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## MASTER CLASS

# Managing HIV in Pregnancy

When the HIV-AIDS epidemic spread across the Western hemisphere and into the United States, we all were petrified. We've made great strides with research and investigation. Today, we have a greater understanding of the biology of the dis-

ease, ways to prevent its transmission, and methods of control. Medication development has moved rapidly.

However, in concert with this good news, patients have become less anxious and, to some extent, have let their guards down. The scare factor seems to have decreased among women and their partners. As a consequence, the rapid decline in incidence that we had

hoped for has not materialized.

The number of reported HIV cases in the United States now exceeds 1 million, and the Centers for Disease Control and Prevention estimates that about 25% of those living with HIV are unaware that they have the infection. Increasingly, women are at risk; the CDC reports that from 1999 to 2003, the estimate of AIDS cases increased by 15% among females and 1% among males.

Physicians will therefore continue to be confronted with women who are HIV infected. Like other women, these patients want to have children and provide for their families, so a thorough discussion of the management of HIV in pregnancy is most appropriate at this time. It is particularly important for obstetricians in urban areas, where the presentation of HIV-infected

women can be higher. But it is also certainly important in suburban areas, which will see their share of pregnancies in HIV-infected women. Nobody is immune and no community is spared.

I am very pleased to have Howard L. Minkoff, M.D., as my Master Class guest professor this month. He is currently a distinguished professor of ob.gyn. at the State University of New York, and is chair of the department of ob.gyn. at Maimonides Medical Center, both in Brooklyn. Dr. Minkoff has done extensive research and has published widely on the topic of HIV in pregnancy.

DR. REECE, who specializes in maternal-fetal medicine, is the vice chancellor and dean of the college of medicine at the University of Arkansas in Little Rock.

## New Tests Would Help Lower Perinatal Transmission

The HIV epidemic continues to expand in Africa and beyond, and will continue to infect women as well as men. Tens of millions of people are already infected worldwide, more than a million of them in the United States where about 7,000 HIV-infected women give birth each year.

Yet we have reasons to be optimistic. When it comes to treating the disease, we're nowhere near where we were 20 years ago—or even 10 years ago. In communities with access to care, prognoses have improved significantly. As obstetricians, we now have the tools that allow us to provide effective care for HIV-infected pregnant women and to reduce perinatal transmission. Because of our increasing use of highly active antiretroviral therapy in addition to zidovudine chemoprophylaxis and the appropriate use of elective cesarean section, we now see only a few hundred HIV-infected newborns a year.

We could reduce perinatal transmission even further with two actions: embracing the Institute of Medicine's simple and practical "opt-out" approach to HIV testing, and using rapid screening tests more frequently. The use of a rapid screening test is an important evolving step, or shift, in the management of the HIV-infected

pregnant woman. It is vital that these tests be used when necessary during labor.

Once a diagnosis is made, it is our job to guide the patient through the complex but promising process of treatment and monitoring, including, when necessary, the use of resistance testing. To do this, obstetricians can partner with HIV specialists and access up-to-date, practical treatment information online.

### 'Opt-Out' Testing, Rapid Tests

Many of the infants born HIV-positive today are infected because their mothers were not tested. Perhaps one in nine HIV-infected pregnant women gets minimal or no prenatal care. A significant number of others do not initiate care until the third trimester.

In 1999, the Institute of Medicine recommended an informed right-of-refusal approach to testing.

In this approach, the physician informs the patient that she is going to be tested for the virus that causes AIDS and that she has the right to refuse the test. She can

"opt out" by signing a consent form.

That does not mean that there are fewer safeguards with HIV testing. We're still respecting patients' autonomy. In fact, we are more cautious with this test than with other screening procedures that we routinely perform. For example, we don't have individual, informed opt-out policies for breast exams that may detect cancer. HIV infection is treatable. With early diagnosis and therapy, women have decades to live and babies can be free of the disease.

Obstetricians need to put their imprimatur on the test. That's part of our role in caring for pregnant women. If we say, "You don't need this test, do you?" instead of saying "This is a test that's good

for everybody," we may as well not offer it. The goal simply put is to have HIV status determined as early as possible in all pregnancies.

The focus most recently among scientific and public health experts has been on rapid HIV tests. The Centers for Disease Control and Prevention has recommended that physicians liberalize the use of rapid screening in labor and delivery suites, emergency departments, and other settings.

These tests should be offered to any woman in labor whose serostatus is unknown. Although not as reliable as the standard approach used for prenatal testing, these tests are sensitive enough to identify HIV-infected women, and the results can be used as a basis for offering treatment while confirmatory tests are performed. Obstetricians should not wait for definitive follow-up tests to begin intrapartum and early neonatal prophylaxis. We can tell patients that if confirmatory tests turn out negative, treatment will be discontinued.

### Therapy

If a pregnant woman tests positive, it is the obstetrician's job to monitor her immunologic and virologic status. Studies have shown a direct correlation between viral load and perinatal transmission, with

transmission lower at any given viral load if antiretroviral therapy is used.

The viral load also can be used to counsel women about the potential utility of cesarean section: With plasma HIV-1 RNA levels higher than 1,000 copies/mL, cesarean section will reduce rates of transmission. Below that level, the additive benefit of cesarean section, beyond that which can be achieved with highly active retroviral therapy, is less certain.

A lot has changed since 1994, when the Pediatric AIDS Clinical Trials Group reported that zidovudine could reduce the risk for mother-to-child transmission 70%. Current interventions for all HIV-infected individuals focus on early initiation of HAART (highly active antiretroviral therapy)—the term used for the more aggressive and more potent combination antiretroviral regimens that can better suppress viral replication, preserve immune function, and minimize the development of resistance.

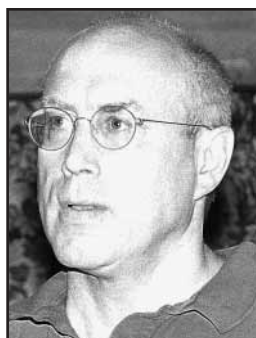
Although there are special and complex considerations to be made with regard to the choice of HAART agents in pregnancy, pregnancy per se is not a reason to defer what is now standard therapy.

In pregnancy, zidovudine should still be used whenever possible as a component of HAART regimens. Although it is similar in many ways to other nucleoside reverse transcriptase inhibitors, it has the advantage of demonstrated efficacy in preventing perinatal transmission.

If you don't see a substantial number of HIV-infected women, or if you don't keep up with the ever-expanding body of literature on antiretroviral drugs and patient management, I would advise co-managing your patient with an HIV specialist.

The obstetrician's key role is to ask the consultant what he or she would recommend if the patient were not pregnant, and then to take the lead in evaluating the drugs' benefits, toxicities, and risks. Obstetricians—with their dual roles of optimizing the health of the mother and preventing transmission of the virus to the child, in that order of priority—should be the ones to modify the regimen if necessary.

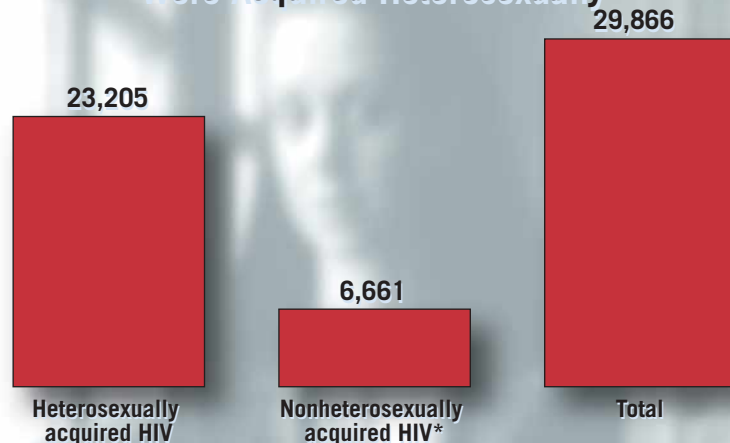
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## DATA WATCH

### Most New HIV Infections in Women During 1999-2002 Were Acquired Heterosexually



\* Infections were acquired from IV drug use, blood products, and other exposures.

Note: The data are estimated from reports from 29 states.

Source: Centers for Disease Control and Prevention