In Labor, Preparation Is Key in Rapid HIV Testing

BY SHERRY BOSCHERT
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SAN FRANCISCO — Giving a rapid HIV test to a woman in labor can help prevent transmission to the newborn, but it's just the first step, Dr. Deborah Cohan said at a meeting on antepartum and intrapartum management sponsored by the University of California, San Francisco.

A recent study of labor and delivery suites in Illinois hospitals found that all had rapid HIV tests available but only a small percentage had adequate supplies of intravenous zidovudine (AZT) to give to mothers with positive results. "They were ready, but not quite ready," said Dr. Cohan of the university and medical director of the Bay Area Perinatal AIDS Center.

The key to managing positive rapid HIV tests in labor is to be prepared, stressed Dr. Cohan. Providers of health care should have easy access to a written protocol and to HIV consultants. The Centers for Disease Control and Prevention's free Perinatal HIV Hotline can provide both and is reachable around the clock at 888-448-8765, she said.

A 66% rate of transmission for an HIV-positive mother to the newborn can be reduced to less than a 10% risk with antiretroviral therapy.

Hospital pharmacies should stock adequate supplies of antiretrovirals for use on labor and delivery wards—not only AZT in both intravenous and liquid formulations so that both the mother and the baby can be treated, but also oral nevirapine in 200-mg doses. Patient education materials should be handy as well.

When a rapid HIV test reads positive, "Often people think, 'Oh, I need to tell the mother,' but you need to tell the pharmacy first," Dr. Cohan advised. Alert the pharmacy about the need for antiretroviral therapy and think about the best mode of delivery for this patient. Alert the patient's nurse, and then tell the patient about the positive result and your recommendations for treatment and delivery.

All positive results should be treated as true positives because "there's no way to guess which might be false positives," she noted. A 66% rate of transmission for an HIV-positive mother to the newborn can be reduced to less than a 10% risk with intrapartum and/or neonatal antiretroviral therapy. "It's probably less than a 5% risk" with therapy, she said.

Start maternal antiretroviral therapy, and alert your pediatric colleagues to decide on a neonatal regimen. "The Perinatal Hotline can help with this as well," Dr. Cohan added.

To minimize risk of vertical transmission, reduce the duration of rupture of membranes or labor, avoid fetal scalp electrodes or fetal scalp sampling, avoid forceps and vacuum deliveries if possible, and don't do an episiotomy if you can avoid it to reduce the baby's exposure to maternal blood.

A cesarean section is indicated if the pregnancy is at 38 weeks' gestation with no ruptured membranes and no labor, and you can initiate maternal antiretroviral therapy before the C-section. Giving antiretrovirals 3-4 hours before C-section allows time for adequate drug levels in the mother and in umbilical cord blood.

If a woman comes in prior to 38 weeks to rule out labor, and she's not in labor and the membranes are intact but a rapid HIV test is positive, consider hospitalizing her to give intravenous antiretroviral therapy and then deliver by C-section at 38 weeks, Dr. Cohan suggested.

"We've had very good luck at getting the viral load substantially lower even after just a few days of antiretrovirals," she said.

Six rapid HIV tests have been approved that give same-day results. All require confirmatory testing for diagnosis. The rapid tests are useful for women in labor who have had no prenatal care or who did not get an HIV test during their prenatal care. Numerous studies have shown rapid HIV testing in labor is cost-effective, Dr. Cohan said.

It's a good idea to evaluate the prenatal HIV testing rate at your institution, she suggested. At San Francisco General Hospital, where Dr. Cohan practices, "we thought we were doing fine" until a study showed they were testing only 52% of pregnant women for HIV.

The hospital lost its dedicated HIV test counselor because of budget cuts, "which felt like a huge tragedy at the time" but turned out to be beneficial, she said. Incorporating HIV testing into nurses' routine intake procedures boosted the prenatal testing rate to 93%. ■

CLINICAL GUIDELINES FOR FAMILY PHYSICIANS

Screening for HIV

BY NEIL SKOLNIK, M.D., AND MARIA J. BERTUCCI, M.D.

The Centers for Disease Control and Prevention has issued important guidelines that now recommend HIV screening for all patients aged 13-64 years, and for pregnant patients regardless of their risk factors.

HIV testing has been available since 1985. The emphasis on screening specific high-risk groups became more pronounced with the development of medicines that could effectively treat HIV illness in an asymptomatic phase, leading to better outcomes than if treatment began only after the disease became manifest.

Guidelines are most useful when they are available at the point of care. A concise yet complete handheld version of this guideline is available for download, compliments of FAMILY PRACTICE NEWS, *at www.redi-reference.com.*

The Test

The HIV test, using a two-step procedure, has excellent sensitivity and specificity, and yields very few false positives or false negatives. It is also inexpensive and noninvasive. In addition, early detection of HIV may influence sexual behavior and decrease the probability of transmitting HIV through unprotected sex. Some estimates suggest the number of new infections could be reduced by 30% if all infected patients knew their HIV status.

Infection and Transmission

Despite increased risk-based screening, the annual rate of newly diagnosed infections in the United States has remained stable at about 40,000 since 1998. Currently, infection rates have increased in patients younger than the age of 20 years, in women, in racial/ethnic minorities, and in heterosexuals, particularly in urban settings. These groups are less likely to be aware of their increased risk and so are less likely to present for screening.

Perinatal transmission of HIV peaked in 1992, with 945 new cases. In 1995, perinatal use of zidovudine was found to reduce transmission. The CDC has expanded its recommendations for screening in pregnancy since then, and in 2003 it recommended that HIV testing become a routine part of prenatal care. By 2004, there were only 48 cases of perinatal transmission.

Whom to Screen

The routine, non–risk-based screening of those aged 13-64 years should require no special consent more than that required for routine blood work, which allows patients the option to refuse. HIV testing should also be offered to patients before they enter a new sexual relationship, and to every patient presenting for diagnosis and treatment of an STD. Patients who are the source of an occupational exposure or who are diagnosed with TB should also be tested.

Annual retesting is recommended for patients at high risk, defined as those with more than one sex partner since their last HIV test. Sex workers, IV drug abusers and their partners, and partners of patients who are HIV-positive are also at high risk.

Screening has been extended to adolescents because data show that 47% of high school students reported having had sex, and only 37% reported using condoms with their last sexual encounter. A recent five-city study of men who were aged 18-24 years and who have sex with men, found a staggering 17% infection rate.

Pregnant women should be informed of the intent to test as a part of routine care and be given an opportunity to "opt out" of testing. The test should require no separate or written consent beyond that used for other routine prenatal tests. (HIV testing should also be a routine part of preconception care, so women can be aware of their HIV status before becoming pregnant.)

Testing during pregnancy should be done as early as possible, and a second test can be considered during the third trimester, preferably before 36 weeks' gestation. However, for women at even mildly elevated risk of HIV, a second test later in pregnancy is strongly recommended. This would include the following:

- Women who receive health care in parts of the country with elevated incidence of HIV or AIDS among women aged 15-45 years, including Alabama, Connecticut, Delaware, the District of Columbia, Florida, Georgia, Illinois, Louisiana, Maryland, Massachusetts, Mississippi, Nevada, New Jersey, New York, North Carolina, Pennsylvania, Puerto Rico, Rhode Island, South Carolina, Tennessee, Texas, and Virginia.
- Women who live in areas where HIV in pregnancy is greater than 1 woman per 1,000.
- Women who are known to be at high risk for acquiring HIV.

Rapid testing at labor and/or post partum is recommended if the mother's HIV status is undocumented, unless the patient refuses. If the rapid test is positive, antiviral prophylaxis should be started within 12 hours post partum while waiting for confirmatory test results.

The Bottom Line

- HIV screening should become a part of the routine panel of screening tests for all patients aged 13-64 years, including pregnant women, regardless of known risk factors.
- High-risk patients should be tested annually.
- Preconception testing should include HIV testing, which should also be a part of the standard battery of tests given in the first and third trimesters of pregnancy.
- Routine screening could result in HIV being detected earlier in more patients, thus improving their outcomes and decreasing transmission to new partners.

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