clinical markers of advancing disease. Prior to each hospital stay, the patient has developed chronic disabling symptoms or new onset symptoms that indicate advancing HIV disease. Increasing fatigue, changing social support, and complex home-based care needs require reassessment during each hospital stay. Comprehensive discharge planning is an essential task for promoting the continuum of care. Integration of HIV palliative care services need not be postponed until patients are in the most terminal phase of life.

Elements of comprehensive discharge planning from the hospital setting require an array of assessment, education, support, and community referrals. Some of these care elements include understanding the patient and family's adjustment to illness; understanding the unpredictable nature of HIV; sensitivity for the patient witnessing other patients' declining status; sick and co-infected partners; sudden acute, life threatening illnesses; fear of the unknown; dependence on others; and uncontrolled pain or other symptoms. Interdisciplinary participation in the education of patients and caregivers on important aspects of the patient's condition, disease trajectory, prognosis and direct care are predictors of improved patient and family satisfaction.<sup>11</sup>

Patients' resources may have drastically changed since their most recent hospital admission. The patient may no longer be able to care for himself and live independently. He or she may have experienced a loss of housing, income, insurance benefits, and/or family support. Caregivers awaiting the patient's discharge may need increased assistance at home for extensive care. This is why it is important to make a comprehensive assessment of new needs and any adjustments to the plan of care prior to discharge. The revised discharge plan must be communicated to outpatient primary care providers and case managers so that they can reassess patient and caregiver needs once the patient is home.

Families need to understand the seriousness of advancing disease and the implications of limited life span for their loved one. One of the major discharge planning problems for families is that it is not always clear when someone is dying. Sometimes, even if a loved one has been in

serious and steady decline with wasting, disorientation and a cascade of other symptoms and infections, it can be hard for the closest caregivers to see or admit what is going on.<sup>12</sup> It can make a tremendous difference for physicians, nurses, therapists, social workers, and/or friends and loved ones to acknowledge the approach of death gently, but clearly.

For a smooth transition to home-based care services, discharge planning should begin as early as possible. Evenings and holidays are inappropriate times to discharge a person to home-based care unless thorough arrangements have been made regarding access to ordered medications, equipment, supplies and agency personnel. Referrals to home nursing and palliative care services should be made with much advance notice because it may require several days to secure all services for inpatient teaching and home equipment.

## ASSESSMENT FOR HOME CARE

■ One of the most important practical questions facing the patient and team (whether the team is inpatient staff, outpatient staff, or both) is “Can this patient and family live safely at home?” An assessment of the physical and emotional condition of the patient is necessary to understand what needs must be met. This is most often the responsibility of the nurse and/or physician. However, a comprehensive assessment for home care must take an interdisciplinary approach in addressing several important issues (see Table 22-3):

- The patient’s mental capacity to make decisions
- The patient’s physical capacity to carry out activities of daily living and participate in care
- The caregiver capacity to provide support in the home

Table 22-3: Assessment of the Home Environment

1. Who in the home can assume primary responsibility as caregiver?
2. What is the patient’s level of ability in activities of daily living?
3. Are family members or caregiver able to read and understand medication labels?
4. What is the family and patient’s understanding of, and adjustment to, the illness?
5. What is the potential impact of disclosure by the patient of HIV status to family members and other people?
6. Are there physical and mental health issues among other family members and caregivers? (i.e., Is this patient’s partner or spouse also HIV-infected, addicted to drugs or alcohol, or physically or psychologically unable to meet the demands that will be placed upon him/her?)
7. Are medications, especially pain medications, safe from theft or abuse by others in the home?
8. Do the family and caregiver have the capacity to maintain a stable home environment?
9. Will the patient be able to access outpatient care from home? Will the patient and family be able to obtain medications and supplies at home?

Table 22-3: Assessment of the Home Environment (continued)

10. If the patient is bedridden, is someone available to answer the door, or can a key be provided to the home care providers?
11. How safe is the home for patient, caregiver, and visiting health personnel?
12. Is durable medical equipment such as hospital bed, commode chair, wheelchair, or oxygen needed in the home, and should they be in place prior to discharge?
13. Is the home setting appropriate for the patient's stage of illness?  
(See also Table 22-5.)
14. What are the financial resources of the patient and family, and have those resources changed dramatically since prior hospitalizations?
15. Have legal issues such as guardianship, living wills, health care proxies been addressed and are they current? (See Chapter 18: Legal and Financial Issues.)
16. What care options are there for children during illness and after death of the parent?

Having someone in the role of primary care provider in the home is necessary for patient safety and assistance as well as to coordinate care with the home care or hospice agency, and assess and deal with changing aspects of patient care. Ideally, the primary care provider must be well enough physically and mentally to provide personal care, food preparation, safety supervision, errand running, and household management, as well as be the primary contact for health care providers.

Additional considerations arise when planning for home care for infants or children who require palliative care; see Table 22-4.

Table 22-4: Considerations in Planning Home Care for a Child

1. Parents may lose social support from other parents of hospitalized children when their child is discharged.
2. Parents may experience significant guilt for transmission of the virus to their child.
3. When parents are infected themselves, questions of guardianship, custody, and financial planning are more difficult.
4. Parenting skills may need to be refined. Often, for example, parents experiencing anticipatory grief need help in learning how to discipline their children.
5. There is reduced cost of care at home.
6. Pain is the most common symptom across the spectrum of pediatric HIV disease.
7. There are forms of suffering other than pain in the dying child such as other uncontrolled physical symptoms, guilt for making loved ones sad when they get sicker, and lack of ability to mirror the activities of healthy peers.
8. Care of the dying young is often complex and requires an interdisciplinary approach to care.<sup>6</sup>

Unanticipated barriers to home care, such as inadequate or unstable housing, substance abuse or lack of insurance, may require that discharge from the hospital be postponed. Some home situations are inappropriate for palliative care supported by home care or hospice services (see Table 22-5).

**Table 22-5: Persons for Whom Home Care May Be Inappropriate**

1. Persons with diarrhea who are housed in single-room occupancy hotels lacking a private bathroom or running water in the room.
2. Persons with significant weight loss living in places lacking cooking and food storage facilities.
3. Persons requiring intravenous therapy who have neither a telephone nor refrigeration.
4. Persons who are non-ambulatory patients but live in buildings with stairs or broken elevators.
5. Persons living in high crime buildings or in homes where overt drug use and trafficking takes place in the presence of home care staff.<sup>13</sup>
6. Persons living in housing that is unstable, transient, or a “double up” situation.
7. Persons with previously stable housing that is jeopardized by hospitalization and disclosure of HIV status.
8. Persons living in homes in which confused or intoxicated individuals have access to weapons.

If family members have unrealistic expectations of the course of the illness, they may expect that the patient should not be discharged from the hospital until their health is improved. Conversely, the patient, family members and caregivers may be reluctant to have the patient return home from the hospital at all. Often this is due to specific fears that can be addressed in the transition planning process (see Table 22-6). Some of these fears are real. Others can be ameliorated with education and support.

**Table 22-6: Common Caregiver Fears**

1. That the health of the family or caregiver will suffer.
2. That the patient will be readmitted to the hospital and thereby create a negative perception of the family's ability to provide care.
3. That a crisis will occur at home when no trained professional is on site.
4. That incontinence, sickness, or confusion will cause embarrassment.
5. That the patient will be left out of discussions/decisions regarding care.
6. That the loved one will die at home.
7. That the illness will have negative impact on the family, especially children, yet the patient's desire to see them may be particularly strong at this time.<sup>14</sup>
8. That a diagnosis of HIV/AIDS will be disclosed to others.

## HOME VS. INSTITUTIONAL CARE

■ Once palliative modes of care are accepted, patients and families need to consider the type of care that matches their needs, as well as begin development of a plan for the place of care and the anticipated location of the patient's death. Most Americans prefer to die at home.<sup>15</sup> An individual can be surrounded by familiar and cherished family, pets, and belongings if care is provided in the home. However, there are times when a patient's need for safety and comfort exceed the capacity of his or her home. The patient may live alone and not have a caregiver; caregivers may be overwhelmed; some people may not have a home to go to; and, some home environments may be difficult or impossible for providers to access.

The best outcomes in home-based care are attained when care is provided with the support of others. Even under the best of circumstances, a caregiver needs a solid foundation of support to call on when needed. Although some families manage to mobilize last-minute support networks, the end-of-life is not a good time to make new personal connections or start support groups.<sup>12</sup> In these instances, professional staff should plan for and assume an even more important role.

In North America, one of the primary goals of palliative care is to support people to die in the comfort of their own homes, and palliative care practitioners hold death in the home as the "gold standard."<sup>16</sup> However, there are many issues to consider in discharge planning. We must consider the physical dependent care needs, and whether or not the patient and caregivers desire a home death. The physical and emotional devastation of advanced HIV illness makes extraordinary demands upon families and our health care system in relation to the type and level of service required to support end-of-life care at home.<sup>17</sup>

### Home Care

Home care is primarily rehabilitation focused. Skilled nurses provide intermittent, time-limited visits in the home, to monitor, instruct in care, and perform specific nursing interventions under the direction of the primary physician (activities might include changing dressings, teaching and administering intravenous treatments, monitoring medication adherence, and obtaining blood and specimens for laboratory analysis). Home health aides are available for assistance with bathing and personal care (generally two-hour intervals several times a week). Physical therapists are available for gait training, instructing strengthening exercises, and safe transfer instruction to patient and caregiver. Social workers may be available for limited visits for assessment and referral for community services, benefits, financial assistance and/or transfer of patient to extended care or residential assisted living.

It is important that families, patients, and providers have some criteria for selecting a home hospice agency. One of the greatest predictors of successful care is experience. Ideally, families need to know that the chosen agency can address anticipated, predictable symptoms of HIV disease, and will have knowledgeable responses to the unpredictable events.<sup>6</sup> At a minimum, caregivers should know the number of years an agency has been in operation, the status of the agency's license, the agency's membership in the state's home care or hospice organization, and accreditations held by the agency.

## Hospice Care and Services

Hospice care is designed for patients living with advanced disease conditions and their families. Education, symptom management, on-call support, care focused on the end-of-life, and bereavement are the cornerstones of hospice care. Symptom management includes ongoing assessments, intervention and follow-up, education, and promoting optimal comfort.

Hospice teamwork assists the patient and family to design a personalized plan for disease progression. This plan will address preventing anticipated symptoms, clarifying desires for place of death, and related concerns. The focus on symptom control, education and support is to make the patient and his or her significant others as self-reliant and comfortable as possible at home as they plan for approaching death. Care includes skilled nursing (provided by RNs), personal care (by home health aides), social work services, volunteer support, pastoral care and bereavement support for one year after the patient expires. Comprehensive support is key to hospice design. Assessment of and support for physical, emotional, social, financial, and spiritual aspects of the patient and family's lives are the priority concerns and focus of care delivery.

Traditionally, only clients who were no longer interested in measures to prolong their lives were eligible for this program. The unique challenges in predicting prognosis and symptom management with advancing HIV disease have pressured some changes in the definitions of HIV hospice care. Specifically, the severity, complexity, and unpredictable trajectory of the disease have blurred the distinction between what was previously understood as curative care and what was considered supportive palliative care.<sup>18,19,20</sup> At one time, patients were asked to give up all treatment medications, IVs, hospitalizations, diagnostic tests, and hopes for recovery. Today with patients responding unexpectedly to starting and withdrawing of aggressive antiretroviral therapies, prolonged disease soliloquies, changing prognoses, and new hopes, hospice referrals are changing to include more blended care.

### Medicare Skilled Nursing Benefit versus Hospice Medicare Benefit

For patients who have Medicare or Medicaid in States with the Medicaid Hospice Benefit, choosing hospice can be very complicated. (See Chapter 18: Legal and Financial Issues for more information about these sources of care financing.) Terminally ill Medicare or Medicaid recipients can choose the Skilled Nursing benefit or the Hospice Medicare Benefit. By electing the Hospice Medicare Benefit, the patient designates the hospice to assume the financial responsibility for all care related to the terminal illness. This obligation provides all the core services of hospice care as well as durable medical equipment, palliative medications, respite care and 24-hour nursing care if needed.

There continues to be ongoing debate regarding the hospice agency's obligation to continue expensive viral suppressive therapies. Although many of these therapies may provide symptom relief, their cost would exhaust more than the *per diem* rate of hospice reimbursement.

Ideally, every hospice could benefit from dual licensure as a home care and a hospice agency. An agency licensed for both home care and hospice has more flexibility in care delivery strategies for patients who are continuing to blend palliative care and support with final treatment strategies. This allows the hospice to bill as home care skilled intermittent visits by the hospice nurse and home health aides, as well as other therapies as ordered. Social services can be billed at the maximum number of visits allowed. Additional visits will not be billable, unless allowable through other sources of funding such as end-of-life care within Ryan White CARE Act Titles I or II.



The criteria for a hospice referral for a person with advanced HIV can include the following:

1. The patient has failed all available antiretroviral therapies, or can no longer tolerate them, or is continuing treatments despite high viral level because they help the patient feel less symptomatic.
2. The patient is on expanded-access medications, has chronic distressing symptoms, or is experiencing end-of-life distress (patient or family), impaired quality of life secondary to advanced HIV, and/or a life-limiting AIDS-related condition such as CNS lymphomas, recurrent/resistant opportunistic infections, co-infections with other life-threatening conditions such as Hepatitis C, and/or end-stage organ failure.
3. The patient has become tired of years of complex medication and treatment regimens and failing strategies, and wants a simpler and higher quality of life.
4. The patient is living with advanced disease and the after-hour call needs exceed those that can be met in the outpatient setting. This may be for symptom management or support. The patient who has come repeatedly to the emergency room may also benefit from the home assessment, education, and support that the hospice offers to reduce use of emergency services to address anticipated changes.

### Alternative Placements

When patients do not have a home to return to, or the necessary support is not available, transfer to a residential facility can be a welcome option. Sometimes the home environment is not a safe place for the patient to live alone. There are several alternatives to home discharge. Depending on the available resources in each healthcare provider's region, assisted and independent living residential facilities may be available. Skilled nursing homes and extended care facilities may also be available depending on the patient's location, physical care needs and benefit coverage.

### Residential Care

Residential housing designed for people with HIV is often a welcome alternative to institutionalized care facilities. A variety of housing models have developed over the years for people with HIV. Although there are several common types of residential models, care should be taken to evaluate support resources available to the patient in each type of home prior to any referral. Scattered-site apartment programs for individuals and HIV-infected families are operated in many locations throughout the U.S. These residences are best suited for those patients who are still able to maintain a high level of independent functioning.<sup>21</sup>

### Long-term Care

The most common reasons patients are admitted to long-term care facilities are completion of medical therapy; prevention of unnecessary hospitalizations when home care is not available; continuous care needs including dementia-related cognitive and/or functional disability; terminal care when home settings are not available;<sup>22</sup> and, institutional care reimbursement bias since long-term care is less expensive than acute inpatient care.

## Skilled Nursing Care

Sometimes a patient with advancing HIV wishes comfort care only, but is referred to a skilled nursing facility rather than a long-term care facility because of the reimbursement incentives related to restorative care versus long-term care. Medicare skilled nursing facilities cover the costs of skilled nursing and therapies, and many facilities attempt to maximize the number of resident days with this coverage because it is the most lucrative for the skilled care facility.<sup>23</sup> This may offer patients more care therapies such as hydrating IVs, parenteral nutritional and physical therapy.

The skilled nursing facility, the subacute long-term care option, was designed primarily for geriatric populations, to serve patients who required skilled nursing care before going home from an acute hospitalization.<sup>24</sup> Skilled nursing care may be more accessible for HIV-infected clients in need of physically supportive care. The increasing chronicity of HIV disease with newer therapeutic agents and neuropsychiatric co-morbidities will most probably increase the need for long-term care. This level of care may be increasingly important not only in reducing acute hospital length of stays but in creating a bridge to community-based residential options in the emerging chronic disease phase of the AIDS epidemic.<sup>24</sup>

## Child and Adolescent Care

Children and/or adolescents who require a transitional phase of stabilization before going home from the hospital have intensive medical, familial, and social needs. (See Chapter 12: The Care of Children and Adolescents.) Chronic care for pediatric AIDS patients requires flexible goal orientation within each treatment phase of care including long-term care and skilled nursing facilities. An overarching problem is that the U.S. lacks a national care policy to insure children and adolescents needing such care.<sup>24</sup>

## Helpful Placement Strategies

Interdisciplinary team social workers will generally be the best resource for placement advice. A well-informed social worker will know about admission criteria and policies of each facility. A thorough assessment of the patient's social history should reveal any information that may influence housing placement, such as how well the patient handles conflict, anger, frustration and grief. Equally important, providers should be knowledgeable about the patient's dietary restrictions, mental health, substance use, and anti-social behaviors such as confused wandering, sexual relations, public masturbation, stealing, or personality disorders causing team and social splitting and chaos.<sup>25</sup>

Regular providers of HIV care would greatly benefit from visits to their local facilities to learn about the physical settings and support services. Recent consumers of residential housing services can also be reliable informants.

Encourage the family to visit potential settings and determine which facility feels most suitable in terms of location, attitude of care providers and culture sensitivity.

## PLANNING FOR DYING

■ Planning for death and dying is an important part of caring for the HIV/AIDS patient and his or her family. Conversations on this topic can be particularly challenging because of the substance of the issues that must be addressed as well as the difficulties inherent in communica-

tion between provider and patient at such a difficult time. Provider communication issues and legal issues are discussed elsewhere in this guide. (See Chapter 21: Patient-Clinician Communication and Chapter 18: Legal and Financial Issues.)

It is particularly important that people with HIV and their families understand that even in some of the most confining situations they have choices. Does the patient want to die at home or in an institutional setting? Who does he or she want as a health care proxy? Who does the patient want to act as guardian for his or her children? Who will care for pets? Who do patients want to be with them at the end-of-life? One of the greatest losses humans suffer near the end-of-life is the loss of autonomy. When it is possible, therefore, to give a patient a choice, even in seemingly trivial matters, it is important to do so.

Developing a realistic understanding of the possible ways in which dying may occur improves the likelihood of families making choices consistent with their stated desires. Health care providers can support families by assisting them in visualizing the dying and death of a loved one in broad ways that are meaningful to the patient.<sup>26</sup>

It is particularly important that family members have a clear understanding of what they need to do, whom they can call, and where they can turn when death is imminent. Often, if a plan is not clearly understood, caregivers may yield to the impulse to call an ambulance or bring the patient to an emergency room. This risk is increased if home health aids or other visiting professionals do not clearly know the patient's wishes. It is, therefore, a good idea to keep a brief written summary of the patient's desires, along with copies of pertinent legal documents, in a prominent place near the bedside (see Table 22-7).

Caregivers should be encouraged to discuss with their doctors and nurses the symptoms and signs they can expect and what to do when these occur. A clear plan of action to address these symptoms and signs should be developed in consultation with the interdisciplinary team well ahead of the time it may be needed. It is most helpful to make sure that medications needed to manage these symptoms are handy and that a list of all medications is kept up to date. Similarly, an easy-to-access list of important phone numbers (doctor, hospice, nurse, family members etc.) should be maintained so that, in the event of clinical deterioration, confusion is minimized.

Table 22-7: Important Documents to Keep Updated and Readily Available

1. Living will
2. Durable power of attorney or health proxy documents
3. A simple, clear statement of what the patient desires to be done in case of an emergency or crisis (i.e., do or do not call 911)
4. Important phone numbers (friends, family, clergy, doctor, nurse, hospice or home care agency)
5. Vital statistics (full name, date of birth, Social Security number, mother's maiden name, place of birth)
6. Health insurance and other financial documents
7. Other important documents such as tutorship papers, bank and house papers, safety deposit information
8. Burial policies

## SUPPORTING THE CAREGIVERS AT HOME

■ Taking care of a loved one with advanced HIV disease can be very frightening if the caregiver does not know what to expect. In addition to understanding the anticipated changes, the caregiver must also know how to promote the patient's comfort in simple and successful ways. All members of the interdisciplinary team should assist with teaching caregivers, normalizing their care expectations, preparing them for anticipated physical changes, and supporting their care delivery. (See Chapter 20: Care for the Caregiver.)

Ideally, the education of caregivers should begin during clinic or hospital visits before the caregiver assumes full-time responsibility for care. The education of caregivers and family members should include establishing and agreeing on the overall goals of care, the likelihood of symptoms, and the role caregivers play in end-of-life care. Families need to know general principles of pain and symptom management. This includes learning to take symptoms seriously, understanding how the patient expresses discomfort, being knowledgeable of treatment options, and understanding whether interventions have provided relief. Family members also need guidelines for handling themselves appropriately and knowing what sorts of situations require them to contact their health care provider (see Table 22-8).

A patient with advancing HIV can experience numerous symptoms related to the HIV disease, medications, HIV-related infections and conditions, and pre-existing conditions. Symptoms associated with advanced HIV disease include, but are not limited to, the following:<sup>8,27,28</sup>

- Symptoms associated with acute retroviral syndrome
- Oral changes
- Neuromuscular and neurological changes
- Pain in multiple sites from different sources
- Increasing fatigue
- Fevers and night sweats
- Changes in sleep patterns including insomnia
- Anorexia and involuntary weight loss
- Diarrhea
- Skin changes including rashes, itching and edema (see Chapter 25: Prevention of Skin Breakdown)
- Shortness of breath, cough and congestion

General symptom control at the end-of-life should focus on comfort issues, pain, noisy and moist breathing, dyspnea, and restlessness.<sup>29</sup>

Table 22-8: Caregiver/Patient Information Sheet: Common Symptoms Requiring Referral to Health Care Provider

<p><b>Emergency conditions</b> indicating need to contact primary care provider (either home care or hospice nurse or primary clinic) immediately if this change in condition was not anticipated.</p> <p>Depending on the patient's desires, many of these symptoms can be managed comfortably at home.</p> <p>If a family is terribly frightened by these changes, they may choose emergency or 911 assistance.</p>	<ul style="list-style-type: none"> <li>• Severe shortness of breath (difficulty talking or walking) with sudden onset</li> <li>• Falling</li> <li>• Seizures</li> <li>• Fainting</li> <li>• Mental status changes, including memory loss and personality changes that are not associated with dying process (Note: increased supervision of client is warranted as soon as a change is noticed)</li> <li>• Difficulty swallowing</li> <li>• Difficulty with urination</li> <li>• Severe or acute new pain</li> <li>• Chest pain</li> <li>• Bleeding (rectum, throat, coughing up blood, blood in urine) (Note: some advanced liver disease conditions can increase risk of bleeding)</li> </ul>
<p><b>Urgent conditions</b> indicating need for prompt reassessment by home-based care, hospice or clinic staff within 24 hours</p> <p>Most of these symptoms can be comfortably managed at home with adjustments to medication or treatment plan.</p> <p>If travel to clinic setting for re-evaluation is without undue strain, patients may desire to go to clinic setting for assessment.</p>	<ul style="list-style-type: none"> <li>• Diarrhea (five times a day for more than five days)</li> <li>• Persistent headaches not responding to over-the-counter medications</li> <li>• Fever over 101° for more than two days</li> <li>• Dizziness</li> <li>• Uncontrolled chronic pain</li> <li>• Visual changes (including blurred vision, floating spots, loss of sight)</li> <li>• Persistent cough</li> <li>• Nausea and vomiting</li> <li>• Rashes and skin changes</li> </ul>
<p><b>Non-urgent conditions</b> that require follow-up attention by the primary care provider but can wait more than 24 hours (Note: family should call clinic and arrange follow-up appointment within the next two weeks)</p>	<ul style="list-style-type: none"> <li>• Uncontrolled weight loss is to be anticipated with decreased intake and advanced disease</li> <li>• Persistent insomnia</li> <li>• Any other symptoms distressing to the client</li> </ul>

Caregivers need to be taught to utilize proxy intensity scales based on their close knowledge of the patient. This enables caregivers to make appropriate comfort choices such as when to administer “as needed” medications and when to increase a dose of long-acting medication, as well as to monitor for new needs. Pain assessment and management strategies are explored elsewhere in this guide. (See Chapter 4: Pain.) Education of lay caregivers in these skills is an important component of successful discharge planning. Increased caregiver competence in addressing anticipated symptoms can ease caregiver burden and increase the home comfort of both the patient and the caregiver.

As someone approaches the living-dying phase, families acquire additional care tasks and must reorganize the family in order to overcome role strain.<sup>30</sup> This includes a significant change in the household/family leadership order. For example, the caregiver must manage his or her own life as well as become the patient’s bill-payer, personal shopper, and child care provider, and act as the patient’s primary social contact and health care coordinator, all of which may not be a practiced or comfortable role for the caregiver. All the while, family caregivers are dealing with the imminent separation from the dying person, and possibly their own HIV infection.

Most importantly, caregivers need to maintain a sense of competence. Although caregivers cannot be rescued from feeling helpless in the quest to keep a loved one alive, others can assist them in feeling that what they can do is helpful and meaningful.<sup>12</sup> This includes providing assistance with developing meaningful tasks and integrating palliative care team services as care needs advance, and referring patients and families to hospice care (see Table 22-9).

**Table 22-9: Important Comfort Strategies to Teach Lay Caregivers at Home**

Lay caregivers must be as confident and as competent as possible with care and comfort strategies, because in the home setting they will be alone with the patient the majority of the time.

These end-of-life-related comfort strategies should be demonstrated for, taught to, and understood by lay caregivers before they take on their care responsibilities:

#### **Give pain and other symptom control medications**

Caregivers must be instructed in proper administration and dosing of pain and other symptom management medications at scheduled times to keep their loved one as comfortable as possible. Caregivers should also be instructed in administering rescue medications to be given between long-acting medications.

When current regimens are not meeting the needs of ongoing comfort control, caregivers should notify their home or hospice nurse to arrange changes in dose or medication(s) to promote patient comfort at all times.

Caregivers should be informed of the benefits of regular dosing; health care practitioners should dispel caretakers’ myths or concerns about addiction, tolerance, and dependence on medications that could inhibit their interest in or ability to adhere to a comfort plan.

#### **Keep clean and dry**

Keeping bed linens, pillows, and clothing dry and clean helps promote a patient’s comfort and dignity as well as preventing decubitus ulcers. Freshening linens with scented powder or light perfume can enhance the olfactory and tactile sense of cleanliness as well.

**Promote privacy & dignity**

As lay caregivers take over more physical care responsibilities, they may need to be reminded to respect the patient's privacy as much as possible. Instructions such as keeping patients' private body parts covered and asking guests to leave the room when patients are urinating or receiving bath care will enhance the patient's dignity and emotional comfort.

**Care for mouth and lips**

When weak or short of breath, patients will breathe through their mouths, which are often relaxed and open. Because this tends to dry out the oral mucosa and lips, caregivers need to brush the patient's teeth and/or rinse their mouth and rub a cool moist cloth over their teeth and apply moisturizer to their lips regularly.

**Moisten dry eyes**

When the body weakens, eyelids become more relaxed and people will sleep with their eyes open and rarely blink. This is very drying and sensitive to eye tissue.

Caregivers should be instructed to avoid directing the breeze of fans, heat, and air conditioning toward the patient's open eyes. Application of 2 to 4 drops of artificial tears every one or two hours will add gentle comfort.

**Reposition and turn**

As disease advances and bodies weaken, it becomes more difficult for patients to move and turn themselves. Caregivers can be taught to use a draw sheet for ease and comfort with repositioning.

**Monitor bowel movements**

Even though individuals may eat little as they get closer to the end-of-life, it is still important to remember that bodies continue to make waste. Keeping track of the frequency of bowel movements and notifying the visiting nurse if a patient has not had a bowel movement in at least 3 days is important for the person's overall comfort.

We must remember that the intimate memories of direct caregiving by family members become everlasting for the survivors. Informing family caregivers of the natural, expected events and comfort strategies will improve caregivers' satisfaction with their assistance to the patient. The responsibility for caregiver instruction is shared throughout all settings of HIV care delivery.

**APPROACHING DEATH**

■ Certain active signs and symptoms of approaching death may be seen in the last several days and hours prior to a natural and expected death. (See Chapter 24: Medical Care at the End of Life.) Specifically, pulmonary aspects of the dying process call for caregiver management of the patient's distress and discomfort. (See Chapter 6: Pulmonary Symptoms.) Caregivers should know that the natural changes as their loved one gets sicker and approaches death may include the following:

- Reduced intake and interest in food and fluids
- Decreased interest and attention

- Reduced strength and ability to move
- Changing sleep and rest patterns
- Loss of control of bladder and bowels
- Described “supernatural” experiences
- An energy surge

### Reduced Intake and Interest in Food and Fluids

Caregivers should be taught not to force food or drink into the patient’s mouth nor try to use guilt to manipulate the patient into eating or drinking. Small chips of ice or frozen juices may be refreshing so long as the patient can swallow without difficulty. If the patient does want to eat, small frequent feedings of desired foods and fluids may be more manageable and appealing than large meals. The team nutritionist can be very helpful in teaching techniques that may enhance comfort, nutritional quality, and feeding assistance with swallowing changes. Most important, families and caregivers need to know that these changes do not cause pain and that if pain occurs medical attention is required.

### Decreased Interest and Attention

As the body weakens, a person’s involvement with other people, pets, hobbies and other interests may decrease. Individuals may lose interest in favorite activities or topics of conversation. They may want to be alone or with just one person at a time or ask that visits be shorter than usual. Caregivers need to be reminded that the patient is easily tired and weak. Although it is hard for caregivers when they feel shut out, they can be helped to understand that withdrawal from life is a natural part of preparation for death.

### Reduced Strength and Ability to Move

Families and caregivers need to know that it is natural for a patient to become weak and require increasing amounts of rest to perform even simple tasks. It is important to assist and supervise all of the patient’s activities to promote safety.

### Changing Sleep and Rest Patterns

As an individual gets closer to the end-of-life, it is normal for day and night sleeping patterns to reverse. Rest is important for everyone. If the patient is unable to sleep for several nights, pain should be assessed and health care providers should be notified. When fatigue is profound, patients may sleep with their eyes and mouth open and appear unresponsive. Caregivers should understand that this is expected and that, at these times, their role should shift from “doing for” to “being with.” This means that families should sit or rest near their loved ones, hold their hands, apply lotion to their skin, soothe their faces with a warm moist cloth, play music, or converse as the patient would expect them to do.

Most importantly, caregivers should not attempt to awaken the patient by shaking or speaking loudly to them. They should reintroduce themselves to the patient upon every contact and avoid asking “do you know who I am?” Loved ones experience great pain when they are not recognized and patients may withdraw from interactions if they fear they are causing pain. As the patient responds less, families should continue to speak directly and normally and assume that the patient can hear them, as hearing is the last of the senses to be lost.



## Loss of Control of Bladder and Bowels

As the body weakens, the amount of urine normally decreases and becomes tea-colored or darker. The patient may lose control of his or her bladder and/or bowels as the muscles in that area begin to relax. The home care or hospice nurse can determine if there is a need to insert or apply an external or internal catheter for comfort. Protective measures such as layering the bed or resting area with pads will prevent frequent linen changes and soiling of furniture. Wearing gloves when handling soiled clothing and linens, and washing hands with soap and water before and after personal care, should be demonstrated and instructed. Care should be taken to keep the patient clean and comfortable. The home care or hospice nurse should teach techniques for cleanliness, universal body fluid precautions, skin care, and monitoring of bowel patterns.

## Described “Supernatural” Experiences

It is common for many people who are getting closer to dying to describe experiences of feeling that they have been in contact with people who have died before. Generally, these experiences are described as “So and so came to see me” or “I just saw so and so.” Although these may not seem believable to many people, they feel very real to the person experiencing them. For people who have significant anxiety about their approaching death, this is often a time when they may express feeling less frightened. Often people are reported to be resting better and feeling calmer with less emotional strain or struggle after describing this type of experience.

## Energy Surge

It is very common for caregivers to witness a predictable, significant increase in energy and restlessness at the very end-of-life. This may occur after a period of extreme weakness and deep sleeping, then suddenly the patient becomes VERY alert. The patient may want to stand, walk, or sit upright in a chair, when they have not done so for days or weeks. Patients may start taking their clothes off and on when they normally were quite modest. They may be found standing naked at the end of the bed. Agitated “picking” at their clothes, bed linens, or the air may also be a sign of this stage. Other times the patient may request specific food, and eat the entire amount when they have not eaten more than a spoonful of anything for days.

Often this surge of energy confuses and sometimes frightens the individuals closest to the patient. When not educated about the possibility of it occurring, loved ones can interpret this surge of energy as renewed strength and an answer to prayers for recovery. It is important for families to be educated about this possibility, because it is a potential sign that death may occur within the next 24 hours.

## PEOPLE WITH SPECIAL NEEDS

### Women

The greatest percentage of HIV-infected women are mothers of young children under the age of ten years. Often women learn of their HIV infection during their prenatal care, which means they immediately have pregnancy needs as well as needs regarding their HIV status, prevention of HIV transmission to their unborn child, risk reduction education, and the possibility of their other children being HIV-infected.

Crisis in the parental role occurs when a mother's HIV disease advances to a stage that impairs her energy and function. With HIV advanced disease, arrangements must be made to care for children on an emergency basis if her condition worsens as well as for long-term guardianship or custody. Women who have been infected by a male partner often are caring for that person as well as their children, or struggling with the loss of that person in their lives. Clinically, a mother may push her own physical, emotional and spiritual limits for the sake of her children and maintaining her primary parental role.

Her own impending death critically affects a woman's caregiver role. When a mother leaves children behind, she may be leaving them in the custody of a sick partner or an aging sick parent, or deciding to separate them among family members. She may experience a very intense sense of responsibility, fear of rejection, guilt about transmission of HIV to her children, and guilt about leaving her family at a young age. There often may be great denial that her own care needs have increased.

The needs for women to have supportive housing and to be able to live with their children as long as possible are increasing. When women are unable to handle the care of their children, unlimited visitation by their children needs to be assured. Fear of losing touch with their children frequently causes women to delay acceptance of hospice services until the very terminal stages of life. (See *A Clinical Guide to the Care of Women with HIV* for more on caring for women.)

## Children

Children continue to be born infected or to contract HIV at early ages. (See Chapter 12: The Care of Children and Adolescents.) Children at the end-of-life have special needs. When planning care across the spectrum of inpatient and outpatient services, a formal assessment of the family at home helps determine suitability of the home setting as well as the willingness of family to participate in care.<sup>10</sup> Before discharging a child to home, health care providers must assess the family's understanding of HIV infection and the child's illness trajectory, and identify the individuals in the family who are aware of the diagnosis. Also, planning must occur for the home needs of uninfected siblings including privacy, attention, role changes and anticipatory grief.

Surrogate caregivers are needed for infected children when their parent(s) is ill, unavailable, or already has died. Whenever possible, family surrogates are ideal caregivers: they can help normalize the child's life to the greatest degree, facilitate visits of their parent when possible, and help the child keep fond memories of parent(s). However, extended families cannot always assume such child care responsibilities, because of problems such as living in too small a space or unfit housing, or caring for other dependents or relatives.

Often the medical staff has come to accept the child's impending death while the parents still favor heroic lifesaving measures. Conversely, families may accept impending death before the medical team. When families and health care providers are in conflict over care strategies for a child in advanced stages of HIV, it can help to consult a facilitator who is not involved directly in the patient's care, to help family and team reach a consensus.<sup>10</sup>

For children with advancing HIV, the goals of case management are to reduce the length of hospital stays, prevent future hospitalizations, promote alternative resources and settings and

identify children who would benefit from a coordinated continuum of care.<sup>31</sup> Pediatric case management should be considered whenever patient and family must interact with several groups of care providers, such as outpatient clinic staff, clinical trials staff, and home care infusion staff. Families need to have one central phone number to call for the majority of their assistance and care guidance.

Family-oriented case management is the optimal support. This includes assessment and interventions for the entire family as a unit. Family case management, similar to hospice case management, includes the multifaceted layers of practical assistance with support for the emotional and social adjustments, and crisis intervention.

## Rural Families

Families living with advanced HIV disease in rural communities have unique problems, including geographic isolation and added caregiving responsibilities. When HIV advances to the point of disability, the entire family structure feels the strain of increased responsibilities. Resources that are taken for granted in urban settings are scarce in rural settings. Professional caregivers as well as patients and their families are often isolated from the resources needed to help care for themselves.<sup>32</sup>

The barriers to advanced and palliative HIV care in rural communities are numerous, and include the following:

- Scarce home health and hospice agencies, with fewer staff than urban agencies to provide home health, social work or respite services
- Scarce resources resulting in fragmentation of care
- Lack of professional emergency assistance due to geographic remoteness
- Shortage of mental health professionals
- Long distances to medical facilities such as clinics, hospitals and nursing homes
- Lack of health care professionals with advanced HIV care expertise
- Fewer HIV-related services
- Community social stigma toward those living with HIV
- Home care and hospice agency reluctance to become known as the HIV provider, fearing loss of other clients, staff, or community funders
- Lack of transportation to needed services such as food, case management, counseling, group support, day care and respite services<sup>33</sup>
- Family financial strain due to limited work resources or land-dependent income

Poor rural families can live with extraordinarily limited resources. Some families still live in homes without running water, telephones, electricity, indoor plumbing, or adequate clean food. Homes may have dirt floors or be overcrowded single-room houses or sheds that are not protective for severe weather conditions. Incest, substance abuse and alcohol abuse can be additional stressors in remote communities. Cultural sensitivity must be developed in working with fami-

lies with such severely limited resources. Care must be taken not to shame families for conditions under which they live. Palliative care goals must be adapted to the expectations and needs as defined by the family.

In rural areas, people with HIV and their families often have very strong disclosure fears. When needs increase and HIV-positive people become more symptomatic, they may require the services of the local hospice and the HIV agencies. The more remote the area, the greater the fear of disclosure within the surrounding community. Even if only one person in the family has HIV, the stigma can remain with that family long after that person's death. Agencies must guard the confidentiality of their clients with the utmost vigilance for these reasons.

Families living in remote rural areas often grieve in isolation. It is important whenever possible to refer the family to hospice care (prior to their family member's death) to facilitate access to bereavement support.

Strategies to improve access to HIV palliative care in rural areas include the following:

- Develop a community assessment of local resources and a needs assessment through the closest university.
- Advocate for increased services to meet the unique needs of the rural communities. For example: Arrange respite care or volunteer participation in “care for the caregiver” activities, using church groups or senior citizen centers.
- Educate family members and caregivers on the basics of HIV, risk reduction, and advanced care needs and respect for confidentiality.<sup>34</sup>
- Develop regionally specific cultural orientation for care providers who are not familiar with subcultural traditions.
- Develop strategic rural care plans with other experienced rural providers.

## Urban Poor

Similar to the rural poor, individuals and families living in urban poverty also can live in extreme situations of despair. Common stressors include small living spaces that are overcrowded and lack privacy, including lacking individual sleeping space. Many families live without telephone, electricity, running water, and shelter from extreme climate conditions.

Crime is a daily occurrence in impoverished urban communities. Theft of medications, clothing, vehicles, furniture, entertainment items, and food can occur at any time. Individuals and families often fear that flying bullets or stabbing will take their lives before HIV has a chance to advance. For many people, HIV is not “the” significant concern until it interferes with their ability to survive within these poor conditions.

Determination of suitable housing is difficult for many very poor families. Sometimes the mere fact that they have a roof over their heads, running water, and intermittent electricity may be a great improvement over previous conditions. It is critical to remember that many families have had their children removed from their homes due to determinations of unfit housing. For parents with advancing HIV, holding onto their home with their children may be their highest priority. At the same time it is also the responsibility of the palliative care team to notify protective services if there is a concern about abuse or neglect of any family members in the home.

Many very poor families may have a history of negative social service experiences. This may cause a rejection of any care provider entering their home. Families have been known to refuse visits from case managers, home care and hospice nurses, home health aides, pastoral workers and volunteers.

Crowded living situations also increase the transmission rate of TB within the household. Patients identified to have TB need to be linked with appropriate surveillance teams and have all members of their households tested or evaluated.

We need also to be mindful of further barriers to care that exist for the impoverished population, such as the following:

- Transportation may be limited in areas of high crime.
- Only a limited number of home-based care agencies may serve the patient's home setting, and agencies may need protective services to accompany health care providers on every visit.
- After-hour call services may be limited to phone assistance, whereas clients in safer areas may receive a home visit at any time.

## SUMMARY

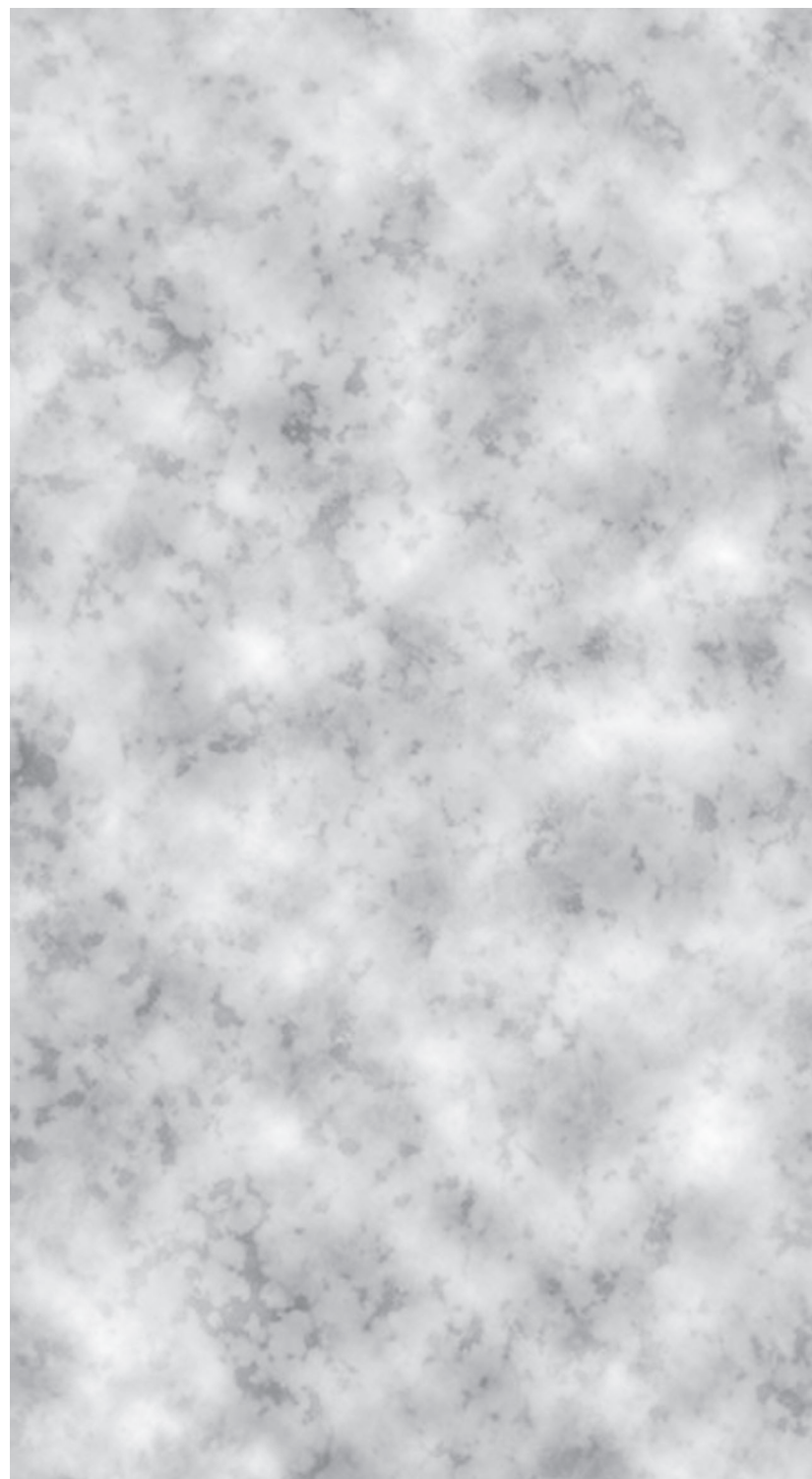
■ Patients and families need reassurance that their interdisciplinary team members are interested in their *quality of life*, not *quantity of life without quality*. We must acknowledge a good quality of life as being free of distressing symptoms, and offer patients the ability to remain as independent in their lives and care as possible. With comprehensive assessment, we can promote patients' ability to achieve meaningful goals and take care of personal priorities before the end of their lives.

Deliberate, informed, and conscientious practical actions should be based on understanding the interdisciplinary team role and function, hospital discharge planning, patient and family assessment, and home care and hospice planning. These components are paramount to promoting a continuum of care and support for people with HIV and their families at the end-of-life.

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## Chapter 23.

# Medical Care in Advanced AIDS

Frederick J Meyers, MD, and John F Linder, MSW, LCSW

### INTRODUCTION

■ Well-informed patients can optimize their quality of life through partnership with their physician in clinical decisionmaking. This collaborative process is particularly important for patients with advanced AIDS and their families. This chapter assists the clinician in striking the appropriate balance between disease-directed therapy and comfort-centered care in caring for people with advanced disease.

Specific clinical events, presented in Table 23-1, should, at a minimum, prompt an explicit discussion of the goals of care, and may trigger a shift in emphasis from cure or disease management to palliation. Acknowledging and discussing with the patient these transitions in illness and the inherent implications is integral to quality patient care. Failure to do so adversely affects patient quality of life and often leads to hopelessness, depression and amplification of physical symptoms.

These discussions with patients are extremely important interventions and require sophisticated communication skills. (See Chapter 21: Patient-Clinician Communication.)

### QUALITY-OF-LIFE-BASED DECISIONMAKING FOR PATIENTS WITH ADVANCED AIDS

■ Many patients receiving highly active antiretroviral therapy (HAART) experience marked improvement in their clinical condition. Others are not as fortunate. Some have irreversible deficits (usually neurologic, cognitive and/or motor) and live at a level of considerable disability or incapacity.<sup>1,2,3</sup> Others experience persistent treatment toxicities that make remaining on HAART difficult or impossible. Moreover, even for those who do experience improvements in clinical status, there is not necessarily an improved quality of life in areas other than depression.<sup>1</sup> Over time, therefore, the burden of treatment may begin to outweigh its benefits. New therapies increase the chances of living longer, but often with diminished physical or cognitive capacity and onerous treatment-related symptoms.<sup>3,4</sup> This is particularly true with second-line and salvage therapy. For some patients, living longer in this diminished state is less desirable than a shorter life.

Providers must, therefore, elicit the patient's view on the key physical, medical, emotional and spiritual elements that define a good quality life, the life worth living. Providers must recognize, moreover, that patients' perspectives may differ sharply from their own, and understand the ethical implications inherent in these differences. (See Chapter 20: Care for the Caregiver and Chapter 17: Ethical Issues.)

### Sentinel Events Triggering Discussion About the Advanced AIDS State

The occurrence of the events presented in Table 23-1 often indicates that death is likely in the foreseeable future and should cause the provider to explicitly review prognosis, goals, quality-of-life perspective and expectations with the patient and family.

Table 23-1: Sentinel Clinical Events

- Immunologic failure, as indicated by low and falling CD4 count, rising viral load in the face of good adherence to primary HAART, or other indicators of failed immune system reconstitution despite therapy
- Relative and absolute antiviral drug resistance to HAART, salvage therapy, or investigational trials
- Poor adherence to HAART
- Progressive cachexia not secondary to HAART lipodystrophy
- AIDS-related malignancy including CNS malignancy and visceral KS
- Progressive multifocal leukoencephalopathy
- Advanced liver disease
- Intensive care hospitalization / mechanical ventilation / *Pneumocystis carinii* pneumonia
- Drug-resistant TB

### Relative and Absolute Antiviral Drug Resistance

Antiviral drug resistance is more likely in patients with CD4 less than 200, in patients who are less adherent to the initial drug regimen, and in patients on second and third line drug regimens.<sup>5</sup>

In a group of 70 protease naïve patients with advanced AIDS started on HAART, the treatment failure rate was 40% and mortality rate was 16% in three months. Brechtl's study shows mortality was not associated with nonadherence and, while depression and weight improved, other aspects of quality of life did not.<sup>1</sup>

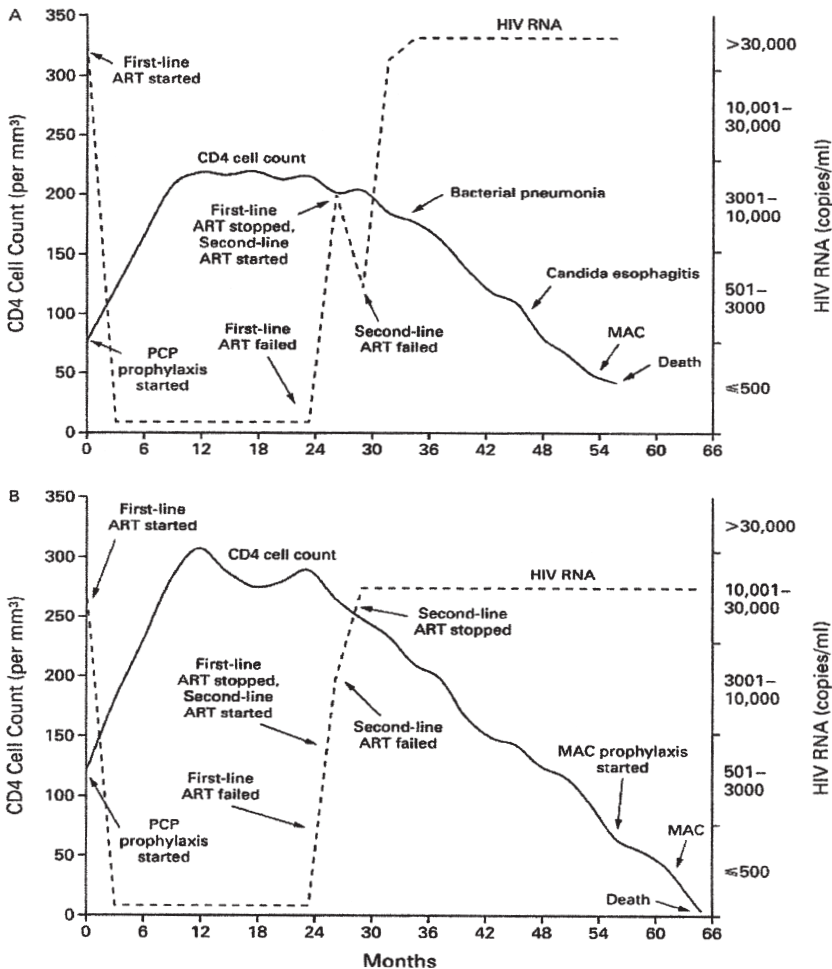
Freedberg developed a statistical model of AIDS survival which showed significant improvement in overall survival and quality-adjusted years of life with adherent HAART therapy but also revealed a relatively short survival for patients with advanced AIDS. A graphic representation of two hypothetical patients is shown in Figure 23-1. Estimated survivals are shown in Table 23-2.<sup>6</sup>

Table 23-2: Survival with and without HAART

CD4 cells/mm <sup>3</sup>	Survival without Therapy (yr)	Survival with Therapy (yr)
50	1.39	2.84
200	3.33	5.32
500	7.05	9.13

Source: Freedberg KA, et al. The cost effectiveness of combination antiretroviral therapy for HIV disease. *N Engl J Med*, 344:824-31, 2001. Copyrighted © 2001 Massachusetts Medical Society. All rights reserved. Reproduced with permission.

Figure 23-1: Freedberg's Model



Source: Freedberg KA, et al. The cost effectiveness of combination antiretroviral therapy for HIV disease. *N Engl J Med*, 344:824-31, 2001. Copyright © 2001 Massachusetts Medical Society. All rights reserved. Reproduced with permission.

Taken together the Brechtel and Freedberg studies imply that the evolution of drug resistance is associated with increasing illness, a reduced quality of life and diminished life expectancy. In a group of patients for whom short survival can be an expected outcome, therefore, disease-directed therapy and palliative care can and should be provided simultaneously, with palliative care playing an increasingly important role in the care of these patients over time.

## Second Line, Salvage, and Investigational Therapy

There are data in a study by Durant, et al., suggesting that second line therapy, particularly when guided by genotype testing, is valuable in increasing longevity.<sup>7</sup> Indeed, for some patients viral suppression on second line therapy may last for years. This same study, however, also indicated that a substantial number of patients progressed despite therapy or were intolerant of therapy. An AIDS Clinical Trial Group (ACTG) study of response to second line treatment further reinforces that second line treatment is a marker for advanced disease.<sup>8</sup> Institution of second line therapy should therefore prompt recognition that, while another remission is possible, treatment failure may be immediate and is probably inevitable.<sup>9</sup> Thus, conversations about the end-of-life and the role of palliative care are indicated when second line therapy is considered or initiated. This is even more relevant as patients undertake third and fourth line therapy after multiple treatment failures.

The outlook for patients on salvage therapy or those participating in clinical trials following exhaustion of all conventional regimens is very poor. Initiation—indeed, consideration—of salvage or investigational therapy under these circumstances carries with it the imperative to reassess the goals and burdens of treatment with patients and to explore the benefits and risks of intensive palliative care. These discussions may inform decisions about stopping or declining further antiretroviral therapy or prophylaxis against or suppression of opportunistic infections, depending on the defined goals of treatment and the perceived effects of continued disease-directed therapy.

### • Clinical Ethics and Practice in Salvage and Investigational Therapy

The decision to continue second line, salvage or investigational therapy has several ethical and psychological implications which can complicate discussions about palliative and disease-directed care.

Although cancer and AIDS differ in many ways, the experience with cancer can inform AIDS clinician-investigators.

Patients who enter investigational cancer trials participate in part because of protocol eligibility, such as disease and functional criteria. Many advanced stage cancer patients who make decisions to participate in cancer clinical trials are highly motivated and feel that “active” treatment is the best course for them. Patients are also influenced by their physicians and their own sense of altruism.<sup>10, 11, 12</sup>

These patients often expect a response to therapy, a reduction in symptoms and improved and increased quality communication with their physician.<sup>11</sup> They equate therapeutic efforts with superior quality of life and do not consider any other options or quality of life ramifications. Palliative care, therefore, is not a consciously considered option for many patients with advanced cancer who are enrolled in cancer clinical trials, and is not consistently offered. Cancer patients who enroll in clinical trials overestimate their survival, making these patients more likely to choose putative life-extending therapy over palliative care.<sup>13</sup>

Phase I and Phase II trials are not trials for the patients' benefit. Rather, their goals are to define toxicity patterns, establish maximum tolerated dose, and complete trials in selected tumor types that could, if responses are seen, lead to advanced Phase II and Phase III trials. Responses measured in Phase I and early Phase II trials rarely convert into prolonged survival for patients enrolled in those trials.<sup>14</sup>

Furthermore, systemic barriers obstruct palliative care program participation by these patients. Impediments dissuade programs from informing prospective patients, thereby restricting access. The added regulatory barrier that *de facto* prevents patients receiving disease-directed therapy from even being referred for hospice care<sup>15</sup> exacerbates dissonance between disease-directed and palliative approaches. Non-viable financial requirements argue against simultaneous care and are detrimental to clinical research, to informed consent, and to best patient care. For example, hospice programs are required to absorb costs associated with disease-directed therapy (like HAART) and the cost of treating patients' side effects from investigational therapy.

Consequently, when investigational therapy is completed, patients are often close to death. Both patient and loved ones have little opportunity to address end-of-life tasks. The physician and the patient and family have focused often on the disease-directed therapies to the exclusion of end-of-life issues and palliative care.<sup>16</sup>

The perceived dissonance between the goals of disease-directed therapy and palliative care leads to patient and physician reluctance to discuss concurrent application of both investigational therapy *and* palliative care. For the patient with advanced AIDS, participation in clinical trials should not be a barrier to effective symptom management or intensive emotional support. A desire for optimal quality of life should not preclude clinical trials participation.

## Adherence

Another sentinel event that appropriately triggers a patient/provider reassessment of the goals of treatment is non-adherence to therapy. Current HAART regimens are complex. Patients are routinely expected to ingest between 6 and 20 pills a day, often on *bid* or *tid* dosing schedules with significant dietary restrictions.

Patients experiencing virologic and clinical failure despite protease inhibitor therapy seem to fall into two categories: those treated over an extended period of time with a variety of antiretroviral agents, and those whose adherence to a HAART regimen is inadequate to sustain viral suppression.<sup>5</sup>

Adherence research in other diseases with significantly less demanding regimens has documented levels of fully adherent behavior as low as seven percent.<sup>17,18</sup> Furthermore, "...rates of compliance with different long-term medication regimens for different illnesses in different settings tend to converge to approximately 50%."<sup>19</sup>

However, it should be noted that adherence rates vary greatly depending on measurement methodology. Moreover, adherence distribution curves are often U-shaped (not bell-shaped), suggesting that close to one third of patients are highly adherent, roughly one third are functionally non-adherent and the remainder fall in the 20%-to-80%-adherent range. This renders meaningless the "approximately 50%" figure cited above.

Adherence rates with chronic conditions also decline over time when reinforcement is absent. An 80% rate of adherence, often adequate though not ideal in managing other diseases, is inadequate for effective HAART.<sup>20,21</sup> Several investigators have demonstrated a precipitous decline in HIV suppression with each 5% to 10% decrement in adherence.<sup>5, 22-25</sup>

Many factors have been examined as potential influences on adherence. These include the patient's age, education, income, gender, active or prior alcohol or substance use, depression, relationship to the health care provider, interactions with others, primary language, race and ethnicity, involvement with AIDS service organizations, use of reminders and cues, use of mechanical devices (a pill box, for instance), location of care delivery, routine, treatment side effects experienced, beliefs about treatment, access to care, venue of treatment, costs associated with medications and others.<sup>5,26,27</sup> Several of these factors, while intuitively associated with greater or lesser adherence, do not bear out empirically. Furthermore, physician ability to predict adherence success or failure is demonstrably poor.

Current or prior substance use, poverty, illiteracy and alcohol or drug addiction, commonly thought to predict poor adherence, are not in fact, significantly associated with adherence.<sup>2,25,28</sup> As Wright concluded in a 2000 study, "not adhering to treatment regimes is so widespread that no combination of sociodemographic variables is reliably predictive of patients' not following doctors' orders."<sup>23</sup> Depression and active alcohol abuse are the only two factors consistently demonstrated to have a deleterious effect on adherence. Scrutiny of most other characteristics yields equivocal results and argues convincingly for approaching the issue of adherence with care and on a patient-by-patient basis. Several strategies to improve adherence have been studied and can be helpful in the clinical setting.<sup>24, 26, 29, 30</sup>

## Cachexia

AIDS-associated cachexia syndrome reflects the uncontrolled inflammatory state induced by the virus.<sup>31</sup> Oversecretion of inflammatory cytokines produces pathologic changes including protein catabolism and weight loss. Pharmacologic appetite stimulants can lead to weight gain and may enhance the patient's sense of well-being, but survival time is not lengthened.<sup>32,33</sup>

In advanced AIDS, symptoms of hunger and thirst are reduced or absent. Patients report anorexia and even dysgeusia ("food tastes bad"). Caregivers frequently respond by forcing foods and, sometimes in concert with physicians, advocating for enteral or intravenous alimentation. Such supplemental feedings are toxic, do not prolong life and are not consistent with biomedical ethical guidelines or high quality of life. Some reasons not to artificially feed a patient with advanced AIDS are presented in Table 23-3.<sup>34</sup>

Table 23-3: Arguments against Artificial Feeding in Advanced AIDS

- Does not increase survival
- Promotes suffering due to aspiration, diarrhea and abdominal pain (NG, PEG tubes)
- Can be withheld, as can hydration, according to U.S. Supreme Court decisions
- Is inconsistent with some religious and secular values
- Distracts family from issues of emotional support, completion of relationships and other end-of-life tasks

Source: Gillick MR. Rethinking the role of tube feeding in patients with advanced dementia. *N Engl J Med* 342:206–10, 2000.

Eating is often equated to fundamental caregiving, and offers opportunities for communication and sharing. Health care providers can help caregivers and patients identify alternative activities such as life review, storytelling, family outings, cards and games, reading. Time is often better spent pro-

moting communication and demonstrating caring than preparing unwanted or discomfiting meals. Explicit reassurance to the caregiver that the patient will not starve to death, and that suffering is not increased, is critical both for patient comfort and the reduction of caregiver anxiety.

## AIDS-Associated Malignancies

Several cancers are now AIDS-defining illnesses including Kaposi's sarcoma (KS), non-Hodgkins lymphoma, and invasive cervical carcinoma in women. The diagnosis and staging of these malignancies are identical to diagnosis and staging in the HIV-negative patient. The prognosis, however, is worse.

### • Kaposi's Sarcoma

Dermatological KS often responds well to treatment, whereas visceral KS, including the lung and GI tract, is not curable. Although some patients may obtain short-term control with HAART and systemic chemotherapy such as a doxorubicin-containing regimen, in general palliation is the primary goal. Absent regulatory and financial barriers, addressed in Chapter 18: Legal and Financial Issues, all patients with incurable KS should be referred to hospice.

### • Non-Hodgkins Lymphoma (NHL)

The incidence of NHL is estimated at up to 2% per year in HIV-infected patients and 20% over three years in AIDS patients. In the HIV-positive patient, NHL is always high grade B cell histology, is always disseminated (Stage III or IV), and presents as either systemic, CNS or body cavity disease. Diagnosis of CNS lymphoma should prompt hospice referral as average survival is only 2 to 4 months. Radiation does not prolong survival and provides minimal palliation. Systemic lymphoma has been treated with modified regimens with an average survival of eight months. At the end of therapy, however, and certainly at relapse, patients should be referred to hospice or otherwise be allowed to benefit from intensive palliative care.<sup>35</sup>

## Progressive Multifocal Leukoencephalopathy (PML)

Progressive multifocal leukoencephalopathy (PML) is thought to be caused by reactivation of the JC virus, a human papovavirus. The sudden deterioration of intellectual and physical function of PML heralds a median survival of 2 to 4 months. Recent trials have demonstrated no improvement with novel interventions.<sup>36,37</sup> While clinical investigation should continue, and some clinicians recently have opted to use empiric cidofovir even though this is of unproven efficacy, active PML marks the need for intensified palliative care.

Anecdotally, a number of patients described as presenting with PML have experienced greatly improved scans and significantly improved longevity following the initiation of HAART. However, patients with PML who do not experience immune reconstitution with antiretroviral therapy have very limited life expectancy.

## Advanced Liver Disease

Advanced liver disease due to viral hepatitis is becoming a leading cause of death in patients infected with HIV. While treatment guidelines for the management of HIV-infected patients co-infected with hepatitis B and/or C continue to advance, not even the emerging new treatments will be effective in preventing mortality for patients with advanced cirrhosis and liver failure.

Past efforts at prognosis using the Child-Turcotte-Pugh classification have not been consistent because of the subjective nature of several indicators. A recent report used objective laboratory parameters to assign prognosis in advanced liver disease: the Model for End Stage Liver Disease (MELD).<sup>38</sup> A revised scoring system uses three laboratory tests (INR, total bilirubin, and creatinine) to assign a prognosis in chronic liver disease.

This revised scoring system has been utilized to stratify patients for liver transplantation, which has recently been recognized in many centers as a feasible option for people with AIDS. The scoring system may also prove useful in determining which patients deserve a greater emphasis on palliative or hospice care. In fact, any individual with a high MELD score and on the waiting list for an organ is also a candidate for hospice.<sup>39</sup> If the patient receives a liver, then the hospice benefit can be revoked. Most patients awaiting transplantation, however, will not receive a liver, will die, and would benefit greatly from aggressive palliative care.

Large hepatocellular carcinoma is an additional complication of chronic hepatitis and an absolute indication for palliative or hospice care.

### Intensive Care Unit / Mechanical Ventilation / PCP

Merely being in an intensive care unit is an indication for palliative care regardless of diagnosis.<sup>40,41</sup> AIDS is no exception. Effective palliative care can be provided in an ICU with proper training.<sup>41</sup> *Pneumocystis carinii* pneumonia is still the most common AIDS-defining illness.<sup>42,43</sup> Acute respiratory failure occurs in 5% to 30% of patients. Intubated AIDS patients with PCP experience mortality approaching 50%.<sup>44</sup>

The attitude of patients with advanced AIDS toward mechanical ventilation at end-of-life has been reported.<sup>45</sup> Eighty-seven percent of 57 patients responded that withholding mechanical ventilation in the setting of “futility” was acceptable. Therefore, while mechanical ventilation may be very appropriate for the patient with the initial diagnosis of AIDS and PCP, the patient with advanced AIDS and drug resistant virus may be quite comfortable discussing alternatives to hospitalization and ventilation.

Thus palliative care and even an end-of-life style of support for the patient and family in these circumstances should be considered routinely and provided aggressively.

### QUALITY OF LIFE IN ADVANCED AIDS

■ A study has demonstrated that while asymptomatic patients with HIV had physical functioning equivalent to the U.S. general population, patients with symptomatic AIDS were impaired much like patients with other chronic illness (gastro-esophageal reflux disease (GERD), prostate disease, depression, diabetes) and those with advanced AIDS scored similar to patients with end-stage renal disease (ESRD).<sup>46</sup> One difference worth noting is that all three groups of people with HIV in the study scored lower on the Emotional Well-Being Scale than all comparison chronic illness groups except patients with primary depression.

### Symptom Management and Quality of Life

Patients with advanced HIV disease often face a vexing array of symptoms: nausea, fatigue, weight loss, pain of various origins and presentations, headaches, neuropathies, diarrhea, fevers, shortness of breath, confusion, loss of memory, AIDS-related dementia, and others. Symptoms also arise as a result of therapy. Many of the drugs used in HAART can cause substantial side effects. HAART's com-



plicated drug regimens, opportunistic infection prophylaxis and treatment of other conditions at times give rise to complex and confounding drug interactions. Control of pain and other symptoms is discussed in Part II of this guide and the related ethical considerations are addressed in Chapter 17: Ethical Issues.

## Emotional and Interpersonal Quality of Life

Some patients will ask their physicians for help in hastening death. When this occurs, it is imperative for the physician to understand why such a request is being made and to respond accordingly (Table 23-4).<sup>47</sup> For some patients the desire to hasten death can be reduced by good pain and symptom management. Others may need treatment for depression, anxiety or other psychiatric conditions. Interest in quickening death is often a response to factors that are degrading the patient's quality of life and can be mitigated. The quality of communication between physician and patient is of paramount importance. (See Chapter 21: Patient-Clinician Communication and Chapter 22: Facilitating the Transition to Home-Based and Hospice Care.)

Table 23-4: Reasons Given for Patient Requests for Assistance with Dying

1. Future loss of control
2. Being a burden
3. Being dependent on others for some or all personal care
4. Loss of dignity
5. Being restricted to bed > 50% of the time
6. Experiencing severe depression or depressed mood
7. Experiencing severe suffering
8. Experiencing severe physical discomfort other than pain
9. Experiencing severe pain
10. Worries about medical costs

Source: Back AL, Wallace JI, Starks HE, Pearlman RA. Physician-assisted suicide and euthanasia in Washington state. *JAMA* 275:919–25, 1996.

Ongoing communication between clinician and patient yields benefits beyond mitigating requests for assistance with dying. Patients who have regular conversations with their physicians about quality of life and preferences for care are more likely to complete advance medical directives, and their physicians are more likely to know their patients' relative preferences regarding pain control, symptom relief, and prolongation of life.<sup>3</sup>

Table 23-5 offers some examples of questions intended to deepen the dialogue between the patient and his or her health care providers.<sup>48</sup> These questions focus on particular domains in the psychosocial and spiritual arenas.

Table 23-5: Psychosocial and Spiritual Assessment of the Patient with a Life-Threatening illness: Sample Screening Questions

<b>Psychosocial Assessment Domain</b>	<b>Questions for Clinician to Ask the Patient</b>
<b>Meaning of illness</b>	How have you made sense of why this is happening to you?
	What do you think is ahead?
<b>Coping style</b>	How have you coped with hard times in the past?
	What have been the major challenges you have confronted in your life?
<b>Social support network</b>	Who are the important people in your life now? On whom do you depend and in whom do you confide about your illness?
	How are the important people in your life coping with your illness?
<b>Stressors</b>	What are the biggest stressors you are dealing with now?
	Do you have concerns about pain or other kinds of physical suffering? Do you have concerns about your and your family's emotional coping?
<b>Spiritual resources</b>	What role does faith or spirituality play in your life? What role has it taken in facing difficult times in the past? Now?
<b>Psychiatric vulnerability</b>	Have you experienced periods of significant depression, anxiety, drug, or alcohol use or other difficulties in coping?
	What kinds of treatment have you had and which have you found helpful?
<b>Economic circumstances</b>	How much of a concern are financial issues for you?
<b>Patient-physician relationship</b>	How do you want me, as your physician, to help you in this situation? How can we best work together?

Source: Block SD. Psychological considerations, growth, and transcendence at the end of life. The art of the possible. *JAMA* 285:2898–905, 2001.

## Hospice: The Interdisciplinary Model for Quality-of-Life Focus

It is important that health care providers be familiar with policies and procedures necessary to refer patients to hospice. (See Chapter 22: Facilitating the Transition to Home-Based and Hospice Care and Chapter 18: Legal and Financial Issues). Because of the difficulty in determining prognosis in advanced AIDS and because of the benefits of hospice care, it is not unusual for a critically ill AIDS patient who is seemingly at death's door to regain function and health while in hospice care, indeed in many circumstances *because* of hospice's intense, home-based interventions. With marked improvement, the patient no longer meets hospice criteria, and so begins a cycle of repeated graduation, deterioration, readmission to hospice (often following hospitalization), re-stabilization and re-graduation. This paradigm is highly suggestive of a salutary relationship between the quality-of-life focus coupled with individualized care by hospice's highly-skilled team of providers resulting in periods of enhanced quality and perhaps quantity of life.

Medicare regulations can make it difficult or impossible to provide concurrent HAART and hospice services. Because the hospice benefit includes expenditures for medications out of daily patient per diem reimbursement, HAART can quickly bankrupt a hospice program. These issues must be considered along with the risks and benefits of HAART when contemplating referral to hospice care.

## CONCLUSION

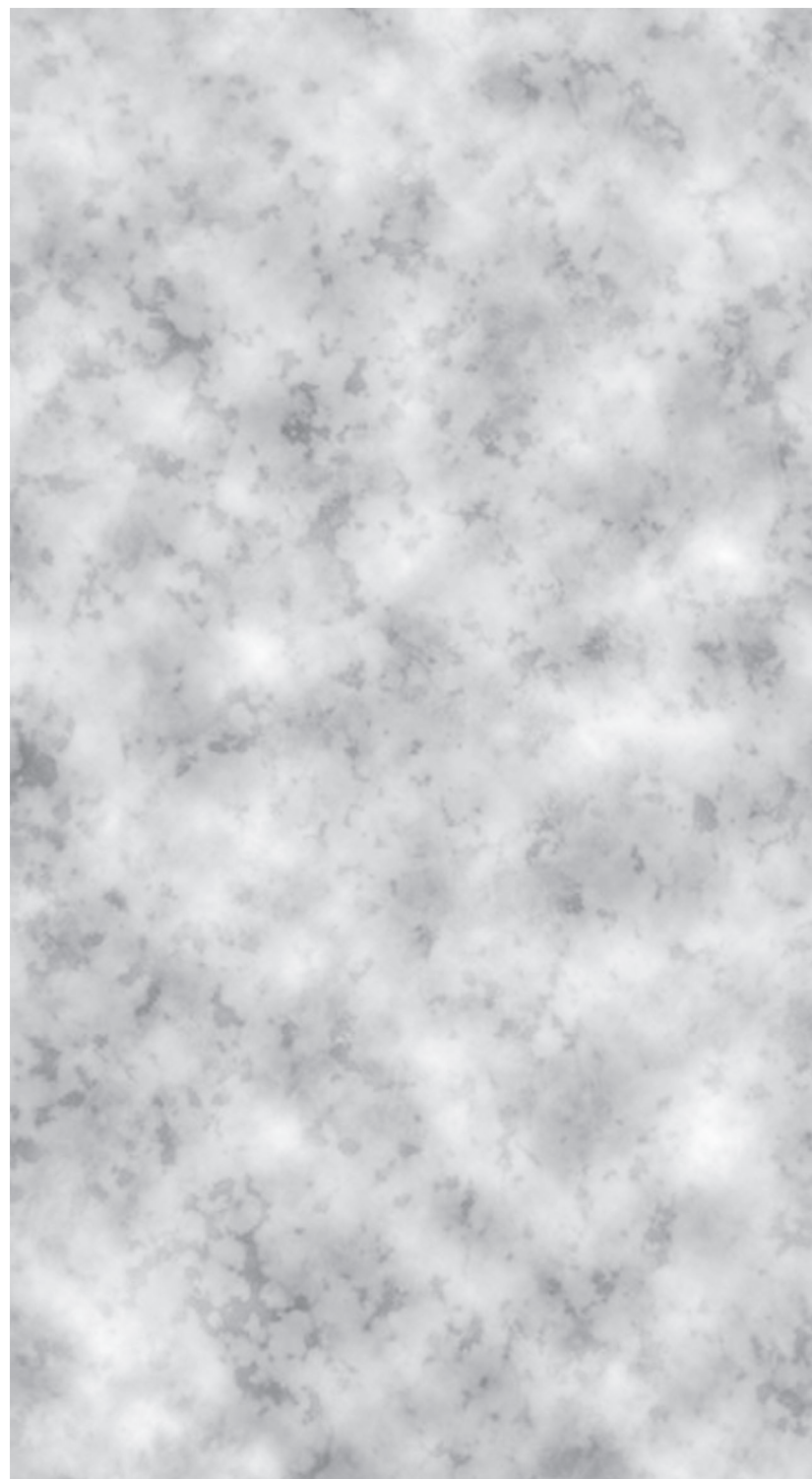
■ Patients with advanced AIDS benefit from competent and conscientious palliative care interventions. Routine discussions with the patient and regular reassessment of the goals and burdens of treatment enhance high quality care and well informed treatment choices. Careful attention to sentinel occurrences as triggers for additional discussion and reassessment further enhances care.

Delivering disease-directed therapies and palliative care simultaneously, shifting the mix as the HIV disease biology unfolds, and attending to patient choice, comfort and quality of life are the cornerstones and the future of excellent care for patients with advanced AIDS.

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## Chapter 24.

# Medical Care at the End of Life

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### INTRODUCTION

■ This chapter discusses medical care at the end-of-life, and is organized into four sections, as follows:

- Dying in the Era of HAART
- Preparing Patients and Families for Imminent Death
- Clinical Management of Imminently Dying Patients
- After-Death Care

### DYING IN THE ERA OF HAART

#### Trajectory of Dying

In the early days of the HIV epidemic, hospice referrals tended to follow a typical disease trajectory. A patient's clinical decline was most often marked by multiple hospitalizations, extensive muscle wasting and weight loss, desire to stop restorative therapies, and/or fatigue and resulting inability to cope with activities of daily living and problem-solving. Now, depending upon the patient's comorbidities and ability to adhere to combination therapies, there are multiple trajectories for end-stage HIV disease. Patients with active illicit substance use who are unable to adhere to treatment, for example, may have the course of illness complicated by recurrent skin abscesses, multiple episodes of endocarditis, and lack of medical follow-up resulting in antibiotic resistance and death from sepsis. These patients may also experience infections such as *mycobacterium avium* complex (MAC), *cryptococcal* meningitis and *pneumocystis carinii* pneumonia (PCP) as causes of death. For other patients, newer treatments may prolong survival time without much illness. In these cases, the cause of death has shifted from opportunistic infections to end-stage organ failure or other medical complications found with any chronic disease.

#### Prognostic Indicators

Prognostication based upon a combination of signs and symptoms is crucial in determining the most appropriate clinical management strategy to alleviate suffering in persons near the end-of-life. In the U.S., for hospice programs to accept reimbursement from Medicare, patients must have a prognosis of six months or less if the disease were to run its normal course. Decisions to withdraw chronic therapies and introduce other treatments that might have been avoided earlier in the course of illness, such as steroids, must be based upon a reasonable assessment of the patient's life expectancy and goals.

Prognostication of time until death in HIV/AIDS is difficult. This is particularly true in young people because their basic cardiovascular health can sustain life longer than is possible in an older person with the same symptoms. Physicians tend to make overoptimistic prognostic predictions, particularly if they have had a long relationship with the patient.<sup>1,2</sup> Prior to the use of HAART, the National

Hospice Organization developed guidelines for physicians desiring to refer AIDS patients for hospice services.<sup>3</sup> These are listed in Table 24-1.

With widespread use of HAART, predicting life expectancy is now more complex. Recent studies of patients with access to triple drug therapy suggest that disease progression to AIDS or death may be associated with timing of initial antiretroviral therapy.<sup>4,5,6</sup> A recent Canadian study found that those starting therapy with a CD4 cell count lower than 200 cells/mm<sup>3</sup> were three times more likely to die than those treated earlier in their course. The crude mortality rate for patients with access to HAART early in their trajectory (after 1997) is 6.7% at 28 months, much different from the statistic in the early epidemic.<sup>7</sup> Viral load as a prognostic factor does not seem as important when patients have access to treatment. Previous studies may simply reflect that these patients were not treated soon enough to rescue a failing immune system.

Table 24-1: Factors Associated with Shortened Life Expectancy

Symptom or Sign	Comment
CD4 persistently low	Advanced disease: < 50 cells/mm <sup>3</sup>
Viral burden remains > 100,000 copies/ml despite combination therapy	
Functional Status < 50 (Karnofsky Performance Status)	Spending > 50% of day in bed
Failure of optimized therapy	e.g., multi-drug resistance or failure
Desire to forego more therapy	May occur after multiple hospitalizations
Significant wasting	Loss of > 30% lean body mass
Progressive hepatitis C despite therapy	Hepatic failure; drug intolerance
Progressive multifocal leukoencephalopathy (PML)	Progressive dependencies; dementia
Unresponsive Kaposi's sarcoma involving an organ	Progression despite therapy
End-stage organ disease	Renal, hepatic, or cardiac failure
Persistent diarrhea > 1 mo.	No response to treatment
Unresponsive lymphoma/ other malignancy	Progression despite therapy
Desire of patient for death	Acknowledgment by patient & family of poor prognosis

Adapted from Moore<sup>8</sup>, NHO<sup>9</sup>

Despite the development of multiple resistant strains, patients who are able to adhere to therapy seem to be living longer. Providers caring for people with long treatment histories often become frustrated with the lack of drug choices, but good supportive care can allow a patient to live until the next therapy is released. Liver failure, malignancies, and cardiovascular events are the issues facing patients with advanced disease; providers now need to be familiar with the palliative aspects of managing these problems.



In addition, providers must continually address the risks and benefits of continued antiretroviral therapy as patients approach the end-of-life. Just as patients may benefit from ongoing HAART therapy even in the face of resistant virus and declining immune function, there also may come a point where continued therapy will yield little benefit and the patient's quality of life may suffer due to medication toxicities. Providers need to be as familiar with the issues involved in stopping HAART as they are with the criteria for initiating HAART in treatment-eligible patients. HAART is also by definition future-oriented therapy, since the results are not expected in the short term but rather are seen in longer-term survival. This may confuse decisionmaking related to end-of-life care planning. Therefore, it is important for clinicians to work closely with patients through the complex decisionmaking that now surrounds HIV treatment in late-stage disease.

These issues have made end-stage HIV/AIDS more similar to other chronic diseases. Research must be pursued regarding what "end-stage" actually looks like to document the prognostic indicators and symptom management that can be useful. Without concrete knowledge, it is difficult to emotionally support patients near the end-of-life and providers run the risk of again not recognizing this disease stage. Early recognition is absolutely critical for the kind of planning and closure patients need before death.

### Setting Reasonable Goals and Maintaining Hope

Patients and providers in the era of HAART may be lulled into thinking that HIV/AIDS has been cured, without noting the larger picture that HIV/AIDS remains a fatal illness. If this perspective is lost there is danger of reacting to every decline as something that can and must be "fixed." When a person becomes acutely ill, curative interventions such as ventilatory support and cardiac pressors are appropriate. But for those who are in poor nutritional condition or who have underlying liver or renal disease, what initially presents as a curable illness may turn into serial organ failure.

The provider must recognize how fear of death impacts management decisions (both by family and by provider). For some cultures it is imperative to continue what may even appear to be futile therapy (See Chapter 14: Culture and Care). Although it is difficult and time-consuming to have repetitious conversations with loved ones about a realistic interpretation of the clinical picture, it is as much a part of medical management as writing orders for intravenous fluids.

A patient's *family* may be friends, other residents of a shelter, or even health/social workers. Having talked with patients and their support persons at a less emotional time certainly facilitates the process for health care providers, but confronting a possible death is not easy even when the events that attend it have been anticipated. Another complication, particularly in homeless or disenfranchised populations, is underlying mental illness which requires additional communication and clinical effort. (See Chapter 21: Patient-Clinician Communication and Chapter 10: Psychiatric Problems.)

In the face of even the bleakest situation it is important to not insinuate that there is nothing more to be done. The patient and family should, at these times, be helped to redefine hopes or goals. Hope is an intangible quality that allows us to overlook current discomforts to achieve a desired endpoint. As people near the end-of-life they turn from 'doing' to 'being' and may even experience a surge of positive feeling for family, self, or others.<sup>10</sup>

When people are known to be dying, goals can be adjusted to fit the time they have left. For example, the new goal may be to live until an anniversary such as a birthday (within weeks) or a specific holiday. This could mean celebrating that event sooner to include the dying person (for example, holding a birthday party this week rather than trying to make it to the next month). Nature, poetry, and music may take on new meaning and can sustain one near the end-of-life as long as symptoms are controlled.

## PREPARING PATIENTS AND FAMILIES FOR IMMINENT DEATH

### Eliciting and Addressing Patient and Family Caregiver Concerns

Perhaps the most helpful first step in preparing patients and families for imminent death is to elicit their concerns. It may be necessary to precede this discussion with a check on patient and/or family member understanding of the clinical situation. (See Chapter 21: Patient-Clinician Communication and Chapter 22: Facilitating the Transition to Home-Based and Hospice Care.) Asking patients and family members for their assessment of the clinical situation can be useful in starting a discussion about care for imminent death. Straightforward, open-ended questions are helpful, such as “What are your biggest concerns now?” In addition, it is often useful to specifically probe the following important domains:<sup>11</sup>

- Optimizing physical comfort
- Maintaining a sense of continuity with one’s self
- Maintaining and enhancing relationships
- Making meaning of one’s life and death
- Achieving a sense of control
- Confronting and preparing for death

Table 24-2 offers useful questions to help health care providers discuss these domains with patients and their family members.

Table 24-2: Useful Questions for Exploring Patient and/or Family Concerns

Domain	Question
Physical comfort	Tell me about your pain. Can you rate it on a 10-point scale?
	How much do you suffer from physical symptoms like shortness of breath, fatigue, or bowel problems?
Continuity with one’s self	What makes life most worth living for you at this time?
	If you were to die sooner rather than later, what would be left undone?
Maintaining and enhancing relationships	How are your family (or loved ones) handling your illness?
	Have you had a chance to tell your family (or loved ones) how they are important to you?
Making meaning of life and death	What kind of legacy do you want to leave behind?
	What would allow you to feel that going through this illness has a purpose?
	Do you have spiritual beliefs that are important in how you deal with this illness?
Achieving a sense of control	How would you like your death to go?
Confronting and preparing for death	How much are you thinking about dying now?
	What are you thinking about it?

Neglect of problems in these domains can lead to depression and difficulty adjusting to the situation for both the patient and family members. The empirical demonstration of the importance of paying attention to these domains is just beginning.<sup>12</sup>

## Negotiating a Plan for Care and Contingency Plans for Complications

In addition to assessing the clinical situation, the clinician must also become familiar with patient and family concerns in order to discuss goals of care and develop a plan to meet them. The discussion of goals of care is an important step that should precede discussion of “Do Not Resuscitate” orders, and this discussion should address the following issues:

- Physical symptoms, such as pain or dyspnea
- Psychological issues, such as depression or anxiety
- Social issues, such as family coping
- Practical logistics, including expected place of death
- Spiritual or existential issues, such as chaplain support or sense of accomplishment in life
- Special goals for life closure, such as family quarrels to resolve

It is important to understand how patients and family members balance quality of life with length of life. Patients and family members should be informed that a peaceful death can often be achieved with medical care that is not intrusive. Family members should further understand that their involvement in care is critical and that there are specific roles that they may play (e.g. physical care and medication administration; helping a patient with leaving a legacy; orchestrating visits from friends; helping with goodbye telephone calls; or, simply being present).

Table 24-3 presents information to help health care providers address some of the common concerns for family members of imminently dying patients.

Table 24-3: Common Family Concerns for Family Members of Imminently Dying Patients

Concern	Fact
Dying will be painful.	Most pain can be controlled to a degree that the patient finds acceptable with noninvasive pain medications.
Everything possible must be done.	Some invasive treatments aimed at sustaining life, such as CPR, are painful and ineffective for imminently dying patients.
Do Not Resuscitate orders will mean that medical care will be limited in important ways.	DNR orders can actually allow medical staff and family to focus on issues that are more important for patients, including legacy-building and time for closure with important people.
More medical care will be available in the hospital than at home.	Spending one’s last hours at home has a powerful importance for many patients, and most medical issues for dying patients can be handled at home. If complications arise, hospitalization or placement at a hospice facility may be possible.
End-of-life care with home hospice will mean losing contact with primary HIV clinicians.	Contact with important clinicians can still occur with phone calls. Home hospice is directed by the primary physician; it does not mean that they have to lose contact.

Discussions about “Do Not Resuscitate (DNR)” orders are best set into the larger context of the care plan. Once patient and family understand what medical care will provide, and how they can contribute to care, DNR orders are much less likely to become the focal point for a struggle around how to ensure that a patient is being cared for.

### Encouraging Life Closure

Making sense of a life is not something that a clinician can do *for* a patient, but clinicians can facilitate or encourage *life review* activities for patients and their families. These activities can include the following:

- Telling and sharing stories—events that were important, funny, worth remembering; storytelling can be audiotaped or videotaped for a more permanent kind of legacy.
- Deciding what to do with one’s things—giving a favorite sweater to a friend, or a treasured stamp collection to a nephew.
- Planning the patient’s memorial service—music, readings, people who will speak, someone to preside over the service, whether to have a religious service or non-denominational service.

Some clinicians use a mnemonic of five important conversations to complete for a peaceful death. These five items themselves lack the context and richness of a life, but they are helpful as brief reminders of the kinds of issues that patients may want to talk about with important people before death.

- “Thank you”
- “I forgive you”
- “Please forgive me”
- “I love you”
- “Goodbye”

Finally, most patients recognize some transcendent dimension to life, and addressing spiritual issues can be critical near death. It is helpful to remember that spirituality differs from religion; spirituality refers to an individual’s relationship with the transcendent, whereas religion is a set of beliefs, practices, and language that characterize a community searching for transcendent meaning in a particular way. Even though many patients will feel alienated from particular religions, they may yet have a spirituality that can help them make sense of their life and their death. Psychosocial clinicians and chaplains with experience in end-of-life care can be particularly helpful if they are available.

## CLINICAL MANAGEMENT OF IMMINENTLY DYING PATIENTS

### Clinical Recognition of Imminent Death

It is important that the family and patient understand normal landmarks in the dying process and overcome common misperceptions regarding imminent death. One such misperception is the belief that lack of appetite and diminished oral intake are causing profound disability and that fluid and nutrition are required. The normal dying process includes the following changes:

- Loss of appetite
- Decreased oral fluid intake, and decreased thirst
- Increasing weakness and/or fatigue

- Decreasing blood perfusion, including decreased urine output, peripheral cyanosis and cool extremities
- Neurologic dysfunction, including delirium, lethargy, and coma, and changes in respiratory patterns
- Loss of ability to close eyes
- Noisy breathing as pharyngeal muscles relax

In particular, neurologic dysfunction can sometimes result in *terminal delirium* which can include a mounting syndrome of confusion, hallucinations, delirium, myoclonic jerks, and seizures prior to death. Recognized early, this can be treated with neuroleptics such as haloperidol or chlorpromazine. For more information see Chapter 10: Psychiatric Problems.

When death occurs, the clinical signs include the following:

- Absence of heartbeat and respirations
- Fixed pupils
- Skin color turns to a waxy pallor and extremities may darken
- Body temperature drops
- Muscles and sphincters relax, sometimes resulting in release of stool or urine

Preparation, which can involve the family, should include the following:

- Creating a peaceful environment to the patient's liking
- Preparing instructions about whom to call (usually not 911) when death occurs
- Taking time to witness what is happening
- Creating or using rituals that can help mark the occasion in a respectful way

When death occurs, families should be encouraged to take whatever time they need to feel what has happened, and say their goodbyes. There is no need to rush the body to a funeral home, and some families want to stay with the body for a period of time after death.

## Symptom Management in the Last Hours of Life

Certain symptoms, some of which are covered elsewhere in this book, are especially common at the very end-of-life. Table 24-4 presents common symptoms and ways to manage them, to make patients more comfortable in their last hours of life.

## Considering Withdrawal of Nutrition and Hydration

In every culture, giving nourishment is seen as an act of caring as well as a method for improving health. As a person approaches death, eating and drinking become more difficult as one must have adequate strength to chew and to maintain an upright position. The palliative care team must find other ways for the family to offer support and care without forcing a dying person to take in more substance than they can handle. As the energy requirements diminish, forcing fluids in particular may cause more difficulty than withholding liquids might.

Excess fluid tends to localize in the pharynx causing a gurgling sound or “death rattle,” which can be distressing to families. Fluids also accumulate in the lungs, the abdominal cavity, and the lower extremities. As the activity level of the patient decreases, this excess fluid will be reabsorbed by the patient, making oral intake of fluids less crucial.

Table 24-4: Symptom Management at the End of Life

Symptom	Management
<b>Fatigue and weakness</b>	Turn patient from side to side, protecting bony prominences with hydrocolloid dressing to prevent formation of pressure ulcers.
<b>Loss of thirst</b>	Explain normal dying process; intravenous fluids can actually increase secretions, edema, and discomfort.
<b>Dry mouth</b>	Moisten oral mucosa with baking soda mouthwash (1 teaspoon salt, 1 teaspoon baking soda, 1 quart tepid water) or artificial saliva. Coat lips with petroleum jelly.
<b>Pain</b>	Watch for delirium or muscular fasciculations related to opioid metabolite accumulation as renal function declines; dosing interval may need to be decreased just before death.
<b>Myoclonic jerks</b>	Benzodiazepines, such as lorazepam 1-2 mg tablet dissolved in 1 ml water and administered to oral mucosa; may need hourly dosing.
<b>Delirium</b>	Haloperidol 0.5-2.0 mg IV, SQ, or rectally; chlorpromazine 10-25 mg q6 is more sedating; both may need titration.
<b>Loss of ability to swallow</b>	Stop oral intake to prevent aspiration; scopolamine 1-3 transdermal patches as frequently as needed or glycopyrrolate 0.2 mg sq, will reduce saliva.

The American Academy of Hospice and Palliative Medicine (AAHPM), the professional organization for physicians and other direct care providers in the field of palliative care, has issued a Statement on the Use of Nutrition and Hydration which recognizes dying as a natural process. It recognizes that clinical judgement and skill are necessary to determine when interventions regarding hydration and nutrition might be appropriate. The statement reads, in part, as follows:

*Hydration and nutrition are traditionally considered useful and necessary components of good medical care. They are provided with the primary intention of benefiting the patient. However, when a person is approaching death, the provision of artificial hydration and nutrition is potentially harmful and may provide little or no benefit to the patient and at times may make the period of dying more uncomfortable for both patient and family. For this reason, the AAHPM believes that the withholding of artificial hydration and nutrition near the end-of-life may be appropriate and beneficial medical care.*<sup>13</sup>

### Ventilator Withdrawal for Intubated Patients

In instances like fatal *pneumocystis carinii* pneumonia, mechanical ventilation may be withdrawn in order to discontinue futile and invasive medical treatment. (See Chapter 6: Pulmonary Symptoms.) These decisions are complex and involve ethical principles of withdrawing life-sustaining treatments that are well established.<sup>14,15</sup> (See Chapter 17: Ethical Issues.) In particular, it is important that clinicians establish with the family and, if possible, the patient, that the goal of withdrawing

ventilator support is to remove a treatment that is no longer desired or does not provide comfort to the patient. Clinicians need to work to develop a consensus among the health care team in order to withdraw ventilatory support; it is seldom an emergency decision, and time should be taken to resolve disagreements and concerns among the team and family. This procedure requires informed consent discussions, especially to inform family members that patients may not die immediately after ventilation is withdrawn.

A protocol developed by experienced critical care physicians appears in Table 24-5.

Table 24-5: Protocol for Ventilator Withdrawal at End of Life

Step	Specific Actions
Prepare the family and patient (if conscious)	Hear concerns, address fears, establish informed consent, explain procedure so they are prepared, give family a place at the patient's bedside if they wish.
Appropriate setting and monitoring	Provide privacy to the greatest degree possible in the ICU setting. Turn off all monitors. Remove tubes, drains, and associated machinery if possible without compromising comfort. Liberalize visitation as much as possible.
Ensure adequate sedation	Establish continuous infusions of analgesia and antianxiety medications; provide wide latitude in drug dosing to nurses who have experience in evaluating suffering in patients who cannot talk.
Reduce inspired oxygen to 21% (air)	This should be done in steps, with adequate time to ensure that any dyspnea or air hunger is controlled with the morphine infusion; if the infusion is increased, bolus doses should be given to rapidly establish the new steady state.
Remove positive end expiratory pressure (PEEP)	Air hunger must be relieved before proceeding with morphine.
Set ventilator to IMV or PS level to fully meet patient's ventilatory needs	This provides another period to establish patient comfort before proceeding.
Observe and modify sedatives while gradually reducing IMV rate or PS level to 5	This process may take 15 to 30 minutes. Family may wish to be present, but should be warned of the possibility of transient increases in agitation or respiratory rate as sedation is being titrated. Ventilator alarms must be disabled so they are not triggered by terminal hypoventilation.
Extubate or leave on humidified air by T-piece	Offer the family the possibility of private time with the patient if feasible, or support from any staff members they wish to have present. Rituals devised by the family or performed by clergy may have an important role.

## AFTER-DEATH CARE

### Time of Death

It is important to respect the patient's and family's cultural, religious, and spiritual beliefs throughout the course of care up to and including the time of death and beyond. Although 60% of people die in institutions in the U.S., most surveys show that most people prefer death in familiar surroundings. Every attempt should be made to allow the person to die where they feel most comfortable. Even in a clinical setting, being able to be with the person who is dying is very comforting to most family members. Every attempt should be made to remove unnecessary monitors such as pulse oximetry readers, intravenous lines, cardiac monitors, and even ventilators when possible; see guidelines above for removing ventilatory support.

Those in attendance may appreciate a pastoral care provider who can lead them in prayer, or they may want to sing and to wait for the 'spirit' to leave the room. Ritual cleansing, bathing with oils, or other cultural practices should be encouraged. Even after the family has gone and the body has been removed, it is advisable to leave a silk or plastic flower on the bed to allow hospital workers the opportunity to say goodbye and to grieve this death before they must go on to the care of another patient. Creating a memorial section in the intensive care unit or a busy ward gives health care workers permission to gain closure, especially when they are in an area where there are multiple deaths. (See Chapter 20: Care for the Caregiver.)

### Memorial Rituals

The AIDS Quilt is a visible remembrance of the lives of individuals who have died with AIDS and serves as a permanent record of lives lost to HIV/AIDS. The making of each panel is, in itself, a concrete way for loved ones and family to resolve their own grief. Scrapbooks, video tapes, poetry and other creative efforts can also help those who mourn to express these feelings and to link children or other family members who want a tangible means of remembering the deceased. Other traditions of remembrance include planting a tree, building a shrine, or placing a tomb marker.

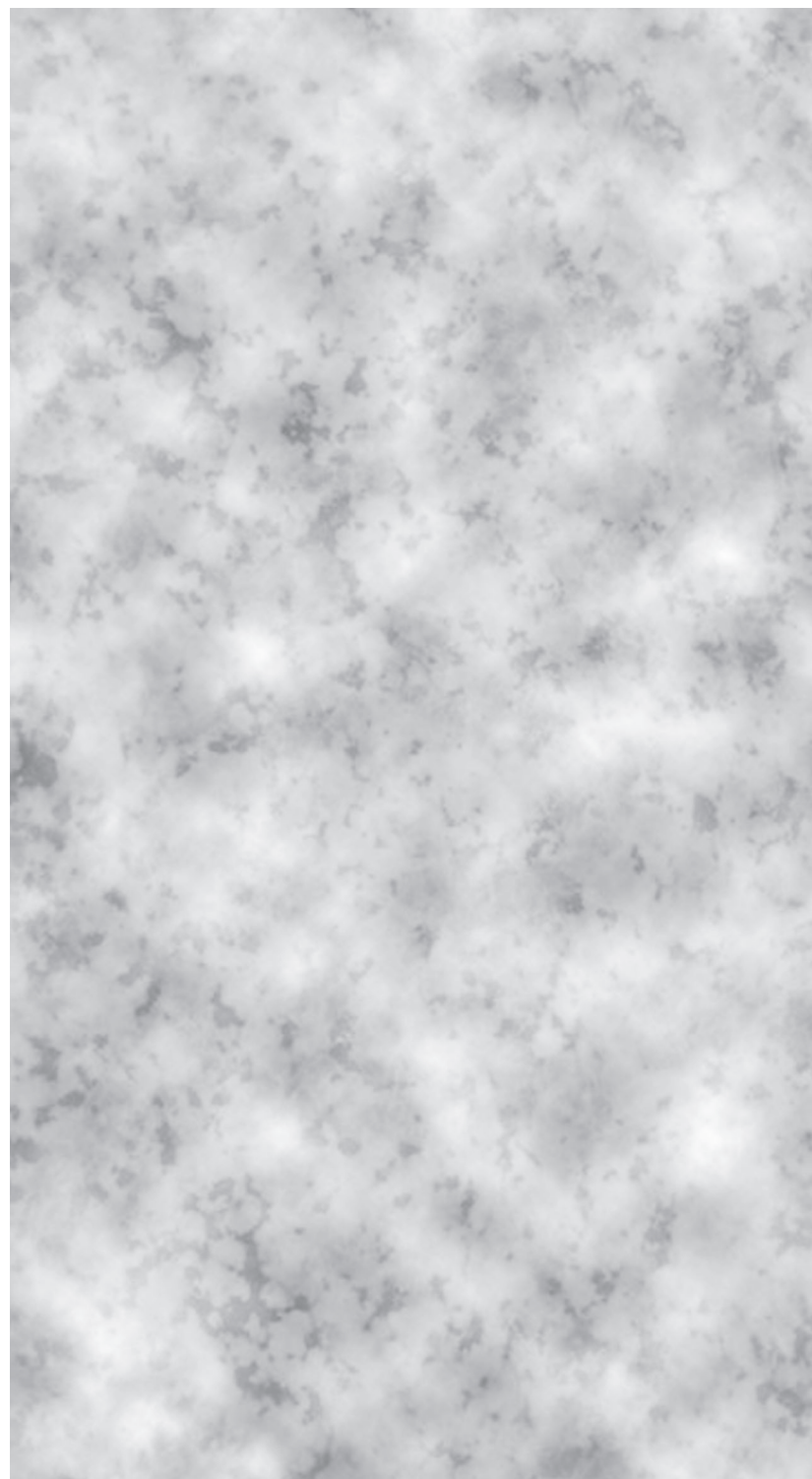
### Syndrome of Multiple Losses

Mourning one death is complex and can extend for months or years. (See Chapter 16: Grief and Bereavement.) During the AIDS epidemic, many gay men have suffered the deaths of ten or more friends, minority mothers may have lost several children, and inner-city dwellers have often lost loved ones to violence and disease.<sup>16</sup> When there are multiple losses to grieve soon after one another, the individual does not have adequate time to complete the usual bereavement tasks. People can develop a protective response that may cause them to shut down emotionally and to be unable to experience significant feelings of either a positive or negative nature.<sup>17,18,19</sup> Clinically, this may look like a post-traumatic stress disorder and usually requires professional help for resolution. (See Chapter 10: Psychiatric Problems.)



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## Chapter 25.

### Prevention of Skin Breakdown

Jean Tuthill RN, MSN, CWOCN and Suzanne R Garnier RN, BSN, CWOCN

■ Maintenance of skin integrity in people with HIV poses a number of challenges to health care practitioners and caregivers. Because of the nature of HIV, it can be difficult, if not impossible, to heal open wounds or ulcers once they appear. It is for this reason that clinicians must work closely with patients and their caregivers in instructing them in principles of skin care. The clinician should teach symptomatic relief of some of the more common skin problems and also address basic assessment of skin so that the caregiver can report problems as soon as they occur. Vigilant caregivers in the home are the patient's best defense against the long-term complications of pressure or decubitus ulcer formation. (See Tables 25-1 and 25-2)

While assessing and treating skin disorders is clinically important throughout the course of HIV infection, the challenges of maintaining skin integrity are greatest for patients with advanced disease. Prevention and treatment of late-stage dermatologic complications is a critical aspect of comprehensive palliative care for patients with HIV disease, and can also be an important means of involvement and empowerment for family caregivers in the care of their loved ones with AIDS.

Because there are many dermatologic conditions associated with HIV it is essential that the patient have a thorough medical evaluation for diagnosis and treatment of these skin problems once they occur (see Chapter 9: Dermatologic Problems). Equally important is the nursing assessment of the individual to determine not only the presence of any open areas but to determine the patient's risk for skin breakdown at any time during the continuum of the illness.

Table 25-1: Guidelines for Caregiver Teaching Related to Skin Care

- Inspect skin every day for any pink or reddened areas and report immediately to physician or nurse.
- Avoid massage over bony prominences.
- Minimize skin exposure to urine or feces from incontinence, or perspiration.
- Avoid rubbing skin with washcloth or towel when bathing and drying.
- Cleanse skin at time of soiling and at regular intervals.
- Use gentle cleansers such as Dove or Neutrogena.
- Avoid deodorant soap.
- Avoid hot water.
- Turn patient frequently. (Every 1-2 hours in bed. Reposition when in wheelchair.)
- Use pull sheets to move or reposition patient in bed. Do not drag patient across bed to reposition.
- Maintain adequate dietary intake of protein, calories, and fluids, avoiding caffeine and alcohol.

Table 25-2: Skin Care for People with HIV

Intervention	Rationale
<ul style="list-style-type: none"> <li>Minimize shower or bath time; provide humidifiers</li> </ul>	<ul style="list-style-type: none"> <li>Prevents drying of skin</li> </ul>
<ul style="list-style-type: none"> <li>Avoid hot water</li> </ul>	<ul style="list-style-type: none"> <li>Prevents vasodilation, which exacerbates itching</li> </ul>
<ul style="list-style-type: none"> <li>Use gentle cleansers (Dove, Cetaphil, Eucerin, Neutrogena); avoid deodorant soap</li> </ul>	<ul style="list-style-type: none"> <li>Prevents removal of skin's natural moisture; deodorant soap dehydrates skin</li> </ul>
<ul style="list-style-type: none"> <li>Minimize friction during cleansing and drying (avoid washcloth, pat skin dry)</li> </ul>	<ul style="list-style-type: none"> <li>Prevents mechanical irritation</li> </ul>
<ul style="list-style-type: none"> <li>Apply water-soluble lotion and emollient after bath while the skin is still damp; apply again at bedtime (Aquaphor ointment, Aveeno lotion, Eucerin cream or lotion, Moisturel cream or lotion)</li> </ul>	<ul style="list-style-type: none"> <li>Adds or helps to retain moisture</li> </ul>
<ul style="list-style-type: none"> <li>If above lotions are ineffective, use lactic acid, urea, or sodium lactate moisturizers (Amlactin 12%, Lac-Hydrin 10%)</li> </ul>	<ul style="list-style-type: none"> <li>Adds or helps to retain moisture</li> </ul>
<ul style="list-style-type: none"> <li>Refrigerate topical creams and ointments</li> </ul>	<ul style="list-style-type: none"> <li>Refrigeration produces cooling sensation, which has an antipruritic effect <sup>1</sup></li> </ul>
<ul style="list-style-type: none"> <li>Encourage fluid intake, avoid or discourage alcohol and caffeine</li> </ul>	<ul style="list-style-type: none"> <li>Maintains hydration of skin <sup>1</sup></li> </ul>
<ul style="list-style-type: none"> <li>Avoid restrictive or nonabsorbent clothing</li> </ul>	<ul style="list-style-type: none"> <li>Guards against mechanical stimulation</li> </ul>
<ul style="list-style-type: none"> <li>Keep fingernails short and smooth or wear cotton gloves</li> </ul>	<ul style="list-style-type: none"> <li>Guards against breaking the skin while scratching</li> </ul>
<ul style="list-style-type: none"> <li>Wash hands frequently</li> </ul>	<ul style="list-style-type: none"> <li>Prevents contamination of open areas</li> </ul>
<ul style="list-style-type: none"> <li>Use fragrance-free products vs. unscented agents</li> </ul>	<ul style="list-style-type: none"> <li>Unscented products may contain fragrance-masking which elicit allergic responses in 50% of patients <sup>1</sup></li> </ul>
<ul style="list-style-type: none"> <li>Avoid lanolin-based creams or ointments</li> </ul>	<ul style="list-style-type: none"> <li>Produces a high rate of allergic response</li> </ul>

Once assessment is completed and risk is determined, implementing skin care guidelines and teaching caregivers is an essential component of the overall nursing care plan.

## DETERMINING RISK OF BREAKDOWN

■ To determine risk of skin breakdown, a thorough nursing history should be obtained that includes a history of any dermatologic conditions. A validated, reliable risk assessment tool should be used to determine risk of breakdown based on mobility, nutrition, sensory perception, degree to which skin is exposed to moisture (incontinence, diaphoresis), and external forces such as shear and friction in the bedbound individual. Visual inspection of the skin is critical to determine presence of lesions, ulcers, or rashes. Dry, flaky, and/or itchy skin should also be noted.

Full-body skin checks should be an integral part of the initial exam and should be continued on a regular basis for all individuals who are deemed to be at risk, however minimal. Risk assess-

ment should be done at regular intervals and any time a change in condition warrants (e.g., acute episodes requiring hospitalization, a period of immobility no matter how brief, a change in medication with new onset of side effects, etc.).

## PRURITIS

■ Perhaps the most common manifestation of HIV-related skin disorders is that of dry and itchy skin. A host of dermatologic as well as systemic illnesses contribute to this condition, and it is essential that these skin disorders be evaluated and diagnosed by appropriate medical personnel. Table 25-2 provides a list of nursing measures that can provide symptomatic relief once the appropriate medical regimen has been instituted.

## PRESSURE ULCERS

■ One of the most common, yet often overlooked threats to skin integrity in the chronically ill or immunocompromised patient is that of pressure ulcer or decubitus ulcer development. Pressure ulcers are commonly seen as long-term complications of completely immobile patients; however, these ulcers can occur in relatively short periods of time in individuals who are acutely ill. See Color Plates 25-1 through 25-5 for the four stages of pressure ulcers. The definitions of pressure ulcer staging can be found in Table 25-3.

Table 25-3: Stages of Pressure Ulcers Defined

<b>Stage I</b>	A nonblanchable area of erythema, which does not resolve after 30 minutes of pressure relief. In dark-skinned individuals this may present as discoloration of the skin, warmth, edema, induration or hardness. The skin is <i>always intact</i> with a stage I pressure ulcer.
<b>Stage II</b>	Partial-thickness skin loss involving epidermis, dermis, or both. The ulcer is superficial with a pale pink wound bed and serous (never serosanguinous) drainage. May present as an abrasion or blister.
<b>Stage III</b>	Full-thickness skin loss involving damage to or necrosis of subcutaneous tissue. Wound bed is beefy pink but may have some necrotic tissue. There may be undermining of peri-wound skin or tunneling. Drainage may be serosanguinous. Underlying support structures are not visible.
<b>Stage IV</b>	Full-thickness tissue loss with extensive destruction, tissue necrosis or damage to muscle, bone or supporting structures. Support structures are visible (tendon, joint capsule, bone, fascia, muscle).

Pressure ulcers must be staged accurately for documentation, reimbursement, and standard of care issues. Pressure ulcers are never downstaged: a stage IV ulcer does not become a stage II, stage II does not become a stage I, etc. as it heals. It would be classified as a granulating stage IV or epithelializing stage IV or finally a healed stage IV.

Pressure ulcers cannot be accurately staged until the deepest viable tissue layer is visible. Ulcers covered with eschar or necrotic tissue cannot be staged until they are debrided. They can be documented as “full-thickness pressure ulcer unable to stage secondary to the presence of necrotic tissue.”

Several tools are available to health care practitioners that are reliable and easy to use. The tools, referred to as the Braden scale or the Norton scale, measure functional and cognitive status and assign a score that correlates with risk for breakdown.<sup>2</sup> A sample of the Braden scale can be seen in Table 25-4 with a sample decision tree in Figure 25-1. Guidelines for caregiver teaching on skin care can be found in Table 25-1.

Table 25-4: Braden Risk Assessment Tool

		<b>SCORE</b>	
<b>Sensory Perception</b> Ability to respond meaningfully to pressure-related discomfort	<b>1. Completely limited:</b> Unresponsive (does not moan, flinch, or grasp) to painful stimuli, due to diminished level of consciousness or sedation OR limited ability to feel pain over most body surface	<b>2. Very limited:</b> Responds only to painful stimuli. Cannot communicate discomfort except by moaning or restlessness OR has a sensory impairment which limits the ability to feel pain or discomfort over ½ of body	<b>4. No impairment:</b> Responds to verbal commands, has no sensory deficit which would limit ability to feel or voice pain or discomfort.
	<b>Moisture</b> Degree to which skin is exposed to moisture	<b>2. Very moist:</b> Skin is often, but not always, moist. Linen must be changed at least once a shift.	<b>4. Rarely moist:</b> Skin is usually dry, linen only requires changing at routine intervals.
<b>Activity</b> Degree of physical activity	<b>1. Bedfast:</b> Confined to bed.	<b>3. Walks occasionally:</b> Walks occasionally during day, but for very short distances, with or without assistance. Spends majority of each shift in bed or chair.	<b>4. Walks frequently:</b> Walks outside the room at least twice a day and inside room at least once every 2 hours during waking hours.
	<b>Mobility</b> Ability to change and control body position	<b>2. Very limited:</b> Makes occasional slight changes in body or extremity position but unable to make frequent or significant changes independently.	<b>4. No limitations:</b> Makes major and frequent changes in position without assistance.

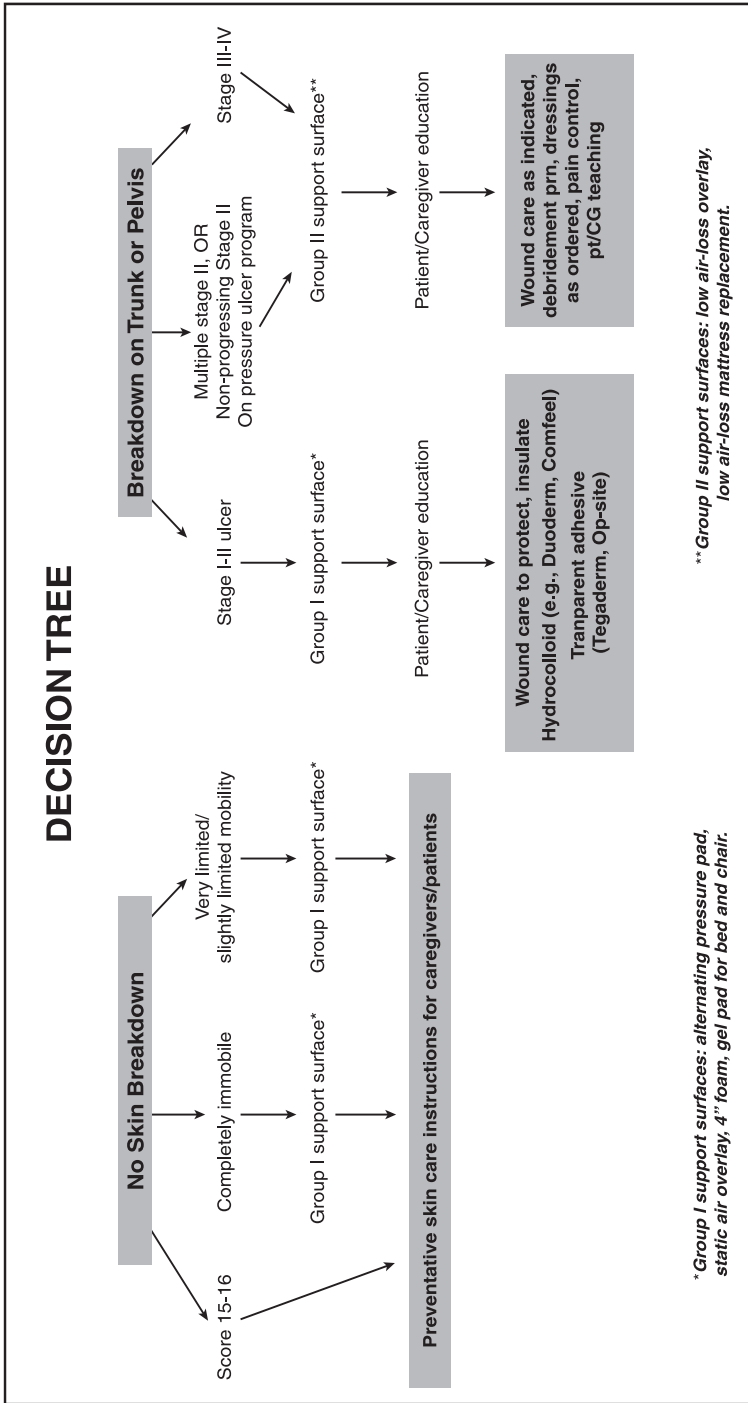
Table 25-4: Braden Risk Assessment Tool (continued)

<p><b>Nutrition</b> Usual food intake pattern</p>	<p><b>1. Very poor:</b> Never eats a complete meal. Rarely eats more than 1/3 of any food offered. Eats 2 servings or less of protein (meat or dairy products) per day. Takes fluids poorly. Does not take a liquid dietary supplement OR is NPO and/or maintained on clear liquids or IV's for more than 5 days.</p>	<p><b>2. Probably inadequate:</b> Rarely eats a complete meal and generally eats only about 1/2 of any food offered. Protein intake includes only 3 servings of meat or dairy products per day. Occasionally will take a dietary supplement OR receives less than optimum amount of liquid diet or tube feeding.</p>	<p><b>3. Adequate:</b> Eats over half of most meals. Eats a total of 4 servings of protein (meat, dairy products) each day. Occasionally will refuse a meal, but will usually take a supplement if offered OR is on a tube feeding or TPN regimen which probably meets most of nutritional needs.</p>	<p><b>4. Excellent:</b> Eats most of every meal. Never refuses a meal. Usually eats a total of 4 or more servings of meat and dairy products. Occasionally eats between meals. Does not require supplementation.</p>
<p><b>Friction and Shear</b></p>	<p><b>1. Problem:</b> Requires moderate to maximum assistance in moving. Complete lifting without sliding against sheets is impossible. Frequently slides down in bed or chair, requiring frequent repositioning with maximum assistance. Spasticity, contractures or agitation lead to almost constant friction.</p>	<p><b>2. Potential problem:</b> Moves feebly or requires minimum assistance. During a move skin probably slides to some extent against sheets, chair, restraints, or other devices. Maintains relatively good position in chair or bed most of the time, but occasionally slides down.</p>	<p><b>3. No apparent problem:</b> Moves in bed and in chair independently and has sufficient muscle strength to lift up completely during move. Maintains good position in bed or chair at all times.</p>	
<p><b>TOTAL SCORE</b></p>				

**Note:** Patients with a total score of 16 or less are considered to be at risk of developing pressure ulcers. (15 or 16 = low risk, 13 or 14 = moderate risk, 12 or less = high risk)

Source: As printed in the AHCPR Clinical Practice Guideline No.3, *Pressure Ulcer in Adults: Prediction and Prevention*. May 1992.

Figure 25-1: Decision Tree for Skin Care Interventions





## PERIANAL HERPES

■ Although pressure is often overlooked as a causative factor in skin breakdown, the reverse can sometimes be true. That is, ulcers may be assigned a diagnosis of pressure ulcers when in fact pressure may not be the root cause.

One commonly misdiagnosed condition is herpes simplex ulcer infections, especially perianal herpes. Because of their location these ulcers can be mistaken for stage II or III pressure ulcers. Although continued unrelieved pressure to the lesions will certainly lead to wound deterioration regardless of etiology, treatment of herpes must include pharmaceutical management. Because medication is critical to healing it is of paramount importance to quickly recognize and treat herpes. (See Chapter 9: Dermatologic Problems.) To distinguish perianal herpes from pressure ulcers, clinicians should remember that with herpes, there is generally more than one lesion and these lesions are usually distributed bilaterally. Also, herpes ulcers are more painful than pressure ulcers of similar depth, and aggressive pain management is often required. (See Chapter 4: Pain.) Finally, herpes ulcers will not respond to conventional treatment for pressure ulcers.

## CONCLUSION

■ Skin care for people with HIV is a critical component of palliative care. Because of the many factors contributing to these sometimes debilitating skin disorders it is essential to approach skin care as a team. Physicians, nurses, patients, and caregivers must all work together to provide medical management as well as symptomatic relief.

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**COLOR PLATE 25-1.** Stage I decubitus ulcer on greater trochanter (hip)

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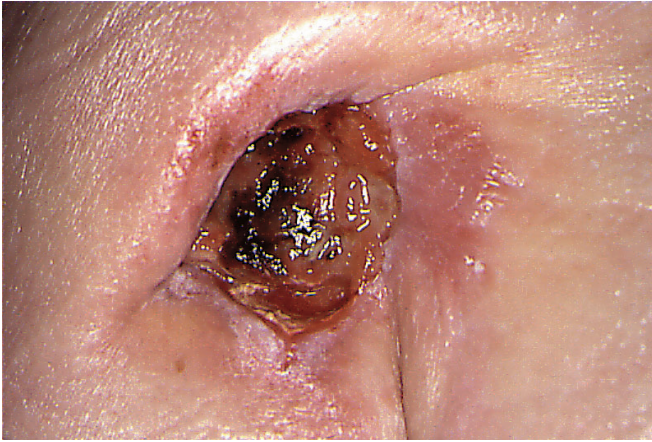
**COLOR PLATE 25-2.** Stage II decubitus ulcer on ischeal tuberosity (buttock)

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**COLOR PLATE 25-3.** Stage III decubitus ulcer

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**COLOR PLATE 25-4. Stage III decubitus ulcer with necrosis on sacrum**

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**COLOR PLATE 25-5. Stage IV decubitus ulcers on ischial tuberosities and sacrum**

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# Chapter 26.

## Resources

Magda Barini-García, MD, MPH, and Demia L Sundra, MPH

### INTRODUCTION

■ This chapter is designed to give providers the information they need and that their patients may need during the course of treatment and care. The resources are meant to be comprehensive but not exhaustive. These resources will provide links and information about other useful resources. For example, State- or region-specific resources are not listed, but can be found through the national web organizations and web sites.

The first section of the chapter is an outline of resources organized alphabetically under topics. Once a resource is listed, it is not listed under subsequent topics. The outline includes web sites, publications, and organizations.

The outline is followed by a table that lists web sites alphabetically. It should be navigated by the subheadings, which reflect the target audience and primary content on the web site.

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## I. GENERAL PALLIATIVE CARE

***Approaching Death: Improving the Care at the End-of-Life***, Marilyn J. Field and Christine K Cassel, Editors; Committee on Care at the End-of-Life, Institute of Medicine

- Offers a comprehensive report on the status of palliative care in the United States, with recommendations for future directions.
- Published by National Academy Press: 1997, ISBN: 0-309-06372-8
- Report can be reached at: [www.nap.edu/catalog/5801.html](http://www.nap.edu/catalog/5801.html) and read on line for free; ordered through National Academy Press at [www.nap.edu](http://www.nap.edu); or ordered by phone at 1-888-624-8373 or 202-334-3313

***Building an Institutional Commitment to Pain Management: The Mayday Resource Manual for Improvement***. An excellent compilation of resource material to promote institutional support of pain management; all of the sample resource tools are available on a disc.

- Available from Wisconsin Cancer Pain Initiative, 3675 Medical Sciences Center, Univ. of Wisconsin Medical School, 1300 University Avenue, Madison, WI 53706.
- Phone: 608-262-0278; Fax: 608-265-4014; Email: [aacpi@aacpi.org](mailto:aacpi@aacpi.org); [www.aacpi.org](http://www.aacpi.org).

**The Center to Advance Palliative Care:** Provides information for administrators, clinicians, policymakers, and other professionals on developing palliative care programs in hospitals and other health organizations. The site also has resources for provider education.

- [www.capcmssm.org/index.cgi](http://www.capcmssm.org/index.cgi)

***A Comprehensive Guide for the Care of Persons with HIV Disease, Module 4: Palliative Care***, FD Ferris, JS Flannery, HB McNeal, MR Morissette, R Cameron, and GA Bally, Editors.

- Mount Sinai Hospital and Casey House Hospice, Toronto, Canada: 1995, ISBN 0-662-22924-X

**The End-of-Life: Exploring Death in America, National Public Radio:** A series of transcripts is offered on topics such as grief and bereavement, funeral arrangements, the place of palliative medicine, and doctors dealing with death. Internet sites, a bibliography, essays, poetry, and other “readings” are available as resources.

- [www.npr.org/programs/death/index.html](http://www.npr.org/programs/death/index.html)
- Audio cassettes are available by calling 1-877-NPR-TEXT (677-8398)

**Five Wishes:** Five Wishes is a comprehensive living will that addresses a person’s personal, emotional and spiritual as well as medical wishes. It is unique among all other living will and health agent forms in posing a range of important questions. The companion booklet, Next Steps, helps the caregivers/family talk with the patient and the doctor.

- Can be ordered for \$5.00 from Aging with Dignity, P.O. Box 1661, Tallahassee FL 32302-1661
- [www.agingwithdignity.org](http://www.agingwithdignity.org)
- Phone: 1-888-594-7437

**The GRACE Project:** Part of Volunteers of America, the GRACE Project has standards of care for palliative care in correctional institutions and other resources for end-of-life care for incarcerated or recently released people with HIV/AIDS, including a handbook for caregivers and managers, a brochure on grief for people in prisons or jails, articles, and a videotape for training institutional staff.

- Phone: 703-341-5000
- [www.graceprojects.org](http://www.graceprojects.org)

**Guidelines for Determining Prognosis for Selected Non-Cancer Diagnoses:** National Hospice Organization.

- Alexandria, VA: National Hospice Organization, 1996.

**The Growth House, Inc.:** Extensive resources available on living with life-threatening illnesses, and on care in death and dying. Topics on the site include HIV/AIDS, estate planning, grief, hospice and home care, pain management, and children dealing with death.

- [www.growthhouse.org/](http://www.growthhouse.org/)
- HIV/AIDS general resources: [www.growthhouse.org/hivlinks.html](http://www.growthhouse.org/hivlinks.html)
- Phone: 415-255-9045; e-mail: [info@growthhouse.org](mailto:info@growthhouse.org)

**Handbook for Mortals: Guidance for People Facing Serious Illness,** Joanne Lynn, MD and Joan Harrold, MD, and the Center to Improve Care of the Dying, George Washington University.

- Published by Oxford University Press: 1999, ISBN 0195116623

**Improving Care for the End-of-Life: A Sourcebook for Health Care Managers and Clinicians,** Joanne Lynn, MD, Janice Lynch Schuster, Andrea Kabcenell, RN, MPH

- Published by Oxford University Press: 2000, ISBN 0195116615

**International Association for Hospice and Palliative Care:** IAHP aims to improve the development, quality, and access to hospice and palliative care around the world. Information is available through an on-line newsletter, Internet links, bookshop, events calendar, fellowships, fact sheets, and an ethical issues page.

- [www.hospicecare.com/](http://www.hospicecare.com/)
- Fax: 713-339-9041; E-mail: [sitemngr@hospicecare.com](mailto:sitemngr@hospicecare.com)

**Joint Commission on Accreditation of Healthcare Organizations:** Pain management standards for accreditation of healthcare organizations.

- [www.jcaho.org/standard/pm\\_hap.html](http://www.jcaho.org/standard/pm_hap.html)

**Last Acts:** A Robert Wood Johnson Foundation funded campaign. The organization aims to increase the quality of end-of-life care, stating that their goals are to bring death related issues out in the open and help individuals and organizations pursue better ways to care for the dying. Through the site, one can access an electronic newsletter, a bookshop, and various media resources.

- [www.lastacts.org/](http://www.lastacts.org/)

- Innovations in End-of-Life Care (on-line peer-reviewed journal): [www2.edc.org/lastacts/](http://www2.edc.org/lastacts/)
- Consumer/Family Resources for End-of-Life Care brochure: [www.lastacts.org:80/files/publications/familyresources.pdf](http://www.lastacts.org:80/files/publications/familyresources.pdf)

**The National Hospice and Palliative Care Organization:** The organization's activities surround improving care at the end-of-life and increasing access to palliative and hospice care. Their stated goal is to profoundly enhance the quality of life for people dying in America and their loved ones. Consumer brochures on hospice care, professional education conferences, a hospice locator, hospice and palliative care statistics, and other resources are offered on the web site.

- [www.nhpco.org/](http://www.nhpco.org/)
- Find a Hospice Program (hospice locator by State or hospice name): [www.nhpco.org/directory/](http://www.nhpco.org/directory/)
- Consumer Brochures (click on National Hospice Foundation from the home page)
  - Hospice Care: A Consumer's Guide to Selecting a Hospice Program: [www.hospiceinfo.org/public/articles/index.cfm?cat=3](http://www.hospiceinfo.org/public/articles/index.cfm?cat=3)
  - Communicating Your End-of-Life Wishes: [www.hospiceinfo.org/public/articles/index.cfm?cat=6](http://www.hospiceinfo.org/public/articles/index.cfm?cat=6)
  - Hospice Care and Medicare Hospice Benefit: [www.hospiceinfo.org/public/articles/index.cfm?cat=7](http://www.hospiceinfo.org/public/articles/index.cfm?cat=7)
- Phone: 703-516-4928; Fax: 703-525-5762; E-mail: [info@nhpco.org](mailto:info@nhpco.org)

**On Our Own Terms: Moyers on Dying:** Bill Moyers hosted this four-part series for the Public Broadcasting System. The series covered major issues on death and dying in America today, such as choices at the end-of-life, the role of palliative care, and issues in policy and funding of end-of-life care. The web site offers resources on end-of-life tools, financial planning, options in clinical care, and psychosocial issues.

- [www.pbs.org/wnet/onourown/terms/](http://www.pbs.org/wnet/onourown/terms/)
- Video tapes of the series may be ordered by calling Films of the Humanities at 1-800-257-5126

**The Oxford Textbook of Palliative Medicine,** Derek Doyle, Geoffrey Hanks, Neil MacDonald, Editors.

- Published by Oxford University Press, 2<sup>nd</sup> Edition: 1999, ISBN: 0192630571

**Palliative Care for People with AIDS,** Ruth Sims and Veronica Moss.

- Singular Publishing, 2<sup>nd</sup> edition: 1995, ISBN 1565933591

**Partnership for Caring, Inc.:** This non-profit organization partners individuals with organizations to increase the quality of death and dying in the U.S. The organization offers fact sheets, legal information, resource guides, advance directives information, and an informational hotline.

- [www.partnershipforcaring.org/HomePage/](http://www.partnershipforcaring.org/HomePage/)
- Phone: 202-296-8071; Fax: 202-296-8352; E-mail [pfc@partnershipforcaring.org](mailto:pfc@partnershipforcaring.org)
- Information Hotline for end-of-life issues: 800-989-9455 (option 3)



**Promoting Excellence in End-of-Life Care:** Innovative healthcare models and demonstration projects in end-of-life care are highlighted and offered technical assistance through this program. Projects are supported on various populations, diseases, and clinical settings. Evaluation tools are available on-line.

- [www.promotingexcellence.org/](http://www.promotingexcellence.org/)
- Phone: 406-243-6601; Fax: 406-243-6633; E-mail: [excell@selway.umt.edu](mailto:excell@selway.umt.edu)

***Symptom Management Algorithms: A Handbook for Palliative Care,***

Linda Wrede-Seaman, MD.

- Published by Intellicard, 2<sup>nd</sup> edition: 1999, ISBN: 188841107-4
- Decision algorithms for assessment and management of pain and common symptoms in terminal illness

***Symptom Relief in Terminal Care,*** Gary A. Johnson, MD.

- Includes a chapter on symptom management in HIV.
- The last edition (4<sup>th</sup>) of this book is out of print. A new edition will be out shortly. Contact Sonoma County Academic Foundation for Excellence In Medicine in order to be notified of when the new book will be in print, [members.aol.com/scafem/](mailto:members.aol.com/scafem/); Phone 707-527-6223; E-mail: [scafem@aol.com](mailto:scafem@aol.com), mailing address: 3324 Chanate Road, Santa Rosa, CA 95404

**Toolkit of Instruments to Measure Care at the End-of-Life:** This site offers “an authoritative bibliography of instruments to measure the quality of care and quality of life for dying patients and their families.” The toolkit works on measuring the needs of patients and families with patient-focused, family-centered survey instruments.

- [www.chcr.brown.edu/pcoc/toolkit.htm](http://www.chcr.brown.edu/pcoc/toolkit.htm)

**UNAIDS Technical Update: AIDS Palliative Care, Oct. 2000:** Part of the Best Practices materials, this 16-page report covers of all aspects of palliative care in HIV. The guide defines palliative care, discusses issues specific to HIV in palliative care, reviews what palliative care services are necessary for people living with HIV/AIDS, and makes recommendations for the future of palliative care. Includes some successful models from around the world.

- Report can be downloaded in PDF format at: [www.unaids.org/publications/documents/care/general/JC-PalliCare-TU-E.pdf](http://www.unaids.org/publications/documents/care/general/JC-PalliCare-TU-E.pdf)
- Or order by Phone: +41 22 791 4651; e-mail: [unaids@unaids.org](mailto:unaids@unaids.org); or by mail to UNAIDS Information Centre, 20 Avenue Appia, 1211 Geneva 27, Switzerland

## II. HOSPICE

**Hospice Foundation of America:** HFA is a “nonprofit organization that promotes hospice care and works to educate professionals and the families they serve in issues relating to caregiving, terminal illness, loss and bereavement.” Resources offered on the site include an electronic newsletter, hospice locator, brochures, books, and videos.

- [www.hospicefoundation.org/](http://www.hospicefoundation.org/)
- Phone: 800-854-3402; Fax: 202-638-5312; Office hours are 10:00 a.m. – 6:00 p.m. EST.
- National hospice locator service is offered on the site and by calling.

**Hospice Net:** A site for patients, families, and caregivers when facing end-of-life issues in illness. Offers resources for patients and caregivers, information on locating and evaluating hospice services, and topics in bereavement.

- [www.hospicenet.org/](http://www.hospicenet.org/)
- List of international hospices: [www.teleport.com/~hospice/dirinter.htm](http://www.teleport.com/~hospice/dirinter.htm)
- E-mail: [comments@hospicenet.org](mailto:comments@hospicenet.org)

**Medicaid/Medicare Hospice Services:** This site describes coverage and reimbursement of hospice through Medicaid.

- [www.hhs.gov/medicaid/services/hospice.asp](http://www.hhs.gov/medicaid/services/hospice.asp)

**National Prison Hospice Association:** NPHA promotes excellence in hospice care for prisoners who are approaching death. The stated purpose of NPHA is to assist corrections and hospice professionals in their continuing efforts to develop high quality patient care procedures and management programs. The organization offer resources, a newsletter, and networking.

- [www.npha.org/index.html](http://www.npha.org/index.html)
- Phone: 303-544-5923; Fax: 303-444-2824; E-mail: [npha@npha.org](mailto:npha@npha.org)

### III. CARE FOR THE CAREGIVER

*See Chapter 20 on Care for the Caregiver for a more detailed description of caregiver web sites.*

**The ARCH National Respite Network and Resource Center:** The mission of this organization is “to support service providers and families through training, technical assistance, evaluation, and research.” The center offers technical assistance, factsheets, and resources in respite care.

- [www. chtop.com/arch/index.htm](http://www. chtop.com/arch/index.htm)
- Respite Care for Children with HIV-related Symptoms factsheet: [www. chtop.com/archfs5.htm](http://www. chtop.com/archfs5.htm)
- National Respite Locator Service: [www. chtop.com/locator.htm](http://www. chtop.com/locator.htm) or call 800-773-5433

**Caregiver.com:** An informational and support web site for all diseases and age groups.

- [www.caregiver.com](http://www.caregiver.com)

**Caregiver Health:** This American Medical Association site was “designed to provide providers and caregivers with information and tools for assessing caregiver health and for locating additional resources to assist in reducing the risks of caregiving.” It includes a caregiver self-assessment questionnaire offered in English and Spanish

- [www.ama-assn.org/ama/pub/category/4642.html](http://www.ama-assn.org/ama/pub/category/4642.html)

**Caregiving.com:** An informational and support web site for caregivers of the elderly with educational packets.

- [www.caregiving.com](http://www.caregiving.com)

**Caring for the HIV/AIDS Caregiver**, Paul A. Wilson, edited by Vincent J. Lynch

- Auburn House: 1996, ISBN 0-86569-239-4

**Caring for Someone with AIDS at Home:** A guide from American Red Cross and Centers for Disease Control and Prevention. Topics covered include children with AIDS, guarding against infections, and providing care and emotional support.

- [www.hivatis.org/caring/](http://www.hivatis.org/caring/)

**Empowering Caregivers:** A web site for all diseases and age groups with activities and a newsletter.

- [www.care-givers.com](http://www.care-givers.com)

**Family Caregiver Alliance:** This nonprofit organization addresses the needs of people providing long-term home care. The site offers fact sheets in English, Spanish, and Chinese, policy information, an online support group, and other resources for caregivers.

- [www.caregiver.org](http://www.caregiver.org)

**Friends' Health Connection:** A web site for all diseases and age groups in which caregivers are matched for one-on-one support. (Membership fee)

- [www.48friend.com](http://www.48friend.com)

**HealingWell.com:** A web site for all diseases and age groups with an HIV-specific chat room and resource directory.

- [www.healingwell.com](http://www.healingwell.com)

**Health Care Exchange Initiative:** This web site, which specializes in AIDS, has expert consultation on caregiver issues and organizes intercity AIDS caregiver exchanges.

- [www.hcei.org](http://www.hcei.org)

**National Family Caregivers Association:** This web site for all diseases and age groups provides a newsletter, caregiver kits, and a resource locator service.

- [www.nfcacares.org](http://www.nfcacares.org)

**Queernet.com:** This web site for gay, lesbian, bisexual, and transgendered people, offers an online support group for HIV/AIDS caregivers.

- [www.queernet.org](http://www.queernet.org)

**WebofCare.com:** This informational and support web site for all diseases and age groups has a newsletter, and grief support groups.

- [www.webofcare.com](http://www.webofcare.com)

**Well Spouse Foundation:** This organization for all diseases and age groups offers mentors for new caregivers, a national network of support groups, a newsletter, and letter writing "round robins."

- [www.wellspouse.org](http://www.wellspouse.org)

## IV. CANCER/CANCER PAIN

**American College of Physicians Home Care Guide for Advanced Cancer:** This guide is for family members, hospice workers, and caregivers who are caring for advanced cancer patients. Information is offered on respite, pain management, symptoms, helping younger people, and grieving.

- [www.acponline.org/public/h\\_care/index.html](http://www.acponline.org/public/h_care/index.html)

**Cancer Net:** This extensive site, supported by the National Cancer Institute, offers both patient and clinician resources on topics such as pain management and hospice care.

- [www.cancernet.gov/](http://www.cancernet.gov/)
- Cancer Information Service, 1-800-4-CANCER (422-6237), Monday through Friday, 9:00 a.m. to 4:30 p.m.; TTY: 1-800-332-8615.

**National Comprehensive Cancer Network, Cancer Pain Treatment Guidelines for Patients:** This guide was created in partnership with the American Cancer Society, and is a guide for the general public on how the major cancer centers in the US treat pain.

- [www.nccn.org/patient\\_guidelines/pain\\_cancer/pain/1\\_introduction.htm](http://www.nccn.org/patient_guidelines/pain_cancer/pain/1_introduction.htm)
- Call the NCCN at 1-888-909-NCCN or the ACS at 1-800-ACS-2345 for more information.

**WHO Cancer Pain Relief, 2<sup>nd</sup> edition (1996):** This publication provides a proposed method for pain relief, and includes information on how pain medications are available internationally.

- Report can be reached at [www.who.int/ncd/cancer/publications/books/cancer\\_pain\\_relief.html](http://www.who.int/ncd/cancer/publications/books/cancer_pain_relief.html)
- To order a copy, check your nearest sales agent at: [www.who.int/dsa/cat97/zsale.htm](http://www.who.int/dsa/cat97/zsale.htm) or WHO Headquarters, WHO, Marketing and Dissemination, CH-1211 Geneva 27, Switzerland,
- Phone: +41 22 791 24 76; Fax: +41 22 791 48 57; E-mail: [publications@who.ch](mailto:publications@who.ch)

## V. PEDIATRIC

**A Death in the Family: Orphans of the HIV Epidemic.** Carol Levine, Editor. For ordering information, call the United Hospital Fund's Publication Program at (212) 494-0700 or write to them at 350 5th Avenue, 23rd Floor, New York, NY 10118.

**American Academy for Pediatrics Policy Statement on Palliative Care for Children:** This statement was issued in August 2000, and "presents an integrated model for providing palliative care for children living with a life-threatening or terminal condition." The report discusses barriers in pediatric palliative care, and makes recommendations for future services.

- [www.aap.org/policy/re0007.html](http://www.aap.org/policy/re0007.html)
- Journal reference: Committee on Bioethics and Committee on Hospital Care. Palliative Care for Children. *Pediatrics*, 106: 351-7, 2000.

**Children's Hospice International:** CHI is a non-profit organization for children with life-threatening illnesses and their families. The organization offers resources, advocacy, care, and support for the children and their families, as well as clinician education and training.

- [www.chionline.org/](http://www.chionline.org/)
- CHI has worked with the Centers for Medicare and Medicaid Services (CMS) to develop an initiative in children's hospice, called the Program for All-Inclusive Care for Children and their Families (PACC), to develop demonstration programs that will have models of children's hospice care that encourage the continuum of care and decrease common obstacles in quality of children's hospice care. [www.chionline.org/pacc.html](http://www.chionline.org/pacc.html)
- Toll Free Phone: 800-2-4-CHILD; Phone: 703-684-0330; Fax: (703) 684-0226; E-mail: [chiorg@aol.com](mailto:chiorg@aol.com)
- Note that PACC is trademarked

**Elizabeth Glaser Pediatric AIDS Foundation:** This non-profit organization is involved in funding research and programs in the care and prevention of HIV/AIDS in children. Parent resources, grant, award, and fellowship applications, and other resources are available on the site.

- [www.pedaids.org/index.html](http://www.pedaids.org/index.html)
- Phone: 888-499-HOPE (4673); E-mail: [info@pedAIDS.org](mailto:info@pedAIDS.org)

**The Family Center:** The Family Center works to create a more secure present and future for children whose parents have life-threatening illness by providing comprehensive legal and social services, education and research. Numerous books and materials available.

- Phone: 212-766-4522
- [www.thefamilycenter.org](http://www.thefamilycenter.org)

**The François-Xavier Bagnoud Center (FXB) at the University of Medicine and Dentistry New Jersey:** FXB Center provides a model for the care of mother-to-child transmitted HIV disease. The program's mission is to "deliver care that is community-based, child-centered, family-focused, comprehensive and coordinated." The program also conducts research and provides training to health care providers.

- [www.fxbcenter.org/](http://www.fxbcenter.org/)

**KIDSaid:** This web site is a place for children who are experiencing grief to share thoughts, picture, poems, etc. There are resources on the site for children and parents. The adult grief web site, GriefNet runs the site.

- [www.kidsaid.com/](http://www.kidsaid.com/)
- [kidsaid@griefnet.org](mailto:kidsaid@griefnet.org)

**National Pediatric and Family HIV Resource Center:** This center is located at the University of Medicine and Dentistry of New Jersey and is a resource for health and social service professionals who serve children, adolescents, and families with HIV/AIDS. They offer education, training and technical assistance, patient materials, and other resources.

- [www.pedhiv aids.org/](http://www.pedhiv aids.org/)

**The Orphan Project:** This project explores policy options to meet the needs of the entire spectrum of affected children from dying infants to healthy adolescents. Numerous books and other materials addressing policy issues related to care of children.

- [www.aidsinfonyc.org/orphan/](http://www.aidsinfonyc.org/orphan/)

**WHO Cancer Pain Relief and Palliative Care in Children (1998):** Taking a holistic, comprehensive approach to palliative care, this guide reviews pain management and therapy, as well as social, spiritual, and psychological issues in palliative care. The book also has information on health care provider education, and policies and legislation related to palliative care.

- Report can be reached at [www.who.int/ncd/cancer/publications/books/ca\\_pain\\_relief\\_pall\\_care\\_in\\_children.html](http://www.who.int/ncd/cancer/publications/books/ca_pain_relief_pall_care_in_children.html)
- To order a copy, check your nearest sales agent at: [www.who.int/dsa/cat97/zsale.htm](http://www.who.int/dsa/cat97/zsale.htm) or  
WHO Headquarters, WHO, Marketing and Dissemination, CH-1211 Geneva 27, Switzerland,
- Phone: +41 22 791 24 76; Fax: +41 22 791 48 57; E-mail: [publications@who.ch](mailto:publications@who.ch)

## VI. CLINICIAN EDUCATION

**Education for Physicians on End-of-Life Care:** Supported through a Robert Wood Johnson Foundation grant, EPEC.net “is designed to educate all physicians on the essential clinical competencies required to provide quality end-of-life care.” The site educates clinicians through a training curriculum, speakers list, resource guide, and electronic mailing list/discussion board.

- [www.epec.net/](http://www.epec.net/)

**End-of-Life Nursing Education Consortium (ELNEC) Project:** This site is sponsored through the American Association of Colleges of Nursing and funded by a Robert Wood Johnson Foundation grant. The project goals are to both “develop a core of expert nursing educators and to coordinate national nursing education efforts in end-of-life care.” A nine-module curriculum is available, along with a list of nurse educators, publications on nursing in palliative care, and an on-line newsletter.

- [www.aacn.nche.edu/el nec/](http://www.aacn.nche.edu/el nec/)
- Phone: 202-463-6930, ext. 240
- End-of Life Care, a series of six 1-hour videotapes, offering continuing education credit. Produced by the American Association of Colleges of Nursing, the National Institute of Nursing Research, and the Association of Academic Health Centers. The video series may be ordered at [www.centernet-tv.com/net/endoflife.html](http://www.centernet-tv.com/net/endoflife.html) or call Healthcare Management Television at 202-662-7285, ext. 5.

**End-of-Life Physician Education Resource Center:** EPERC is funded by the Robert Wood Johnson Foundation, and is hosted by the Medical College of Wisconsin. The site provides links to high quality information, conferences and educational materials on end-of-life issues. Educational materials may be submitted for review, and a discussion board is available.

- [www.eperc.mcw.edu/](http://www.eperc.mcw.edu/)
- Phone: 414-456-4353; E-mail: [eperc@mcw.edu](mailto:eperc@mcw.edu)

**International AIDS Society-USA:** This not-for-profit continuing medical education organization offers up-to-date information for physicians who are actively involved in the care of people living with HIV/AIDS. Information is disseminated through CME courses around the US, the publication *Topics in HIV Medicine*, and the development of treatment guidelines.

- [www.iasusa.org/](http://www.iasusa.org/)
- Phone: 415-561-6720; Fax: 415-561-6740; E-mail: [info@iasusa.org](mailto:info@iasusa.org)

**World Health Organisation:** A fact sheet on palliative care can be downloaded from the WHO website.

- [www.who.int/hiv/topics/palliative/palliativecare/en/](http://www.who.int/hiv/topics/palliative/palliativecare/en/)

## VII. PROFESSIONAL ASSOCIATIONS

**American Academy of Hospice and Palliative Medicine:** AAHPM is a palliative care physician organization that provides education and clinical practice standards, promotes research, helps with professional development of its members, and advocates for public policy. This is a membership organization, but most areas on the web site are available to the general public. A quarterly newsletter is provided with membership.

- [www.aahpm.org/](http://www.aahpm.org/)
- Phone: 847-375-4712; Fax: 877-734-8671; E-mail: [aahpm@aaahpm.org](mailto:aahpm@aaahpm.org)
- Self-training modules for physicians in palliative care, or UNIPACs. CME credit is offered for these modules. Topics include pain management, ethics, psychosocial issues, HIV care, and pediatrics. [www.aahpm.org/unipac's.htm](http://www.aahpm.org/unipac's.htm). Modules can be ordered through Kendall/Hunt Customer Service, Kendall/Hunt Publishing Company, 4050 Westmark Drive, P.O. Box 1840, Dubuque, Iowa 52004-1840; [www.kendallhunt.com](http://www.kendallhunt.com); Phone: 1-800-228-0810 (US) or 1-319-589-1000 (International); Fax: 1-800-772-9165 (US) or 1-319-589-1046 (International)

**American Academy of Pain Medicine:** AAPM promotes quality of care for patients with pain through research, education, and advocacy. Career opportunities, CME, and provider resources are available on the site.

- [www.painmed.org/](http://www.painmed.org/)
- Phone: 847-375-4731; Fax: 847-375-6331; E-mail: [aapm@amctec.com](mailto:aapm@amctec.com)

**American Board of Hospice and Palliative Medicine:** ABHPM supports high quality palliative care for patients with advanced, progressive illness by offering a certification exam in hospice and palliative medicine for physicians. ABHPM also has a newsletter and educational resources on-line.

- [www.abhpm.org/](http://www.abhpm.org/)
- Phone: 301-439-8001; E-mail: [mail@abhpm.org](mailto:mail@abhpm.org)

**American Psychiatric Association AIDS Resource Center:** The Center offers “education and training, resources, information, policies, and a network of clinical expertise on the mental health dimensions of HIV/AIDS.”

- [www.psych.org/aids/](http://www.psych.org/aids/)

- Phone: 202-682-6163; Fax: 202-789-1874; E-mail: AIDS@psych.org
- An eight-module training curriculum is available by contacting the APA
- American Psychiatric Association Practice Guideline for the Treatment of Patients with HIV/AIDS: www.psych.org/clin\_res/hivaids32001.cfm. Reprints are available through American Psychiatric Publishing, Inc. Phone: 800-368-5777; E-mail: order@appi.org; Internet: www.appi.org

**The Association of Nurses in AIDS Care:** ANAC states that it is a nonprofit professional nursing organization committed to fostering the professional development of nurses involved in the delivery of health care to persons infected or affected by HIV. In addition, ANAC promotes the health, welfare, and rights of all HIV infected persons. ANAC offers a certification exam for HIV/AIDS nurses and an annual conference. With membership, one receives a subscription to *Journal of ANAC* along with other benefits.

- www.anacnet.org/
- Toll Free Number: 800-260-6780 or Phone: 330-762-5739
- Fax: 330-762-5813
- Email: anac@anacnet.org

**Hospice and Palliative Nurses Association:** The HPNA provides information and resources, promotes specializing and furthering professional development in palliative and hospice care, and facilitates the exchange of ideas in the field. This is a membership organization.

- www.hpna.org/
- National Board for Certification of Hospice and Palliative Nurses: There is a certification exam for nurses wishing to specialize in hospice and palliative nursing. www.hpna.org/NBCHPN/
- Phone: 412-361-2470; Fax: 412-361-2425; E-mail: hpna@hpna.org

**International Association of Physicians in AIDS Care:** This comprehensive web site has clinical management updates, conference coverage, provider resources and health policy information. The organization also has a publication, *International Association of Physicians in AIDS Care Monthly*.

- www.iapac.org/index.html
- iapac@iapac.org
- Phone: 312-795-4930
- Fax: 312-795-4938

#### **International Association for the Study of Pain**

- www.iasp-pain.org
- Email: iaspadmin@juno.com; Phone: 206-547-6409; Fax: 206-547-1703

**Physician Assistant AIDS Network:** This not-for-profit organization promotes “networking, continuing medical education, and symposia for PAs working in HIV/AIDS care.” On the web site are a newsletter, conference information, HIV/AIDS treatment information, and a discussion board.

- www.paan.org/index.htm



## VIII. PSYCHOSOCIAL CARE

***After You Say Goodbye: When Someone You Love Dies of AIDS***, Paul Kent Froman.

- Chronicle Books: 1992, ISBN 0-8118-0088-1
- This book can be helpful to individuals, counselors, and clinicians.

**American Psychological Association Office on AIDS:** This office provides information, training, and technical assistance on various topics in HIV/AIDS and psychological health. Topics include coping, mental health services, public policy, graduate education, and ethics.

- [www.apa.org/pi/aids/homepage.html](http://www.apa.org/pi/aids/homepage.html)
- [publicinterest@apa.org](mailto:publicinterest@apa.org) or Phone: 202-336-6042

**Bereavement: A Magazine of Hope and Healing:** This magazine is available for free on-line, or by mail with a paid subscription. The magazine offers stories, poems, and articles from bereaved persons, as well as articles from professionals from the field of grief intervention. Additionally, the web site offers online support groups and memorials, and printed resources on topics such as bereavement in the workplace, anticipatory grief, and information for children.

- [www.bereavementmag.com/](http://www.bereavementmag.com/)
- Phone: 888-60-4HOPE (4673); E-mail: [grief@bereavementmag.com](mailto:grief@bereavementmag.com)

**Coping with Grief, San Francisco AIDS Foundation:** This informational brochure is directed to those dealing with loss and bereavement. It discusses the process of grieving and healing.

- [www.sfaf.org/aboutaids/grief.html](http://www.sfaf.org/aboutaids/grief.html)

**Dying Well:** Provides resources and referrals to organizations to empower persons with life threatening illness and their families to live fully.

- [www.dyingwell.org](http://www.dyingwell.org)
- Missoula-Vitas Quality of Life Index: [www.dyingwell.org/MVQOLI.htm](http://www.dyingwell.org/MVQOLI.htm)
- Related book: *Dying Well: The Prospect for Growth at the End-of-Life*, Ira Byock, MD, published by Putnam/Riverhead.

**GriefNet:** GriefNet is a web site that offers persons dealing with grief, death, and loss a support groups and resources.

- [www.rivendell.org/](http://www.rivendell.org/)

**Mental Health Care for People Living with or Affected with HIV/AIDS: A Practical Guide: Substance Abuse and Mental Health Services Administration (SAMHSA) monograph, 1999**

- [www.mentalhealth.org/cmhs/HIVAIDS/mhcarehiv.htm](http://www.mentalhealth.org/cmhs/HIVAIDS/mhcarehiv.htm).

**Mini Mental State Examination (MMSE):** One of the most frequently used neuropsychological tests in the clinical evaluation of mental status changes.

- The full instrument is available from Psychological Assessment Resources at 1-800-331-8378.

**National Clearinghouse for Alcohol and Drug Information (NCADI):** Numerous documents on diagnosis and treatment of substance abuse, including specific to people living with HIV and vulnerable populations.

- [www.health.org/](http://www.health.org/)
- HIV/AIDS information: [www.health.org/catalog/catalog.asp?pop=9](http://www.health.org/catalog/catalog.asp?pop=9)
- Phone: 800-729-6686, TDD 800-487-4889

***Recovering from the Loss of a Loved One to AIDS: Help for Surviving Family, Friends, and Lovers Who Grieve***, Katherine Fair Donnelly.

- Fawcett Books, 1995 (out of print), ISBN: 0595168604

## IX. HIV/AIDS CLINICAL CARE

**Aegis:** A comprehensive web site of HIV information and resources. The site includes clinical and treatment information, as well as a large searchable database for information and reports on topics such as palliative care, legal issues, and hospice. A very good source of up-to-date information from the mainstream press, professional journals, government, and legal and legislative sources.

- [www.aegis.com/](http://www.aegis.com/)

**A Guide to the Clinical Care of Women with HIV**, Jean R Anderson, Editor.

- Health Resources and Services Administration, 2001 edition
- Available online at [www.hab.hrsa.gov/](http://www.hab.hrsa.gov/), then click on the link for the Women's Guide. Or order by e-mail: [womencare@hrsa.gov](mailto:womencare@hrsa.gov); by fax to the attention of "Womencare": 301-443-0791; or write to: Womencare, Parklawn Building, Room 11A-33, 5600 Fishers Lane, Rockville, Maryland 20857, USA

**AIDS info:** This web site provides all the DHHS HIV treatment guidelines, updated as new data become available.

- [www.aidsinfo.nih.gov/](http://www.aidsinfo.nih.gov/)

**HIVdent:** This site promotes high quality oral health care services to people living with HIV/AIDS. It include information on the oral manifestations of HIV/AIDS with a large library of photographs. Educational materials are available for providers and people living with HIV/AIDS.

- [www.hivdent.org/](http://www.hivdent.org/)

**HIV InSite:** From the University of California San Francisco, this comprehensive web site offers information on the medical aspects of HIV/AIDS, prevention, policy, and international issues. The *AIDS Knowledge Base* is a manual on HIV/AIDS treatment.

- [www.hivinsite.ucsf.edu/InSite](http://www.hivinsite.ucsf.edu/InSite)

**HRSA HIV/AIDS Bureau:** The web site of the Federal agency that administers the Ryan White CARE Act funding (Health Resources and Services Administration, or HRSA). There are some links to palliative care information on this site. Additionally, the site has information on getting care and HIV/AIDS drugs, grant applications, and resources.

- [www.hab.hrsa.gov/](http://www.hab.hrsa.gov/)

- Click on “tools to help CARE Act programs” for a listing of resources on numerous topics, including palliative care.
- Click on Evaluation/SPNS ([www.hab.hrsa.gov/evaluation.html](http://www.hab.hrsa.gov/evaluation.html)) for information on the Special Projects of National Significance. Click on SPNS initiatives for a listing of the projects, including demonstration projects in palliative care.
- [www.ask.hrsa.gov](http://www.ask.hrsa.gov) for an information distribution center, or call 1-888-ASK-HRSA (275-4772)

**Johns Hopkins AIDS Service:** A comprehensive web site of HIV information and resources, including publications, medical education, provider and consumer interactive forums for seeking answers to questions, and resources and information on managed care, epidemiology, prevention, and treatment.

- [www.hopkins-aids.edu/](http://www.hopkins-aids.edu/)
- Click on publications for the manual *Medical Management of HIV* by John G. Bartlett, MD, or call 800-787-1254 to order the manual.
- Click on publications for the newsletter *Hopkins HIV Report*, or write to *The Hopkins HIV Report*, PO Box 5252, Baltimore, MD 21224, Attn: Distribution, for a free subscription of the newsletter.

**Medscape HIV/AIDS Page:** Offers HIV/AIDS resources in CME, clinical updates, clinical management, conference coverage.

- [www.medscape.com/Home/Topics/AIDS/AIDS.html](http://www.medscape.com/Home/Topics/AIDS/AIDS.html)
- Antiretroviral Reference Guide: This guide contains information on antiretroviral summary tables, drug-drug combinations, antiretroviral resistance mutations, methadone/antiretroviral drug interactions, and TB medication/antiretroviral drug interactions. It can be viewed as an HTML file, downloaded in Adobe Acrobat format, or downloaded for Palm Pilot. This file can be found under the “Clinical Updates” section of the web site above or at [www.medscape.com/Medscape/HIV/TreatmentUpdate/1998/tu01/eng/pnt-eng.tu01.html](http://www.medscape.com/Medscape/HIV/TreatmentUpdate/1998/tu01/eng/pnt-eng.tu01.html)

**National HIV/AIDS Clinician Consultation Center:** This service is run by the University of California San Francisco with the AIDS Education and Training Centers (AETCs) from HRSA. Technical assistance is included on the site along with the help lines for telephone consultations listed below.

- [www.ucsf.edu/hivcntr/](http://www.ucsf.edu/hivcntr/)
- Clinician Warmline for clinical consultations: 1-800-933-3413, 6:00 a.m.-5:00 p.m., Mon.-Fri.
- Post-exposure Prophylaxis (PEP) Hotline: 1-888-448-4911, 24 hours a day, 7 days a week

**NIAD Database for Anti-HIV Compounds:** This comprehensive database offers information on anti-HIV drugs, including viral life cycle, chemical structures, resistance, and in-vitro activity.

- [www.niaid.nih.gov/daids/dtpdb/](http://www.niaid.nih.gov/daids/dtpdb/)

**University of Liverpool Drug Interactions Web site:** This web site offers up-do-date and interactive information about drug interactions.

- [www.hiv-druginteractions.org](http://www.hiv-druginteractions.org)

## X. GENERAL HIV/AIDS CONSUMER RESOURCES

**The Body:** This web site is an information source on HIV/AIDS for patients. It aims to improve quality of life and foster a community in HIV/AIDS patients.

- [www.thebody.com](http://www.thebody.com)
- Quality of Life information on alternative therapies, psychosocial issues, religion, financial and legal issues, fatigue, workplace issues. [www.thebody.com/quality.html](http://www.thebody.com/quality.html)

**National AIDS Hotline:** A service sponsored by the Centers for Disease Control and Prevention, for general questions about HIV and AIDS.

- Phone: 1-800-342-2437, Spanish 1-800-344-7432, TDD 1-800-243-7889

**National Association of People with AIDS:** NAPWA “advocates on behalf of all people living with HIV and AIDS in order to end the pandemic and the human suffering caused by HIV/AIDS.” The organization offers publications, programs, education, and resources for people living with HIV and AIDS.

- [www.napwa.org/](http://www.napwa.org/)
- Phone: 202-898-0414; Fax: 202-898-0435; E-mail: [napwa@napwa.org](mailto:napwa@napwa.org)

**Project Inform:** A national project targeting consumers with up-to-date treatment information, strategies for adherence, and other tools for people living with HIV.

- [www.projinf.org/](http://www.projinf.org/)
- National HIV/AIDS Treatment Hotline: 1-800-822-7422 (toll-free in the United States) or 415-558-9051 (in the San Francisco Bay Area or internationally). Hotline hours are Monday–Friday, 9 a.m. - 5 p.m. and Saturday, 10 a.m. - 4 p.m. (Pacific Time).

## XI. CULTURAL COMPETENCY

**Assuring Cultural Competence in Health Care: Recommendations for National Standards and an Outcomes-Focused Research Agenda:** This project makes recommendations for national standards for culturally and linguistically appropriate services in health care. From the Office of Minority Health in the Department of Health and Human Services; also available in Spanish.

- [www.omhrc.gov/clas/](http://www.omhrc.gov/clas/)

**Cultural Competence: A Journey:** This publication is sponsored through the Health Resources and Services Administration’s Bureau of Primary Health Care. It describes the domains of cultural competency and the stories and experiences of several community programs in this topic area.

- Reprints may be ordered through [www.ask.hrsa.gov](http://www.ask.hrsa.gov) or by calling the HRSA Clearinghouse at 1-888-ASK-HRSA (275-4772) or e-mail [ask@hrsa.gov](mailto:ask@hrsa.gov)

**Diversity Rx:** Promotes cultural competency in health care for minority, immigrant, and ethnically diverse communities. The site discusses political, medical, legal, and social issues behind cultural competency, and offers an electronic newsletter, a Medical Interpretation Resources and References Guide, and a Multicultural Health Best Practices report.

- [www.diversityrx.org](http://www.diversityrx.org)
- [rcchc@aol.com](mailto:rcchc@aol.com)

**Palliative Care Association of South Australia:** An advocacy group for palliative and hospice care in South Australia. Offers information for consumers and clinicians.

- [www.pallcare.asn.au/](http://www.pallcare.asn.au/)
- Multicultural Palliative Care Guidelines (geared towards clinicians), available in twenty-one languages: [www.pallcare.asn.au/mc/index.html](http://www.pallcare.asn.au/mc/index.html)
- Palliative care informational brochure (geared towards consumers), available in twenty-one languages: [www.pallcare.asn.au/difflang.htm](http://www.pallcare.asn.au/difflang.htm)
- Phone: +61 8 8291 4137; Fax: +61 8 8291 4122; E-mail: [pcare@pallcare.asn.au](mailto:pcare@pallcare.asn.au)

**National Center for Cultural Competence:** NCCC aims to increase the capacity of health care programs to design, implement, and evaluate culturally competent service systems. The center provides training and technical assistance, and exchanges and disseminates information on cultural competence. It is sponsored by Georgetown University and HRSA.

- [www.gucdc.georgetown.edu/nccc/](http://www.gucdc.georgetown.edu/nccc/)
- Phone: 1-800-788-2066 or 202-687-5387; Fax: 202-687-8899; TDD 202-687-5503; E-mail: [cultural@georgetown.edu](mailto:cultural@georgetown.edu)

## XII. POLICY/ADVOCACY

**Americans for Better Care for the Dying:** Their stated goals are to 1) build momentum for reform, 2) explore new methods and systems for delivering care, and 3) shape public policy through evidence-based understanding. Information on policy, news updates, a newsletter, and resources are available.

- [www.abcd-caring.org/](http://www.abcd-caring.org/)
- Phone: 202-895-9485; Fax: 202-895-9484, E-mail: [info@abcd-caring.org](mailto:info@abcd-caring.org)

**Project on Death in America:** The mission of this organization is to “understand and transform the culture and experience of dying and bereavement through initiatives in research, scholarship, the humanities, and the arts, and to foster innovations in the provision of care, public education, professional education, and public policy.” Information on model programs, grants, and policy is available on the site.

- [www.soros.org/death/](http://www.soros.org/death/)
- Phone: 212-548-0150; E-mail: [pdia@sorosny.org](mailto:pdia@sorosny.org)

## XIII. INTERNATIONAL FOCUS

**Association François-Xavier Bagnoud:** AFXB is an international organization that sponsors research, programs, and field work in areas such as palliative care, care for AIDS orphans in Africa, humanitarian rights, and pediatric HIV/AIDS care. The work in palliative care involves services, research, and training.

- [www.fxb.org/palliative/index.html](http://www.fxb.org/palliative/index.html)
- Phone: (Switzerland) +41-217-961-302; (US) 617-432-3511, E-mail: [info@afx.org](mailto:info@afx.org)

**Canadian Palliative Care Association:** The CPCA's consensus document on Standardized Principles and Practice of Palliative Care presents guidelines for national committees to follow in developing standards; it is a clear framework for the process, with sample goals, objectives, essential steps, accompanying policies and procedures, and desirable outcomes.

- [www.cPCA.net](http://www.cPCA.net)

**CDC Global AIDS Program Technical Strategies – Palliative Care:** This is a guide from the CDC that offers a strategic plan on implementing global AIDS strategies. The plan also discusses some best practices and global models of palliative care in HIV/AIDS.

- [www.cdc.gov/nchstp/od/gap/strategies/4\\_3\\_palliative\\_care.htm](http://www.cdc.gov/nchstp/od/gap/strategies/4_3_palliative_care.htm)

**Crossing Borders: Migration, Ethnicity and AIDS:** Mary Haour-Knipe and Richard Rector, Editors.

- Bristol, PA: Taylor & Francis Inc, 1996.
- ISBN: 0 7484 03779, 07484 03787 pbk

**The Enhancing Care Initiative** ECI is a collaborative effort of the Harvard AIDS Institute with AIDS Care Teams in Brazil, Puerto Rico, Senegal, South Africa and Thailand. The focus of this initiative is to implement continuity of care programs that provide care in ten areas. These include prevention approaches with HIV counseling and testing, basic medical care services, and community-based care with care for the dying and care for caregivers.

- [www.eci.harvard.edu](http://www.eci.harvard.edu)

**Global Health Council:** The mission is “to mobilize effective action by advocating for needed policies and resources, building networks and alliances among those working to improve health, and communicating innovative ideas, knowledge and best practices in the health field.” One of their major health topics is HIV/AIDS. Global news updates, newsletters, and a resource exchange are some of what is offered on the web site.

- [www.globalhealth.org/](http://www.globalhealth.org/)
- E-mail: [ghc@globalhealth.org](mailto:ghc@globalhealth.org)
- For information on HIV/AIDS and advocacy, contact the Washington office at 1701 K Street, NW, Suite 600, Washington, DC, 20006-1503. Phone: 202-833-5900, Fax 202-833-0075

**An Introduction to the Integrated Community-Based Home Care Model (I.C.H.C.).** Videotape. Hospice Association of South Africa, 2001.

- Produced by ASI, email: [magweni@kindsley.co.za](mailto:magweni@kindsley.co.za)

**Hospice Uganda:** This hospice is a model hospice under the Hospice Africa program, which was initiated to promote the development of hospice in African countries that have not yet had palliative medicine services. Hospice Uganda has been offering services in palliative care for cancer and AIDS since 1993. In addition to the provision of comprehensive palliative care services, Hospice Uganda provides education in palliative medicine, and encourages the initiation of hospice in other African countries.

- [www.hospice-africa.merseyside.org/hospice.html](http://www.hospice-africa.merseyside.org/hospice.html)

- Mailing address: Hospice Uganda, PO Box 7757, Kampala, Uganda
- Phone: 256-41-266867 or 256-41-269445; Fax: 256-41-26788;  
E-mail: hospiceu@africaonline.co.ug

**HIV and Immigrants: A Manual for AIDS Service Providers:** Produced by the National Immigration Project of the National Lawyers Guild, this manual provides a comprehensive and detailed presentation of issues related to immigrants and HIV. The manual is available free of charge from the San Francisco AIDS Foundation, P.O. Box 426182, San Francisco, CA 94142.

- Phone: 415-487-3080; Fax: 415-487-3089.
- [www.sfaf.org/policy/immigration/appendix\\_c.html](http://www.sfaf.org/policy/immigration/appendix_c.html)

**The Immigration and Refugee Services of America (IRSA) Medical Case Management Program:** This program provides technical assistance to organizations that are resettling refugees with special health care needs. In the current phase of the program, IRSA is working with national and community based resettlement agencies to enhance organizational capacity to provide care for HIV-positive clients and to create partnerships with AIDS service providers.

- Phone: 202-797-2105
- Email: [irsa@irsa-uscr.org](mailto:irsa@irsa-uscr.org)

**King's College Department of Palliative Care and Policy/St. Christopher's Hospice:** Located in London, England, this program provides a model for integrated palliative care services. Ongoing research and evaluation of palliative care services takes place at the university along side education and training of professionals.

- [www.kcl.ac.uk/kis/schools/kcsmd/palliative/top.htm](http://www.kcl.ac.uk/kis/schools/kcsmd/palliative/top.htm)
- Phone: +44 0 20 7346 3995; Fax: +44 0 20 7346 3864
- There is also a Hospice Information Service offered through St. Christopher's Hospice. A newsletter, fact sheets, and an international hospice locator service is available through the HIS.
- [www.hospiceinformation.co.uk/](http://www.hospiceinformation.co.uk/), or Phone: + 44 0 20 8778 9252; Fax: + 44 0 20 8776 9345; E-mail: [info@his2.freeserve.co.uk](mailto:info@his2.freeserve.co.uk)

**Mildmay International Centre in Uganda:** This centre near Kampala, Uganda “effectively combines a clinical outpatient service with a study centre to train and develop people in HIV/AIDS care and management.” Description of the clinical services and training courses are offered on the web site.

- [www.mildmay.org.uk/UgandaCentre.html](http://www.mildmay.org.uk/UgandaCentre.html)
- Phone: + 44 1702 394450; Fax: + 44 1702 394454; E-mail: [mildint@globalnet.co.uk](mailto:mildint@globalnet.co.uk)

**National Immigration Project of the National Lawyers Guild:** Provides contacts to local immigration advocates and a legal training packet designed for immigration practitioners as well as advice and information to AIDS service providers.

- Phone: 617-227-9727
- Email: [nip@igc.apc.org](mailto:nip@igc.apc.org)

### **Palliative Care for HIV/AIDS in Less Developed Countries, Linda Sanei, 1998**

- Discussion paper number 3 from the series Discussion Papers on HIV/AIDS Care and Support, discusses ethical issues, clinical components, alternative therapies, challenges, and prevention.
- To order, contact The Synergy Project, 1101 Vermont Avenue, NW, Ste 900, Washington, DC 20005; Phone: 202-842-2939; Fax: 202-842-7646; [www.synergyaids.com](http://www.synergyaids.com)

## **XIV. COMPLEMENTARY AND ALTERNATIVE THERAPIES**

**Bastyr University:** Bastyr offers academic training and research in the natural health sciences. Their offerings include fields such as nutrition, acupuncture, and herbal sciences. The university has an AIDS Research Center which is funded under grants from the National Institute of Allergy and Infectious Diseases (NIAID) and the National Center for Complementary and Alternative Medicine (NCCAM).

- [www.bastyr.edu/](http://www.bastyr.edu/)
- click on “Research Institute” for information on their AIDS Research Center, [www.bastyruniversity.org/research/buarc/](http://www.bastyruniversity.org/research/buarc/)
- Phone: 425-823-1300; Fax: 425-823-6222

**National Center for Complementary and Alternative Therapies:** This center, part of the National Institutes for Health, studies complementary and alternative healing through scientific research. They also provide training for researchers and disseminate information about complementary and alternative medicines.

- [www.nccam.nih.gov/](http://www.nccam.nih.gov/)
- Phone: 1-888-644-6226 or 301-231-7537, ext. 5 (outside the U.S.); TDD: 1-888-644-6226; Fax: 301-495-4957



## Internet Sites on Palliative Care and Related Topics

Magda Barini-Garcia, MD, MPH and Demia Sundra, MPH

Web site/Address:	Primary Audience*	Pain Management / Assessment	Symptom Management	Spiritual/Psychosocial Needs	Provider Education	Patient/Provider Communication	Hospice	Respite	Ethics	Grief and Bereavement	International/Global Perspective	Cancer-specific	HIV/AIDS Information	Financial/Reimbursement	List serv or Newsletter Available	Special Populations**
Aegis www.aegis.com/	Pt, Pr, Gp		■										■			
AIDS info www.aidsinfo.nih.gov/	Pr												■			
American Academy of Hospice and Palliative Medicine www.aahpm.org/	Pr	■	■	■	■	■	■		■	■					■	
American Academy of Pain Medicine www.painmed.org/	Pr	■			■										■	
American Board of Hospice and Palliative Medicine www.abhpm.org/	Pr				■										■	
American College of Physicians, Home Care Guide for Advanced Cancer www.acponline.org/public/h_care/index.html	Cr	■	■	■		■	■	■		■						
American Psychiatric Association AIDS Resource Center www.psych.org/aids/	Pt, Pr				■								■			

\*Primary Audience:

Pr: Providers Pt: Patients/Families Gp: General Public Cr: Caregivers Ad: Administrators/Policy Makers Fd: Funding/Grant-seekers R: Researchers

\*\*Special Populations:

P: Pediatric H: Homeless R: Rural M/C: Minority/Cultural topics I: Incarcerated E: Elderly

## Internet Sites on Palliative Care and Related Topics

Continued

Web site/Address:	Primary Audience*	Pain Management Assessment	Symptom Management	Spiritual/Psychosocial Needs	Provider Education	Patient/Provider Communication	Hospice	Respite	Ethics	Grief and Bereavement	International/Global Perspective	Cancer-specific	HIV/AIDS Information	Financial/Reimbursement	List serv or Newsletter Available	Special Populations**
American Psychological Association Office on AIDS <a href="http://www.apa.org/pi/aids/homepage.html">www.apa.org/pi/aids/homepage.html</a>	Pr															M/C
Americans for Better Care for the Dying <a href="http://www.abcd-caring.org/">www.abcd-caring.org/</a>	Ad															
The ARCH National Respite Network and Resource Center <a href="http://www.chtop.com/archbroc.htm">www.chtop.com/archbroc.htm</a>	Pr, Pt, Cr															P, R, M/C
Association Francois-Xavier Bagnoud <a href="http://www.fxb.org/palliative/index.html">www.fxb.org/palliative/index.html</a>	Pr, Pt, Gp															P
The Association of Nurses in AIDS Care <a href="http://www.anacnet.org/">www.anacnet.org/</a>	Pr															
Baylor University <a href="http://www.bastyr.edu/">www.bastyr.edu/</a>	Gp, R, Pr, Pt															
Bereavement Magazine <a href="http://www.bereavementmag.com/">www.bereavementmag.com/</a>	Pt, Cr, Gp															P

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Web site/Address:	Primary Audience*	Pain Management Assessment	Symptom Management	Spiritual/Psychosocial Needs	Provider Education	Patient/Provider Communication	Hospice	Respite	Ethics	Grief and Bereavement	International/Global Perspective	Cancer-specific	HIV/AIDS Information	Financial/Reimbursement	List serv or Newsletter Available	Special Populations**
The Body www.thebody.com	Pt															M/C H, P
Cancer Net through NCI www.cancer.net/gov/	Pt, Pr, Gp, Cr															P
Caregiver.com www.caregiver.com	Cr															
Caregiving.com www.caregiving.com	Cr															E
Caregiver Health www.ama-assn.org/ama/pub/category/4642.html	Pr, Cr															
Caring for Someone with AIDS at Home www.hivatis.org/caring/	Cr															

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Web site/Address:	Primary Audience*	Pain Management / Assessment	Symptom Management	Spiritual/Psychosocial Needs	Provider Education	Patient/Provider Communication	Hospice	Respite	Ethics	Grief and Bereavement	International/Global Perspective	Cancer-specific	HIV/AIDS Information	Financial/Reimbursement	List serv or Newsletter Available	Special Populations**
CDC Global AIDS Program Technical Strategies - Palliative Care www.cdc.gov/nchstp/od/gap/strategies/4_3_palliative_care.htm	Ad, R															
The Center to Advance Palliative Care www.ccapcmssm.org/index.cgi	Pr, Ad															
Children's Hospice International www.chionline.org/	Pr, Pr, Ad, Fd															P
Coping with Grief, San Francisco AIDS Foundation www.star.org/aboutaids/grief.html	Gp															
Diversity Rx www.diversityrx.org	Pr, Gp, Ad															M/C
Dying Well www.dyingwell.org	Pt															
Education for Physicians in End-of-Life Care www.epec.net/	Pr															

\*Primary Audience:

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Elizabeth Glaser Pediatric AIDS Foundation www.pedaids.org/index.html	Ad, Fd R, Gp															P
Empowering Caregivers www.care-givers.com	Cr															
End-of-Life Nursing Education Consortium (ELNEC) Project www.aacn.nche.edu/einec/	P															
End of Life Physician Education Resource Center www.eperc.mcw.edu/	Pr															
The Family Caregiver Alliance www.caregiver.org	Cr, Ad															
The Family Center www.thefamilycenter.org	Pr, Cr															PMC
Five Wishes Living Will www.agingwithdignity.org/	Pt, Cr															

\*Primary Audience:

Pr: Providers Pt: Patients/Families Gp: General Public Cr: Caregivers Ad: Administrators/Policy Makers Fd: Funding/Grant-seekers R: Researchers

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# Internet Sites on Palliative Care and Related Topics

Continued

Web site/Address:	Primary Audience*	Pain Management / Assessment	Symptom Management	Spiritual/Psychosocial Needs	Provider Education	Patient/Provider Communication	Hospice	Respite	Ethics	Grief and Bereavement	International/Global Perspective	Cancer-specific	HIV/AIDS Information	Financial/Reimbursement	List serv or Newsletter Available	Special Populations**
The François-Xavier Bagnoud Center www.fxcenter.org/	Pr, Pt															P
Friends' Health Connection www.48friend.com	Cr															
Global Health Council www.globalhealth.org/	Ad,Gp Fd,Pr															
Griefnet www.rivendell.org/	Gp															
The Growth House, Inc. www.growthhouse.org/	Pt,Pr Gp,Cr															P
Guiding Responsive Action for Corrections in End-of-life (GRACE) www.graceprojects.org	Pr, Ad															I
Health Care Exchange Initiative www.hcei.org	Cr															

\*Primary Audience:

Pr: Providers Pt: Patients/Families Gp: General Public Cr: Caregivers Ad: Administrators/Policy Makers Fd: Funding/Grant-seekers R: Researchers

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HealingWell.com www.healingwell.com	Cr			■											■	
HIV and Immigrants: A Manual for AIDS Service Providers www.staf.org/policy/immigration/appendix_c.html	Pt, Pr				■											M/C
HIVDent www.hivdent.org/	Pr, Pt	■	■		■								■			P
HIVInSite www.hivinsite.ucsf.edu	Pr, Pt, Gp, Ad		■		■				■		■		■	■		P, M/C
Hospice and Palliative Nurses Association www.hpna.org/	Pr				■		■									
Hospice Foundation of America www.hospicefoundation.org/	Pr, Pt, Cr			■	■		■	■		■				■	■	
Hospice Net www.hospicenet.org/	Pt, Cr	■		■			■	■		■						

\*Primary Audience:

Pr: Providers Pt: Patients/Families Gp: General Public Cr: Caregivers Ad: Administrators/Policy Makers Fd: Funding/Grant-seekers R: Researchers

\*\*Special Populations:

P: Pediatric H: Homeless R: Rural M/C: Minority/Cultural topics I: Incarcerated E: Elderly

## Internet Sites on Palliative Care and Related Topics

Continued

Web site/Address:	Primary Audience*	Pain Management / Assessment	Symptom Management	Spiritual/Psychosocial Needs	Provider Education	Patient/Provider Communication	Hospice	Respite	Ethics	Grief and Bereavement	International/Global Perspective	Cancer-specific	HIV/AIDS Information	Financial/Reimbursement	List serv or Newsletter Available	Special Populations**
HRSA HIV/AIDS Bureau <a href="http://www.hab.hrsa.gov/">www.hab.hrsa.gov/</a>	Gp, Pt, Pt, Fd															R, P, H, MC
International AIDS Society-USA <a href="http://www.iasusa.org/">www.iasusa.org/</a>	Pt															
International Association for Hospice and Palliative Care <a href="http://www.hospicecare.com/">www.hospicecare.com/</a>	Pt, Pt															P
International Association for the Study of Pain <a href="http://www.iasp-pain.org">www.iasp-pain.org</a>	Pt															
International Association of Physicians in AIDS Care <a href="http://www.iapac.org/index.html">www.iapac.org/index.html</a>	Pt															
John Hopkins University AIDS Service <a href="http://www.hopkins-atds.edu/">www.hopkins-atds.edu/</a>	Pt, Pt															
JCAHO Pain Standards <a href="http://www.jacho.org/standard/pm_hap.html">www.jacho.org/standard/pm_hap.html</a>	Pt, Ad															

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Pt: Providers Pt: Patients/Families Gp: General Public Cr: Caregivers Ad: Administrators/Policy Makers Fd: Funding/Grant-seekers R: Researchers

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Web site/Address:	Primary Audience*	Pain Management / Assessment	Symptom Management	Spiritual/Psychosocial Needs	Provider Education	Patient/Provider Communication	Hospice	Respite	Ethics	Grief and Bereavement	International/Global Perspective	Cancer-specific	HIV/AIDS Information	Financial/Reimbursement	List serv or Newsletter Available	Special Populations**
KIDSAID www.kidsaid.com/	Pt															P
Last Acts www.lastacts.org/	Pt, Pr, Ad															M/C, P
Medicaid/Medicare Hospice Services www.hcfa.gov/medicaid/litc2.htm	Gp, Pt, Pr															
Medscape HIV/AIDS Page www.medscape.com/Home/Topics/AIDS/AIDS.html	Pr															P, M/C
Mental Health Care for PLWHA: A Practical Guide www.mentalhealth.org/cmhs/HIV/AIDS/mhcarehiv.htm	Pt, Pr, Cr															
National Association of HIV/AIDS Over Fifty www.hivoverfifty.org/	Pt, Cr, Pr															E
National Association of People with AIDS www.napwa.org/	Pt															

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Pr: Providers Pt: Patients/Families Gp: General Public Cr: Caregivers Ad: Administrators/Policy Makers Fd: Funding/Grant-seekers R: Researchers

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## Internet Sites on Palliative Care and Related Topics

Continued

Web site/Address:	Primary Audience*	Pain Management Assessment	Symptom Management	Spiritual/Psychosocial Needs	Provider Education	Patient/Provider Communication	Hospice	Respite	Ethics	Grief and Bereavement	International/Global Perspective	Cancer-specific	HIV/AIDS Information	Financial/Reimbursement	List serv or Newsletter Available	Special Populations**
National Center for Complementary and Alternative Therapies <a href="http://www.nccam.nih.gov/">www.nccam.nih.gov/</a>	Pr, Pt, R, Fd															
National Center for Cultural Competence <a href="http://www.guodc.georgetown.edu/nccc/">www.guodc.georgetown.edu/nccc/</a>	Pr, Ad															M/C
National Clearinghouse for Alcohol and Drug Information <a href="http://www.health.org/">www.health.org/</a>	Gp															P
Nat. Comp. Cancer Network, Pain Treatment Guidelines for Patients <a href="http://www.nccn.org">www.nccn.org</a>	Gp															
National Family Caregivers Association <a href="http://www.nfca.org">www.nfca.org</a>	Cr															
National HIV/AIDS Clinician Consultation Center <a href="http://www.ucsf.edu/hivcntr/">www.ucsf.edu/hivcntr/</a>	Pr															
The National Hospice and Palliative Care Organization <a href="http://www.nhpco.org/">www.nhpco.org/</a>	Pr, Pt															P

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Pr: Providers Pt: Patients/Families Gp: General Public Cr: Caregivers Ad: Administrators/Policy Makers Fd: Funding/Grant-seekers R: Researchers

\*\*Special Populations:

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Continued

Web site/Address:	Primary Audience*	Pain Management Assessment	Symptom Management	Spiritual/Psychosocial Needs	Provider Education	Patient/Provider Communication	Hospice	Respite	Ethics	Grief and Bereavement	International/Global Perspective	Cancer-specific	HIV/AIDS Information	Financial/Reimbursement	List serv or Newsletter Available	Special Populations**
National Pediatric and Family HIV Resource Center www.pedhiv aids.org/	Pr, Pt															P
National Prison Hospice Association www.npha.org/index.html	Pr, Pt, Gp, Ad															I
NIAID Database for Anti-HIV Compounds www.niaid.nih.gov/daids/dtpdb/	Pr															
The Orphan Project www.aidsinfonyc.org/orphan/	Pr, Ad															P
On Our Own Terms; Bill Moyers on Dying www.pbs.org/wnet/onourown/terms/	Pt, Gp															M/C
Palliative Care Association of South Australia www.pallicare.asn.au/	Pr, Pt															M/C

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Web site/Address:	Primary Audience*	Pain Management Assessment	Symptom Management	Spiritual/Psychosocial Needs	Provider Education	Patient/Provider Communication	Hospice	Respite	Ethics	Grief and Bereavement	International/Global Perspective	Cancer-specific	HIV/AIDS Information	Financial/Reimbursement	List serv or Newsletter Available	Special Populations**
Partnership for Caring, Inc. www.partnershipforcaring.org/HomePage/	Gp, Pt, Ad															P
Physician Assistant AIDS Network www.paan.org/index.htm	Pt															
Project Inform www.projinf.org/	Pt															
Project on Death in America www.soros.org/death/	Ad, Fd															
Promoting Excellence in End-of-Life Care www.promotingexcellence.org/	R, Ad, Fd, Pt															M/C, R, P
Queernet www.queernet.org	Cr															
Social Security Disability Insurance/Supplemental Security Income www.ssa.gov	Pr, Pt, Cr, Ad															

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## Internet Sites on Palliative Care and Related Topics

Continued

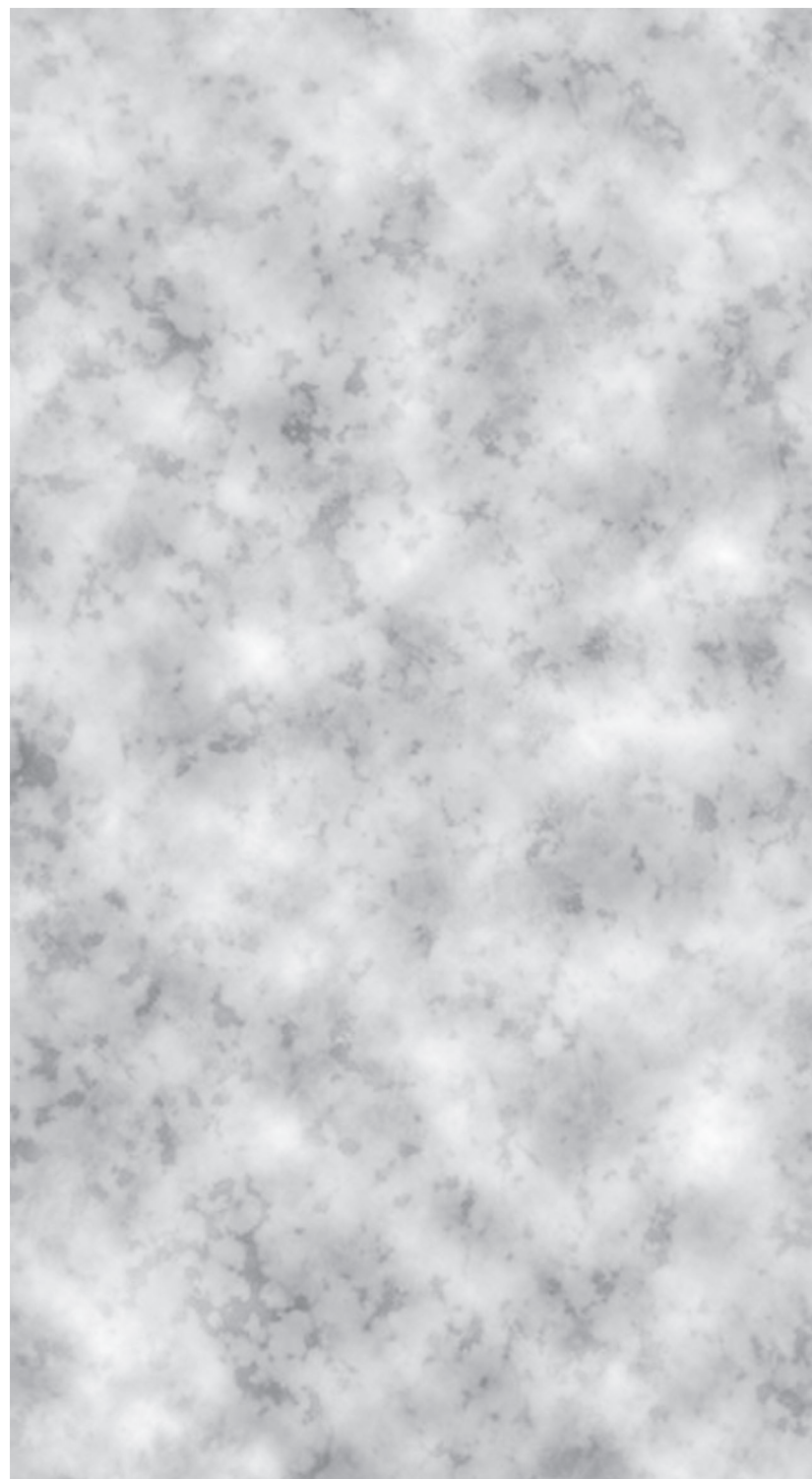
Web site/Address:	Primary Audience*	Pain Management Assessment	Symptom Management	Spiritual/Psychosocial Needs	Provider Education	Patient/Provider Communication	Hospice	Respite	Ethics	Grief and Bereavement	International/Global Perspective	Cancer-specific	HIV/AIDS Information	Financial/Reimbursement	List serv or Newsletter Available	Special Populations**
Symptom Research: Methods and Opportunities www.symptomresearch.org	Pr, R															
Toolkit of Instruments to Measure End-of-Life Care www.chcr.brown.edu/pcoc/toolkit.htm	Pr, R															
UNAIDS www.unaids.org/	Pr, R, Ad															
University of Liverpool Drug Interactions Website www.hiv-druginteractions.org	Pr															
Well Spouse Foundation www.wellspouse.org	Cr															
Wisconsin Cancer Pain Initiative www.aacpi.org	Pr, Ad															

\*Primary Audience:

Pr: Providers Pt: Patients/Families Gp: General Public Cr: Caregivers Ad: Administrators/Policy Makers Fd: Funding/Grant-seekers R: Researchers

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## Chapter 27.

# Pharmacologic Interactions of Clinical Significance

Justina Edmunds-Ogbuokiri, PharmD, FASCP

### INTRODUCTION

■ Patients receiving palliative care for HIV disease have the potential for numerous drug interactions, given the complex drug regimens used to treat both early as well as advancing HIV disease. It is estimated that at any point, up to 50% of patients in palliative care may still be recipients of highly active antiretroviral therapy (HAART) which often comprises protease inhibitors (PIs) along with other antiretroviral agents, namely the nucleoside reverse transcriptase inhibitors (NRTIs, or nukes) and the non-nucleoside reverse transcriptase inhibitors (NNRTIs, or non-nukes). All protease inhibitors as well as all currently available NNRTIs are metabolized by the cytochrome P450 (CYP) isoenzymes and are therefore expected to be involved in a large number and variety of drug-drug interactions.

As providers attempt to palliate advancing HIV disease, they may need to administer to patients—along with antiretroviral agents—medications for pain; insomnia; anorexia/weight loss; fatigue/weakness; GI disturbances including nausea, vomiting, diarrhea, dysphagia, odonophagia and reflux esophagitis; dyspnea; pruritis; fever; anxiety/depression; confusion/dementia; and a host of other symptoms. All of these medications may need to be administered in the presence of other co-morbid conditions such as hepatitis; PI-associated complications such as hypertriglyceridemia, hyperglycemia, lipodystrophies and HIV-associated nephropathies; and the opportunistic infections that are the hallmark of advanced HIV disease. It is therefore neither surprising that drug-drug as well as drug-disease interactions become paramount considerations as patients advance into palliative care, nor that optimizing therapy in these situations can become exceedingly complex and overwhelming.

Providers who care for people with HIV/AIDS must constantly keep abreast of new developments in antiretroviral drug treatment. The HIV/AIDS treatment guidelines are frequently updated and the most current guidelines can be found at the AIDS info website, funded by the Department of Health and Human Services, at:

[www.aidsinfo.nih.gov/](http://www.aidsinfo.nih.gov/)

This chapter will describe drug-disease, drug-food and drug-drug interactions likely to be encountered in symptom management of advanced HIV disease as practiced during palliative care of patients. The chapter also highlights the clinical significance of these interactions and offers strategies to avoid or circumvent many of them. Tables 27-1 through 27-13 offer detailed information about the drug interactions and circumvention strategies discussed in the text, as follows:

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- Table 27-9: Comorbid conditions associated with substance abuse ..... 569
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## PHARMACOKINETIC PRINCIPLES

■ Application of basic pharmacokinetic principles can be useful for circumventing clinically relevant drug-drug interactions in the management of advanced HIV disease. Pharmacologically, there are two broad classes of drug interactions:

- Pharmacokinetic interactions
- Pharmacodynamic interactions

Interactions are described as *pharmacokinetic* when the action of one drug alters the serum concentration of another drug by altering any of the following processes: drug *Liberation*, *Absorption*, *Distribution*, *Metabolism* and *Excretion* (the LADME system). Pharmacokinetics is the study of the processes of drug action through these various processes.



In advanced HIV disease and AIDS, possibilities abound for pharmacokinetic drug interactions. For instance, any circumstance that alters gastric pH can affect the absorption of many drugs. This is particularly important for patients receiving palliative care, many of whom may have hypochlorhydria which is common in advanced HIV disease and can lead to suboptimal absorption of pH-dependent medications such as ketoconazole (Nizoral), itraconazole (Sporonox) and indinavir (Crixivan). Since fluconazole (Diflucan) is readily absorbed independent of gastric pH, it is often the azole of choice when an azole antifungal is indicated for the treatment of several opportunistic infections.

*Pharmacodynamic* interactions are those interactions that may alter the overall clinical response expected from use of the drugs, by altering the efficacy and often toxicity of the drugs. The interaction could be synergistic and mostly positive (e.g., the positive antiretroviral response seen when zidovudine is combined with lamivudine). Conversely, it can be antagonistic and mostly negative (e.g., the additive bone marrow suppression caused by combining zidovudine and ganciclovir; nephrotoxicity caused by combining cidofovir (Vistide) and amphotericin B (Fungizone); or the neuropathy caused by stavudine (Zerit) combined with didanosine (Videx, Videx-EC).

## DRUG-DISEASE INTERACTIONS

■ Drug interactions can arise as a result of changes due to HIV disease itself. As persons with HIV disease advance in their illness, oral absorption of foods and drugs is often compromised due to changes in gastric pH that accompany HIV enteropathy, a syndrome that describes the effect of advanced HIV disease on the gastrointestinal (GI) system. Diarrhea tends to be common in HIV disease and may result from a variety of causes: GI disturbance following side effects of several of the most commonly used antiretroviral agents; presence of concurrent opportunistic organisms; and bacterial, protozoal and viral infections that tend to be more common as the disease advances and the immune system weakens. The occurrence of diarrhea—especially if frequent and poorly controlled, as in patients with cryptosporidiosis—can jeopardize absorption of all drugs because of the decreased transit time and may cause drug regimens to be less efficacious. This will lead subsequently to less than optimal clinical outcomes, and in some instance may predispose the patient to subtherapeutic drug levels that may herald the emergence of resistant strains of the virus in patients still taking antiretroviral agents.

People with HIV in palliative care are more likely to be susceptible to adverse events than people in the early stages of HIV disease. For example, patients in palliative care are more likely to have allergic reactions to sulfonamides and other drugs. Another physiological component of advancing HIV disease is malabsorption, which is the hallmark of enteropathy and predisposes the patient to changes in body weight that often reflect changes in the volume as well as distribution of both fat and muscle tissue. This in turn may affect the efficacy of drugs with dose-related efficacy, for example, the agents used in the treatment of tuberculosis and *mycobacterium avium complex* (MAC). Also frequently reported at this stage of illness are decreases in serum albumin, which in turn may alter the efficacy of drugs such as phenytoin when used in the management of patients with toxoplasmosis or sulfamethoxazole when used both as treatment and in the prophylaxis of patients with *pneumocystis carinii* pneumonia (PCP).

Other changes also occur in drug metabolism with advancing disease. These include changes due to HIV-related biliary disease or to hepatitis—frequently a concomitant infection in this population, especially patients who were injection drug users (IDUs). These conditions may

make it necessary to adjust both the doses and the dosing intervals of drugs that are mostly metabolized through the liver, such as rifampin, isoniazid and ketoconazole, and to be selective in the choice of such medications. Changes in the renal elimination of drugs also occur with advancing disease and can be especially important for renally cleared antiretrovirals such as zidovudine, lamivudine, didanosine, zalcitabine and stavudine, antiviral agents such as ganciclovir and cidofovir, antifungal agents such as amphotericin B, and antibacterial agents such as the aminoglycosides.

Changes in immune status that may affect drug responses to antimycobacterial medications (such as the tuberculostatics) or management of opportunistic infections such as MAC have frequently been reported in patients with advanced disease. As a general rule, there is an increased incidence of drug toxicity as well as drug sensitivity in patients with HIV—for example, with use of the neuroleptics (chlorpromazine and prochlorperazine)—which may necessitate a decrease from usually recommended doses in order to avoid toxicity.

### Signs of Drug-Drug Interaction in a Patient with HIV Disease

As a general rule, patients experiencing exaggerated toxicities on usual doses of medications or manifesting treatment failure in the absence of factors such as resistance or poor adherence/compliance may be suffering from an unidentified drug-drug interaction. A careful review of the patient's medication profile is necessary in order to monitor for such drug interactions. Clinicians should become familiar with the agents most often associated with significant drug-drug interactions and with the measures to circumvent these interactions when necessary.

Regimens with enzyme inducers such as rifampin or enzyme inhibitors such as ritonavir should be noted and checked against a list of other agents metabolized by those same enzyme pathways (see Table 27-14, Advice to Patients: Red Flag Medications, at the end of this chapter). Fortunately, the majority of drug-drug interactions are minor in nature and do not require extensive changes to the patient's drug regimen. However, the minority of drug interactions that can be clinically important can offset treatment goals and outcomes in patients if unrecognized or unaddressed, leading to patients receiving suboptimal levels of various drugs and so to treatments failing, often due to emergence of drug-resistant strains of the virus.

### Drug-Food Interactions of Clinical Significance

It is well established that the presence or absence of food or certain beverages can significantly affect the bioavailability of a number of medications. A variety of mechanisms including changes in pH, formation of unabsorbable cation complexes, increased solubility of drugs and interference with gut metabolism as well as a decrease in the motility of the gut may be at play. Table 27-1 lists some of the more common food-drug interactions with antiretroviral agents.<sup>1</sup>

Table 27-1: Effects of Food on Antiretroviral Agents

<b>Antiretroviral agents that can be taken with no regard to meals</b>	Zidovudine (AZT, Retrovir)	
	Lamivudine (3TC, Epivir)	
	Stavudine (d4T, Zerit)	
	Zalcitabine (ddC, Hivid)	
	Abacavir (Ziagen)	
	Nevirapine (Viramune)	
	Delavirdine (Rescriptor)	
	Saquinavir HGC (hard gel capsule)	Has no food effect when taken with ritonavir.
<b>Antiretroviral agents whose blood levels are increased by the presence of food</b>	Amprenavir (Agenerase)	Can be taken with or without regard to meals but high fat meals should be avoided.
	Saquinavir soft gel capsule (Fortovase)	Levels increase six-fold with food. Take with a large meal.
	Ritonavir (Norvir)	Levels increase 15%. Take with food if possible; this may improve tolerability.
	Nelfinavir (Viracept)	Levels increase two- or three-fold. Take with meal or snack.
<b>Antiretroviral agents whose blood levels are decreased by food</b>	Tenofovir (Viread)	Optimal absorption occurs in the presence of food.
	Didanosine (ddI, Videx)	Take on an empty stomach a half hour before or two hours after a meal. Levels decrease by 55% when taken with food.
	Indinavir (Crixivan)	Levels decrease 77% with food. Take 1 hour before or 2 hours after meals; may take with skim milk or a low fat meal.

Source: Adapted from Guidelines for the Use of Antiretroviral Agents in HIV-Infected Adults and Adolescents. Washington, DC: Department of Health and Human Services (DHHS) and the Henry J. Kaiser Family Foundation, February 4, 2002. Available on the Web at [www.hivatis.org](http://www.hivatis.org)

## Interactions Involving Azole Antifungals, Didanosine and Other Drugs

Interactions of significance with azole antifungals, didanosine and other drugs used to alleviate HIV-related disorders are presented in this section, along with strategies to circumvent the interactions. For more detailed guidance, consult the most recent package inserts of ketoconazole and the various drugs.

*Ketoconazole (Nizoral) and itraconazole (Sporonox) with gastric acid-reducing agents:* Increase in gastric pH (due to agents such as antacids, H<sub>2</sub> antagonists, proton-pump inhibitors and non-enteric-coated formulations of didanosine) impairs absorption of ketoconazole, whose absorption is optimal when gastric pH is low. When prescribed together, didanosine and ketoconazole must be taken two hours apart or an alternative antifungal agent should be used.<sup>2</sup>

*Measures to increase gastric acidity for azole bioavailability:* Administration of acidic beverages such as 240 ml of orange juice, tomato juice, ginger ale, grapefruit juice or cola drinks in the presence of achlorhydria of advanced HIV disease will enhance azole bioavailability, especially for ketoconazole. When hypochlorhydria is severe, each 200 mg of ketoconazole should be dissolved in 4 ml of 0.2N hydrochloric acid. A straw should be used to avoid contact with teeth.

*PIs and NNRTIs with azoles:* As a general rule, use of ketoconazole with PIs and NNRTIs is not advised due to a large number of potentially significant drug-drug interactions. Fluconazole (Diflucan) is preferred. (See Tables 27-2 and 27-3.)

- *Indinavir:*  
Levels are increased 68%; reduce indinavir dose to 600 mg q 8 h; SQV levels increased three-fold, no dose change required.
- *Ritonavir:*  
Levels are increased more than three-fold; use less than 200 mg ketoconazole/day.
- *Amprenavir:*  
Levels are increased 31% and ketoconazole levels increased 44%; dose implications not clear.
- *Nelfinavir:*  
No dosage change.
- *Nevirapine:*  
Levels are increased 15% to 30% and ketoconazole levels decreased by 60%; combination is not recommended.
- *Efavirenz:*  
Interactions between ketoconazole and efavirenz have not been studied; no recommendations can be made at present.

*Ketoconazole and other drugs:* Rifampin decreases activity of both drugs; INH decreases effect of ketoconazole; terfenadine and cisapride (both now removed from the market) lead to ventricular arrhythmias and concurrent use should be avoided.

*Didanosine:* Didanosine buffered formulations usually cause problems of absorption for medications whose absorption are pH-sensitive. Didanosine can decrease absorption of itraconazole, ketoconazole, dapsone and delavirdine (Rescriptor) because of increased gastric pH. It can also decrease absorption of the quinolones and tetracyclines by chelation of these antibiotics with the calcium and magnesium ions contained in the buffer.

*Oral fluoroquinolones:* With oral fluoroquinolones, patients should avoid dairy products, elemental minerals and heavy nutritional supplements; take fluoroquinolones two hours before or six hours after these items.

## DRUG-DRUG INTERACTIONS DUE TO THE CYTOCHROME P450 ENZYME SYSTEM

■ The cytochrome P450 (CYP) enzyme system is a group of mixed function monooxygenases located on the smooth endoplasmic reticulum of cells throughout the body, primarily the liver. In humans, there are more than 20 different cytochrome enzymes, eight of which are responsible for the metabolism of almost all clinically useful medications. These eight enzymes are designated as CYP1A2, CYP2A6, CYP2B6, CYP2C9, CYP2C19, CYP2D6, CYP2E1 and CYP3A4. Though they are somehow related and share many general features, each is unique in the substrates for which it is specific and so metabolizes only specific drugs and substances.<sup>3</sup> The P450 enzymes involved in drug metabolism are found not only in the liver, but also in the kidneys, lungs, brain, small intestine and placenta.

Enzymes of the CYP450 system are responsible for the oxidative metabolism of a large and varied number of compounds including, most importantly, the antiretroviral agents (PIs and NNRTIs), several drugs used in the management of opportunistic infections in advancing HIV disease, many of the newer serotonin-specific reuptake inhibitors (SSRIs) and other psychotropic agents, endogenous substances such as steroids and prostaglandins, environmental toxins, and dietary components. The primary role of the isoenzymes in drug metabolism is to make the drugs more water-soluble and less fat-soluble, so that biliary excretion will take place. As a result of this, actions of these enzymes can affect the amount of active drug in the body at any given time. Such changes can be positive, enhancing efficacy, or negative, enhancing toxicity and adverse events.<sup>4</sup>

### Role of the Cytochrome P450 3A4 (CYP3A4)

CYP3A is both the most abundant and clinically significant family of cytochrome P450 enzymes. The CYP3A consists of three major enzymes, CYP3A4 being the one most commonly associated with drug interactions. The most notable inducers of CYP3A4 include the glucocorticosteroids, rifampin, carbamazepine, phenobarbital, phenytoin, nevirapine and efavirenz. Notable CYP3A4 inhibitors include erythromycin, clarithromycin, Biaxin (but not azithromycin), ketoconazole, verapamil, and grapefruit juice among others.

Ritonavir (Norvir) is the most potent inhibitor of the CYP3A4 system when compared to all the other PIs and indeed to all other drugs, generally. Indinavir and nelfinavir exhibit the same level of inhibition while saquinavir and amprenavir appear to be the least likely to inhibit CYP3A4. Among the NNRTIs, delavirdine is a potent irreversible inhibitor of this enzyme and is presently the only drug that has been shown to affect levels of ritonavir, increasing its Area Under the Curve (AUC) by 60% in patients maintained on a regimen of ritonavir 600 mg twice daily.<sup>5</sup>

Recent studies have shown that both ritonavir and nelfinavir can act as inducers as well as inhibitors. Though this feature is not completely understood, affinity studies show that these two compounds bind with such high affinity that it becomes impossible for other agents to attach to the enzyme; hence inhibiting access to the enzymes while inducing their own metabolism.

### Drug Interactions with Ritonavir and Other Substrates of the CYP3A4 System

In relation to CYP3A4, there are a number of clinically significant drug-drug interactions with which providers must become conversant. For the past several years, ritonavir (Norvir), the powerful inhibitor of enzymes of the cytochrome P450 system, has been used to boost levels of other PIs, mostly saquinavir (Fortovase), indinavir (Crixivan) and amprenavir (Agenerase).

More recently, another PI, lopinavir, was added to this list of boosted PIs. Ritonavir and lopinavir were combined together into a powerful boosted PI combination (Kaletra) that takes advantage of ritonavir's inhibition of the CYP3A enzyme system to increase levels of lopinavir up to ten times its normal AUC. This combination can eradicate with a ten-fold increase in potency, for the most part overcoming PI resistance in heavily experienced patients. Results from the few studies so far completed indicate that the profile of drug-drug interactions and drugs that should be avoided for ritonavir are mostly the same for the combination of lopinavir and ritonavir (Kaletra).<sup>1</sup>

There have been reports of excessive drops in blood pressure following introduction of ritonavir into the therapy of a hypertensive subject stabilized on a calcium channel blocker such as verapamil. Other drugs to watch out for include the proarrhythmic agents that undergo extensive first-pass metabolism such as terfenadine, astemizole and cisapride. Others include the HMG-C0A reductase inhibitors—drugs that are frequently prescribed for patients on antiretroviral therapy who develop lipid abnormalities—as well as triazolam and midazolam, often used to alleviate anxiety or to treat insomnia.

### Drug-Drug Interactions between Psychotropics and Antiretroviral Agents

Several of the medications used to treat mood and anxiety disorders are substrates of the cytochrome P450 enzyme system and as such are prone to interact with protease inhibitors and other drugs used for the treatment of opportunistic infections or the several degenerating neurological disorders that may accompany advancing HIV disease. Some of these psychotropic medications may be either substrates, inducers or inhibitors of this same system. For patients receiving these medications concomitantly, the need for awareness and closer monitoring regarding drug-drug as well as drug-disease interactions of significance has been heightened. Recently, these concerns, though not limited to people with HIV, have been exacerbated by the reports of sudden cardiac deaths due to unexpected ventricular arrhythmias (*torsades des pointes*) in patients on some antipsychotic medications, who were concomitantly receiving some of the newer antihistamines (terfenadine, astemizole), some of the newer SSRIs, some of the newer antiarrhythmics (amiodarone, sotalol, flecainide), some macrolides (erythromycin) and some newer quinolones. The purpose of this section of the discussion is to clarify some of the issues associated with drug-drug interactions of clinical significance between the antiretroviral agents and drugs used in psychiatry.

### Specific Interactions between Some Antidepressants, Antipsychotics and Antiretroviral Agents

Why do interactions occur among some antidepressants, antipsychotic agents and antiretroviral agents? Clinicians prescribing drugs for patients with HIV must be aware of the important potential for interactions that exists between some of the PIs (especially ritonavir) and non-nucleoside antiretroviral agents (especially efavirenz) and psychotropic drugs. Protease inhibitors have varying degrees of inhibition of the cytochrome P450 enzyme system responsible for most of the oxidative metabolism that occurs in the liver. Ritonavir in particular is one of the most potent inhibitors of the various P450 isoenzymes, especially CYP2D6 and CYP3A4 which are responsible for metabolizing the benzodiazepines, some neuroleptics and both the SSRI and tricyclic antidepressants.

Tables 27-2, 27-3 and 27-4 give highlights of these ritonavir interactions and classifications of substrates, inducers and inhibitors of the CYP450 enzyme system. Patients on PIs who are receiving tricyclic antidepressants (TCAs) should have their dosages reduced by 50% to 66% initially, with close monitoring of blood levels to establish a safe and effective dose.<sup>6</sup>

Table 27-2: Common Inducers of Cytochrome P450 Enzyme System

Enzyme	Known Inducers
CYP3A4	Carbamazepine (Tegretol), rifampin (Rifadin), phenobarbital, phenytoin (Dilantin), efavirenz (Sustiva), nevirapine (Viramune), prednisone, rifapentine, troglitazone (Rezulin)
CYP1A2	Cigarette smoke, ritonavir (Norvir), omeprazole (Prilosec), charcoal-smoked foods, cruciferous vegetables
CYP2C9	Carbamazepine (Tegretol), ethanol, phenytoin (Dilantin), rifabutin (Mycobutin), ritonavir (Norvir), rifampin (Rifadin)
CYP2C19	Rifabutin (Mycobutin), rifampin (Rifadin)
CYP2D6	Pregnancy
CYP2E1	Ethanol, ritonavir (Norvir), isoniazid (INH)

Table 27-3: Common Inhibitors of Cytochrome P450 Enzyme System

Enzyme	Known Inhibitors
CYP3A4	Ritonavir (Norvir), nelfinavir (Viracept), amprenavir (Agenerase), indinavir (Crixivan), propoxyphene (Darvon), saquinavir (Fortovase), ketoconazole (Nizoral), itraconazole (Sporonox), erythromycin, grapefruit juice, nefazodone (Serzone), fluvoxamine (Luvox), fluoxetine (Prozac), diltiazem (Cardizem), verapamil (Calan), clarithromycin (Biaxin), omeprazole (Prilosec)
CYP1A2	Ciprofloxacin (Cipro), grepafloxacin (Raxar), fluvoxamine (Luvox), fluoxetine (Prozac), nefazodone (Serzone), enoxacin (Penetrex)
CYP2C9	Amiodarone (Cordarone), clopidogrel (Plavix), fluvastatin (Lescol), fluvoxamine (Luvox), fluoxetine (Prozac), fluconazole (Diflucan), miconazole (Monistat), metronidazole (Flagyl), trimethoprim/sulfamethoxazole (Bactrim/Septa)
CYP2C19	Ticlopidine (Ticlid), fluvoxamine (Luvox), fluoxetine (Prozac)
CYP2D6	Ritonavir (Norvir),* sertraline (Zoloft), fluoxetine (Prozac), paroxetine (Paxil), quinidine, thioridazine (Mellaril), cimetidine (Tagamet), amiodarone (Cordarone), diphenhydramine (Benadryl), haloperidol (Haldol), ticlopidine (Ticlid)
CYP2E1	Cimetidine (Tagamet), isoniazid (INH), watercress

\* the only PI with CYP2D6 inhibitory activity

Table 27-4: Common Substrates of 3A4 and 2D6 Isoenzymes

3A4 Substrates	2D6 Substrates
Benzodiazepines	Beta blockers
Cisapride (Propulsid)	Tricyclic antidepressants
Macrolides	SSRIs
Methadone	Haloperidol
Risperidone	Lovastatin (Mevacor)
Quinidine	Simvastatin (Zocor)
Sildenafil (Viagra)	Atorvastatin (Lipitor)
	Cerivastatin (Baycol)
	Fluvastatin (Lescol)
	Pravastatin (Pravachol)

### Dosage Adjustments for the SSRIs

As a class, the SSRIs have varying inhibitory effects on CYP450 isoenzymes, with far-reaching implications. Most of the research is still ongoing and interactions reported between an individual SSRI and the P450 system may differ from one source to the other. Fluoxetine (Prozac, Serafem) and its metabolite appear to inhibit CYP2D6 and CYP3A4, while paroxetine inhibits CYP2D6. Fluvoxamine (Luvox) inhibits all of the major isoenzymes and possibly also CYP2C9; as a result of this, it appears to have the greatest propensity for drug-drug interactions theoretically and most probably clinically, as well. Despite its potent inhibition of the cytochrome P450 CYP2D6 isoenzyme, paroxetine (Paxil) may be regarded as the least problematic with regard to interaction potential from a clinical standpoint in comparison to fluoxetine (Prozac) or fluvoxamine (Luvox).<sup>7</sup>

The SSRIs have a wide therapeutic window, without the danger of overdosing that exists with the TCAs. Nonetheless, as a general rule with the SSRIs and TCAs, doses are started low and built up gradually; initial doses should be decreased 50% to 66% and then increased gradually until the desired response is obtained.<sup>8</sup>

SSRIs and nefazodone have been reported to increase serum levels of protease inhibitors, particularly through inhibition of CYP3A4; the clinical significance of this interaction needs further clarification. Before starting ritonavir, doses of most neuroleptics should be decreased and such patients monitored closely; this is in anticipation of ritonavir-induced CYP inhibition that may increase levels of such neuroleptics. The other protease inhibitors—indinavir, nelfinavir, saquinavir and amprenavir as well as the NNRTIs efavirenz, nevirapine and delavirdine—have much fewer effects on psychotropic drugs but may also inhibit CYP3A4 isoenzymes.

Pimozide (Orap) and triazolam (Halcion) are contraindicated with the protease inhibitors.<sup>1</sup>

All SSRIs can cause additive serotonergic effects when combined with MAO inhibitors, selegiline, sibutramine, tryptophan, sumatriptan, nefazodone, venlafaxine, fenfluramine, dexfenfluramine, tramadol and St. John's wort.<sup>4</sup>



CYP2D6 inhibition by SSRIs when coadministered with opiate drugs such as codeine and hydrocodone results in lack of conversion to active form and a significant decrease in narcotic efficacy, and should be avoided.<sup>4</sup>

As a general rule, two underlying mechanisms cause clinically significant drug interactions among these groups. One involves the alteration of the hepatic metabolism of some psychotropic agents, leading to an increase or decrease of their therapeutic effect or causing an increase in their adverse effects. The other involves psychotropic agents that increase the adverse effects or limit the efficacy of protease inhibitors. Most of the currently available, newer antidepressant agents are substrates for cytochrome P450 enzyme system isoenzymes.

Substrates can simply be described as substances that are amenable to the action of enzymes in this cytochrome P450 enzyme system of the liver. A drug or chemical substance can have any one of three relationships to the CYP450 enzyme system; it can be a substrate, an inducer, or an inhibitor. Inhibitors of the CYP system are medications or chemical substances, including herbal remedies, which may cause a decrease in the volume of enzymes produced by this system reducing the metabolism of such drugs and thereby increasing their levels.

This is the basis for the use of ritonavir as a PI enhancer in dual protease regimens. The SSRIs, for instance, and nefazodone are inhibitors of many CYP450 isoenzymes. When such agents are administered concomitantly with other agents—such as the PIs, the NNRTIs, or other nonantiretroviral agents which may also be substrates, inducers or inhibitors of these enzymes—drug accumulation can occur, leading to potentially dangerous and sometimes unpredictable toxicities. Inhibitors of the CYP450 enzymes such as the azole antifungals, namely ketoconazole, itraconazole and to a much lesser extent fluconazole (hence making it the most desirable in HIV disease) and erythromycin will cause a decrease in the clearance of such drugs as citalopram (Celexa), terfenadine, midazolam (Versed), and triazolam (Halcion) (specifically mentioned in the February 2001 DHHS Guidelines for Treatment of HIV in Adults and Adolescents), leading to cardiac arrhythmias and sudden and unexplained deaths.

Table 27-5: Results of Drug Interaction Studies in the Presence of Ritonavir, the Most Potent CYP450-Modifying Protease Inhibitor

Co-administered Drug	Results
Terfenadine (Seldane)	Increased risk of cardiotoxicity.
Bupropion (Wellbutrin)	Increased risk of bupropion toxicity including seizures. Avoid concomitant use.
Clozapine (Clozaril)	Increased risk of clozapine toxicity including agranulocytosis. ECG changes and seizures.
Desipramine (Norpramin)	145% increase in desipramine AUC, no dosage adjustment needed, monitor more closely.
Benzodiazepines	Increased risk of prolonged sedation and respiratory depression.
Zolpidem (Ambien)	Increased risk of prolonged sedation and respiratory depression.
Ethinyl estradiol (oral contraceptives)	40% decrease in ethinyl estradiol AUC, no change adjustment is needed, alternative and additional contraception advised.
Meperidine (Demerol)	Increased risk of meperidine toxicity, including CNS side effects, seizures and cardiac arrhythmias.
Nevirapine (Viramune)	Efficacy of ritonavir may be decreased.
Cisapride (Propulsid)	Increased risk of <i>torsades des pointes</i> cardiotoxicity. Drug has recently been removed from the market because of this.
Rifabutin (Mycobutin)	Ritonavir increases the risk of rifabutin-induced hematological toxicity by decreasing its metabolism. Rifabutin, a potent inducer of CYP enzymes, hastens metabolism of ritonavir and by so doing decreases its efficacy.
Didanosine (Videx)	Ritonavir causes a 13% decrease in the AUC of didanosine, however no dosage adjustments are needed.
Piroxicam (Feldene)	Increased risk of piroxicam toxicity.
Saquinavir (Fortovase, Invirase)	Twenty- to thirty-fold increase in saquinavir AUC. Used to boost levels of saquinavir, reduce dosing frequency and reduce pill burden.
Sulfamethoxazole (Bactrim)	20% decrease in sulfamethoxazole (Bactrim) AUC may lead to a decrease in allergic reactions especially rash and hematological side effects. Patient must maintain good fluid intake and be monitored more closely.
Clarithromycin (Biaxin)	77% increase in clarithromycin AUC. No dosage reduction is needed for patients with normal renal function. For patients with clearance 30-60ml/min, decrease dose by 50%; for patients with clearance <30ml/min, decrease dose by 75%.
Astemizole	Increased risk of astemizole toxicity.

Table 27-6a: Medications Known to Prolong QTC Interval

<b>Antiarrhythmics</b>	Quinidine, procainamide, disopyramide, amiodarone, sotalol, bretylium, dofetilide, bepridil
<b>Antibiotics and Antiviral Agents</b>	Erythromycin, quinine, chloroquine, moxifloxacin, sparfloxacin, gatifloxacin, and amantadine
<b>Psychotropics</b>	Tricyclic antidepressants, citalopram, chloral hydrate, lithium, pimozide, thioridazine, droperidol, ziprasidone

Table 27-6b: Clinical Monitoring for Drugs That May Prolong QTC

### Tips for Counseling Patients

- Immediately report tachycardia, lightheadedness, palpitations, vomiting or diarrhea.
- Avoid use of street drugs, substances of abuse, or excessive use of alcohol. Notify psychiatrist before taking any prescription or over-the-counter drugs.
- Baseline and periodic screening should be done for serum potassium (K<sup>+</sup>), serum magnesium (Mg<sup>+</sup>), and electrocardiogram (ECG).

## Interactions between HAART Drugs and Other Drugs Used by Patients with Advancing HIV Disease

Clinicians should become familiar with these interactions of clinical significance between antiretroviral drugs and ancillary drugs needed to manage the many complications of advancing HIV disease. Providers should avoid drug combinations likely to result in potentially serious interactions. Table 27-5 provides a detailed list of the drug interaction studies in the presence of ritonavir, the most potent CYP-modifying protease inhibitor, while Tables 27-6a and 27-6b offer clinical monitoring highlights and counseling tips for patients using drugs that may prolong the QTC interval.

## Drug Interactions Involving Amprenavir (Agenerase) and Vitamin E

One capsule of amprenavir (Agenerase) contains 109 international units (IUs) of vitamin E. The daily dose of eight capsules of amprenavir, taken twice daily which adds up to 1,200 IUs, has been established as the minimum toxic dose (MTD); this is the smallest dose that has been found to be harmful when taken over a period of time. The manufacturer, Glaxo-Wellcome, notes in the package insert that people taking amprenavir should not take any extra vitamin E. High doses of vitamin E can create problems because vitamin E is a blood thinner and so can cause problems with other blood thinners such as warfarin (Coumadin), vitamin K or clotting factors. One woman on long-term warfarin experienced intracranial bleeding less than a week after starting amprenavir. People taking low-dose aspirin daily to prevent heart attacks as well as people on herbal blood thinners like ginger, garlic, feverfew, ginseng and ginkgo biloba should also be careful with the extra vitamin E in amprenavir. Symptoms of vitamin E toxicity (which is ordinarily rare) include spontaneous nosebleeds, cuts that will not stop bleeding and bruises acquired easily.<sup>9</sup>

## Effects of Concomitant Medications on QTC Prolongation

*Torsades des pointes* is a serious form of cardiac arrhythmias which has been associated with reports of sudden death within the last several years. Like many other drugs, several of the medications reported to cause *torsades des pointes* are metabolized by CYP3A, a specific member of the cytochrome P450 enzyme system responsible for a larger percentage of these degradation reactions. Tables 27-6a and 27-6b (above) offer clinical monitoring parameters as well as baseline counseling tips for patients receiving such drugs.

Table 27-7 highlights HIV-related drugs with overlapping toxicities. Table 27-8 lists some of the most significant drug interactions with agents used in the treatment of *Pneumocystis carinii* pneumonia,<sup>10</sup> the most common opportunistic infection at the point of AIDS diagnosis for most patients with HIV disease.

Table 27-7: HIV-related Drugs with Overlapping Toxicities\*

<b>Drugs that cause bone marrow suppression</b>	Cidofovir Cancer chemotherapy Dapsone Flucytosine Ganciclovir Hydroxyurea Interferon- $\alpha$ Pentamidine Pyrimethamine Ribavirin Sulfadiazine Trimethoprim-sulfamethoxazole (high doses) Trimetrexate (high doses) Zidovadine
<b>Drugs that cause nephrotoxicity</b>	Adefovir ( now removed from clinical trials) Aminoglycosides Amphotericin Foscarnet Indinavir Pentamidine
<b>Drugs that cause pancreatitis</b>	Cotrimoxazole** Didanosine Ethanol Lamivudine (in children) Pentamidine Valproic acid
<b>Drugs that cause hepatotoxicity</b>	Delavirdine Efavirenz Fluconazole Isoniazid

Table 27-7: HIV-related Drugs with Overlapping Toxicities\* (continued)

<b>Drugs that cause hepatotoxicity</b> continued	Ketoconazole Nevirapine NNRTIs PIs Rifabutin Rifampin
<b>Drugs that cause rash with or without pruritis</b>	Amprenavir Abacavir Cotrimoxazole Dapsone NNRTIs
<b>Drugs that cause diarrhea</b>	Clindamycin Didanosine Lopinavir/ritonavir Nelfinavir Ritonavir Saquinvir
<b>Drugs that cause ocular toxicity</b>	Cidofovir Ethambutol Isoniazid (optic neuritis and optic atrophy) Lamivudine (uveitis in children) Rifabutin
<b>Drugs to avoid in patients with peripheral neuropathy</b>	<b><u>Single-ingredient Drugs</u></b> Didanosine Nitrofurantoin (oral) Nitrofurantoin macrocrystal (oral) Nitrofurantoin sodium injection Stavudine Zalcitabine <b><u>Multiple-ingredient Drugs</u></b> Didanosine/calcium carbonate/magnesium salt (oral) Didanosine/magnesium salt/sodium citrate (oral) Nitrofurantoin/hexylresorcinols/cetrimonium (oral) Nitrofurantoin/nitrofurantoin macrocrystal (oral) Nitrofurantoin/pyridoxine HCL (oral) Nitrofurantoin/tetracaine (oral) Sulfadiazine/nitrofurantoin (oral) Sulfadiazine/nitrofurantoin/phenazopyridine (oral) Sulfamethizole/nitrofurantoin (oral)

\* Concomitant administration of agents not recommended; if unavoidable, close clinical monitoring suggested.

\*\* Cotrimoxazole causes a 40% increase in the plasma concentrations of lamivudine and so may increase lamivudine toxicity such as headaches, myalgia and neutropenia. Monitor closely upon concomitant use.

Table 27-8: Drug Interactions with Anti-PCP Agents

Drug	Major Adverse Reactions	Interactions
<b>Atavoquone</b>	Transaminase elevation Rash Fever	Increases levels of zidovudine
<b>Dapsone</b>	Rash Nausea/vomiting Anemia Methemoglobinemia Neutropenia Thrombocytopenia Transaminase elevation	Increases levels of trimethoprim and dapsone, which may increase both the pharmacologic and toxic effects of both drugs. Rifampin increases metabolism of dapsone while didanosine decreases absorption of dapsone and may lead to failure of dapsone prophylaxis. Avoid.
<b>Pentamidine</b>	Nephrotoxicity Hyperglycemia Transaminase elevation Hyperkalemia Neutropenia Thrombocytopenia Pancreatitis Potentially life-threatening ventricular arrhythmias	Foscarnet: increased risk of nephrotoxicity, severe hypoglycemia and hypocalcemia. Avoid drugs that cause or exacerbate pancreatitis, such as didanosine.
<b>Primaquine</b>	Hemolysis (especially in G6PD-deficiency) Fever Rash Methemoglobinemia Transaminase elevation	
<b>Clindamycin</b>	Diarrhea Nausea/vomiting Pseudomembranous colitis Rash Fever Transaminase elevation	Opiates and diphenoxylate may worsen diarrhea. Kaolin-pectin antidiarrheals decrease absorption of clindamycin. Patient needs close monitoring.
<b>Trimethoprim-sulfamethoxazole</b>	<u>Skin</u> Erythema multiforme (Stevens-Johnson syndrome, rare) Generalized skin eruptions Epidermal necrolysis Exfoliative dermatitis Photosensitivity Urticaria Pruritus <u>Other</u> Nausea/vomiting Transaminase elevation Neutropenia Thrombocytopenia Fever	Increased prothrombin time for patients on warfarin. Increases levels of dapsone and half-life of phenytoin due to protein binding.

Source: Adapted from multiple sources, primarily *Pharmacist's Drug Handbook 2001*. Bethesda, MD: American Society of Health Systems Pharmacists, 2001.

## Selected Enzyme Inducers of the CYP System

Table 27-2 lists agents that are inducers of the CYP system, which are discussed here in greater detail.

It should be noted that ritonavir is both an inducer and inhibitor of the CYP system; it is presently one of the most potent inhibitors known; it also induces CYP1A2, the enzyme system responsible for the metabolism of theophylline and caffeine. Other notable inducers of this system are rifampin, rifabutin, phenytoin, phenobarbital, carbamazepine, nelfinavir, indinavir, efavirenz and nevirapine. Both ritonavir and nevirapine are autoinducers which means that they will induce enzymes that hasten their own metabolism as well. As a result of this, manufacturers of these agents suggest that treatment be initiated with doses that are slowly escalated within the first two weeks of treatment (always consult the manufacturers' most recent package inserts for additional information, updated drug-drug interactions listings and other drug information).

## Selected Enzyme Inhibitors of the CYP System

Table 27-3 lists agents that are inhibitors of the CYP system, which are discussed here in greater detail.

As a potent inhibitor of CYP3A both *in vitro* and *in vivo*, ritonavir significantly increases the area under the curve (or, serum concentrations) of drugs that are eliminated primarily through this enzyme system, especially the other protease inhibitors such as saquinavir, indinavir, amprenavir and lopinavir. These increases range from 77% to twenty-fold in humans and constitute the basis for the boosted PI regimens that have been shown to increase plasma levels and in many instances are able to improve efficacy of salvage regimens in advancing disease.

Administering reduced dosages of both PIs reduces pill burden and improves tolerability, while food and hydration requirements as well as the incidence of crystalluria due to indinavir are significantly reduced. By the same mechanism, enzyme inhibition causes levels of drugs such as clarithromycin, ketoconazole and rifabutin to be greatly increased, leading to unexpected toxicities and adverse events; concomitant administration of these agents should therefore be avoided.

## Other Ritonavir Drug-Drug Interactions of Clinical Significance

Since ritonavir is also an inducer of several other metabolizing enzymes such as CYP1A4, glucuronyl transferase and possibly CYP2C9 and CYP2C19, the magnitude of ritonavir interactions is difficult to predict especially for drugs metabolized by multiple enzyme systems or drugs that have a low intrinsic clearance by CYP3A, such as methadone. Enzyme induction, first recognized in the 1940s, occurs when hepatic blood flow is increased or the synthesis of more CYP450 enzymes is stimulated. In early animal models of enzyme induction, phenobarbital was found to increase liver weight in a dose-dependent manner. Liver biopsies in human patients taking anticonvulsants on a chronic basis showed up to a 52% increase in liver size. Enzyme induction is influenced by age and liver disease. As a general rule, subjects older than 60 years of age tend to have decreased capacity for enzyme induction, as shown by reports of differential induction of drug metabolism in such elderly, compared to younger subjects, following exposure to polycyclic aromatic hydrocarbons in cigarette smoke.<sup>3</sup>

## OTHER DRUG INTERACTIONS

### Drug Interactions with Herbal Products

Use of herbal remedies, multiple vitamins, and mineral and dietary supplements is extremely common among all patient populations surveyed. In one U.S. survey of adults who regularly take prescription medications, 18.4% reported concurrent use of at least one herbal product or high dose vitamin. In another study, 61.5% of patients who used conventional therapies did not disclose use of other remedies to their health care provider.<sup>11</sup>

Anecdotal experience from questions asked of people with HIV at our busy outpatient clinic suggests that the use of such remedies is reasonably high among this population, particularly as patients advance in their illness and shift into palliative care. In a survey of 515 users of herbal remedies in the U.K., 26% of patients would consult their general practitioner for a serious adverse reaction associated with a conventional over-the-counter medicine, but not for a similar reaction from an herbal remedy. It seems that most patients still do not quite regard herbal remedies as medications.

Another reason patients may not disclose their use of herbal remedies, even if the remedies cause severe adverse effects, is that patients are afraid of censure.<sup>12</sup> Health providers must therefore ask patients about their use of herbs in a relaxed manner that is nonjudgmental; it has been shown in several studies that disapproval will ensure that patients conceal any such use in the future. Such patients should be involved in a partnership in which providers share whatever information is available about the herbal product, including the lack of information on drug interactions and the need for open communication on both sides about the use of all such remedies. All such formulations, the reasons for their use, dosages, brand and manufacturer should be documented in patient charts and updated from time to time.

### Interactions with St. John's Wort

This commonly used, over-the-counter antidepressant herbal product induces cytochrome P450 3A enzymes and as a result has been shown in several studies to decrease significantly levels of all of the protease inhibitors and, most probably also, the NNRTIs currently available in the market. In one study, indinavir trough levels decreased 81% when concomitantly given with St. John's wort.<sup>13</sup> The DHHS guidelines of February 2002 recommend that St. John's wort not be taken by patients on PI antiretroviral medications.<sup>1</sup>

An increased risk of serotonin syndrome has also been reported in patients who mix St. John's wort with certain SSRIs, namely trazodone (Desyrel), paroxetine (Paxil), sertraline (Zoloft) and nefazodone (Serzone).<sup>4,14</sup>

Reports also have been made of decreased serum concentrations of drugs such as digoxin, theophylline, cyclosporine and phenprocoumon when combined with St. John's wort.<sup>11</sup> At the present time, many reports of herb-drug interactions are sketchy and lack proper pharmacokinetic studies to substantiate them; nonetheless, health care providers should counsel patients on the need always to form a partnership in the use of these remedies and if possible to avoid unnecessary herbal and unproven remedies that can lead to undesirable drug-herb interactions.



## Significant Induction Interactions: Cigarette Smoking, Benzodiazepines, Rifampin and Narcotic Analgesics

Similar to theophylline, the inducing effects of smoking are associated with decreased drowsiness in patients taking diazepam and chlordiazepoxide. In a comprehensive in-hospital drug surveillance program comparing 2274 nonsmokers, light smokers and heavy smokers receiving benzodiazepines, smokers generally required larger doses of benzodiazepines to achieve a sedative and/or anxiolytic effect.<sup>15</sup>

Rifampin is one of the most powerful inducers of the cytochrome P450 enzyme system and can impair the efficacy of some benzodiazepines based on this activity. When co-administered with rifampin to ten healthy volunteers in a double-blind cross-over study, the AUC of midazolam was decreased 96% while the hypnotic effects were nonexistent in all ten subjects. Similar studies with triazolam and rifampin gave similar results, with markedly decreased effects of triazolam in the presence of rifampin based on standardized psychomotor tests.

It is also well known that rifampin, like benzodiazepines, increases the rate of metabolism of many opioids and may induce withdrawal symptoms in patients.<sup>16</sup>

## Drug Interactions of Clinical Significance Involving Warfarin

The anticoagulant effects of warfarin, as measured by increases in prothrombin time, have been reported to be increased two-fold by the presence of fluconazole (Diflucan) and three-fold by ketoconazole (Nizoral). Clearances of both isomers of warfarin were reduced even by doses of fluconazole as low as 100mg/day for seven days.<sup>17</sup>

Numerous other reports tend to substantiate the effects of erythromycin in enhancing the hypoprothrombinemic effects of warfarin when given in combination. Two-fold increases in prothrombin time were reported after seven days but there have been few reports of bleeding complications. The clinical relevance of this interaction depends on a number of factors such as age of patient, concurrent drug therapy, rate of clearance of warfarin and ability to transfer drug metabolism to other non-inhibited pathways. This interaction has not been observed with azithromycin; as with erythromycin, caution is advised with clarithromycin therapy in this setting.

Omeprazole, another drug commonly used by patients for palliative care, has been shown to inhibit the metabolism for warfarin, an interaction that is most likely mediated by CYP3A4. This interaction is usually observed after several days of taking omeprazole, is dose-related, and may not necessarily abate upon discontinuation of the agent. Lansoprazole (Prevacid) appears not to have this interaction and offers a comparable alternative treatment.<sup>18</sup>

As a general rule, patients with clotting disorders, those awaiting surgical procedures, and those on anticoagulant therapy should be cautioned against the use of herbs such as garlic, papaya, ginseng (*Panax* species), Devil's claw (*Harpagophytum procumbens*), Danshen (*Salvia miltiorhiza*), ginkgo (*Ginkgo biloba*), Don quai (*Angelica sinensis*).<sup>11</sup> Where patients insist on continuing with these medications along with their herbal remedies, their bleeding times should be more closely monitored. Since most of these herbs interfere with platelet aggregation, not the coagulation cascade, they will neither affect prothrombin time, partial thromboplastin (PTT) nor the international normalized ration (INR). It is also worthy to note that since many herbal substances contain anticoagulant substances, patients on warfarin should as a precautionary measure, have their INRs measured within seven days of starting any herbal remedy.

## Drug Interactions of Clinical Significance Involving HMG-CoA Reductase Inhibitors (Statins)

Recent medical and lay literature has raised a number of concerns regarding adverse events with the HMG-CoA group of cholesterol-lowering agents, culminating in the removal of at least one product, cerivastatin (Baycol), from the U.S. market following reports of rhabdomyolysis (destruction of skeletal muscle, leading to renal failure) and myopathy. Clinically significant drug interactions occur with the statins when these agents, all of which are substrates to the CYP450 enzyme system and so are amenable to the action of these enzymes, are combined with other drugs that cause muscle damage or drugs that interact to give rise to increased statin plasma levels resulting from inhibition of statin metabolism.

Numerous interactions between statins metabolized by CYP3A and several CYP3A inhibitors, including the protease inhibitors, the azole antifungals, grapefruit juice, and kaolin/pectin (especially lovastatin) have been reported.<sup>4</sup> DHHS guidelines specifically suggest avoiding combinations of protease inhibitors and simvastatin (Zocor) and lovastatin (Mevacor), with fluvastatin (Lescol) and atorvastatin (Lipitor) as alternatives that must be used with caution.<sup>1</sup> Fibrates such as gemfibrozil may cause myopathy when used alone and also in combination with most of the statins, with the exception of fluvastatin (Lescol). An increased incidence of myopathy has been reported when niacin is combined with lovastatin but not with fluvastatin, pravastatin or simvastatin.<sup>10</sup>

Despite the increased risk of adverse events, providers are sometimes compelled to continue statin therapy in order to ward off serious cardiovascular sequelae. In such circumstances, patients should be counseled to report immediately any signs or symptoms of myopathy such as muscle pain, calf tenderness or muscle weakness.

## Significant Induction Interactions: Estrogens and Corticosteroids

Estrogens and corticosteroids are substrates to the cytochrome P450 enzyme system, hence remain susceptible to the action of these enzymes and can be changed or metabolized by them or by substances that act as inducers or inhibitors on CYP450 enzymes. Protease inhibitors such as nelfinavir or ritonavir, which can act both as inducers and inhibitors of the CYP450 enzyme system, have been shown to increase the degradation of ethinyl estradiol, a major component of oral contraceptive pills.<sup>20</sup> Women with HIV taking these PIs should receive additional or alternative contraceptive methods in order to ensure full protection.

As a result of the recent decreases in the estrogen and progestin concentrations of oral contraceptives, reports of unintended pregnancies and episodes of breakthrough bleeding seem to be on the rise.<sup>16</sup> Reports of clinically significant drug interactions secondary to enzyme induction have implicated phenobarbital, phenytoin, carbamazepine, ethosuximide, primidone and rifampin.<sup>21,22,23,24</sup> Such reports have not been made for gabapentin, lamotrigine, topiramate and valproate. When such interactions are suspected, a higher dose oral contraceptive containing 50 mg ethinyl estradiol, medroxyprogesterone or a non-hormonal alternative method of contraception is usually recommended.

Corticosteroids, which often remain the mainstay of management of diseases that occur in palliative care of advanced HIV infection, have their clearances increased in a similar fashion to the estrogens by the same agents, when administered concomitantly. Patients receiving steroids for chronic diseases should be monitored for exacerbation of symptoms in these situations and the necessary dosage adjustments made.<sup>24</sup>

## DRUG INTERACTIONS BETWEEN ILLICIT DRUGS AND ANTIRETROVIRAL AGENTS

■ Interactions between drugs of abuse and other treatment modalities that may be offered in palliative care, including antiretroviral agents, occur against a background of related events and conditions that vary by individual patient. Though patients differ, most patients with long-standing substance use will suffer from comorbid conditions that will significantly affect their response to the therapies offered to them at all stages of their HIV disease. It is well established that the abuse of psychoactive substances not only causes a significant number of accidents, but often is associated with other medical problems and comorbid conditions as shown in Table 27-9.<sup>25</sup> For example, excessive alcohol intake places a patient at risk for various adverse events and conditions including peripheral neuropathy and pancreatitis, cirrhosis, malignancies and psychiatric disorders. Any of these events and conditions can exacerbate the occurrence as well as the severity of drug-drug and drug-disease interactions, especially as HIV disease advances and patients begin to receive palliative care.

Table 27-9: Comorbid Conditions Associated with Substance Abuse

- Poor nutrition/wasting
- Liver disease
- Endocarditis
- Tuberculosis
- Cutaneous abscesses
- Pneumonia
- Slowed mentation and cognitive dysfunction
- HIV/STDs
- Cellulitis and septic emboli
- Hepatitis (A,B, C, D and G)

Source: Adapted from Anderson JR, ed. *A Guide to the Clinical Care of Women with HIV*. Rockville, MD: U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), 2001.

### Most Commonly Used Illicit Substances and Their Interaction with Antiretroviral Agents

Recent reports in the literature have brought more attention to the life-threatening interactions, including deaths, that occurred when protease inhibitors were combined with illicit drugs such as ecstasy (MDMA) and GHB (gamma hydroxy butyrate).<sup>26</sup>

Although PIs have dramatically improved the prognosis for many people living with HIV, PIs are associated with numerous adverse effects including increases in serum glucose, triglycerides, lipodystrophy, hepatitis, nephrolithiasis and a large variety of GI side effects.<sup>27</sup> In addition to the drug interactions previously discussed, protease inhibitors can cause serious adverse reactions and interactions when administered in combination with other substances, including illicit drugs, whose metabolism may be altered as a result of the inhibitory effects of the PIs on the cytochrome P450 enzyme system.

Illicit substances most commonly abused include cocaine, marijuana, methamphetamine, ecstasy (MDMA, or methylenedioxyamphetamine), heroin, methadone, ketamine, crystal and GHB (gamma hydroxy butyrate). As a result of the myriad side effects that can follow use of these substances (see Table 27-10), combining any of these substances with PIs especially increases the likelihood of an overdose due to one of these agents, particularly ecstasy.

Cocaine has been reported to increase the speed at which HIV replicates, while combination of the protease inhibitors with marijuana increases levels of tetrahydrocannabinoids in the blood. Because combination of methamphetamine with ritonavir (Norvir) causes an increase in the potency of ritonavir, two-fold or three-fold, the likelihood of overdose with methamphetamine is increased. Concomitant use of ketamine in the presence of the protease inhibitors causes hepatitis. Ritonavir decreases plasma levels of heroin by 50%.

The potency of methadone is decreased in the presence of ritonavir, indinavir (Crixivan) and nevirapine (Viramune), while methadone increases the potency of ritonavir by 50%. Nevirapine was demonstrated to reduce plasma methadone levels and to precipitate opiate withdrawal in patients who were maintained on methadone for narcotics addiction.<sup>28</sup> More recent studies have reported decreases in the amount of stavudine (Zerit) and didanosine (Videx) absorbed from the digestive tract into the bloodstream in the presence of methadone. Table 27-10 provides highlights of the side effects that may be exacerbated by the use of ecstasy (MDMA), a powerful street drug recently associated with fatal drug interactions when administered concomitantly with ritonavir.<sup>29</sup>

**Table 27-10: Side Effects of Ecstasy (MDMA) That May Be Exacerbated When Used with Conventional Drugs with Similar Side Effects**

- Bradycardia
- Decreased libido
- Drowsiness
- Dysphoria
- Euphoria
- Faintness
- Headache
- Insomnia
- Nausea and vomiting
- Pruritus
- Rash
- Respiratory depression
- Physical and psychological dependence
- Urinary retention
- Visual disturbances

Sources: Adapted from multiple sources, mainly Pham JV, Puzantian T. Ecstasy: Dangers and controversies. *Pharmacotherapy* 21:1561-5, 2001.

## Drug Interactions between Opioid Analgesics and Protease Inhibitor Antiretroviral Agents

Since most opiates are substrates of the CYP450 enzyme system, when they are co-administered with cytochrome P450 enzyme inhibitors such as the protease inhibitors erythromycin and clarithromycin, marked increases in serum levels can occur. Patients should be monitored for over-sedation and initial dosages should be decreased by 50%. Patients abusing opiate drugs are at risk of toxicity if they concomitantly take these agents, and should be counseled appropriately.<sup>30</sup> Table 27-11 lists metabolic pathways of frequently abused drugs potentially affected by co-administration with the protease inhibitors.<sup>26</sup>

Table 27-11: Metabolic Pathways of Frequently Abused Drugs Potentially Affected by HIV-1 Protease Inhibitors

<b>Drug</b>	<b>Metabolic Pathway (P450 Isoenzyme)</b>
<b>Opiates</b>	
Methadone, alfentanil, fentanyl	Cytochrome P450 (CYP3A4)
Meperidine	Cytochrome P450 (CYP3A4?)
Codeine, hydrocodone, oxycodone	Cytochrome P450 (CYP2D6)
Heroin, morphine, hydromorphone	Glucuronidation?
Propoxyphene (Darvon)	Cytochrome P450 (CYP2D6)
<b>Benzodiazepines</b>	
Diazepam (Valium)	Cytochrome P450 (CYP3A4, CYP2C19)
Alprazolam, clorazepate, estazolam, flurazepam, midazolam, triazolam	Cytochrome P450 (CYP3A4)
<b>Other drugs prone to abuse</b>	
Marijuana, dronabinol, zolpidem	Cytochrome P450 (CYP3A4)
Sildenafil (Viagra)*	Cytochrome P450 (CYP3A4)
Cocaine**	Hydrolysis by plasma cholinesterase

\* AUC of sildenafil (Viagra) is increased twofold to elevenfold in the presence of all protease inhibitors; patients should not exceed 25mg in a 48-hour period.

\*\* Cocaine increases the speed at which HIV-1 virus replicates and so worsens overall prognosis by abolishing gains made by antiretroviral therapy. Metabolism of cocaine should not be affected by protease inhibitors.

Source: Adapted from Harrington RD, Woodward JA, Hooton TM, Horn JR. Life-threatening interactions between HIV-1 protease inhibitors and the illicit drugs MDMA and  $\gamma$ -hydroxybutyrate. *Arch Intern Med* 139:2221-4, 1999.

## CONCLUSION

■ Table 27-12 offers an extensive and exhaustive listing of potential drug-drug interactions involving medications that may be applied therapeutically to various organ systems during palliative as well as early care of HIV disease.

Table 27-13 presents a list of red-flag medications that should be discussed in counseling patients before prescribing. With the increasing complexity of HIV therapy, the potential for drug interactions for patients in both active and palliative care is exceedingly high. Health care providers must be committed to constantly monitoring their patients and applying strategies to minimize and/or circumvent harmful drug-drug interactions.

With more than 30 new medications approved by the FDA each year for use in our therapeutic armamentarium, the recognition and management of drug interactions has become an ongoing challenge. While some pharmacokinetic and pharmacodynamic interactions can be favorable and clinically useful, many have the potential to be detrimental or to even lead to life-threatening toxicities and/or therapeutic failures. Providers must, therefore, become familiar with the fundamental issues involved in drug-drug interactions, especially with the red-flag medications—usually the drugs in the patient's regimen that are enzyme inducers or inhibitors, have a narrow therapeutic index, or have specific absorption requirements—as well as with other medications that require close patient monitoring and avoidance of certain groups of drugs.

It is equally important that patients become active partners in their own care. Patients must understand that many potential drug-drug interactions can be circumvented, as long as providers are made aware of all the medications and herbal remedies a patient is taking. Providers may want to photocopy Table 27-14, Advice to Patients: Red Flag Medications, for discussion with patients receiving active and/or palliative care therapies for HIV disease.

Table 27-12: Summary of Significant Drug-Drug Interactions in Palliative Care of HIV Disease

Disease States and Medications	Protease Inhibitors		
	Ritonavir (Norvir)	Indinavir (Crixivan)	Nelfinavir (Viracept)
<b>CARDIOVASCULAR</b>			
Beta Blockers	↑ plasma conc. of metoprolol & timolol		↓ plasma conc. of these drugs
Antiarrhythmics	↑ plasma conc. of amiodarone & quinidine  Serious arrhythmias with propafenone  ↑ plasma conc. of ecainide, mexilente, flecainide, & systemic lidocaine	↑ plasma conc. of amiodarone & quinidine	↑ plasma conc. of amiodarone & quinidine
Ca <sup>++</sup> Channel Blockers	↑ plasma conc. of nifedipine (Significant ↑ over all Ca <sup>++</sup> Channel Blockers)		↑ plasma conc. of nifedipine  ↓ plasma conc. of felodipine
Antihyperlipidemics	Significant ↑ in levels of simvastatin & lovastatin	Significant ↑ in levels of simvastatin & lovastatin	Significant ↑ in levels of simvastatin & lovastatin
<b>GASTROINTESTINAL</b>			
Cisapride	↑ in plasma conc. ∴ results in serious or life-threatening arrhythmias (No longer on market)	↑ in plasma conc. ∴ results in serious or life-threatening arrhythmias (No longer on market)	↑ in plasma conc. ∴ results in serious or life-threatening arrhythmias (No longer on market)
<b>RESPIRATORY</b>			
Astemizole and terfenadine	↑ in plasma conc. ∴ results in serious or life-threatening arrhythmias	↑ in plasma conc. ∴ results in serious or life-threatening arrhythmias	↑ in plasma conc. ∴ results in serious or life-threatening arrhythmias
Theophylline	↓ in plasma conc. of theophylline		

Table 27-12: Summary of Significant Drug-Drug Interactions  
in Palliative Care of HIV Disease (continued)

Disease States and Medications	Protease Inhibitors		
	Ritonavir (Norvir)	Indinavir (Crixivan)	Nelfinavir (Viracept)
<b>CENTRAL NERVOUS SYSTEM</b>			
Antipsychotics	↑ plasma conc. of pimozide		
Antidepressants	↑ plasma conc. of bupropion, nefazodone, SSRIs, & tricyclics		
Benzodiazepines	<p>↑ plasma conc. of diazepam &amp; flurazepam</p> <p>↑↓ metabolism of alprazolam</p> <p>Extreme sedation &amp; respiratory depression with clorazepate, estazolam &amp; zolpidem</p> <p>Prolong sedation of midazolam &amp; triazolam due to narrow therapeutic index</p>	Prolong sedation of midazolam & triazolam due to narrow therapeutic index	
<b>ANTIPILEPTIC AND NEUROLEPTIC AGENTS</b>			
Carbamazepine, phenytoin, & phenobarbital*	↓ plasma conc. of these drugs and monitor blood levels to assure therapeutic goals		↓ plasma conc. of phenytoin & phenobarbital ∴ results in an ineffectiveness of the drugs
Clozapine	↑ plasma conc. ∴ results in serious toxicities such as respiratory depression, or tachycardia		
Divalproex and lamotrigine	↓ plasma conc. of these drugs		



Table 27-12: Summary of Significant Drug-Drug Interactions  
in Palliative Care of HIV Disease (continued)

Disease States and Medications	Protease Inhibitors		
	Ritonavir (Norvir)	Indinavir (Crixivan)	Nelfinavir (Viracept)
Clonazepam, perphenazine, risperidone, and thioridazine	↑ plasma conc. of these drugs		
*Inducers such as phenytoin, phenobarbital, and carbamazepines can cause a reduction in plasma conc. of PIs			
<b>ANALGESICS</b>			
NSAIDs	↑ plasma conc. of Piroxicam		
Opiates	↑ plasma conc. of meperidine, propoxyphene, fentanyl, & tramadol ∴ ↓ dose		
Ergotamines	↑ in plasma conc. ∴ results in serious or life-threatening arrhythmias	↑ in plasma conc. ∴ results in serious or life-threatening arrhythmias	↑ in plasma conc. ∴ results in serious or life-threatening arrhythmias
Methadone	↑ plasma conc. due to a ↓ in its metabolism  ↓ plasma conc. due to displacement from PPB and ↑ in its metabolism	↑ plasma conc. due to a ↓ in its metabolism	↑ plasma conc. due to a ↓ in its metabolism
<b>OTHER MEDICATIONS</b>			
Rifampin and rifabutin	Rifampin ↓ plasma conc. of PIs	Significantly ↑ the plasma conc. of rifabutin	Significantly ↑ the plasma conc. of rifabutin
	Significantly ↑ the plasma conc. of rifabutin	↓ clearance of rifabutin	↓ clearance of rifabutin
	Rifampin ↓ plasma conc. of PIs	Rifampin ↓ plasma conc. of PIs	
Ketoconazole and itraconazole	↑ plasma conc. of PIs	↑ plasma conc. of PIs	↑ plasma conc. of PIs

Table 27-12: Summary of Significant Drug-Drug Interactions  
in Palliative Care of HIV Disease (continued)

Disease States and Medications	Protease Inhibitors		
	Ritonavir (Norvir)	Indinavir (Crixivan)	Nelfinavir (Viracept)
<b>Antabuse</b>	Causes an intense flushing & abdominal pain due to alcohol in ART  Causes an antabuse-like effect with metronidazole when given with alcohol		
<b>Oral Contraceptives</b>	↓ plasma conc. of ethinyl estradiol	↓ plasma conc. of ethinyl estradiol	
<b>Sildenafil (Viagra)</b>	Significantly ↑ plasma conc. of drug due to a ↓ in its clearance ∴ results in ↑ effects	Significantly ↑ plasma conc. of drug due to a ↓ in its clearance ∴ results in ↑ effects	Significantly ↑ plasma conc. of drug due to a ↓ in its clearance ∴ results in ↑ effects
<b>HERBAL REMEDIES</b>			
<b>St. John's Wort*</b>		↓ plasma conc. of PIs by more than 50%	
<b>Garlic</b>	Causes severe gastrointestinal toxicity		
*This herbal product with PIs will increase the risk of viral resistance.			
<b>ILLEGAL DRUGS</b>			
<b>Ecstasy</b>	Slows down the liver enzymes that break down the drug ∴ becomes 5-10 times stronger  Most dangerous interaction		
	Avoid in patients with family or personal history of depression or anxiety disorders because the drug damages the serotonin neurons.		
<b>Marijuana</b>	Protease inhibitors increase the levels of THC (active ingredient) ∴ smaller doses may have a greater effect		

Table 27-12: Summary of Significant Drug-Drug Interactions  
in Palliative Care of HIV Disease (continued)

Disease States and Medications	Protease Inhibitors		
	Ritonavir (Norvir)	Indinavir (Crixivan)	Nelfinavir (Viracept)
Heroin	↓ plasma conc. of by 50% ∴ ↓ risk of overdose		
Ketamine (Special K)	Causes “chemical hepatitis”		
Amphetamines	↑ levels in the blood by 20%-30%  Strengthens or weakens the effects of ritalin		
LSD	No known interactions	No known interactions	No known interactions
Cocaine	Doubles the speed at which the virus reproduces ∴ increases progression of the disease		
Disease States and Medications	Protease Inhibitors		
	Agenerase (Amprenavir)	Saquinavir (Fortovase)	
<b>CARDIOVASCULAR</b>			
Antiarrhythmias	↑ plasma conc. of amiodarone & quinidine  ↑ plasma conc. of lidocaine		
Ca <sup>++</sup> Channel Blockers	↑ plasma conc. of nifedipine (Significant ↑ over all Ca <sup>++</sup> Channel Blockers)		
Anthyperlipidemics	Significant ↑ in levels of simvastatin & lovastatin		
<b>GASTROINTESTINAL</b>			
Cisapride	↑ in plasma conc. ∴ results in serious or life-threatening arrhythmias (No longer on market)	↑ in plasma conc. ∴ results in serious or life-threatening arrhythmias (No longer on market)	
<b>RESPIRATORY</b>			
Astemizole and terfenadine	↑ in plasma conc. ∴ results in serious or life-threatening arrhythmias	↑ in plasma conc. ∴ results in serious or life-threatening arrhythmias	

Table 27-12: Summary of Significant Drug-Drug Interactions  
in Palliative Care of HIV Disease (continued)

Disease States and Medications	Protease Inhibitors	
	Agenerase (Amprenavir)	Saquinavir (Fortovase)
<b>CENTRAL NERVOUS SYSTEM</b>		
Antidepressants	↑ plasma conc. of tricyclics	
Benzodiazepines	↑ plasma conc. of alprazolam, diazepam, & flurazepam  Prolong sedation of midazolam & triazolam due to narrow therapeutic index	Prolong sedation of midazolam & triazolam due to narrow therapeutic index
*Inducers such as phenytoin, phenobarbital, and carbamazepines can cause a reduction in plasma conc. of PIs		
<b>ANALGESICS</b>		
Ergotamines	↑ in plasma conc. ∴ results in serious or life-threatening arrhythmias	↑ in plasma conc. ∴ results in serious or life-threatening arrhythmias
Methadone	↓ in its metabolism ∴ ↑ in plasma conc.	↓ in its metabolism ∴ ↑ in plasma conc.
<b>OTHER MEDICATIONS</b>		
Rifampin and rifabutin	Rifampin ↓ plasma conc. of PIs  Significantly ↑ the plasma conc. of rifabutin  ↓ clearance of rifabutin	Rifabutin significantly ↓ plasma conc. of PIs by 70%-80%
Ketoconazole and itraconazole	↑ plasma conc. of PIs	↑ plasma conc. of PIs.
Sildenafil (Viagra)	Significantly ↑ plasma conc. of drug due to a ↓ in its clearance ∴ results in ↑ effects	Sildenafil AUC ↑ two- to eleven-fold. Use a 25mg starting dose of sildenafil. <sup>1</sup>
<b>ILLEGAL DRUGS</b>		
Ecstasy	Avoid in patients with family or personal history of depression or anxiety disorders because the drug damages the serotonin neurons.	

Table 27-12: Summary of Significant Drug-Drug Interactions  
in Palliative Care of HIV Disease (continued)

Disease States and Medications	Protease Inhibitors	
	Agenerase (Amprenavir)	Saquinavir (Fortovase)
Marijuana	PIs increase the levels of THC (active ingredient) ∴ smaller doses may have a greater effect.	
LSD	No known interactions	No known interactions
Cocaine	Doubles the speed at which the virus reproduces ∴ increases the progression of the disease	

Disease States and Medications	Non-nucleoside Reverse Transcriptase Inhibitors		
	Delavirdine (Rescriptor)	Efavirenz (Sustiva)	Nevirapine (Viramune)

**CARDIOVASCULAR**

Antiarrhythmias	↑ plasma conc. of amiodarone & quinidine		
Ca <sup>++</sup> Channel Blockers	↑ plasma conc. of nifedipine		
Anthyperlipidemics	Significant ↑ in levels of simvastatin & lovastatin		

**GASTROINTESTINAL**

Cisapride	↑ in plasma conc. ∴ results in serious or life-threatening arrhythmias (No longer on market)		
Antacids, Proton Pump Inhibitors and H <sub>2</sub> Antagonists	Cause an alteration in the pH of the stomach ∴ may delay or reduce the absorption of ART		

**RESPIRATORY**

Astemizole and terfenadine	↑ in plasma conc. ∴ results in serious or life-threatening arrhythmias		
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Table 27-12: Summary of Significant Drug-Drug Interactions  
in Palliative Care of HIV Disease (continued)

Disease States and Medications	Non-nucleoside Reverse Transcriptase Inhibitors		
	Delavirdine (Rescriptor)	Efavirenz (Sustiva)	Nevirapine (Viramune)
<b>CENTRAL NERVOUS SYSTEM</b>			
<b>Benzodiazepines</b>	Prolong sedation of midazolam & triazolam due to narrow therapeutic index	Prolong sedation of midazolam & triazolam due to narrow therapeutic index	
<b>Antiepileptic and Neuroleptic Agents</b>	↓ plasma conc. of phenytoin & phenobarbital ∴ results in ineffectiveness of the drugs		
<b>ANALGESICS</b>			
<b>Ergotamines</b>	↑ in plasma conc. ∴ results in serious or life-threatening arrhythmias  Can cause peripheral ischemia	↑ in plasma conc. ∴ results in serious or life-threatening arrhythmias	
<b>Methadone</b>		Causes a methadone withdrawal effect ∴ ↑ amt. of drug needed to get the desired effects	Causes a methadone withdrawal effect ∴ ↑ amt. of drug needed to get the desired effects
<b>OTHER MEDICATIONS</b>			
<b>Clarithromycin</b>		↓ plasma conc. of the drug	
<b>Rifampin and rifabutin</b>	Rifampin ↓ plasma conc. of ART  Significantly ↑ the plasma conc. of Rifabutin		
<b>Oral Contraceptives</b>		↑ plasma conc. of ethinyl estradiol by 37%	Causes a modest ↑ in the clearance of ethinyl estradiol

Table 27-12: Summary of Significant Drug-Drug Interactions  
in Palliative Care of HIV Disease (continued)

Disease States and Medications	Non-nucleoside Reverse Transcriptase Inhibitors		
	Delavirdine (Rescriptor)	Efavirenz (Sustiva)	Nevirapine (Viramune)
Sildenafil (Viagra)	Significantly ↑ plasma conc. of drug due to a ↓ in its clearance ∴ results in ↑ effects	Significantly ↑ plasma conc. of drug due to a ↓ in its clearance ∴ results in ↑ effects	Significantly ↑ plasma conc. of drug due to a ↓ in its clearance ∴ results in ↑ effects
Chemotherapy Agents	↑ risk for toxicity with etoposide & paclitaxel		
<b>ILLEGAL DRUGS</b>			
Ecstasy	Most dangerous effects due to the break down of the drug	Less dangerous effects	Less dangerous effects
	Avoid in patients with family or personal history of depression or anxiety disorders because the drug damages the serotonin neurons.		
Cocaine	Doubles the speed at which the virus reproduces ∴ increases the progression of the disease		
LSD	No known interactions	No known interactions	No known interactions
Disease States and Medications	Nucleoside Reverse Transcriptase Inhibitors		
	Zidovudine (Retrovir)	Didanosine (Videx)	Abacavir (Ziagen)
<b>GASTROINTESTINAL</b>			
Antacids, Proton Pump Inhibitors and H <sub>2</sub> Antagonists		↑ the absorption of ART	
<b>CENTRAL NERVOUS SYSTEM</b>			
Antipsychotics			↑ serum conc. of thiorazine & chloral hydrate

Table 27-12: Summary of Significant Drug-Drug Interactions  
in Palliative Care of HIV Disease (continued)

Disease States and Medications	Nucleoside Reverse Transcriptase Inhibitors		
	Zidovudine (Retrovir)	Didanosine (Videx)	Abacavir (Ziagen)
<b>ILLEGAL DRUGS</b>			
<b>Ecstasy</b>	Avoid in patients with family or personal history of depression or anxiety disorders because the drug damages the serotonin neurons.		
<b>Alcohol</b>		↑ risk of pancreatitis	
<b>Cocaine</b>	Avoid in patients with family or personal history of depression or anxiety disorders because the drug damages the serotonin neurons.		
<b>LSD</b>	No known interactions	No known interactions	No known interactions

Alternative Agents		
	Interactions	Alternatives
<b>Cardiovascular</b>	Simvastatin, lovastatin, cerivastatin, atorvastatin	Pravastatin, fluvastatin
<b>Gastrointestinal</b>	Cimetidine	Famotidine, ranitidine
<b>Respiratory</b>	Astemizole, terfenadine, cetirizine, nasal steroids	Loratidine, fexofenadine
<b>CNS</b>	Alprazolam, diazepam, flurazepam, midazolam, triazolam	Temazepam, lorazepam
<b>Analgesics</b>	Meperidine, propoxyphene, fentanyl, tramadol	Hydromorphone, codeine
<b>Antimycobacterial</b>	Clarithromycin	Azithromycin, ethambutol
<b>Oral Contraceptive</b>	Ethinyl estradiol	Ethinyl estradiol + condom



Table 27-13: Common Red Flag Medications Often Used in Palliative Care of HIV Disease

<b>CYP450 Enzyme Inhibitors</b>	
<b>Azole antifungals</b>	Fluconazole (Diflucan), ketoconazole (Nizoral), itraconazole (Sporonox)
<b>Macrolides</b>	Erythromycin, clarithromycin (Biaxin)
<b>HIV medications</b>	Ritonavir (Norvir), ritonavir + lopinavir (Kaletra), indinavir (Crixivan), nelfinavir (Viracept), saquinavir (Fortovase, Invirase), amprenavir (Agenerase), delavirdine (Rescriptor), efavirenz (Sustiva)
<b>Others</b>	Cimetidine (Tagamet), amiodarone (Cordarone)
<b>CYP450 Enzyme Inducers</b>	
<b>Anticonvulsants</b>	Phenobarbital, phenytoin (Dilantin), carbamazepine (Tegretol)
<b>Rifamycins</b>	Rifabutin (Mycobutin), rifampin (Rifadin, Rimactane)
<b>HIV medications</b>	Nelfinavir (Viracept), nevirapine (Viramune), ritonavir (Norvir), efavirenz (Sustiva)
<b>Drugs with Narrow Therapeutic Index</b>	
<b>Antiarrhythmics</b>	Flecainide (Tambocor), encainide (Enkaid), quinidine
<b>Ergot alkaloids</b>	Ergotamine tartrate (Cafergot, others)
<b>Others</b>	Digoxin (Lanoxin), oral contraceptives, theophylline, warfarin (Coumadin)
<b>Drugs with Specific Absorption Requirements</b>	
<b>Azole antifungals</b>	Itraconazole (Sporonox), ketoconazole (Nizoral)
<b>Fluoroquinolones</b>	Levofloxacin (Levaquin), ciprofloxacin (Cipro), enoxacin (Penetrex), moxifloxacin (Avelox), norfloxacin (Noroxin), ofloxacin (Floxin), trovafloxacin (Trovan)
<b>HIV medications</b>	Didanosine (Videx), ritonavir (Norvir), nelfinavir (Viracept), saquinavir (Fortovase, Invirase)
<b>Other medications</b>	MAO inhibitors, cyclosporine (Neoral, Sandimmune), alendronate (Fosamax)

Table 27-14: Advice to Patients: Red Flag Medications

- Inform all of your health providers (all physicians including your psychiatrist or substance abuse specialist, dentist, pharmacist) about all of the medications and complimentary, herbal or alternative remedies you are taking.

Always carry a standard list of these as you go for your clinic visits. Remember to mention to your providers any new or unusual dietary supplements, over-the-counter remedies, or vitamins you may be taking. When necessary, take a description of such products along with you on your provider visits or on refill visits to your pharmacy.

- Fill all of your prescriptions at the same pharmacy, as much as possible.

This way, your pharmacist has access to your entire medication profile. He or she will be better able to resolve any problems that may occur as new medications are added to your regimen or if you change your diet or lifestyle.

- Share ALL information about your health care regimen with your providers and pharmacist.

Be frank with your health care providers. Keep them informed of such actions as stopping a drug regimen on your own, taking medications from a friend, or using street drugs, even if you feel they may not approve. Significant drug interactions which can arise that can harm your therapy can probably be circumvented by your provider's knowledge and intervention.

- Whenever you anticipate changing your health care routine, be sure to check with your provider, especially if you are taking one of the *red flag* medications.

Ask your pharmacist if any of your medications belong to this red flag list. If so, always consult your provider or pharmacist before making any changes to your usual health routine, including your intake of vitamins, supplements, herbal remedies, and antacids. Though all of the red flag medications are highly efficacious, they are prone to significant drug-drug interactions and must be administered under close monitoring by an experienced provider. Consider wearing a "Medic-Alert" bracelet especially when taking drugs such as abacavir (Ziagen), in case of an emergency.

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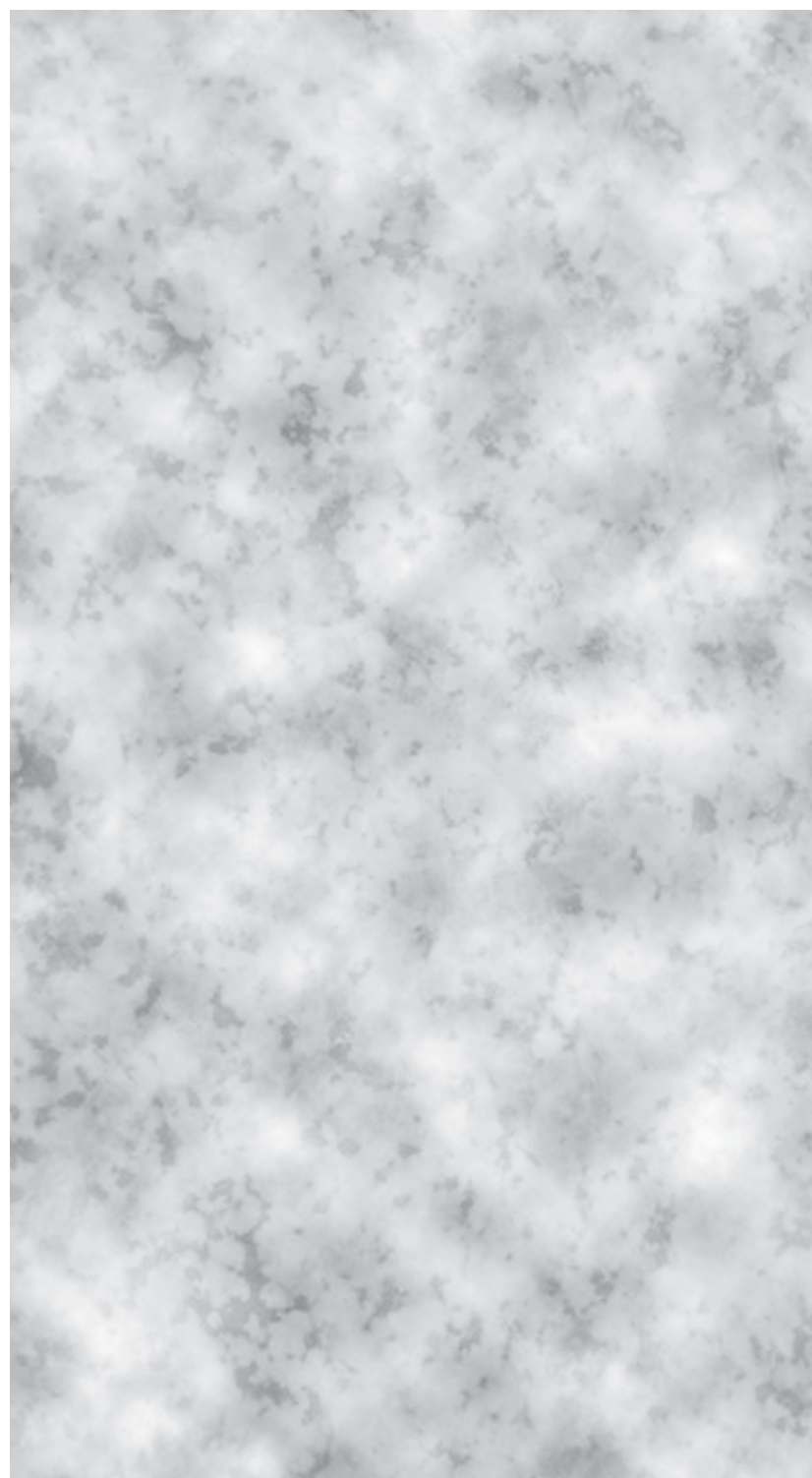
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