

## Abstracts of the Middle Eastern Cancer Consortium (MECC) Palliative Care Steering Committee Meeting Larnaca, January 8–10, 2010

### Palliative Care in Low-income and Middle-income Countries: The Need is Great, But the Services Are Few

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The need for palliative care in low-income and middle-income countries (LMICs) is immense. In round numbers, approximately 60 million deaths from all causes will occur worldwide this year.<sup>1</sup> Of all global deaths, approximately 80% will be in LMICs, and approximately 80% of these individuals would benefit from palliative care. The conclusion based on this “back-of-the-envelope” calculation is that nearly 40 million persons dying in LMICs are in need of palliative and end-of-life care each year. In contrast to this enormous need, palliative care services are severely limited and in many LMICs are simply nonexistent. The International Observatory on End of Life Care (IOELC) in Lancaster, UK has mapped palliative care development in the world.<sup>2</sup> IOELC developed a 4-part typology to describe palliative care services in a country that are: (1) no identified palliative care activity; (2) capacity building activity but no service; (3) localized palliative care provision; and (4) palliative care activities approaching integration with mainstream healthcare provision. Of the 204 countries evaluated by IOELC, only 35 (15% of countries) representing under 20% of the world’s population were placed in the best “approaching integration” Category 4.

The World Bank has 66 countries in their “high income” category (those having a gross national income per capita > \$11,905 per capita).<sup>3</sup> Although even high-income countries (HIC) were found in each of the IOELC palliative care categories, the distribution of LMICs was clearly skewed toward lesser provision of palliative care services. Of 144 of the World Bank’s LMICs, only 10 were categorized by IOELC’s as being in the “approaching integration” Category 4. IOELC placed 65 LMICs within the “no known activity” Category 1 and 34 additional LMICs within the “capacity building but no service” Category 2 (see Figure showing number of HICs and LMICs in each IOELC Category). The grim summary of this analysis is that 101 of 144 LMICs effectively lack palliative care services for their populations. In addition, China and India representing 20% and 17% of the world’s population, respectively, are both in IOELC Category 3 (“localized provision”). Although it is difficult to quantify palliative care services across these 2 very

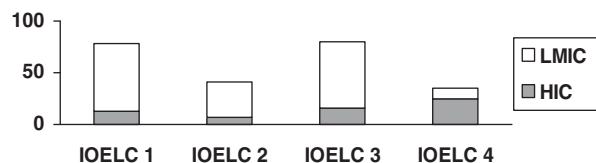
large countries, it is likely that significant portions of the Chinese and Indian populations also lack access to such services.

Of the total number of global deaths each year, approximately 60% are the result of chronic diseases, most prominently cardiovascular diseases, cancer, chronic respiratory diseases, and diabetes. An estimated 17.5 million people died from CVDs in 2005, representing about 30% of all global deaths. Of these deaths, over 7 million were owing to coronary heart disease. It is anticipated that cancer deaths will surpass deaths from coronary heart disease this year with about 8 million persons dying of cancer globally in 2010. By comparison, AIDS, tuberculosis, and malaria deaths, all combined will total just over 5 million.<sup>1</sup>

Although palliative care involves much more than management of physical pain, acute, and chronic pain represents a serious public health issue worldwide for example, it has been estimated that 80% of cancer patients and 50% of AIDS patients experience severe pain in the last months of life.<sup>4</sup> The magnitude of the inadequacy of pain management is not easy to assess across the countries of the world. One “barometer” of pain control activities is a country’s morphine consumption from mandatory annual reports to the United Nations’ International Narcotics Control Board. These data indicate that 7 HICs (Australia, Austria, Canada, France, Germany, UK, and US) comprising less than 10% of the world’s population consumed nearly 85% of the medical morphine consumed globally. In contrast, all LMICs comprising nearly 85% of the world’s population accounted for less than 10% of the global consumption of morphine. Launched by the International Union Against Cancer (UICC) in 2006 and revised in 2008, the *World Cancer Declaration* is a call to action to reduce substantially the global cancer burden by 2020. One of the goals of the *World Cancer Declaration* is “effective pain control measures will be available universally to all cancer patients in pain,” and UICC recently launched the *Global Access to Pain Relief Initiative* that aims to use UICC’s “voice,” networks, and resources to promote the case for universal access to adequate pain relief for cancer patients. UICC plans include engaging at the international level, including with relevant UN agencies, and stimulating action at a national level in key countries.<sup>5</sup>

The Pain & Policy Studies Group (PPSG) has been designated the World Health Organization Collaborating Center for Policy and Communications in Cancer Care since 1996.<sup>6</sup> PPSG has been involved with evaluation of legislation, policy analysis and development, demonstration projects, outcomes monitoring, education, and communications. PPSG participates in international and national meetings for health professionals and government officials, provides technical assistance to government and non-government organizations, and promotes better understanding of the principle of balance that should guide national narcotics control policy to ensure availability of opioid pain medications under adequate control to prevent abuse and diversion. PPSG develops methods, models, and resources to examine opioid availability trends, identify barriers to opioid availability in national laws, regulations and distribution systems, develop

**Countries in Each IOELC Category**



collaborative national projects to diagnose barriers and develop action plans to improve national policy, and monitor outcomes.

In 1996, a partnership known as the Middle East Cancer Consortium (MECC)<sup>7</sup> was formed, and MECC took on cancer registration as its first cooperative regional activity. Current MECC membership consists of Cyprus, Egypt, Israel, Jordan, Palestinian Authority, and Turkey. Of these, Israel and Cyprus are HICs according to the World Bank and the other MECC members are LMICs. MECC, in conjunction with the relevant ministries of health and with support from the US National Cancer Institute (NCI), has sought to establish population-based cancer registries where these were lacking and to enhance existing registries through training of staff and quality control exercises. MECC-supported population-based registries are intended to cover the entire populations of the government-controlled portion of Cyprus, and all of Israel, Jordan, West Bank, and Gaza. In the case of Egypt and Turkey, each of which has a population of more than 70 million, their MECC-supported registries cover districts around the cities of Tanta and Izmir, respectively. The MECC registries have developed cooperatively manuals of standards and practices to make data more comparable. A monograph has been published by NCI in which data from 4 of the MECC-supported registries were compared with US data from NCI's SEER program.<sup>8</sup> This monograph contains chapters on various cancer sites with suggestions for research linked to the region's cancer incidence data. Arguably, the most significant feature of cancer in most of the MECC jurisdictions is that of diagnoses at late stage when curative therapy is less efficacious. In such settings, palliative care becomes all the more critical. Accordingly, the MECC membership has taken on palliative care as a second cooperative regional project. A baseline situation analysis on palliative care services was commissioned by NCI and conducted by IOELC with its results published as an NCI monograph.<sup>9</sup> In most of the MECC jurisdictions, palliative care services are absent or severely inadequate. Of the 6 members of MECC, only Israel was placed in IOELC Category 4 indicative of palliative care services approaching integration.<sup>2</sup> Cyprus, Egypt, and Jordan were placed in IOELC Category 3, and Turkey and the Palestinian Authority were placed in IOELC Category 2. MECC with NCI support has sought to address this inadequacy through capacity-building training activities that include group workshops on specific relevant topics, workshops aimed at healthcare workers in a specific jurisdiction, and individual training activities.

It is clear that the capacity-building activities of MECC, although contributing to alleviating the shortage of healthcare workers adequately trained in palliative care, cannot meet the overwhelming needs that characterize the region. Moreover, MECC has limited geographic reach, and the issues that face the Middle East exist in LMICs around the world. What might be done now to address the worldwide issue of inadequate palliative care? First, governments need to recognize the need for palliative care and acknowledge the inadequacies of the current situation in their own country. The lack of opioid use in LMICs is not merely a problem of cost and supply. Barriers in each country to appropriate use of opioid analgesics must be understood and addressed. PPSG have been contributing effectively to this effort, but could expand the number of countries in which it works, were resources available. Second, the pool of healthcare workers with training in palliative care simply must be expanded. Of critical importance is the integration of the education and training of healthcare professionals in hospice and palliative care within their professional school curricula. This need was recognized for the US in 1994 when the NCI noted, "There are few formally structured programs for training in palliative patient care available in the United States" and issued a request for applications "To stimulate medical schools...to design methodologies for the education and training of health care professionals in hospice and palliative care." Nonetheless, even in the US, a minority of medical schools seem to require training in palliative care and evaluate students in their care of patients with advanced, incurable conditions.<sup>10</sup> Nursing training in palliative care in the US is also inadequate.<sup>11</sup> Although comparable assessments of professional school training in palliative care within LMICs are sparse, it would

not seem that the topic is covered even remotely in proportion to the need for palliative care in these venues.<sup>12</sup> Recognizing the importance of palliative care education and the advantages of distance learning, the Institute for Palliative Medicine in San Diego, CA, with support from NCI's Office of International Affairs, has launched a website through which healthcare professionals worldwide can access training resources in palliative care. It is hoped that this web portal [referred to as the *International Palliative Care Resource Center (IPCRC)*<sup>13</sup>] will contribute to the desperate need for additional capacity for palliative care service delivery and palliative care research in LMICs.

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#### Current Status of Cancer Pain Management in Middle Eastern Countries

Michael Silbermann, DMD, PhD. *Middle East Cancer Consortium*. To date, the management of cancer pain has not been incorporated into many areas of clinical practice in most Middle Eastern countries. The 3 main reasons for these facts are these:

1. Priorities in national health care systems
2. Governments' regulations concerning the use of potent opiate-based drugs
3. Lack of education and training in pain management

Among those treating patients for pain are 68% physicians, 16% nurses, 4% physiotherapists, and 12% basic scientists (pharmacologists). Of these, only 24% had formal training during their undergraduate studies on pain and its management, which by themselves, were not sufficient to deal with pain problems clinically.

At the postgraduate level, in 39% the training was associated with anesthesiology, 28% with general medicine, and 22% with training in nursing. Yet, in 78% of the countries, pain management is not a recognized medical specialty. In 82% of the countries, an official training program in pain management does not exist, and potential trainees prefer to have their training in a specialized pain center in their own country.

Currently, a wide range of professionals deal with pain: Anesthesiologists 82%, Neurosurgeons 73%, Oncologists 63%, Nurses 63%, Psychologists/Psychiatrists 50%, and Physiotherapists 54%. As in other parts of the world, acute pain management is taking place in hospitals of all kinds (University, General, Private), and the treatment is primarily aimed at adult patients. Only a third of them are pediatric patients. Whereas the availability of outpatient facilities is growing, specialist teams for acute pain management are less well developed, and their training is not sufficient.

Opioid drugs are essential in the management of moderate to acute cancer pain. Fentanyl (a synthetic opioid related to the phenylpiperidines; and as an analgesic it is estimated to be 80 times more potent than morphine) is readily available to most cancer centers. Methadone (a synthetic  $\mu$  agonist with pharmacologic properties qualitatively similar to morphine) less so. The percentage of patients receiving opioids is less than might be expected or hoped for. In the Middle East, the availability of oral opioids is greater for inpatients than for outpatients; and the permission to prescribe them is given primarily to Oncologists and pain clinicians. Other physicians are, for the most part, restricted in prescribing these drugs. The main reason for this situation relates to the fear of abuse or addiction, government regulations, and lack of training. Hence, the most powerful group of drugs for the relief of cancer pain – the opioids, is not freely available.

In summary, the main barriers to good pain management are lack of education, government health policies, and the fear of addiction. Further, one should add the issue of patient compliance.

Recommendations: To have better training and better access to drugs for pain relief, which seem to be the major barriers to good pain management.

1. In what could MECC be involved to improve this situation?
2. In promoting pain education programs in Medical and Nursing undergraduate studies. Teaching programs ought also to be incorporated in Psychology and Physiotherapy training.
3. In training pain problems in the trainees' own country and language.
4. As chronic pain is not less of a problem than acute pain, and is most seen at outpatient clinics, training of Family Physicians and General Physicians is of high priority.
5. In encouraging changes in regulations related to the availability of opioids.

(The statistical data brought forward in this abstract were retrieved from "Education and Training for Pain Management," Based on a Report by the International Association for the Study of Pain, Developing Countries Taskforce, November 2007.)

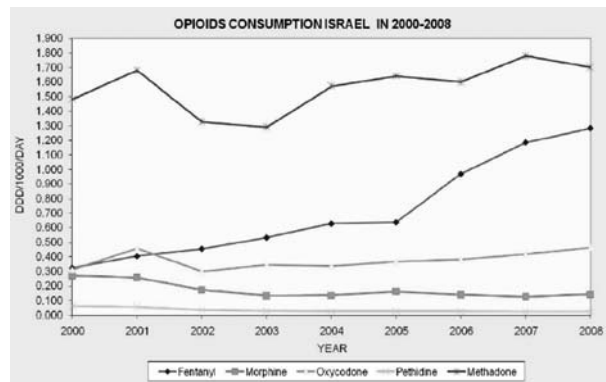
### Policies Governing Opioids in Israel

Batya Haran, and M. Phar. *Pharmaceutical Administration, Ministry of Health, Jerusalem, Israel.*

Other regulatory authorities, pain and oncology physician associations, community and hospital doctors, and the patients themselves, affect the policy governing opioids in Israel.

Cancer pain comprises of all pain modalities. Half of all patients with advanced cancer experience moderate-to-severe pain. Opioids have remained the mainstay of cancer pain therapy.

The registration process in Israel takes place after an assessment of the clinical, toxicologic, and qualitative data regarding the medicinal product. Professional, designated committees do the assessment; the committees determine the registration terms, such as narcotic prescription, maximum dosage etc. This procedure is



especially applicable for opioid medicines, used for the management of pain in cancer patients.

Israel is dedicated to the International Single Convention of Narcotic Drugs, 1961.

According to the annual importation records of Morphine, Phentanyl, Oxycodone, Metadone, we can see a clear increase in importation, as shown in the data illustrated below.

The prevalence of chronic pain is high.

Up to 80% of patients report chronic pain after surgery. Many patients do not receive adequate treatment; the best management is using a multimodal approach.

The WHO analgesic ladder, if implemented can be effective in 80% to 90% of patients.

Cancer patients in Israel receive the appropriate treatment and therefore, we can see the increase in opioids consumption.

### Opioid Consumption at King Hussein Cancer Center

Saad M. Jaddoua, BS, Pharm RPH. *Department of Pharmacy, King Hussein Cancer Center, Amman, Jordan.*

One of the core goals and mission of King Hussein Cancer Center Advanced Patients Care is minimizing our patients suffering from intolerable pain.

Several steps have been taken to achieve these goals including:

- Establish a palliative care service for inpatients and out patients.

- Launch anesthesia and pain management program.

- Increasing the number of staff including physicians, nurses, and pharmacists. Proficiently train and educate the medical staff.

- Assured drugs availability.

- Patient and family education and counseling.

As a result of these steps, the consumption of opioids and narcotics has been significantly soar, leading to expand for example in morphine quota from 8 kg in 2005 to 35 kg in 2009.

### Opioids Consumption at the National Cancer Institute, Cairo University, Egypt

Asmaa M. Farag, BPhSC, and Heba A El Shesheni, BCNSP. *Clinical Pharmacy Department.*

**Introduction:** The National Cancer Institute was established in 1969 as a part of Cairo University, Egypt to treat cancer patients from all over the country with the *mission* of proper control of cancer in Egypt through developing and maintaining integrated quality programs in patient care, research, education, and prevention.

The NCI mission could only be accomplished by building and maintaining governmental and public trust and support, together with national and international cooperation to reach the state of the art in application of health care. The NCI is committed to

the multidisciplinary approach in cancer management in which different treatment modalities cooperate rather than compete. Professional and public education is vital to solve the problem of late presentation of patients.

The NCI financial support comes from 3 equally shared partners: (i) governmental part through the health insurance (ii) Cairo University and (iii) public donations. The hospital contains almost all of the oncologic specialties, has the potential capacity of 570 beds with 5 outpatient clinics; Radiotherapy, Surgery, Medical Oncology, Pediatric Oncology, and Pain management.

The Pain Clinic serves 120 patients/day from both the outpatient and inpatient departments, with a schedule of 6 days a week (approximately 20 insurance patient and 100 free patients).

**Drug Consumption:** The annual budget of drugs at NCI is approximately 80 million Egyptian pounds (13 million \$). Opioid drugs consumption is approximately 3.8 million Egyptian pounds (65 thousand \$) 4.7% of the main budget.

**Opioid Dispensing at NCI:** Drug dispensing is under the direct supervision of the pharmaceutical inspection department of the ministry of health through legal stamped registers with serial numbers under the direct supervision of a senior registered pharmacist.

Registers are available at the main inventory and pain clinic, prescription of level II and III opioid is allowed only for anesthetists working at the pain clinic.

**Opioid Regulations:** Importation and distribution are under the control of the EGYPTIAN COMPANY OF DRUG TRADE (a governmental company) only.

**Opioid Availability:** These drugs are available at the pharmacy.

*Oral dosage form:* **Morphine sulphate** (MST10SR, 30SR, 60SR, Sevredol IR), **Hydromorphone** (Jurnesta), **Oxycodone** (Oxycontin), **Dihydrocodine** (DHC).

*Transdermal dosage form:* **Fentanyl** (Durgesc patches 25, 50, 75).

*Parenteral dosage form:* **Meperidine**(pethidine), **Fentanyl**, Morphine sulphate.

### Policies of Narcotic Drugs and Psychotropic Substances

Hanefi Ozbek, MD, PhD. *Pharmacy Department, Ministry of Health, Ankara, Turkey.*

Legislation in Turkey has started with "The Law on Annual Audit of Narcotic Drugs" Law Number 2313, dated 12.06.1933, and to harmonize internationally, Turkey is totally in compliance with single convention on narcotic drugs, 1961; United Nations (UN), convention on psychotropic substances, 1971; UN, UN's convention against the illicit traffic in narcotic drugs and psychotropic substances, 1988; UN. "Circular on Standardization of Foreign Trade of Narcotic Drugs and Psychotropic Substances" by Undersecretariat of Foreign Trade; Official Journal Number 2527097; last updated on 31.12.2008.

Work flow of import processes of the narcotic drugs and psychotropic substances are designed a step forward; initially the company which wants to import narcotic drugs or psychotropic substances applies to MOH. If the application is approved, the MOH prepares an "Import Permit Letter" and contacts the MOH of the country which gives the "Export Permit Letter" and cross-checks if the 2 letters conform and inform the Directorate General of Security. Finally, narcotic drugs or psychotropic substances will be imported through Turkish customs and companies will send the "Actual Import Report" to MOH to record the actual amount of goods into the company's stock files.

In the last 3 months, Turkish Ministry of Health has started a software project to collect every circulation data of Narcotic drugs in electronic means from the pharmaceutical companies and warehouses and soon the pharmacies will be included into the system.

By the new system, the companies and warehouses can apply for import and export permits, trace the result of their applications, send production, consumption, and stock data through internet

MOH that can trace every import, export, and domestic trade movement online and realtime.

By 2010, Turkish Ministry of Health will start Track and Trace System for Pharmaceuticals (first country in the world). A "Datamatrix" type 2 dimensional barcode label will be used as an identifier on every box. Tracing of drugs means, every item will be included in the pedigree. Established centralized system aims to trace every single item by receiving data from every single point. Tracing will be done by the Ministry of Health and the pedigree will be formed in a central database. The system will provide a full track and trace capability on narcotic drugs.

### Current Opioid Consumption at the Hotel-Dieu de France University Hospital Beirut

Hélène Rassi El-Khoury, PH, MBA/MHM\*†. *\*Clinical Pharmacist-Hotel-Dieu de France University Hospital; and †Clinical Pharmacy, Faculty of Pharmacy, Saint Joseph University, Beirut, Lebanon.*

The presentation starts with a brief exhibition of the Hotel-Dieu de France university hospital and its oncology departments, followed by an overview of the actual Lebanese opioid regulation concerning import, access to drugs, and prescription issues.

The WHO 3-step ladder is the basis used in our hospital for pain management. Around 1000 adult patients and more than 200 pediatric patients are treated yearly.

Opioids remain an important corner stone in the treatment of cancer pain. In the majority of cases, effective analgesia is obtained using fairly straightforward algorithms.

Within hospitals and cancer care centers, the supply of opioids and other analgesics for supportive and palliative care is provided, but there is no direct reimbursement by any public or private insurance. Somehow, the price is included in the flat rate of stay.

In out-patient care, the Lebanese national social security covers all treatment including pain killers. In all other cases, patients must afford the treatment off-the-pocket.

Fentanyl patch is the drug of choice in out patients, but in Lebanon, it is only available in some pharmacies. Its high cost and the fact that patients have to pay for it, are the main limitations to its use. In addition, the under treatment is attributed to other barriers:

- Inadequate assessment of pain
- Inadequate knowledge about pain and its treatment
- Concerns about side effects of pain medications
- Negative attitudes of patients and physicians toward the use of drugs for the relief of pain
- Misinformation about opioid addiction and dependence.

Many presentations in scientific meetings tried to promote palliative care awareness in Lebanon. Thus, the need to develop a palliative care plan came into sight. Using an integrated interdisciplinary approach, this plan should mainly stress on these aspects:

- (1) Communication with patients and family members
- (2) Management of cancer complications
- (3) Evaluation and management of physical symptoms of cancer and its treatment
- (4) Evaluation and management of psychologic symptoms of cancer
- (5) Ethical issues in the management of cancer patients.

### Opioid Analgesics: Teaching, Availability, and Health Policy in the Palestinian Territories

Maysa H. Al-Nabulsi, MSc. *Pharmaceutical Technology, Lecturer, Faculty of Pharmacy, Al-Quds University, Jerusalem, Palestinian National Authority.*

**Palliative care** is still a confusing term in the Middle East. Despite the great efforts that are being done, more attention and care should be attracted toward the teaching process at the level of universities.

Al-Quds University is one of the leading Palestinian and Arabic universities in the region. It consists of a wide diversity of students ( $\approx 12,000$ ) from all around the Palestinian territories. Moreover, the Medical Health Assembly is constructed from all the faculties and departments in which teaching pharmacology and other related topics, is an obligatory requirement.

This presentation focuses on the way Opioids—the building blocks of palliative care—are being taught in the current curricula. A message to emphasize the fundamental importance of the way “Palliative care” as a topic is being dealt with. The future prospectus of concentration and modification forms the core point for development and consequently medical application of this type of care locally.

A short survey at one of the local hospitals in the west bank—Beit Jala hospital—pointed out the fact of the shortage of opioids and the lack of knowledge and experience concerning their therapeutic uses and application. Besides, the locally applied health policy reflects strict guidelines concerning handling, storage, and usage of opioids and other controlled drugs (also termed as dangerous drugs).

Emphasizing the essential need of opioids in cancer patients and eliminating the so called “Opiophobia” are of the major future plans to be implemented locally.

### Challenges and Obstacles Facing the Oncologist During Pain Management

Hany Abdel Rahman, MD. *National Cancer Institute, Cairo University, Egypt.*

**Introduction:** Children with cancer do not need to suffer unrelieved pain. Existing knowledge provides a basic approach for relieving cancer pain that can be implemented in developed and underdeveloped countries alike.

**Challenges and Obstacles Faced During Pain Management:** Obstacles facing the oncologist may be divided into 3 categories; they are either related to the patient, related to the treating physician, or related to the drug availability.

**Factors related to patient:** Many patients silently tolerate unrelieved pain, may be owing to fear of addiction, fear of protocol exclusion, or fear of loss of effectiveness (tolerance). They are usually afraid of social stigma, misperception that increased pain is an indicator of disease progression, and/or a new disease. They may have some misbeliefs such as the concept that treating the pain will unmask a more serious condition, or remaining in pain is a source of purification and/or a punishment from God. Finally, reluctance to report the pain or take medication caused by depression.

**Factors related to the treating physician are lack of knowledge about:** effective pain assessment, reassessment, documentation, principles of basic pharmacologic and nonpharmacologic pain management, different types of pain, guidelines for equianalgesic and range dosing, differences between addiction, tolerance, and physical dependence.

**Factors related to the drug availability:** are related to governmental restriction to the prescription and administration of level II and III opioid drugs, noncommercialization of some drugs, and the absence of pediatric dosages and formulations. In Egypt, as the palliative care subspecialty is not well developed, pain management is usually under the care of the Anesthesia department. A specialized pain clinic exists at the NCI, Cairo University since over 2 decades offering services to the outpatients and hospitalized cancer patients. Similar clinics exist in the private sector offering services to cancer and noncancer patients. Increasing awareness and number of physicians working in the field of palliative care and pain management is promising to overcome these obstacles.

### “Challenges and Obstacles Facing the Oncologist in Pain Management” My Personal Experience. The Cyprus Experience

Simon Malas, MD, MP, MMedRad (T), Dipl.Pall.Med. *Clinical Oncologist and Palliative Care Specialist, Head of the Limassol Oncology Center, Limassol, Cyprus.*

Pain means an unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage. It can be classified into nociceptive (visceral or somatic), neuropathic, mixed, or with undetermined pathophysiology and psychologically based. Careful evaluation is necessary to prevent inappropriate treatment and is primarily clinical and based on probability and pattern recognition.

Pain management is very important to assure that the needs of the patients who experience problems with pain are met. Because pain is multidimensional, it is helpful to think in terms of total pain, encompassing physical, psychologic, social, and spiritual aspects of suffering.

Treatment of pain may include the use of medications or application of other modalities and medical devices, such as, but not limited to, heat or cold massages, transcutaneous electrical nerve stimulation, acupuncture, neurolytic techniques such as radiofrequency coagulation and cryotherapy, modification of the pathologic process such as radiation therapy, hormone therapy, chemotherapy, surgery, modification of way of life, and environment, etc.

The World Health Organization (WHO) and other organizations have designated morphine and codeine as essential analgesics for the treatment of pain; (1) their safety and efficacy have been proven in many studies.

Morphine consumption has been used for several years as one general indicator of the availability of pain treatment in countries of the world. Looking at Morphine consumption in Cyprus from 1991 to 2007, there was a 5-fold increase (from 0.7 to 2.86 mg/capita). That was the result of the establishment of palliative care teams in Cyprus under nongovernmental organizations (The Cyprus Association of Cancer Patients and Friends (PASYKAF) and the Cyprus Anti-Cancer Society (CACS). Although the use of Morphine in Cyprus has increased, it remains well below the world and European average. Cyprus reported in 2007 a per capita consumption (2.86 mg/capita) significantly lower than the global average (5.98 mg/capita) and the European average of 12.37 mg/capita (2). So in that aspect we still have a long way to go.

There are a number of factors, to my knowledge, why pain is not treated appropriate in Cyprus. The healthcare providers, the health care system, the patients, and their families are the main obstacles to pain relief in cancer patients. Why is that? Why doctors and the other health care personal are reluctant or insufficiently relieve pain? The main reasons to my knowledge are these:

- Lack of education related to pain
- Lack of knowledge (ignorance) or understanding of pain physiology and management
- Inadequate knowledge of medications or other treatment options
- Lack of or inadequate pain assessment
- False judgment of patient
- Concerns about side effects
- Under treatment
- Little censure for inadequate attention to pain
- Concern about use of controlled substances
- Fear of addiction and tolerance
- Occasionally legal barriers-regulatory scrutiny
- Inadequate time
- Lack of the interdisciplinary team: Role of RN, MD, SW, Pharmacists etc

What are the obstacles from the health care system? These are probably:

- Confusion regarding drug safety
- Limited availability of multidisciplinary pain clinics
- Restrictive regulation of controlled substances
- Worsening problems of availability of opioids
- Significant limits on numbers of pills by reimbursement pharmacies
- Restrictive limits and disparities
- Time constraints

The patient and family members have occasionally:

- Reluctance to report pain
- Reluctance to take pain medications
- Poor adherence with the prescribed analgesic regimen
- Concerns about addiction/tolerance/side effects
- Lack of knowledge regarding use of pain medications
- Caregiver burden

The health care professionals in Cyprus dealing with pain control in cancer patients are mostly the Oncologists, a very limited number of Physicians with special training in Palliative Care, and the nurses of the 2 associations in Cyprus (PASYKAF, CACS). They have to fight on a daily basis against all the obstacles that I mentioned above.

In Cyprus there is no medical school, so all the doctors are being trained in different countries, mostly Europe. The syllabus of Palliative Care training is not the same in each country, so their experience regarding pain control in cancer patients differs substantially. If there was a medical school, the Oncology Society, or the 2 Palliative Care organizations could be able to make their contribution regarding this issue. We have organized over the last couple of years a number of conferences, seminars, etc. regarding Palliative Care and especially pain control but unfortunately the participation of the medical profession in Cyprus was very limited. Regarding the nurses things are looking more promising. The great majority of the nurses are being trained in Cyprus, and we already made a number of very important positive steps regarding their training and palliative care experience. We are educating nurses especially at the main local General hospitals, but in Cyprus the nurses can only advise and not prescribe analgesics.

The health care system in Cyprus came a long way regarding pain control. We have now a lot of different drugs for pain control than 15 years ago, although occasionally we experience a shortage of certain drugs. Recently we were out of stock of Fentanyl 25 mcg/h patches for a whole month. We are at the process of getting Methadone under strict regulations for a limited number of cancer patients (available in the country for prescription by psychiatrists in the management of opioid addiction).

And what about the patient and his/her family members? Is he/she so bad that you need to prescribe Morphine, doctor? This is one of the many fears that we have to face on a daily basis when Morphine is being prescribed. The patient, by not taking Morphine, is trying to show to the family that he/she is better even when he/she experiences excruciating pain. Occasionally family members are not giving analgesics especially Morphine to the patients as they fear from addiction, tolerance etc. and although the patient requests that. So it is tragic that despite the availability of straight forward and cost effective therapies, the management of Cancer pain remains still a subject to discuss. We need continuous education for everybody in the field, from medical professionals, to the health care system, the patients and their families, and many more. We need to fight more to overcome all these barriers for our patients because they deserve to live their life pain free.

### Challenges and Obstacles Facing the Oncologist in Pain Management

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The oncologist faces a variety of challenges during his practice including pain management. These barriers vary and include system barriers, provider barriers, and patient barriers.

System Barriers include the fact that pain management has a lower priority in the system compared with treating the cancer itself. A defect in the system in use includes the failure to routinely assess and properly document pain.

Provider Barriers Health care professionals often fail to routinely assess and document pain. They worry that health professionals often lack knowledge and skills to assess and manage pain effectively.

Health care professionals may have exaggerated concerns related to the side effects of opioids, especially about tolerance and addiction and Health under treating pain because of belief in common misconceptions and myths regarding pain. A very important aspect in pain management by the oncologist is the territorial conflict with other services, which may be concerned in pain management such as acute pain management services which lead to fragmentation and may affect continuity of care.

The oncologist faces other challenges owing to patient barriers to management of pain which include that the patient may consider that severe or chronic pain cannot be effectively controlled. Pain is always an evidence of disease progression and opioids are always addictive and a treatment of last resort. Patients may believe that it is more admirable or socially acceptable to ignore pain. Pain is an unavoidable result of aging or a disease and does not report symptoms of pain. Pain is a deserved punishment and sometimes patients may not report pain to the oncologist.

### The Challenges and Obstacles in Cancer Pain Management in Turkey

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The inadequate management of cancer pain is a serious problem in Turkey. Cancer pain frequently goes ineffectively treated owing to several different factors. There are mainly 3 levels of barriers to effective pain management: the barriers related to providers, the patients and families, and the health system.

#### Provider barriers to effective pain management include:

- Lack of awareness of patient's pain
- Inadequate training and education on the management of cancer pain
- Lack of time and resources to address pain
- A higher priority given to curing cancer
- Concern about legal or regulatory sanctions for overuse of opioids.

Medical education, not addressing palliative care, has a major impact on inadequate pain management. A great majority of the physicians and nurses are cure-oriented and there is lack of awareness of patient's pain. Most of them do not have adequate education, and training on pain management. Besides, there is lack of time and resources. Careful assessment and understanding of pain requires time in the clinic. However, this is not always possible in the busy clinics in which there is limited time for each patient. The number of health professionals is not enough even to meet the need for curative anticancer treatment. Very limited number of hospital beds is another major barrier to manage severe pain. In Turkey, opioids can only be prescribed using a special type of prescription, the so called "red prescription." Although all physicians are entitled to prescribe this type of medication, and it is a legal requirement for them to keep red prescription available, most of them do not keep it ready owing to concerns about legal or regulatory sanctions regarding opioids. Nonpharmacologic interventions for pain management are almost unavailable. Most of the health care workers turn a blind eye to these interventions.

**Patient and family barriers include:**

- Belief that pain is an inevitable part of dealing with cancer
- Belief that nothing can be done for cancer pain
- Failure to mention pain to providers
- Fear that mentioning pain will distract providers from cancer treatment
- Fear of addiction and dependence to painkillers
- Failure to access to the prescription of opioids
- The stigmatization regarding morphine and terminal illness
- Lack of adherence to treatment regimens

There is lack of public awareness regarding the fact that living and dying without pain is a human right. There is an assumption that pain is inevitable in the course of cancer. Patients only rarely express their pain unless it is specifically addressed by physicians or nurses. The time spared per patient is very short, so the patients and the care givers fear that mentioning pain will distract providers from cancer treatment. Although fear of addiction and dependence on part of both patients and providers may play a role in inadequate pain management, we have no studies looked into this important issue. The number of patients who directly refuse opioid analgesics is small. In clinical practice, patients usually agree to use morphine if the physicians inform the patient and the family about the rationale. However, family members often have more concern than the patients. Some patients or family members may show reluctance or poor compliance stem from the perception of morphine as a drug whose prescription marks the beginning of the road toward death. Patients may experience difficulty in getting an opioid prescription. Lack of adherence to treatment regimens is a serious problem for every kind of analgesic medicine.

**System barriers include:**

- A priority on curing cancer over caring for cancer patients
- Lack of palliative care organizations
- Regulatory barriers to effective pain management
- Lack of communication between specialists and primary care providers

The health care system has a priority on curing cancer over caring for cancer patients. Palliative care has still not been established. Most of the health professionals are even not aware of the recent definition of palliative care. Lack of palliative care organizations, particularly home care and hospices, is the most important barrier to adequate pain management.

Among the current barriers is the lack of a functioning drug supply system. Opioid analgesics cannot be found in all pharmacies even though it is legally required. Although nonopioid analgesics are available almost everywhere, only some of the opioid analgesics are available in limited quantities or places, or some are available but underused. The only minor opioid available in the market is tramadol. Codeine, in its pure form, is almost absent. It is only available in some analgesic combination formulas such as paracetamol + caffeine + codeine, which causes problems in dose adjustment. The injectable forms of morphine are still available more readily than the oral forms. The currently available parenteral opioids in the market are morphine, fentanyl, and sufentanyl. Immediate release oral morphine, which is the preferred first line major opioid, is not available in Turkey. Although sustained-release oral morphine was earlier available in the market, currently it is not. For economic reasons, health care professionals are encouraged by the industry to use more expensive drugs. There is no oral morphine, but oromucosal fentanyl is available in the market. Transdermal fentanyl is currently the drug of choice to manage cancer pain. The limitations regarding the maximum dose of opioid analgesics in a single red recipe is another obstacle. The lack of communication between oncology specialists and primary care providers plays an important role in inadequate pain management.

In conclusion, there is a serious pain treatment gap: it is the difference between what can be done, and what is done about cancer pain. Education and awareness of the need for adequate pain management are necessary first steps. The oncologists, oncology nurses, and pharmacists should be educated and legally empowered to prescribe, dispense, and administer opioid analgesics to patients in accordance with local needs. National standards to establish a palliative care program should be defined urgently. As a priority, we need staff including physicians, nurses, social workers, psychologists, physiotherapists, etc to be particularly trained to provide palliative care. Pain medication including opioids must be available in adequate amounts in both parenteral and oral forms, and in the places where patients are living. The government should designate a functional control mechanism for ensuring adequate availability of opioids for medical care. Governmental and institutional efforts to identify and address impediments in the health care and regulatory systems are needed.

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**Challenges and Obstacles for Pain Management in Cancer Patients**

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**Introduction**

For centuries, medical and surgical treatment has emphasized saving the life of the patient rather than ameliorating the patient's pain, particularly when there were few options for the latter.

Today at the dawn of the 21st century, the best available evidence indicates a major gap between an increasingly understanding of the pathophysiology of pain and widespread inadequacy of its treatment.

Epidemiologic evidence has proven that chronic pain is a widespread public health issue. A community-based survey found that 15% to 25% of adults suffer from chronic pain at any given time, a figure that increases to 50% in those older than 65 years.<sup>1</sup> Studies of cancer patients' pain control consistently reveal that up to half of patients receive inadequate analgesia and 30% do not receive appropriate drugs for their pain.<sup>2</sup> Equally, for patients suffering HIV/AIDS, 60% to 100% will experience pain at some stage in their illness.<sup>3</sup>

In the developed world, this gap has prompted a series of declarations and actions by national and international bodies advocating better pain control.

**Pain Relief in Cancer: The Size of the Problem**

Throughout the world, there are 10 million new cases of cancer and 6 million deaths annually from this noncommunicable disease. By 2020, that figure will double with approximately 70% occurring in developing countries reflecting better prevention strategies in the developed world<sup>4</sup> (Fig. 1).

Pain is prevalent among people who have cancer. Cancer patients may need pain relief at every stage of the disease. Estimates of the prevalence of cancer pain based on published studies range generally from 14% to 100% depending on the stage, severity, and site of cancer,<sup>5,6</sup> making pain management a topic of continuing interest. More than two-thirds of patients with advanced cancer will experience pain, often severe. For these patients who have late stage cancer, the management of pain and other symptoms should be part of their overall treatment and the primary aim of national cancer control programmes<sup>6</sup> (Fig. 2).

Management of cancer pain has made significant progress in recent years, owing to several guidelines suggested for cancer pain therapy.<sup>7</sup> Most patients with solid tumors encounter moderate to severe pain at some point during their illnesses.<sup>8</sup> Moreover, pain experiences in patient with cancer are often influenced with psychological stress associated with the disease.<sup>9</sup> An effective multidisciplinary approach to pain management is advocated in which the physicians need to work with other healthcare professionals.<sup>10,11</sup>



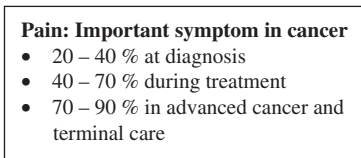


FIGURE 1. Pain and cancer.

**Inadequately Treated Pain and Its Consequences**

In patients with advanced cancer, pain is described as moderate to severe in approximately 40% to 50% and as very severe in 25% to 30%.<sup>12</sup> Of terminal stage patients, 80% will have no analgesics they need.

In separate large studies of cancer patients in France,<sup>13</sup> the United States,<sup>14</sup> and China,<sup>15</sup> the percentages of patients receiving inadequate analgesia were 51%, 42%, and 59%, respectively.

Insufficient pain management is a significant public health concern<sup>16</sup> and adequate relief depends on access to a variety of treatment options. A number of state medical boards have issued guidelines or policy statements regarding the medical use of controlled substances for treating pain (Fig. 3).

Pain negatively affects the quality of life of patients with cancer.<sup>17,18</sup> Therefore pain management is crucial to reduce patients' distress and increase productivity and functioning.<sup>19,20</sup>

A World Health Organization (WHO) study revealed that individuals who live with chronic pain are 4 times more likely to suffer from depression or anxiety than those without pain.<sup>17</sup>

Chronic pain is linked with a physical, psychological and social consequences, and can be regarded as a disease entity per se.<sup>16</sup> Physically, these responses include reduced mobility with loss of strength, disturbed sleep, immune impairment and increased susceptibility to disease, dependence on medication, and codependence with caregivers<sup>16-19</sup> (Fig. 4).

In addition, chronic pain incurs massive social and economic costs to society. Persons with chronic pain are more than twice as likely to have difficulty working.<sup>17,18</sup> A prevalence study in Australia revealed a strong association between chronic pain and being unemployed for health reasons and receiving disability benefits.<sup>20</sup>

**Barriers to Pain Management in Cancer**

The main barriers concerning adequate cancer pain management include physicians' knowledge and attitudes about opioids, patient reluctance to use opioids for pain relief, and lack of new interventions to improve patient's pain severity<sup>12</sup> (Fig. 5).

One of the reasons that healthcare providers may fail to manage pain appropriately is because they receive poor education in pain management. For example, physicians receive little education

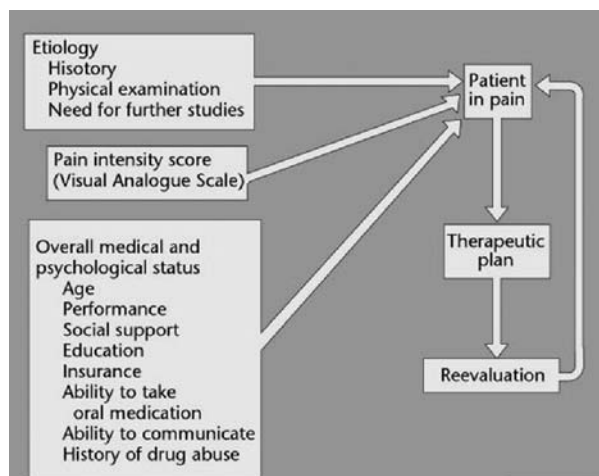


FIGURE 2. Management of cancer pain.

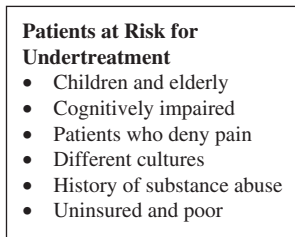


FIGURE 3. Undertreatment in cancer pain.

about pain management and opioids in medical school and remain ignorant about appropriate treatment choices after they are in practice. This has led pain advocates to seek legislative redress for this problem.

**Pain Relief Is a Human Right**

Pain is an international problem that requires an international solution. The Constitution of the WHO, as the supreme health agency of the UN, defines health as "a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity." One response to the worldwide undertreatment of pain has been to promote the concept that pain relief is a public health issue of such critical importance as to constitute an international imperative and fundamental human right.<sup>21,22</sup>

The high watermark of this advocacy was the inaugural "Global Day Against Pain" cosponsored by the "International Association for the Study of Pain" (IASP), the "European Federation of IASP Chapters" (EFIC) and WHO. It took place in October 2004 in Geneva, Switzerland, the theme of the day was "Pain Relief Should Be a Human Right." It states that patients have a right to pain management, and they give content to that right. Such content includes the patient's right to be believed in the expression of pain, the right to appropriate assessment and management of pain, the right to be cared for by health professionals with training and experience in assessment and management of pain.<sup>23</sup>

The importance of pain relief as the core of the medical ethic is clear. Pain clinicians promote the status of pain management beyond that of appropriate clinical practice or even an ethic of good medicine. They advocate a paradigm shift in the medical professions' perspective on pain management, from simply good practice to an imperative founded on patient rights.

An example from the Australian Capital Territory, where the Medical Treatment Act of 1994 states "a patient under the care of a health professional has a right to receive relief from pain and suffering to the maximum extent that is reasonable in the circumstances, and the health professional shall pay due regard to the patient's account of his or her level of pain and suffering".<sup>24</sup> Another example is a California statute that imposed 3 obligations. The first is a duty for doctors who refuse to prescribe opioids to a patient with severe chronic intractable pain to inform the patient that there are physicians who are specialize in the treatment of such

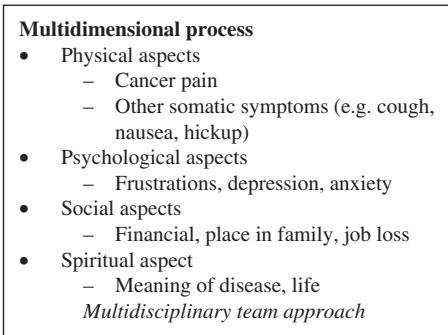


FIGURE 4. Dimension of suffering.



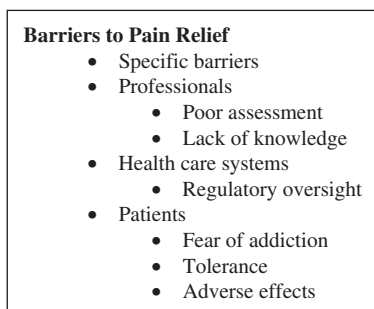


FIGURE 5. Barriers to pain relief.

pain. The second is a duty of all doctors to complete mandatory continuing education in pain management and the treatment of the terminally ill patients. The third is the requirement of the California Medical Board to develop a protocol for investigation of complaints concerning the undertreatment of pain.

These recent statutes in Australia and California are models for any future legislative activity, offering to professional or lay groups a powerful agenda to reform local statutes. The essential components of such legislation are<sup>23</sup>:

1. Reasonable pain management is a right.
2. Doctors have a duty to listen to and reasonably respond to a patient's report of pain.
3. Provision of necessary pain relief is immune from potential legal liability.
4. Doctors who are not able or willing to ensure adequate analgesia must refer to a colleague who has this expertise.
5. Pain management must be a compulsory component of continuing medical education.

#### Policy Statements on Pain

In the early 1990, the practice of pain management came under increased scrutiny. To foster continued improvement in pain management, the Agency for Health Care Policy and research (AHCPR) published clinical practice guidelines for the management of acute and cancer pain. Other organizations, including the International Association for the Study of Pain (IASP) and the American Society of Anesthesiologists (ASA), have also developed pain-related guidelines.<sup>25,26</sup>

The WHO Cancer Unit has led a global initiative in pain management. In 1986, a summary report *Cancer Pain Relief* was published, as result of a WHO Expert Panel on the Comprehensive Management of Cancer Pain. It emphasized analgesic drug therapy as the essential component of the treatment approach. The WHO "analgesic ladder" for cancer pain pharmacotherapy was a seminal contribution. This publication has had significant clinical and educational impact throughout the world for cancer pain relief.<sup>27</sup> By 1989, the WHO Expert Panel had reviewed and officially endorsed guidelines on teaching and training of healthcare professionals in cancer pain relief and extended the focus of the WHO program in cancer pain to include palliative care. It published a second monograph, *Cancer Pain Relief and Palliative Care*.

The WHO recommends that countries developing public health programs in cancer pain relief and palliative care establish 3 process measures to monitor and evaluate programs. First, develop national policies to assure patients access to cancer pain and palliative care treatment. Second, establish educational programs for healthcare professionals and the public, such as medical and nursing curricula and media coverage about pain management. Finally, ensure analgesic drug availability, including recommendations to governments on ways to facilitate opioid availability for severe cancer pain.<sup>28</sup> Also, the WHO has collaborated with international bodies, including the IASP and the International Narcotics Control Board (INCB) to promote both the deregulation of domestic regulatory practices that limit opioids availability for medical use, and strategies to lower the cost of opioids. An important development came in

2005, when the World Health Assembly, the highest governing body of the W H O, adopted a resolution asking WHO and the INCB to help countries to improve access to opioid analgesics.

The program recognizes obstacles to access to controlled medications. As a result, the Access to Controlled Medications Program addresses the broad range to appropriate use of controlled medications, including<sup>28</sup>:

- Improving access to effective treatment by reviewing legislation and administrative procedures.
- Educating healthcare professionals, law enforcement staff, and others regarding current best practices and scientific evidence.
- Developing normative clinical guidelines.
- Promoting a better understanding of international drug control treaties.
- Assisting governments to make realistic estimates of future needs for opioid analgesics and to compile reliable statistics on past consumption.
- Carrying out surveys on the accessibility, availability, affordability, and use of the medicines and substances involved.
- Helping to ensure an uninterrupted supply of controlled medications at affordable prices.

In the WHO strategy for cancer pain relief programs, availability of analgesics, including opioids, is a critical factor. Only 20 countries account for 86% of the morphine consumed in the world. The remaining 14% are consumed in approximately 100 other countries, which have the majority of the world's population.<sup>29</sup>

It has been well recognized by the International Health and Drug Regulatory Authorities that opioid analgesics are not sufficiently available for the treatment of cancer pain in many places throughout the world.

Barriers to opioid availability are numerous and vary from country to country. Some countries do not have the resources and healthcare infrastructure to produce and distribute medicines. Others have not given a high priority to the treatment of pain. In some countries, specific drug laws prohibit or restrict the availability and medical use of opioids. For each of these barriers, specific approaches need to be developed.<sup>29,30</sup>

The WHO Expert Panel had advocated that each country develop an action plan that defines existing barriers within the country to opioid availability and create an action plan to deal with these barriers. The International Narcotics Control Board, which regulates global production and distribution of opioids, has requested that all countries take steps to assure that opioids are available for pain management, particularly for cancer pain (INCB 1989).

#### Regulatory Control of Opioids

Despite of their documented effectiveness, opioids are often underused, a factor that has contributed significantly to the undertreatment of pain. Many factors or barriers contribute to inadequate treatment of pain; among these are physicians' fears of being investigated for prescribing opioids. A 1990 survey of oncologists studied the reasons for inadequate cancer pain management and found that 18% rated excessive regulation of analgesics as one of the top 4 barriers.<sup>31</sup>

A 1991 survey of Wisconsin physicians found that more than half would at least occasionally reduce dose, quantity or refills, or prescribe a drug in a lower schedule owing to fear of regulatory scrutiny. In that same year, 40% of surveyed physician members of the American Pain Society (APS) said that concerns about regulatory scrutiny, rather than medical reasons, led them to avoid prescribing opioids for chronic noncancer pain patients. A committee on pain management established in California (1994), that "because of fear of investigation or action by regulatory boards or law enforcement, healthcare professionals have often been unwilling to prescribe or dispense strong pain medications appropriately," and at New York State (1997) "practitioners may under prescribe pain medication due to fear of unwarranted legal consequences."<sup>31</sup>

The evidence that effective pain management may be compromised by laws, regulations, and policies has led to systematic efforts to reform drug prescription laws, and state medical board policies and practices that impede effective use of opioids to relieve pain and suffering.<sup>32-35</sup>

### Policy and Pain Management in Lebanon

In Lebanon, national health and political authorities should designate improving pain management as a key objective of public health policy. It is important that individuals experiencing pain receive the best possible care to relieve their suffering. It is imperative that organized efforts on the part of all pain care providers occur at the local and state level to improve our healthcare policy.<sup>36,37</sup>

Several barriers to the adequate management of pain have been identified at different level: at the national policy level, in the provision of healthcare, and among patients themselves. Barriers at the national policy level include restrictive laws and regulations limiting the medical use of narcotics, insufficient support for pain management programs by health authorities, nonrecognition of pain management activities by financing authorities,<sup>38</sup> and insufficient education of healthcare professionals.

Second, barriers in the provision of health services include the underassessment of patients' pain by health professionals, divergent perceptions of patients' needs among health professionals, and physicians' reluctance to use potent analgesics and overestimation of the effectiveness of prescribed treatments.<sup>39</sup> Finally, patients themselves may be reluctant to report pain or to take analgesic medications, particularly morphine. Patients actually expect to experience pain in some medical situations or consider that pain management is not a priority with respect to other components of care. Furthermore, patients may report satisfaction with the management of their pain, even as they declare they are suffering from severe pain, and although their analgesic prescriptions seem to be inadequate.<sup>40-42</sup>

Adoption of policies that make pain management an expectation for all physicians may make adequate relief more accessible to all people with pain. This will occur only when there are no other barriers in the healthcare system that will obstruct patient access to these important medications, such as the knowledge and attitudes of healthcare providers or restrictive reimbursement policies.

Positive policy, with no implementation of a professional training, has little chance of affecting healthcare practice.<sup>43,44</sup> So balanced state policy is insufficient by itself to enhance pain management, but it is a necessary component to achieve this important objective.<sup>45</sup>

Achieving the appropriate social and medical change that will make pain management a fundamental component of healthcare is the next great challenge in our country. Education is an important component of our medical system, but there is no systematic approach to teaching pain management at any level of training. The lack of appropriate integration of pain management into medical education should lead to recent legal and regulatory mandates to bring such education to medical students and physicians.<sup>18,37</sup> Unfortunately, we should be aware that these external mandates, too often result in fragmented approaches to pain education, with each specialty offering its own approach without integrating the multidisciplinary complexity of pain and its treatment into a comprehensive curriculum. In contrast, there is a need to update medical board members' knowledge about pain management and public policy.<sup>46</sup>

Appropriate education of the public may reduce patients' reluctance to express pain and to increase their demand for adequate pain management. Information and education of the general public may help to influence policy makers and should incite health institutions and professionals to improve pain management practices. It seems likely that increased awareness of pain management choices among the public will generate increased demand on health professionals to provide precise information and adequate care to address to each patient's needs.

Healthcare professionals need to engage regulators in dialog to eliminate regulatory barriers that govern the prescribing and dispensing of opioids in our country. They have a professional obligation to understand the appropriate role of opioids in pain control and follow accepted guidelines when prescribing, administering, and dispensing these drugs. They also have a professional obligation to assist regulators and law enforcement personnel in

identifying persons who may be involved in diverting opioids for nonmedical use.

Finally, reform will require an integrated approach to address the problem of undertreated pain at all levels<sup>23</sup>:

1. Education for health undergraduates and graduates, including adult health professionals.
2. Adoption of universal pain management standards by professional bodies.
3. Promotion of legislative reform;
4. Liberalization of national policies on opioid availability.
5. Provision of affordable opioids.
6. Promotion of pain control programs in all nations, irrespective of resources.
7. Reimbursement issues for professional and facility services for pain care.
8. Continuing collaboration with the foremost international pain relief organizations and the WHO.

### Conclusion

For too long, pain and its management have been prisoners of myth, irrationality, ignorance, and cultural bias.

Pain management is now being addressed across the disciplines of medicine and law. Their respective contributions are coalescing into a coherent position in which unreasonable failure to treat pain is poor medicine and unethical practice. There is a need to promote policies that create conditions where human beings can bear even incurable illnesses and death in a dignified manner.

Management of cancer pain has made significant progress in recent years, owing to several guidelines suggested for cancer pain therapy. Most patients with solid tumors encounter moderate to severe pain at some point during their illnesses. Moreover, pain experiences in patient with cancer are often influenced with psychological stress associated with the disease. An effective multidisciplinary approach to pain management is advocated where physicians need to work with other healthcare professionals. Making real improvements in pain management will require the proactive efforts of many organizations, and we believe that education and discipline, should be the cornerstone of efforts to improve pain management.

We are confident that the Pain Relief and Palliative Care Working Group under the auspices of the Lebanese Cancer Society is the main promoter of Palliative Care in Lebanon whose main goal is to relieve suffering and improve quality of life of the cancer patients.<sup>46</sup>

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### Challenges and Obstacles Facing the Oncology Nurse in His/Her Attempts to Manage Pains in Cyprus

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Over the past 15 years Cyprus has come a long way to improving pain management. Legislation for narcotics has no negative language in its document, such as the word “addictive.” Prescription is 30 days. Any doctor can write the prescription and we can now in the past 3 years get Oxycontin from the private pharmacy. Earlier all strong opioids were held in Government hospitals or the Oncology centre and private doctors were reluctant to prescribe opioids. Thus access and prescription have not been made difficult by the Cypriot government.

The question is why is Cyprus 45th on the list for using narcotics per capita by The International Narcotics Control Board?

The answer and main challenge in Cyprus I believe remains education. Education is required for health professionals including pharmacists, who can in turn educate their patients and this will flow on to the general public. Pain clinics are required and the first will begin in Nicosia general hospital in 2010 run by anaesthetists but without a multidisciplinary team.

Different drugs and routes are required to be imported into the country. Some examples would be a morphine suppository as many

patients die at home and this would be the easiest and most effective way to manage any breakthrough pain when patients have dysphasia. Methadone is another drug we would like to have access to. It is currently in the country for use by psychiatrists for those with addiction. Anecdotally we have heard centres such as NCI and Calvary hospital use this drug as a first line opioid when patients have neuropathic pain. One of our main obstacles when managing difficult pain problems is the neuropathic component.

Another argument for methadone is there which is incomplete cross tolerance between opiates and sometimes patients side effects from one opioid such as nausea or sedation may not be the case with another opiate. Morphine and Oxycodone are the same class penanthrene, Fentanyl is a phenylpiperidine and Methadone is a diphenleptane thus Mehtadone would give us another opioid for rotation.

There have been some problems with distribution, hospitals running out of opioids and our recent shortage for example of Fentanyl patches 25mg. There needs to be close monitoring of opioid use so that measures are in place to import narcotics before there is no stock left in the country.

Myths, stigmas, and misinformation about opioids still exist in Cyprus although this has improved remarkably over the past 5 years, further improvement will improve with education. Health professionals have to believe their patients pain, regular assessment, and evaluation of their intervention as a total pain and finally working closely with the whole team, including the home care team. Oncology nurses are the patients advocate and we want patients to have the control of their pain management by using pain diaries ensuring that they feel safe, listened to, and pain free.

### Challenges and Obstacles Facing the Oncology Nurse in His/Her Attempts to Manage Pain in the Palestinian Authority

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Statistics revealed 8106 new cancer cases (2000 to 2005) in the west bank, with 3471 deaths. This is an indicator of the problem of high mortality rate among cancer patients in Palestine. Most of cancer patients are diagnosed at the end stage of the disease (5550 cases) representing 68% of total cases (Palestinian Cancer Registry), which means that they are terminally ill and at their end of life, the thing that means that those patients are not early detected and no more in need for curative care that is no more applicable for them, but indeed in need for palliative care and pain management to live comfortably.

Although in fact there is shortage of healthcare facilities available to serve those patients and their families (1 major center in Bethlehem, 2 minor in Jerusalem and Nablus, and 2 in Gaza), with limited services (75 beds for oncology patients in MOH hospitals representing 2.7% of total beds) that provides only treatment to the disease without focusing on the need for palliative care and pain management.

The nurse spends more time with the patient than any other health professional and is thus in an ideal position to constantly assess and evaluate the effectiveness of their pain treatments (McCaffrey and Beebe 1994). For these reasons, nurses play a very active role in ensuring good pain control in patients suffering from unrelieved pain (Human Rights Watch, March 2009). Through direct observations and interviews with nurses working in the field of oncology, and after reviewing the literature, oncology nurses at the Palestinian Authority face many challenges and obstacles in their practicing of pain management for the cancer patient, these challenges are classified under 3 main categories; rules and regulations, nurses related practices, and patients and their families believes.

The current rules and regulations in the PA regarding opioid use and consumption are complicated and consist of long routine process, special forms for prescribing opioids with duplication of forms and the need for many signatures and approvals from the

doctor and the administration are in use, the amount of medication prescribed for the patient are restricted and not to exceed 30 tablets of MCR and 5 ampules of morphine, MIR is not available, no national policy for palliative care and pain management available at the current in the PA, pain treatment and palliative care are not priorities for the government, complex procurement and prescription regulations and the threat of harsh punishment for mishandling morphine discourage pharmacies and hospitals from stocking and healthcare workers from prescribing it.

Nurses' role in pain management in local oncology department in the governmental hospital is limited to administering the ordered medications for the patient, as well; the high work load, the limited time available for assessment of patient needs and pain, and the lack of training and education in pain management and palliative care are of the main obstacles. Also, nurses' attitude toward patient's perception of pain and the disbelieve of the patient's complaint of pain is another obstacle. Moreover, pain management is not in the priority of the nurse schedule of work and daily duties and is not taken as a fifth vital sign. Nurses' accessibility to controlled drugs is constricted and complicated. Myths and misbelieves of nurses regarding side effects of opioids are also major obstacles.

Public attitude and Social and cultural issues toward pain perception and pain management is a considerable obstacle. The public tend to belief that bearing pain is part of the human well-being, and consider morphine consumption as a social stigma, also people tend to fear from addiction on opioids, and belief that they should not use analgesics for mild or moderate pain as they will get tolerated to them and they will not find anything for their pain if it gets worse. They combine the use of morphine with the end of life and death. Patients and families usually look forward toward curative care rather than palliative care and pain management and believe that pain will go with the eradication of the disease itself. Moreover, patients have limited accessibility and affordability of pain medications, not enough services (palliative care services) that limit the availability of pain medications for the patients. Finally, mistrust between staff, patient and family, patient and family education (other caregivers) are an obstacle.

Misinformation about oral morphine remains extremely common among healthcare workers, knowledge about how to assess and treat pain is often absent or deeply inadequate. The combination of ignorance among healthcare workers with myths about opioids results in failure to treat patients, who are suffering from severe pain with opioid analgesics. (Human Rights Watch, March 2009). December 4, 2009.

### Challenges and Obstacles Facing the Oncology Nurses in Their Attempts to Manage Pain, the Jordanian Experience

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**Background:** Cancer is one of the most feared diseases worldwide<sup>4</sup> and cancer pain is one of the most common symptoms that affect cancer patients in their progress.<sup>6</sup> In Jordan, cancer is the second leading cause of death and it is a major factor in morbidity among Jordanian population.<sup>3</sup> Pain management is an important part in success and progress of cancer disease.<sup>1,7</sup>

**Objectives:** The purpose of this paper is 2-fold. First: to analyze and address the challenges and obstacles that face the oncology nurses in their attempts to manage pain. Second: to discuss the Jordanian experience in cancer pain management.

**Methods:** For the purposes of this paper, 2 approaches were used; interview and literature review. First, around 20 papers, including review articles and study articles, were reviewed and analyzed to search for the challenges and obstacles that face the oncology nurses in their attempts to manage cancer pain. Second, 9 nurses working in cancer pain management were interviewed and asked to answer this question: "what are the challenges and obstacles that face you in your attempts to manage cancer pain?"

**Findings:** Results of the literature review and answers of the oncology nurses were grouped into 3 major themes:

- Nurse-related barriers that include poor assessment of patient's pain, inadequate training, and education on management of cancer pain, inadequate time and resources to address cancer pain, greater attention toward cancer treatment rather than pain management, and poor knowledge and fear of opioids over use.<sup>2,4,5</sup>
- Patient/family-related barriers that include fear of addiction and dependence, fear that complaining of pain could distract the treatment process, belief that cancer could not be treated and nothing could be done, inability to express pain to nurses, and lack of adherence to treatment regimens.<sup>4,5</sup>
- Healthcare system-related barriers that include poor coordination and communication between the oncology team members, attention of the oncologist on curing cancer and belief that nurses are the only team who is responsible for cancer pain management, and regulatory barriers for effective cancer pain management such as the absence of cancer pain management protocols and policies, and inadequate number of healthcare providers to deal with many complaining patients at a time.<sup>2,4,5</sup>

**Recommendations:** On the basis of the literature and the researcher's experience, it is highly recommended to: conduct further studies to address cancer pain management and its challenges and obstacles,<sup>4</sup> develop standardized protocols and tools for cancer pain management and then educate providers, patients, and families;<sup>5,7</sup> develop continuous quality improvement programs for applying and monitoring of cancer pain management protocols and tools, assess pain regularly and systematically,<sup>2,4</sup> select the most appropriate pain management option,<sup>4</sup> educate patients and families about pain management options and the expected outcomes,<sup>2,4</sup> believe patients and families in their reports of pain, and empower patients and families and enable them to control their course to the greatest possible extent.<sup>4,5-7</sup>

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#### Practical Ways to Promote the Effective Use of Opioids in Cancer Care. The Beilinson Experience

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Opioids are the most effective analgesics for severe pain and are the mainstay therapy for patients with cancer with pain (Ballantyne, 2003). The success of opioids therapy depends on the expertise of the prescriber, who must have knowledge of the nuances of the

pharmacologic features of the various opioids and experience in their use to make an appropriate selection for each patient (de Leon-Casasola & Lema, 2003). Oncology nurses must become acquainted with new strategies to manage cancer pain including opioids rotation, understand the importance of balancing side effects, recognize potential hazards and provide an effective comprehensive pain control plan (Miaskowski, 2008).

Although opioids are available in all Beilinson hospital wards and residents prescribe morphine to patients as needed, there are 3 levels of pain and palliative care at Beilinson hospital, which relate to the nurse's awareness of the symptoms, palliative knowledge, and pain management priorities.

The first level relates to the internal nursing staff. Although pain assessment is done on a regular basis, the internal nurses who are very busy, lack necessary knowledge in pain control. Cancer patients, who are hospitalized in the internal wards, often undergo treatments and suffer from pain. The problem is that on one hand the use of morphine may be necessary for pain control but in contrast the nurses do not know how to identify patients who are at risk of addiction to their pain medication. Both groups of patients need to be identified so that appropriate intervention can be initiated to achieve optimal pain management.

The second level relates to the Davidoff Center wards and to the ambulatory services. Pain assessment done on a daily basis by the nurses is the gold standard of pain control. It gives data on successful pain interventions, on pain in patients undergoing treatments, and addresses the need of adding other pain control modalities. Nurses are aware and active in titration, opioids rotation, and very often activate the residents to change a patient's pain control plan. Our oncology nurses are skilled with symptom assessment and management and carry out these duties not only for the patients in pain but also for patients who undergo chemotherapy and/or radiotherapy on a daily basis. Patients who receive opioids are monitored for side effects and their treatment plan is changing according to these findings. Still there is a lot to be done with the nurse's diagnosis of chemo/hypercalcemia side effects and the possibility of an opioids overdose.

The third levels relates to the Pain and Palliative Service at the Davidoff Center. The service is involved in symptom management in all stages of cancer—curative, life-prolonging, and incurable. They do not confine their activities to incurable cancer and they do not treat nonmalignant conditions. Symptom control includes: presenting complaints, and side effects of treatment and recurrent disease. End-of-life care incorporates management of delirium, existential distress, discussion about the place of death, and support of family. The Pain and Palliative Service at the Davidoff Center is also involved with uncontrolled pain and other complex patient's conditions and constitute a source of pain knowledge and skills for all levels of the nursing staffs.

We still face several obstacles toward the wider usage of opioids. These include the patients and families refusal to take morphine because of its connotation to addiction and pharmacists and family doctors objection and restrain from morphine side effects.

For the well-being of our cancer patients and toward easing their suffering there is a definite need to expand nursing education and the creation of nursing partnerships at all levels, in the hospital and in the community.

#### Obstacles and Challenges in Pain Management: An Experience by Palliative Care Nurse Specialist, Saudi Arabia

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Cancer as a disease has become one of the worst enemies for the human beings. Most times, the diagnosis of cancer (in majority of cases) is the diagnosis of death and dying experience for the patients and their families. This is considered to be the real case, presenting the suffering that patients and their families face daily worldwide in general, and in Middle East in particular. Their suffering is related to uncontrolled symptoms, in addition to the known scenario that most cancer cases were diagnosed in late stages in which death is obvious at the other end.

With cancer diagnosis, there is the emergence of pain. Cancer pain is one of the most distressing symptoms noted in 36% to 61% of cancer patients depending on cancer type and stage of disease. More likely, 64% of patients with advanced cancer experience pain. In most cases, patients with pain are treated inadequately, although in 70% to 90% of these patients effective treatment of pain can be achieved.<sup>1</sup>

Having this scenario in mind, and being a healthcare professional, adds additional pressure on how one can provide relief from the suffering of these people knowing and communicating to these patients that curative measures are beyond reach.

As an expert dealing with cancer patients on a daily basis in Saudi Arabia, pain is noted as a major problem/complaint reported by patients and their families. As a percentage of patients referred to palliative care for pain and symptoms management, the palliative care team works on controlling their pain successfully in the majority of cases. The major concern is for the huge percentage of patients that do not have access for their pain to be controlled owing to major barriers/challenges that hinder effective pain management that they need.

Adequate pain management comes from comprehensive pain assessment and tackling all barriers and challenges that contribute to effective pain management. Literature had classified the barriers/challenges to effective pain management as follows: patient-related barriers/challenges; healthcare professionals-related barriers/challenges; and institutional/organizational-related barriers/challenges.<sup>2,3</sup> The presence of one or more of these barriers/challenges hinders the ability to manage pain effectively leading to dissatisfaction of patients, families, and healthcare professionals. As a result, it adds another obstacle for healthcare professionals to solve to deliver the best quality of care for their patients.

When working with cancer patients, one of the major issues is dealing with the perception of patients and their families, and the perception of healthcare professionals regarding pain management and the type and form of analgesics used. More specifically, the use of opioids for pain control will highlight the areas from which most of the challenges are coming.

As mentioned earlier, the challenges of effective pain management have been classified into a number of categories. First, are patient-related barriers and their challenges. These include misconceptions of patients about their treatment including analgesics used and their side effects and fear of addiction. It also involves non-adherence to pain management regimens. In addition, patients' belief that "good" patients do not complain about pain, so that they are reluctant to report their pain and their concerns about pain to the healthcare professionals. In addition, their misconception that increased pain always indicates progression of disease.<sup>1</sup>

Other challenges may be related to their family's misconception regarding opioid therapy or analgesia used, which leads to undertreatment of cancer pain. As families are part of the treatment plan, family perception of pain, their experiences with pain, mood changes, and caregiver burden all significantly influence the pain management plan of care.<sup>4,5</sup>

Other challenges raised through daily experience with patients with cancer pain are healthcare professional-related barriers/challenges. These challenges were reported and faced by palliative care nurses and physicians dealing with other healthcare professionals taking care of patients with cancer pain. These barriers/challenges were

inadequate assessment of pain leading to patients' reluctance to report their pain or to give a pain score. Healthcare professionals are influenced by their own personal perceptions, prejudices, beliefs, and their experiences with pain when assessing the intensity of the patient's pain. These affect how they respond to patients' self-reporting, or nonreporting, of their pain and can lead to inadequate use of pharmacologic and nonpharmacologic measures to control pain.<sup>1</sup>

Other healthcare professionals-related barriers/challenges involve inadequate knowledge of pain management of professionals; and misconception about addiction. Up to this moment, a great percentage of healthcare professionals still have problems and worry that patients will become tolerant or addicted to opioids. This results in their reluctance to prescribe opioids on account of the fear that the patient may require higher doses of these analgesics to control pain, or that they may end up experiencing serious side effects because of these analgesics.<sup>1,6</sup> As a result of their fear, that is healthcare professionals, they transfer their fears and concerns to their patients and scare them about the use of analgesics, overwhelming them with and exaggerating their side effects. This leads to patients refusing to have regular analgesics regimen to control their pain, resulting in nonadherence and poor pain management.

Taking into account the impact of total pain, which includes psychosocial and spiritual pain, in addition to physical pain, the ignorance of this dimension usually leads to physical suffering. Not considering the psychosocial-spiritual impact of pain on patients and their families by their healthcare providers (which happens usually) can be accounted as one of the major challenges to effective pain management. Such negligence leads to transferring that pain into a physical one, and even with prescription of pharmacologic interventions, the physical pain will not improve.

In addition, continuing on barriers/challenges for pain management, there is need to mention about institutional/organizational-related barriers/challenges. This includes one of the main challenges that is drug availability, which is associated with complicated regulations governing the supply, prescription, and administration of opioids in institutions and countrywise.

Saudi Arabia is still considered to be below the EMRO and Global mean for opioid consumptions, for example, morphine, fentanyl, methadone, hydromorphone, and oxycodone. According to the International Narcotics Control Board, the United Nations' population data (2009),<sup>7</sup> Saudi Arabian consumption of opioids is considered to be lower than the EMRO and Global mean opioid consumption for the majority of the earlier mentioned opioids based on data for 2007 (Table 1). Although the country has had these drugs since the 1980s, their consumption for pain control purposes has only been growing recently. More specifically, morphine and fentanyl were the drugs used more than hydromorphone and methadone in which the latter has been used recently for pain control since 2002 with the introduction of palliative and pain management services in Saudi Arabia.

There are also some challenges affecting continuity of care, when the patient is seen by different physicians across a number of different health-care settings, with no one intended to take full responsibility for the overall pain management,<sup>5</sup> as well as, lack of accurate data, and absence of different health care settings

**TABLE 1. 2007 Opioids Consumption Comparing Saudi Arabia to EMRO & Global Mean\***

Drug	Saudi Arabia Mean Consumption (mg)	EMRO Mean (mg)	Global Mean (mg)	Comparison of Consumption
Morphine	0.5610	0.6120	5.9823	Below EMRO & Global Mean
Fentanyl	0.0293	0.0133	0.2574	Above EMRO & below global Mean
Hydromorphone	0.0075	0.00745	1.2363	Above EMRO & below global Mean
Methadone	0.0267	6.0414	8.9217	Below EMRO & Global Mean
Oxycodone	0.0550	0.2143	9.3191	Below EMRO & Global Mean

\*Source: Adapted from International Narcotics Control Board; United Nations population data (2009).<sup>7</sup>

networking unifying patients' medical records to be aware of full history and medications the patients are on.

In conclusion, whether talking about patient-related, healthcare professionals, or organizational barriers, the key point in resolving these barriers is effective and meaningful education for patients, families, healthcare professionals, and organizations dealing with pain assessment, use of analgesia, side effects, importance of adherence to pain management regimen, and broadening the goal of achieving best quality of life for patients and families. Another way to resolve the issue is to form country-wide committees that will collaborate together in tackling the barriers and provide solutions for effective pain management thereby improving patients' quality of life.

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#### Training in Pain Management

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Pain is a multidimensional and complex phenomenon that requires an interdisciplinary approach for assessment and intervention. Many professions are involved, directly and indirectly, in working toward the effective management of pain experienced by patients in a variety of clinical settings. Therefore pain education and training are fundamental to good pain relief. Pain management is also being accepted as a basic human right, it is even more important to train health professionals to be competent in the areas of pain assessment and treatment.

Despite major initiatives by accrediting agencies, pain initiatives, and professional organizations, knowledge of pain management is still inadequate. Precisely why pain is underassessed and undertreated is not entirely understood. However, some reports from the literature suggested that this may be attributed to personal barriers such as knowledge, beliefs, and values. A number of studies indicate that knowledge deficits and inadequate pain assessment are the most important barriers for healthcare professionals in implementing pain management.

Undergraduate courses in pain management are inadequate as a preparation for professional life. In a qualitative analysis of medical and nursing faculty and students' knowledge of and attitudes toward cancer pain management<sup>1</sup>; themes in informants' knowledge of pain included knowledge deficits about medications and adjunct therapies and the presence of pain management in the curriculum, and the role of knowledgeable faculty members and mentors in the dissemination of information about pain management. Themes in the meanings informants' assigned to pain included opioidphobia, and the (inter-) subjectivity of pain.

Faculty should have current knowledge of pain theory, assessment, management, and research; critically examine accuracy of pain management content in curricula; review textbooks for content accuracy; integrate content throughout learning continuum and consult with clinical pain experts. Schools worldwide should establish formal pain management education in each year of their curricula. This will enable graduating students everywhere to be well equipped to ease their patients' pain. The basic curriculum for pain management should include; neurophysiology; barriers to pain management; assessment; addiction, tolerance, and physical dependence; pharmacologic and nonpharmacologic therapies; psychosocial, cultural and spiritual impact of pain.

The complexity of the pain management process should be recognized by institutions and healthcare providers by providing ongoing pain education and continuous monitoring of documentation of pain assessment.<sup>2</sup> Ongoing pain management education is essential if we are going to change attitudes and knowledge and affect pain management practices. Studies that investigate methods to promote uniform approaches to pain management are worthwhile to pursue. Strategies such as reading materials, lectures, and workshops fail to change practice to an acceptable level or fail to have lasting effects. Role modeling has been shown to be effective, although only as one aspect of a multipart approach. However, self-study modules, computer simulators<sup>3</sup> and one-on-one audit with feedback and coaching<sup>4</sup> have been documented as useful interventions to change practice.

In Turkey there are few studies available regarding the knowledge, beliefs, and practices on cancer pain management, which gives some perspectives from nurses<sup>5</sup> and doctors.<sup>6</sup> These studies revealed the need to promote knowledge of pain management, also empathy and empathic communication in relation to pain.

Pain management services are usually run by anesthesiology departments in Turkey. However, in recent years, some centers have set up new departments dealing only with pain management. Most medical and nursing schools do not teach pain management at desired level. By 1993, the Turkish Society of Algology (established in 1987) became a regular chapter of the International Association for the Study of Pain. The academic activities of the society included publishing a scientific journal, organizing several conferences, publishing and distributing relevant booklets, and incorporating palliative care into the curriculum of medical students.<sup>7</sup>

Recently Palliative Care Program Action Plan has been prepared in the National Cancer Program for 2009-2015<sup>8</sup> after 3 big workshops organized by Cancer Control Department of Turkish Ministry of Health.

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### **Pain Management Training in the Children's Cancer Hospital 57357**

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Since July 7, 2007, the Children Cancer Hospital 57357 in Egypt is striving to be the first children cancer hospital all over the world. The pain committee in the hospital is working to decrease the suffering of children diagnosed of cancer. It consists of 3 anesthetists, an oncologist, a psychiatrist, 2 nurses, and 1 social worker. The committee arranges for training sessions for all nurses and physicians about the fifth vital sign physiology, etiology, assessment, and management (pharmacologic and nonpharmacologic). The children's cancer hospital pain management standards are adapted from JCHAO (Joint Commission on Accreditation of Healthcare Organizations); these standards are transmitted by the pain committee to all trainees. The training consists of theoretical and practical part on the patients, especially children having surgical procedures. Trainees are then supervised by the pain committee during their medical practice, comments are documented and follow-up is done to ensure that adequate healthcare is given to all children suffering from pain after the diagnosis of cancer.

### **Training in Pain Management for Oncology Nurses in Israel**

Sarah Ben Ami. *Internal Medical Division, "Sheba" Medical Center, President of the Israeli Oncology Nursing Society.*

Oncology nurses embrace holistic care and sustain contact with patients throughout the continuum of cancer care. They are in a position to identify undertreated and untreated cancer pain and advocate for its relief.

Oncology nurses can play a crucial role in pain management for individual patients by changing their experience of pain, and in shaping policy and clinical practice. They are competent in pain management: assessing patient's pain, evaluating the current pain management plan; administer interventions, reassess the interventions' effectiveness, monitor for adverse effects, collaborate and recommend changes to the pain care plan, and educate the patient about the pain medications and its regimen.

Pain educational programs for nurses in Israel are based on the principle that pain is considered as the fifth vital sign. Nurses must evaluate patient's level of pain in every shift or visit.

Nursing training programs in pain are divided into generic curriculum in nursing schools and advanced modules in postbasic in geriatric and oncology nursing as part of the palliative care module (60 h).

Each health institution; hospitals and HMO'S initiate in service educational programs and workshops, seminars and conferences for physicians, nurses and pharmacists to enhance their knowledge and skills in pain management following outcomes evaluation, in terms of patient level of pain and medication usage.

Other educational programs are taught as full courses in academic settings, as part of the BA program in most of the Universities and also in the Academic Colleges as part of the program in Health Management.

The programs deal with physical, medical, pharmacologic, and cultural aspects of pain management; the students are required to interview patients and health professionals and prepare a written essay on a chosen aspect of pain based on their observations and the professional literature.

We feel that we have made a big progress during the last 2 decades, but still there is need for more national, local, and professional initiatives to promote the healthcare providers awareness and intervention regarding pain in inpatient, outpatient, and community setting for all needed patients.

To face the ever-changing healthcare environment, the oncology nurse must have a seat and voice at the decision-making table to advocate and impact all aspects of oncology patient care, including pain. Whether involvement is at the nurse's healthcare organization, locally, statewide or nationally, oncology nurses can play a crucial role in shaping policy, clinical practice, and the patient's experience of pain.

### **Challenges and Obstacles in Achieving National Palliative Care Policy—The Case of Israel**

Amitai S. Oberman, MD. *Department of Geriatric Medicine, Baruch Padeh Medical Center, The Israeli Association of Palliative Care, Israel.*

National palliative care (PC) policies are essential for the implementation of palliative care programs within the healthcare system plan of every country. When incorporated into the national healthcare system, these policies have been shown to ensure equitable access to qualified services, medications, and therapies necessary to relieve suffering by patients and their families.<sup>1</sup>

Israel has a national health insurance (NHI) system that provides a broad benefits package to the population. The NHI law mandates that all Israeli citizens, irrespective of their income or age, are entitled to full medical insurance. Healthcare services are provided by 4 nonprofit-making health plans that are obligated to ensure that their members have access to a "basket of health services" that is specified and defined in the NHI Law.<sup>2</sup>

Until recently, PC services were not a specified NHI law benefit in the "basket of services" provided by health plans. Therefore, they were under no obligation to fund or provide these services. Currently, health funding for palliative care is discretionary from health plans prepared to fund services and is subject to continual negotiation. Accordingly, the palliative care services funded through a health plan have been found to be financially precarious and subject to sudden loss of funds.

Despite this, the healthcare community in Israel, lead by palliative care advocates, has been successful in developing relatively well-established PC services, enabling full medication access and promoting the acknowledgment of PC as a component of the management in HIV/AIDS and cancer control programs.

However, these services have not received direct government support, continued to struggle for secure funding and were inaccessible to many patients throughout the country. These services are not subject to any regulation or monitoring process of their activities by the ministry of health (MOH) and continue to employ healthcare professionals with minimal or no formal PC training.<sup>3</sup>

At the beginning of the second millennium, PC activity and awareness in Israel increased dramatically. This was characterized in part, by:

1. Intense multilevel activity by various professional organizations advocating for the integration of PC into the health care system.
2. Funded research on current PC provisions in the country.
3. Development of a national PC education program for healthcare professionals funded by the United States-based NGO.
4. Increased awareness of by the MOH of international PC legislation and activity growth (including that of MECC).
5. Enactment of the "Dying Patient Law" that specifically stipulates that palliative care should be provided to patients and families.
6. Development of a clinical nurse specialist program by the MOH's nursing administration.
7. Growing awareness and demand by the public for these services.

With the goal of incorporating PC in the healthcare basket and clarifying the health plan's obligation to develop and provide high-quality formal PC services, a steering committee was established by the MOH in 2005. The steering committee's role was to describe and define the necessary requirements for the integration of PC within the Israeli healthcare system and assist the MOH in the development of a national policy and standards of care. Committee members were leading healthcare professionals representing the various PC organizations, health plans and the MOH. Recently, following 4 years of negotiations, a national policy document was drafted and distributed.

The policy mandates that each health plan and all medical institutions, including long-term care facilities, should develop and provide PC services, as defined by the committee's recommendations based on international standards.

Despite this major achievement, important challenges remain. These include, monitoring and surveillance of the implementation

of the policy and incorporation of PC into the curricula of all healthcare professions. Other challenges include educating the public regarding their legal right to PC and its crucial and central role in the care of patients and families confronted by advanced life-limiting diseases.

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### Palliative Care Initiative in Turkey: “Pallia-Turk Project”

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#### BACKGROUND

Quality of life and pain management are issues of human rights. Approximately 200 years ago, medical facilities were not adequate for definitive diagnosis and treatment. In those times, the only medicine applied was the palliation of the patients. However, in subsequent decades, with the development of further technologies and medical facilities, most of the medical staff forgot the basics of the medicine and started to classify the patients according to rigid guidelines. We forgot the importance of human sensation and the quality of life, or, in other words, the quality of dying at the end of life.

#### CURRENT STATUS IN TURKEY

Similar to many other countries, palliative care was an ignored issue in Turkey. Not only the earlier governmental authorities but also the private sector, universities, and physicians did not notice the importance of the subject.

There are some case-dependent therapies that are not comprehensive and structured. Most of the terminally ill patients were left alone by the healthcare professionals during the last days of their lives because of limited clinical facilities. Other than the absence of a center, the number of experienced medical staff (doctors and nurses) is not sufficient either. Inadequate knowledge and fear of physicians for the opioid usage are other issues that need to be resolved within the next few years.

Currently, there is still no formal palliative care system in Turkey and there are only few pain centers that are distributed across the country. In total we have around 72 pain centers in 33 cities. Access to opioids is very hard for the patients. There is only a small number of private hospices. We have few physicians who are keen and specialized in palliative care.

The Cancer Control Department and the Ministry realized the existing problems and created a comprehensive care program to be implemented within the next 5 years of the National Cancer Control Programme (NCCP). World Health Organization authorities are the primary directors of the program and even started workshops in Turkey.

#### “PALLIA-TURK” PROJECT IS UNIQUE

There are a number of organizational palliative care systems across the world (outpatient clinics, PC day centers, PC Bereavement Services, PC units, Support Teams, Hospices, Nursing Homes, Emergencies and Palliative Care Reference Services). However, neither of these systems seems to fit well with the unique properties of Turkey. Turkey is a heterogeneous Euro-Asian country and both oriental and Western type of behaviors can be seen. We have a large population and an increasing incidence of cancer. The total area of the country is also very large so that

neither of these systems can be completely adapted to the country that can cover a high rate of the population. Turkey has finalized its fight against acute diseases and now we proceed to fight with chronic diseases. Therefore, reallocation of the budgets should also be rational. Finally, after long meetings and discussions with our international collaborators, we have decided to create a very unique Palliative Care System that will be the first of its kind in the world. We hope to implement the system within next the 5 years and be a good story for the rest of the developing countries in the world. The basic principles of the Pallia-Turk Project are:

- It is a *community-based* system.
- The primary care-givers are family physicians and general practitioners of KETEMs (Cancer Screening Centers of Ministry distributed across the country), but perhaps the most striking part of the team will be the *nurses*. Well-trained and experienced nurses and GPs would be the mainstay of the public-based system, which is supported by limited numbers of primary, secondary, and tertiary (reference) centers.
- The majority of the care would be *home care*, based on nurses.
- To increase the contribution and help of the society and also to increase the socialization of the patients, increasing the awareness and funds, and also for helping the religious, financial, occupational supports, the project will also include professionally educated and dedicated nongovernmental organizations (NGOs).
- The majority of the centers in rural areas will be of primary level with a few beds reallocated from the existing beds in the hospital wards that harbor the KETEMs. One *primary-level center* will be implemented in each rural city.
- In urban cities, depending on the number of cancer cases and the number of population, in addition to primary levels, we will implement *secondary-level centers*.
- There will be *tertiary-level centers* in each oncology institute where the most complex patients will be hosted.
- For the time being, we do not project implementing the project on hospices, but the decision will be taken within time, depending on the needs of these patients (*No Hospice*).
- Vision of Pallia-Turk: To have one of the worldwide famous and well-known palliative care services, like as the one in Barcelona ICO.
- Mission of Pallia-Turk: To improve the quality of life of all the patients and their families suffering from chronic diseases in Turkey.
- Values of Pallia-Turk:
  - Clinical ethics, equity and accessibility, quality, satisfaction, coverage.
- Action Plan
  - A. Improving the Institutional Capacity
    1. To publish the standards of palliative care program of Turkey
    2. To form the nucleus groups of trainers that will achieve expanding the program later throughout the country?
    3. To establish the pilot palliative care services integrated to selected oncology institutions.
    4. To form palliative care guidelines for all the healthcare professionals.
  - B. Legislation and Regulations About Opioid Availability
    1. With respect to Turkish NCCP; making the cheaper and efficient forms of morphine easily accessible to all the patients who need them and suffer from pain.
  - C. Expanding the Palliative Care Program Countrywide
    1. Annual postgraduate educational courses: “Turkish National Palliative Care Course”
    2. Regional meetings of all healthcare professionals on:
    3. Improving human resources in line with Turkish Standards of Palliative Care.
    4. International workshops every year during the cancer week in Turkey.
    5. Call service for cancer patients and their families.
    6. Meetings with Cancer Patients Federation.
    7. Regional care givers meetings.
  - D. Integration Family Physicians System With KETEMs
  - E. Evaluation of the Project

### The Cyprus Anticancer Society

Sophia Nestoros Pantekhi, MD. *The Cyprus Anticancer Society.* The Cyprus Anticancer Society is a registered charity and nongovernmental organization since 1971. The organization provides services to cancer patients and their families, helping them fight the disease, and improve their quality of life. The organization has evolved and now offers palliative care services to cancer patients who need it.

### PREVENTION OF CANCER

One of the main activities of the CACS is to raise awareness about cancer and how to prevent it. The CACS organizes public lectures, issues a large variety of leaflets and booklets, providing advice on the various types of the disease. They use media to spread their messages and educate and inform the public of the various services they provide.

### "ARODAPHNOUSA" PALLIATIVE CARE CENTER

"Arodaphnousea" is a Palliative care center and has been in operation since 1976. From the very beginning, it has been run by a team of nurses who provided end of life care to cancer patients. It has evolved into a palliative care center from just a place where people went to die and is now a fully functioning palliative care center. Since 2000, the center offers inpatient and outpatient care; it is staffed by a multidisciplinary team including full-time doctor (who are trained in palliative care) and nurses and a physiotherapist, a psychologist, a sociologist, an aromatherapist, and a chaplain. Patients are referred for pain and symptom control, respite care for the family, complementary therapies, lymphoedema therapy, psychosocial counseling, and support and end of life care.

### HOME CARE SERVICE

The home care service was established in 1993, and it is staffed by nurses trained in palliative care. The home care service is available in all government-controlled areas of Cyprus. The patients and their families have psychosocial support by psychologists and social workers who may visit their homes if they are unable to visit the society's facilities and also have the opportunity for physiotherapy at home if their doctor refers them.

### DAY CARE SERVICE

There are day care centers in all districts of Cyprus, and they offer complimentary services to patients such as relaxation activities, arts and crafts, social gatherings, and other activities. The social services department manages the day care centers and are supported by a group of volunteers.

### PSYCHOLOGIC AND SOCIAL SERVICES

Cancer has a profound psychologic impact on the patient dealing with it. Coupling the physical difficulties, cancer can cause many psychologic issues and social difficulties. Issues that are dealt with by both psychologists and social workers employed by the CACS include: social inhibitions, psychologic distress, psychosexual problems, and social anxiety. Distress may occur in many forms and the psychosocial professionals deal with issues such as depression, embarrassment, self-rejection and self-isolation, body-image distress, feelings of inferiority and inadequacy, feelings of hopelessness and helplessness, feelings of worthlessness and uselessness, sexual dysfunction, anger, despair, humiliation, and others. Psychologic pain associated with disfigurement, pain, and physical disability are common. The aim of psychologists and social workers is to enable people with cancer to achieve maximum independence and quality of life, to support their coping during and beyond the disease and treatment, and to encourage patients to develop self-help skills for coping during their difficult journey. The group of social workers also help patients and their families face various other social and financial issues.

### LYMPHOEDEMA AND PHYSIOTHERAPY CLINIC

There is a team of physiotherapists specially trained to assess and treat lymphoedema in cancer patients. This service is offered at the "Arodaphnousea" palliative care center, within the physiotherapist clinic, but is also available within the home care services where professionally trained nurses can provide care to patients at home. The aim of the physiotherapy clinic is to help inpatients at the palliative care center by providing daily physiotherapy, by helping people at home who may need physiotherapy, and outpatients who visit the lymphoedema clinic. The aim of the physiotherapists is to help patients achieve their maximum potential and maintain it throughout their illness.

### EDUCATION AND TRAINING

The CACS plays an active role in the dissemination of oncology and palliative care knowledge across healthcare professionals in Cyprus. Every year it organizes workshops and lectures in which healthcare professionals are invited to attend and learn about palliative care and end of life issues. Every 2 years, it organizes a conference in oncology and palliative care in which many subjects are covered including what new advances are being made in surgery, cancer treatment, oncology, and palliation. The aim of this conference is to raise awareness among professionals, to educate them, and to advance the philosophy of palliative care.

### A Future for Palliative Care Services—Plans for Development in Cyprus

Angela Economakis, MBBS, BSc. *Limassol, Cyprus.*

During my first attendance of a MECC conference in May 2009, the concept of "One-Voice" that resonated throughout many of the lectures and discussions echoed thoughts that I had had during the preceding years of my research into palliative care services in Cyprus. To me, it defined the very core of the foundations that would be needed to create a truly comprehensive and totally responsive service to all palliative care users.

My background as a UK-trained doctor, completing an MSc in Palliative Care, Policy, and Rehabilitation at King's College, London, provided a thoroughly evidence-based approach as to how palliative care services should be considered, developed, delivered, and researched in response to the continually evolving needs of stakeholders. Moving beyond the initial challenges regarding cancer versus noncancer patients, research, and debate has become increasingly focused on the pressing domains concerning preferred place of care and place of death in light of the increasing focus toward patient-centered service provision and also in relevance to the impending pressures on health-services and palliative care as a consequence of the population projections for the elderly in the next 2 decades. Focus falls on the inevitable rise in demand for palliative care for the increasing numbers of cases of dementia and Alzheimer, and also the role that rehabilitation will have in assisting the elderly with chronic or advanced diseases to be reintegrated as independently and as safely as possible into the community, thus reducing pressure on beds and inpatient units. Having decided to focus on the issues of service development for palliative care in Cyprus, the contrasts to other developed countries in the EU became increasingly evident. With an absence of any formal government policy in place, the job for securing palliative care provision in a comprehensive and coordinated, sustainable and crucially, *equitable*, manner with quality assurance and standards can become virtually impossible.

"One-voice" and "coordinated efforts" undoubtedly characterizes the necessary future strategy for palliative care service development in Cyprus. The need for a very basic level of palliative care to be provided in the general hospitals is undoubtedly crucial. Central to this goal are the educational opportunities to train such health care workers, both during their undergraduate years and beyond. Plans to include a palliative care module at the nursing school at the Cyprus University of Technology are already in place for 2011. A 2-day workshop for the "ABC" of palliative care for state hospital staff has been approved by the government and will run in 2010.

What must be highlighted is also the possibility and opportunity to implement this knowledge and practice once returning back to the working environment—a well-recognized challenge for Cyprus. The recent National Strategy Plan for Cancer released by the Ministry of Health, recognized the need to create palliative care posts within hospitals and external specialist units. Through efforts by the NGOs and MECC, various levels of groundwork have been done. But the message year after year remained: coordination and unity is needed to take service development further.

My vision for palliative care in Cyprus is not impossible. In fact, for the geographical landmass and the population of just over 1 million, it is entirely achievable, whether with government subsidy or otherwise. But given that many leading palliative care bodies are advocating the concept of palliative care as a human right, one could argue that it is imperative for a government to take on a level of responsibility for equitable access to such services for all its population, and not to be relying on the goodwill and initiatives of NGOs or private enterprise.

The drive for coordinated efforts has instigated the first steps in creating the Cyprus Association of Palliative Care this December 2009—an all encompassing body that will be composed of all stakeholders in palliative care, interested in progressing the development of this service on the island, regardless of what NGO or government-run facility they are affiliated with. Crucial is the inclusion of individuals from nonmalignant specialties and pediatrics. Within this organization, a “working-group for palliative care” is being formed, with key members interested in and concerned with issues on developing and pressing for policy and education.

My particular area of interest lies in the creation of a center of excellence for palliative care in Cyprus: more specifically, specialized palliative care services that have the skills and expertise to deal with complex cases requiring a highly trained multidisciplinary team for both malignant and nonmalignant disease. It combines inpatient facilities with outpatients, day-care and home-care, offering patients the possibility for inpatient treatment and respite in a fully supported environment if necessary. A research and education center for training, seminars, and workshops is being planned, encouraging and already establishing international collaborations with all areas of palliative care, embracing the concept of evidence-based practice. The possibility of acting as a focal point for training, to enable and support generalists and specialists alike to gain necessary training and expertise to transfer those skills to the general hospital wards, nursing homes, and other care facilities; is a prime area of motivation for such a center.

**Price Table for Control Drugs**

Drug	Cost in Euro
Fentanyl 0.0785 mg/mL, 1amp × 2 mL	0.18
Fentanyl TDS 100 µg/h (16.8 mg)	19.00
Fentanyl TDS 2.5 mg patches	5.40
Fentanyl TDS 50 µg/h (8.4 mg) patches	10.00
Methadone 5 mg tabs	0.10
Morphine oral suspension 10 mg/5 mL	2.30
Morphine sulph. srt 30 mg tabs	0.21
Morphine sulph. srt 60 mg tabs	0.34
Morphine sulphate 10 mg (MST)	0.07
Morphine sulphate 10 mg amp/1 mL	0.29
Morphine sulphate 10 mg tabs	0.21
Morphine sulphate 20 mg tabs	0.32
Morphine sulphate 10 mg supp	0.87
Morphine sulphate 30 mg/mL inj	0.95
Oxycodone 10 mg tabs	0.34
Oxycodone 20 mg tabs	0.64
Oxycodone 40 mg tabs	1.20

Only with combined efforts and energies and a unified approach can a comprehensive and sustainable palliative care service be developed. Although historically, numerous political, organizational, and social difficulties have blocked or slowed down significant progress in this field, it is my belief, that Cyprus is finally gaining the momentum necessary to realize such ambitions. It has every possibility; to not only achieve a service to cater for its own population, but potentially to maximize on its unique geographical position, and neutral territory status to eventually extend its services throughout the Mediterranean and Middle East. It is a long path ahead, but entirely achievable.

**Current Opioid Consumption at the Bank of Cyprus Oncology Centre**

Stavroula Theophanous-Kitiri. *Bank of Cyprus Oncology Centre, Nicosia, Cyprus.*

The present healthcare system in Cyprus is fragmented into 2 sectors, the private and the public; and all patients are entitled to care in the public sector and care fees are based on family income criteria. All cancer patients are entitled to care, free of charge in the

**Drug Availability in the BOC Oncology Centre Over a Decade (1999-2009)**

Drug	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Fentanyl 0.0785 mg/mL, 1amp × 2 mL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Fentanyl TDS 100 µg/h (16.8 mg)	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y
Fentanyl TDS 2.5 mg (4.2 mg) patches	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Fentanyl TDS 50 µg/h (8.4 mg) patches	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Methadone 5 mg tabs	N	N	N	N	N	N	N	N	N	N	Y
Morphine oral suspension 10 mg/5 mL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MST 30 mg tabs	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MST 60 mg tabs	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MST 10 mg	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y
Morphine sulphate 10 mg amp/1 mL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Morphine sulphate 30 mg/mL inj	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y
Morphine sulphate 10 mg tabs	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Morphine sulphate 20 mg tabs	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Morphine sulphate 10 mg supp	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y
Oxycodone 10 mg tabs	N	N	N	N	N	N	N	N	Y	Y	Y
Oxycodone 20 mg tabs	N	N	N	N	N	N	N	N	Y	Y	Y
Oxycodone 40 mg tabs	N	N	N	N	N	N	N	N	Y	Y	Y
Oxynorm	N	N	N	N	N	N	N	N	N	N	N
Pethidine 100 mg amp	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Pethidine 50 mg amp	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Drug	Total Dose (mg) in 2009
Morphine	1,989,910
Oxycodone	840,540
Fentanyl	44,692
Pethidine	2,500

public sector and they can have free drugs even if treated in the private sector. The Bank of Cyprus Oncology Centre is operating since 1998 and it is a not-for-profit Trust. The Centre has cooperation with public and private hospitals as well with the cancer voluntary organizations. Doctors from Arodaphnosa Palliative Care Centre visit the Bank of Cyprus Oncology Centre once a week and participate to ward rounds to provide help with pain control and palliative treatment.

Cancer-related pain is a major issue of healthcare systems worldwide. At the Bank of Cyprus Oncology Centre, cancer pain is treated based on WHO analgesic guidelines. These guidelines serve as an algorithm for the treatment according to the intensity of pain as reported by the patient.

## INTRODUCTION

Fifty percent of patients who are diagnosed with cancer (up to 90% with advanced disease) will experience pain to some degree, whatever the stage of the illness. It is very important for the doctor to know to prescribe control drugs and for the pharmacist and nurse to explain to the patient how to take them. The timing and the route of administration for control drugs is very important. Opioids are the gold-standard treatment in moderate to severe pain. For our Centre morphine remains a cornerstone for the management of cancer pain. Some patients do not have a successful outcome because of adverse effects or inadequate analgesia. In those cases, patients are switched to fentanyl based on morphine-fentanyl conversion tables. Nonopioids are available such as paracetamol, ibuprofen, and diclofenac and weak opioids such as codeine to relief cancer pain before escalating to morphine. Unfortunately, after withdrawal of distalgic (propoxyphene with paracetamol) there is no other weak opioid available like tramadol. Subject to the provisions of Regulation, no person may give a prescription dealing with a controlled drug, unless the prescription is in accordance with these requirements: It is written in ink or otherwise indelibly and it is signed in the usual signature thereof by

the person giving the same and is dated by him. If it is given by a dentist, it shall have written thereon the words "for dental use only" and if it is given by a veterinary surgeon the words "for veterinary treatment only."

On the basis of the Cyprus legislation prescription for control drugs, these can be dispensed for 30 days. All registered doctors in Cyprus can prescribe control drugs and dispensed by pharmacists. The community pharmacies do not have any control drugs or have very limited stock. So the majority of the prescriptions with control drugs are dispensed from government hospitals. At the Bank of Cyprus Oncology Centre, only prescriptions that are prescribed by Centre's doctors are accepted and always must be on the pink available prescription form. For the government hospitals and private pharmacies, no special prescription is required but the prescription should be written in a special way as it is defined by the law. This means that all prescriptions must be in the prescribers own handwriting and include the patient's name, registration number, the strength and form (tablets, mixture, vial, patch, etc.), the total quantity of dose units, (ie, number of tablets, volume of liquid, number of patches) written in words and figures, the dose to be taken by the patient, and the prescriber's signature and date.

The drugs are stored on the ward and pharmacy in safe boxes, and they are under control of pharmaceutical services of the Ministry of Health. The responsible department for the supply of control drugs to the Centre is the Pharmaceutical Services of the Ministry of health who are also responsible for the destruction of the expired or damaged control drugs. In our pharmacy department, we also accept returns of control drugs to reuse them.

## RESULTS

Opioid analgesic consumption and the opioid availability for cancer pain at the Bank of Cyprus Oncology Centre are analyzed. The purpose is to share information with other countries and to encourage further study and discussion of ways to improve the availability of opioid analgesics to cancer patients for the relief of pain.

The consumption of controlled drugs was studied from the period 1999 till 2009, this means for a decade. As seen from the table above, morphine was always available but not in all strengths. The introduction of fentanyl was done in 1999 with very few quantities available and in 2000 also Fentanyl 100mcg/h was added. It is important to notice that the MST 10 mg tablets were available in Cyprus from year 2001, before that year patients had only the choice of starting on slow release drugs with the 30 mg tablets. Another drug was added to the formulary in 2007, oxycodone mostly for patients with neuropathic pain, but it was only provided

## Consumption of Controlled Drugs at the BOC Oncology Centre (1999-2009)

Drug	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Fentanyl 0.0785 mg/mL 1amp × 2 mL						5				5	1
Fentanyl TDS 100 µg/h		600	897	1018	829	778	680	1118	905	983	1145
Fentanyl TDS 2.5 mg patches	21	541	827	1228	1805	2196	3605	2139	2497	2229	2167
Fentanyl TDS 50 µg/h (8.4 mg) patches	21	461	770	848	1387	1541	2383	1878	1826	1352	1947
Morphine oral suspension 10 mg/5 mL	281	347	408	638	869	1056	1329	1038	1979	1833	2277
Morphine sulph. srt 30 mg tabs	4372	7812	7549	13090	11147	9744	11175	9493	12590	13299	13970
Morphine sulph. srt 60 mg tabs	3703	4321	2124	2770	4404	2976	6469	6826	10488	5786	7554
Morphine sulphate 10 mg (MST)			3923	6852	13249	22450	23334	31389	35345	30636	28204
Morphine sulphate 10 mg amp/1 mL	1951	2241	2766	2028	2362	2034	1601	1631	2533	3643	3111
Morphine sulphate 10 mg supp			120	152	368	158	270	164	72	390	12
Morphine sulphate 10 mg tabs	1679	6657	6555	6729	6789	9177	9558	7777	5048	11182	7702
Morphine sulphate 20 mg tabs	905	5822	5982	4903	2457	6465	9646	12704	15405	15603	11464
Morphine sulphate 30 mg/mL inj			398	660	851	435	649	724	1061	2134	1420
Oxycodone 10 mg tabs									2613	11811	15526
Oxycodone 20 mg tabs									3269	9056	14670
Oxycodone 40 mg tabs									3644	8655	9797
Pethidine 100 mg amp	60	31		41	10	30		103	2	109	25
Pethidine 50 mg amp	10	54	30	48	40	90	5	115	30	50	0

in slow release tablets and not in immediate release as shown on the table below. An important thing to notice is that, from 2001 there were available morphine suppositories for use in patients with difficulty to swallow but these were not prescribed to the patients and the available quantities expired. In 2009, the drug methadone was approved for 2 patients with neuropathic pain.

In the year 2009, the consumption of controlled drugs in terms of cost was 53% for fentanyl, 27% for oxycodone, and 20% for fentanyl but if we analyze the consumption in terms of mg, we will see that the total use of mg was superior for morphine than for the other medications.

A custom made computer software is available in our department. This is a stock control system with automatic orders. All prescriptions are entered to the system and the drugs are dispensed by selecting the lot number and expiration date. The system enables us to check the earlier time the patient took a control drug to avoid double dispensing. We are also able to check the drug history and the patient's history and check the other drugs that have been

prescribed to the patient for example, lactulose, senna with morphine. Labels are also generated from the system with the patient's name, the name of the pharmacist who dispensed it, and with dose instructions for the patient.

### CONCLUSIONS

Despite the advances in the field of pain management for cancer patients, pain is undertreated as a number of drugs are not available, especially for treating neuropathic pain and also other nonpharmacologic methods for treatment of pain are not existing. Clinical pharmacy services are very important in the Oncology setting and the clinical pharmacist should be a member of the multidisciplinary team that all Oncology hospitals should have. We hope that this year the new strengths we asked for will be available to Pharmaceutical services (Morphine syrup 100 mg/5 mL MST 100 and 200 mg tablets and also Sevredol 50 mg tabs) and also new drugs will be available to handle pain.