

Ethical Issues in Early Detection of HIV Infection To Reduce Vertical Transmission

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Summary: Proposals to make prenatal HIV testing routine and universal dramatize ethical issues regarding early detection of HIV. These proposals would abolish pretest counseling and written informed consent for prenatal HIV testing. Ethical concerns include whether pregnant women are adequately informed that they may refuse such testing and whether patients have an opportunity to obtain more detailed information about the benefits and risks of HIV testing in this context. Several pertinent research questions need to be studied, including whether pregnant women find routine universal HIV testing acceptable and whether safeguards adequately protect women who receive testing. If analogous policies to enhance early detection of HIV are considered in other clinical contexts, the important clinical and ethical differences between vertical transmission and other situations of HIV transmission must be kept clearly in mind. **Key Words:** HIV seropositivity—Ethics, medical—Prenatal care—Labor—Pregnancy, high-risk.

Early detection of HIV infection offers the hope that transmission of HIV may be reduced through effective preventive measures. A dramatic example of the benefits of early detection is the prevention of vertical transmission of HIV. Vertical transmission of HIV can be substantially reduced if antiretroviral therapy is administered to HIV-infected pregnant women during pregnancy, labor, and delivery, and to the infant in the neonatal period (1). Early prenatal testing for HIV is the crucial first step in reducing transmission in this setting. A 1998 Institute of Medicine (IOM) report has recommended substantial changes in HIV testing policies in the prenatal setting, so that prenatal HIV testing would be a routine and universal part of pregnancy care (2). The American College of Obstetrics and Gynecology and the American Academy of Pediatrics have supported these recommendations (3). However, early detection of HIV through more widespread prenatal HIV testing also raises difficult ethical and policy issues. This article analyzes issues that must be worked out if routine, universal

prenatal HIV testing is to be adopted and if such early detection is to be translated into more effective prevention of maternal-child transmission. We also discuss whether these proposed policy changes have merit in other clinical settings.

Vertical transmission of HIV has been a priority area for earlier detection because the source of exposure is easily identifiable and because infants cannot take steps to protect themselves. In addition, there is compelling evidence that transmission is significantly reduced if pregnant women identified as seropositive receive antiretroviral therapy. AIDS Clinical Trials Group Study 076 showed that zidovudine reduced transmission from 25% to 8% (1). Subsequent randomized controlled trials have demonstrated that shorter courses of antiretroviral therapy also reduce vertical transmission (4–7). Since the publication of ACTG 076 and Centers for Disease Control recommendations that prenatal HIV testing be offered to all pregnant women, the rates of perinatal transmission and the number of reported cases of perinatally transmitted AIDS in the U.S. have decreased by almost 50% (8,9). More aggressive treatment with combination antiretroviral therapy may reduce perinatal transmission even further (10).

The public health goal should be to identify all HIV-

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infected pregnant women before delivery, so that they can be offered prenatal and intrapartum antiretroviral therapy. However, approximately 15% of HIV-infected women in the U.S. receive no prenatal care. Most of these women are black, live in urban areas, and use injection drugs (2). Furthermore, the percentage of women in prenatal care who are offered HIV testing by their provider varies from state to state, ranging from 50%–75% (2). This finding is disconcerting because most women accept prenatal HIV testing, particularly when providers strongly recommend it (2). Thus, lack of prenatal testing is an important barrier to preventing vertical transmission of HIV.

PROPOSED POLICIES FOR ROUTINE UNIVERSAL PRENATAL HIV TESTING

HIV testing early in pregnancy is the essential first step in further reducing vertical transmission of HIV. The 1998 IOM panel charged with evaluating the effectiveness of efforts to reduce perinatal transmission concluded that requirements for pretest counseling and written informed consent were significant barriers to prenatal HIV testing. In light of the proven effectiveness of antiretroviral therapy for preventing vertical transmission, the panel called for significant changes in HIV testing policies for pregnant women in the U.S.. The panel recommended that universal HIV testing with patient notification be a routine part of prenatal care (2).

Development of HIV Testing Policies

Early in the epidemic, HIV testing was recognized to have serious social and psychological risks of stigma and discrimination (11). People identified as HIV-positive may be rejected by their families or suffer discrimination in employment, access to health care, and housing if the confidentiality of their test results is breached. Domestic violence against HIV-infected women was identified as a particular risk (12). The benefits of early diagnosis to individual patients were uncertain because there was no proven treatment at that time. Because HIV testing was regarded as different from other blood tests, states required pretest counseling and specific written informed consent (13). Special protections for confidentiality of HIV test results also were enacted in an era when draconian measures like quarantine were suggested for individuals known to be seropositive (14–17). Anonymous test sites were established. Many states required specific written permission from the patient to disclose HIV test results to third parties.

The IOM panel determined that the clear evidence that

antiretroviral therapy reduces vertical transmission justified changing prenatal HIV testing policies. These recommendations make prenatal HIV testing policies similar to policies of routine prenatal testing for syphilis, rubella immunity, and Rh incompatibility. However, objections have been raised against routine prenatal HIV testing. Critics fear that pregnant women may not be explicitly told that the test will be done and thus may have no real option to refuse. Hence, the process may seem mandatory rather than voluntary to pregnant women. Furthermore, opponents argue that routine testing discriminates against pregnant women by eliminating the protections of specific written consent and pretest counseling required for HIV testing in other settings.

In the U.S. system, the states have the authority to regulate HIV testing. If the IOM recommendations are to be implemented, most states will have to revise their laws regarding HIV testing. Thus the IOM recommendations regarding prenatal testing will be debated in the states. Research can contribute to this debate. Ethical analysis can identify and clarify pertinent issues and suggest how to resolve them. Analysis of current state laws on HIV testing can indicate what laws need to be changed if routine prenatal testing is to be adopted. Even without changes in state laws, the IOM recommendations, together with the support of the American Academy of Pediatrics and the American College of Obstetricians and Gynecologists, are likely to change the standard of practice. If a mother who was not tested for HIV infection during pregnancy has an infected child, she would have a plausible malpractice suit if the obstetrician had not recommended prenatal HIV testing. However, it must be noted that most women who give birth to HIV-infected children are poor and not well educated and therefore unlikely to bring a lawsuit.

The ethical rationale for routine universal prenatal HIV testing is to protect the public health and to prevent the transmission of a fatal illness to third parties who cannot protect themselves. Although such HIV testing also benefits the pregnant woman, the benefit to the patient being tested would not in itself justify the recommended policy. In clinical care, the standard practice is to obtain informed consent from patients for medical interventions (18). This clinical policy is justified by the ethical principle of respect for persons. The default position is that interventions are not carried out unless the patient gives consent. Stated another way, the patient must “opt in” in order to receive the intervention. In many clinical situations, specific consent is not obtained for tests such as a blood count or cholesterol level. These tests have no medical or psychosocial risks. A doctor may simply ask the patient to have “routine” tests done,

without specifying which tests will be done. Very few patients decline such tests. Presumably, most patients, if offered a discussion of the risks and benefits of such tests, would agree to testing. In contrast, many public health interventions, such as tuberculosis screening, are carried out on an "opt out" basis. That is, the intervention is done unless the individual objects. This reverses the presumption in clinical practice that consent is needed. This compromise of patient autonomy is accepted by society because the public health intervention offers clear benefits in preventing serious harm to third parties, the risks to the person being tested are minimized, and the infringement of autonomy seems appropriate in light of the benefits.

Making prenatal HIV testing universal is justified by the ethical principles of justice and beneficence. Targeting HIV testing tends to stigmatize groups that are identified as being at high risk. Making testing universal will reduce stigma and discrimination because individuals will not be singled out for testing based on assessments of risk. Furthermore, universal testing should identify more seropositive pregnant women, because both physicians and patients are uncomfortable discussing high-risk behaviors. Patients may not know whether they are at risk because they do not know their partners' level of risk. Also, physicians who are uncomfortable with risk assessment often do not offer HIV testing.

Definition of Routine Prenatal HIV Testing

The word *routine* can be used in different ways, and it is important to define clearly what routine prenatal testing means. *Routine* is derived from the same Latin stem as the words *route*, *rote*, and *rut* (19). Thus, *routine* refers to a regular course or procedure, a habitual or mechanical performance, or something found in the ordinary course of events (19). With regard to prenatal testing, the danger is that routine prenatal HIV testing will become so habitual or mechanical that pregnant women may not realize that they have the option to decline testing. Thus, the decision to be tested may not really be an autonomous choice. Another danger is that caregivers and patients may forget that HIV testing has much greater psychosocial risks than other blood tests and that prenatal HIV testing differs from HIV testing in other settings. In addition, what seems routine to health care workers may be a daunting experience to patients.

Several ethical issues regarding routine prenatal HIV testing need to be addressed in order to ensure that pregnant women's autonomous choices are respected. These include the notification that HIV testing will be done

unless that patient objects and an offer to discuss the risks and benefits of testing in more detail.

Notification of Patients About Routine Prenatal HIV Testing

The IOM recommends that physicians inform pregnant women explicitly that the test will be done unless they object. This provision helps ensure that prenatal testing is a voluntary choice by the pregnant woman. However, this requirement may not be observed in state law or in practice. Currently Texas and Arkansas allow prenatal HIV testing without specific consent. In Texas, clinicians must inform women that the test will be done unless they object (20). In Arkansas, however, there is no statutory requirement that pregnant women be notified that they have the right to refuse (21). Furthermore, even if laws require health care workers to notify pregnant women that they may refuse, such notification may not occur in clinical practice. In their desire to increase prenatal HIV testing, physicians and nurses may gloss over this point when discussing HIV tests with pregnant patients. If notification does not occur, the risks of prenatal HIV testing may not be minimized. For example, a woman may be concerned about domestic violence or rejection by her partner. If such concerns are identified, caregivers can discuss how test results may be disclosed to her privately and what steps she can take to decrease the risks of domestic violence.

Discussion of the Risks and Benefits of HIV Testing

The IOM recommendations would abolish pretest counseling for prenatal HIV testing. This is a dramatic policy change because almost all states currently require such pretest counseling. Some states even specify information that must be discussed with patients before HIV testing. For example, New York requires that patients be told that confidentiality may be breached and discrimination may occur (22). Proponents of routine prenatal HIV testing argue that it is counterproductive for health care providers to describe the risks of testing in detail because these risks are far outweighed by the benefits of preventing vertical transmission. Furthermore, proponents contend that it is misleading to suggest that women who deliver infants in New York state can avoid having their HIV status known. In New York, neonates must be tested if the mother's HIV status is unknown, even without the consent of the mother (22). Such neonatal testing, of course, also indicates whether the mother is infected. In these circumstances, the woman has little choice as to whether her HIV status is determined; her only choice is

whether that information is available at a time when the most effective preventive measures can be instituted.

If pretest counseling is abolished for prenatal HIV testing, what should health care workers say to pregnant patients about the risks and benefits of HIV testing? To say nothing may be misleading, suggesting that the risks of HIV testing are no greater than the risks of a test for syphilis, Rh titers, rubella antibodies, or blood sugar, which are all routine prenatal tests. Perhaps an acceptable middle ground would be for health care workers to offer to discuss the benefits and risks of prenatal HIV testing in more detail with each pregnant woman. Without an explicit offer of a more detailed discussion, patients may be hesitant to ask questions.

UNANSWERED QUESTIONS REGARDING ROUTINE PRENATAL HIV TESTING

The IOM recommendations to abolish pretest counseling in the prenatal situation leave many questions unanswered. Empirical research can help address those questions.

Is Routine Prenatal HIV Testing Acceptable to Pregnant Women?

A policy of routine prenatal HIV testing will be feasible only if it is acceptable to pregnant women. The long-term cooperation of seropositive pregnant patients is essential in preventing vertical transmission. To minimize the risk of vertical transmission, HIV-infected women must take antiretroviral therapy and must administer it to the child after birth. Although prenatal regimens may be simpler than combination regimens of highly active antiretroviral therapy, they still must be taken several times a day, optimally over many weeks. In addition, HIV-infected mothers should use bottle-feeding because HIV can be transmitted to the infant through breastfeeding (23,24). To gain the cooperation of seropositive women with recommended care, we must avoid policies that ignore their perspectives or that may lead to mistrust or confrontation.

It is crucial to understand the perspectives of pregnant women regarding routine prenatal HIV testing, particularly the views of women at increased risk for HIV. A number of empirical questions need to be studied. First, do pregnant women understand the policy of routine prenatal HIV testing? In particular, do they appreciate the difference between routine testing and mandatory testing? Do they understand the rationale for the policy and the benefits of prenatal HIV testing? Does making testing universal—having all pregnant women be tested, re-

gardless of their apparent risk for HIV—relieve concerns that routine testing is discriminatory? Does their understanding of routine testing affect their willingness to agree to testing?

A second question is what are the concerns of pregnant women regarding routine prenatal HIV testing? Do pregnant women have concerns that refusal to take an HIV test, or positive HIV test results, will be used against them in their medical care or in child abuse or child custody hearings? Do they fear that domestic violence may occur as a result of a positive HIV test result or even as a result of taking an HIV test? Do women feel that prenatal HIV testing devalues them as people, that the policy stems from a concern for preventing harm only to the infant who will be born? Unless the concerns of pregnant women are understood, steps cannot be taken to address them and thereby reduce the barriers to prenatal HIV testing.

Third, how can routine prenatal HIV testing be presented so that it is most acceptable to pregnant women? Social marketing, which segments the population of pregnant women into subgroups, may be particularly helpful in addressing the following questions. How can the policy of routine prenatal HIV testing best be described? How can misunderstandings be corrected or avoided? How can patient concerns be most effectively addressed?

Are Safeguards for Pregnant Women Adequate?

To the extent that pregnant women have realistic concerns that HIV test results may be used against them, those concerns need to be addressed.

Women may fear that refusal of prenatal HIV testing may result in charges of child neglect or abuse. However, refusal of prenatal testing per se should not be considered neglect or abuse. First, in the majority of cases, refusal of testing will not result in an avoidable case of mother-to-child transmission of HIV. In most cases, the child will be seronegative, either because the woman is seronegative or because transmission occurs in only a minority of HIV-infected pregnant women. Second, even if it is known that a pregnant woman is seropositive, forcibly administering antiretroviral therapy over her objections is both impractical and difficult to justify ethically. Third, many other actions by pregnant women are not considered child neglect or abuse, even though they put the fetus at risk. Examples are alcohol and substance abuse during pregnancy. Although such behaviors are ill-advised and morally reprehensible, they are not legally punishable. The autonomy of pregnant women is given particular respect because interventions directed at

the fetus are necessarily interventions on the pregnant woman. Pregnant women are granted more discretion to do what they consider best than parents are granted after children are born.

Legal safeguards can protect pregnant women against discrimination on the basis of their choice about prenatal HIV testing. In Maryland, pregnant women cannot be denied prenatal care if they refuse an HIV test, and the results of prenatal HIV testing are not discoverable or admissible in criminal, civil, or administrative proceedings (25). Thus, refusal of prenatal HIV testing cannot be used in proceedings about child custody or child neglect or abuse. Similar protections that address pregnant women's concerns should be adopted in other states.

What Is the Impact of Routine Prenatal HIV Testing?

The policy of routine prenatal HIV testing has been recommended in order to achieve specific public health goals. If routine prenatal HIV testing is adopted, it would be important to evaluate whether those goals in fact are achieved. Does routine prenatal HIV testing increase the number of pregnant women who receive HIV testing before the third trimester? Does the policy increase the number of pregnant women who start antiretroviral therapy? Does the policy reduce the number of HIV-infected infants? Are there any adverse consequences of the policy? Specifically, is there any evidence that the policy is leading pregnant women to forego or delay prenatal care? If new HIV testing policies deter pregnant women from prenatal care, infants may be harmed by increased prematurity or birth defects.

Is Routine Prenatal HIV Testing Cost-Effective?

Because resources for HIV prevention and care are limited, the cost-effectiveness of routine prenatal HIV testing cannot be ignored. Resources devoted to routine prenatal HIV testing cannot be spent on other HIV prevention programs or other worthwhile social programs. Hence the marginal cost effectiveness of routine prenatal testing must be compared to that of other preventive programs, such as increased outreach to injection drug users, which may identify more seropositive persons and therefore more opportunities to prevent transmission. However, prevention of vertical transmission may be given higher priority than its cost-effectiveness per se warrants. Public opinion gives special importance to preventing cases where HIV transmission can be traced to specific individuals and where exposed individuals cannot protect themselves (26–28). Other situations in which

society is willing to spend considerable resources on preventing a few cases of HIV include transmission from blood transfusions and from health care worker to patients (26–28). However, the public may be less willing to support more cost-effective prevention programs if cases of transmission can not be readily identified as failures of the program (29).

ADDITIONAL PREVENTION ISSUES AFTER HIV TESTING

Prenatal HIV testing is only the first of a series of steps that must occur for optimal prevention of vertical transmission. Other steps in the series also raise ethical dilemmas.

HIV-Infected Pregnant Women Who Present in Labor Without Prenatal Care

A policy of routine prenatal HIV testing will fail to prevent vertical HIV transmission in cases where the pregnant woman receives no prenatal care. As previously noted, approximately 15% of HIV-infected pregnant women in the U.S. present for obstetrical care for the first time while in labor (2). Even at this late stage of pregnancy, vertical transmission may still be prevented if HIV infection can be quickly identified. Recent randomized trials in developing countries show that antiretroviral therapy initiated during labor and delivery also reduces perinatal transmission of HIV significantly (5,7). Thus, if HIV-infected women could be identified among those women who first present for care during labor, there would still be an opportunity to institute effective measures to prevent vertical transmission.

Rapid HIV testing offers a means to identify HIV-infected pregnant women who first present for care during labor (30). Rapid HIV tests can be performed in about 10 minutes. Thus, if a woman presents in labor without previous prenatal care or prenatal HIV testing, it can be quickly determined whether she is seropositive. Because the negative predictive value of a single rapid test is high, a woman who tests negative can be considered HIV-negative if the rapid test is unreactive. If the rapid test is reactive, the Centers for Disease Control suggests that it is appropriate to make clinical decisions without a confirmatory test when time is limited (31). The positive predictive value of the rapid test can be increased if it is combined with another rapid test. However, currently only one rapid HIV test is approved by the Food and Drug Administration for use in the United States.

Several specific clinical and ethical issues must be

addressed regarding rapid prenatal HIV testing during labor and delivery.

First, is it appropriate for physicians to initiate antiretroviral therapy on the basis of a rapid HIV test, which may be a false positive test (31)? The benefits of acting upon a potentially false-positive test must be weighed against the risks. The benefit is the opportunity to reduce perinatal transmission substantially. In the intrapartum period, the primary risks are the stigma and anxiety of a false-positive diagnosis of HIV in the mother and the adverse consequences if confidentiality is broken, such as rejection by the woman's partner or family.

The second issue is whether a physician may initiate antiretroviral treatment during labor after obtaining the woman's assent to routine emergency therapy, rather than full informed consent. By assent, we mean the patient's affirmative acceptance of treatment based upon a clinician's recommendation of the therapy. In contrast, informed consent requires physicians to discuss with the patient the diagnosis, prognosis, risks, and benefits of treatment, and alternatives.

The third issue concerns HIV-infected women who lack the capacity to make medical decisions during labor and delivery (for example, because they are intoxicated). May the medical team begin antiretroviral therapy under a doctrine of implied consent to emergency treatment? In an emergency, if treatment must be instituted immediately to prevent serious harm, it is presumed that patients would want treatment started without their explicit consent (32). The situation may be more complicated than in usual cases of emergency treatment for patients who lack decision-making capacity. For example, after an automobile accident, physicians often turn to next of kin for authorization to treat an injured patient who cannot give consent. In the case of HIV infection, asking the woman's partner or other family to authorize treatment may be inappropriate because it may breach confidentiality and result in social harms, including rejection or even domestic violence.

Refusal of Measures To Prevent Vertical Transmission

After a pregnant woman is identified as HIV-infected, the next step in the chain of preventing prenatal HIV infection is the administration of antiretroviral therapy. However, some pregnant women do not want antiretroviral therapy. This may be an informed decision made after careful consideration of the benefits and risks of treatment. Consider a pregnant woman with two seronegative children. She fears that her partner will learn that she is taking antiretroviral therapy and infer that she

is HIV-positive. If this occurs, she believes that he will force her and her children out of his home. She concludes that the risk of homelessness outweighs the benefits of reducing the risk of vertical transmission. The woman is an autonomous moral agent, who must be allowed to weigh the benefits and burdens of antiretroviral therapy for herself. The ethical principle of respect for the autonomy of patients and the legal doctrine of informed consent allow competent pregnant patients to refuse treatment, even highly beneficial therapies. As a practical matter, it would be extremely difficult to force pregnant women to take medications over a period of many weeks over their objections. In such a situation, however, physicians should offer the woman intrapartum antiretroviral therapy, which she may be willing to accept. Steps can be taken to reduce the likelihood that the partner will discover her infection, such as avoiding labeling intravenous solutions with the name of the antiretroviral agent. Of course, the woman may still refuse intrapartum therapy.

Still other ethical dilemmas may arise after childbirth. An HIV-infected woman who assented to intrapartum therapy may, upon more reflection, decline antiretroviral therapy to the infant after birth and insist on breastfeeding. After childbirth, interventions can be administered to the child without violating the bodily integrity of the mother, unlike the prenatal situation. Moreover, there are precedents for overriding the refusal of parents to provide highly effective therapies to children (33,34). By analogy, is it ethically warranted for physicians to seek to administer antiretroviral therapy to the infant over the objections of the seropositive mother or to keep her from breastfeeding? In this situation, respect for the autonomy of parents to make medical decisions for their children must be balanced against the best interests of the infant.

IMPLICATIONS FOR EARLY DETECTION AND PREVENTION IN OTHER CLINICAL SETTINGS

In the prenatal setting, several changes in public policy have been suggested to enhance the use of measures known to prevent vertical HIV transmission. These policy changes include routine testing without pretest counseling or written consent and rapid HIV testing during labor. Are similar policy changes advisable in other situations of HIV prevention? Some arguments that support changes in prenatal HIV testing policy also support similar changes in other clinical settings. Written informed consent to HIV testing and pretest counseling may be seen as reasons for low rates of HIV testing in high-prevalence populations. Changes in HIV testing policies are justified as a public health measure if they

will lead to reduced HIV transmission, without significant adverse consequences for the individuals tested.

There are important differences between perinatal HIV transmission and HIV transmission in other settings. First, and most important, pregnancy differs from other clinical situations of HIV transmission in ethically significant ways. In pregnancy, the entity at risk for acquiring HIV infection is readily identified. The fetus who is exposed to HIV in utero is in no position to take steps to reduce potential harms. Arguably, no other being at risk for HIV is so vulnerable and dependent. This vulnerability has been the justification for other public policies that establish "routine" prenatal testing of women for other conditions (35), which generally evoke little opposition from pregnant women. There are few other clinical situations where routine testing is mandated by state laws, even for conditions that may be stigmatizing. The discrepancy between written consent for prenatal HIV testing and "routine" prenatal testing for syphilis, Rh incompatibility, and other conditions has been criticized for implying that HIV testing is less beneficial or more dangerous than these other tests. The situation is significantly different when HIV is transmitted through sexual intercourse or sharing of injection drug paraphernalia. Those at risk for transmission in these contexts may not be readily identifiable and, unlike a fetus, may be able to take steps to prevent infection, e.g., by refraining from high-risk behaviors.

Second, the evidence that early detection reduces HIV transmission is stronger in the prenatal setting. The evidence is compelling that antiretroviral therapy to the woman before and during delivery, coupled with antiretroviral therapy to the child after birth, significantly reduces mother-to-child HIV transmission. To be sure, there are no clinical trials demonstrating that routine, universal prenatal HIV testing increases the number of pregnant women identified as seropositive or reduces the number of HIV-infected infants. However, unless routine, universal prenatal HIV testing has undesirable consequences such as deterring pregnant women from prenatal care, it is unlikely to have adverse consequences on perinatal transmission. In other clinical contexts, the evidence supporting changes in HIV testing policies are weaker. As detailed elsewhere in the symposium, there is growing evidence that HIV testing and counseling are effective in reducing HIV transmission. However, studies demonstrating the effectiveness of counseling and testing have all been carried out with full informed consent for HIV testing and pretest counseling. It is not clear whether patients will adopt behavioral changes if HIV testing is carried out routinely without full informed consent.

Third, when a pregnant woman presents in labor without previous antiretroviral therapy, there is a small window of opportunity to administer antiretroviral therapy before delivery. Thus the arguments to justify rapid HIV testing for women who present in labor without HIV testing may be stronger than arguments to justify rapid testing in other clinical contexts where there are opportunities for the patient to return for further discussion of therapeutic alternatives.

These clinical and ethical differences between vertical HIV transmission and other situations of HIV transmission must be kept clearly in mind when analogous policies to enhance early HIV detection are considered in other contexts. In our view, making HIV testing routine in other clinical settings is not justified. The acceptance of routine prenatal testing for other conditions, as a matter of both public policy and clinical practice, makes the requirement for written consent for HIV testing anomalous. The issue of pretest counseling regarding HIV infection in other settings is less clear. Arguably, public knowledge about HIV transmission is now sufficiently accurate that the benefits of pretest counseling are much less than when HIV testing policies were first formulated. Communicating information about HIV may no longer be as high a priority as increasing the use of HIV testing in persons at risk. To the extent that pretest counseling is shown to be a significant barrier to physicians recommending HIV testing, pretest counseling may need to be reconsidered. Posttest counseling targeted to the patient's HIV status may be an effective alternative to pretest counseling. If patient failure to return for HIV test results is a problem, it might be addressed through the use of two rapid HIV tests, so that the results can be given to the patient the same day.

In conclusion, early detection of HIV infection during pregnancy offers the opportunity to institute antiretroviral therapy that prevents vertical transmission and also provides benefit to the pregnant woman. However, policies to encourage earlier detection also raise ethical issues regarding the definition and implementation of routine universal prenatal testing, the connection between prenatal HIV testing and the right of women to refuse antiretroviral therapy, and the care of pregnant women who present in labor without prenatal HIV testing. These ethical and policy issues must be clarified and resolved in order for HIV prevention programs to be acceptable to the public and effective in achieving their goals.

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