Introduction

Reduction of perinatal HIV transmission is a public health success story in the United States. However, there still are approximately 200 HIV-infected babies born annually in this country, and this number has remained constant for the last several years. Diagnosis and treatment of infected pregnant women is the best way to reduce this number and possibly eliminate perinatal HIV transmission. One way to further decrease transmission rates is to implement HIV screening in settings where pregnant women, especially those not in prenatal care, may access health care, e.g., hospital emergency departments. In 2007, nearly 30 million women of child-bearing age (ages 15–44) accessed health care (for all reasons) through emergency departments in the U.S., and 5.5 million pregnancy tests were ordered or provided (1). Using a rapid test to identify previously undiagnosed HIV infection in this population is an opportunity to link infected pregnant women to prenatal care and for HIV treatment. This also is an opportunity to test women who are using the services of hospital women’s health departments or arrive at labor and delivery with undocumented HIV status.

In September of 2009, the American College of Obstetricians and Gynecologists (the College) distributed the College’s perinatal HIV testing education materials for clinicians to hospital emergency departments, women’s health departments, and labor and delivery departments to encourage testing in these settings for women with undocumented HIV status during their current pregnancy. In March 2010, a follow-up questionnaire was sent to all recipients.

Design

The survey instrument included questions about hospital departmental HIV testing policies, HIV testing practices with pregnant women, capability to do rapid or expedited HIV testing, and referral policies for positive test results. Questionnaires were

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customized for each department (emergency, women’s health, or labor and delivery). The questionnaires also asked how recipients would prefer to receive perinatal HIV testing information in the future.

The questionnaire was mailed to 2,610 directors of emergency, women’s health, and labor and delivery departments in U.S. hospitals conducting 300 or more deliveries per year. Distribution was concentrated in metropolitan areas with high rates of HIV infection and included the District of Columbia, Puerto Rico, and all states except AK, CT, HI, ID, MS, ND, NE, NH, and OR. This was a single mailing and no attempt was made to recontact nonresponders.

**Evaluation and Results**

The survey yielded 372 responses (14.25%), with the largest response coming from labor and delivery departments (185/24.6%). This was followed by women’s health (99/13.9%) and emergency departments (88/7.6%). Responses were analyzed with a personal computer-based software package (Epi Info™ from the Centers for Disease Control and Prevention) using frequency tables.

**Emergency Departments**

Most (71%) reporting emergency departments do not have perinatal HIV testing policies, although over half (51%) do have the capability to perform rapid and/or expedited HIV testing. Of those with testing policies, 25% are opt-out, 55% are opt-in, and 20% are other. Five percent of respondents did not know if their department has an HIV testing policy for pregnant women.

Sixteen percent reported testing all pregnant women with undocumented HIV status in the current pregnancy, while others reported testing pregnant women with a suspected obstetrical problem (2.3%), a suspected obstetrical problem and risk factors for HIV infection (17%); and a non-obstetrical problem with risk factors for HIV infection (10.2%). The most common barriers to implementing HIV testing for pregnant women in emergency departments were limited or no availability of HIV counseling (51.1%); lack of time and lack of funding (30.7%); limited or no availability of expedited testing (25%); and patient resistance (20.5%) and physician (19.3%) resistance to testing.

Emergency departments that do test pregnant women for HIV reported referring women who test positive to a variety of resources, including family physicians or obstetricians; community health clinics/services; infectious disease specialists; social workers; maternal-fetal medicine specialists; and nurses, nurse practitioners, or physician’s assistants.

**Women’s Health Departments**

Nearly all (96%) reporting hospital women’s health departments have an HIV testing policy for pregnant women, with 73% following an opt-out testing strategy and 23% following either opt-in (17%) or other (6%). The remainder had no policy (3%) or did not know (1%). Ninety-eight percent reported testing all pregnant women for HIV and 2% only test women with risk factors.

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When questioned about third trimester testing, one-half of respondents (51%) reported re-testing all women with a documented negative first and/or second trimester HIV test result. Sixteen percent perform a repeat test only in the presence of risk factors for HIV infection and 33% do not practice repeat testing if there is a documented negative first and/or second trimester test.

As with emergency departments, responding women’s health departments most commonly reported referring HIV-infected pregnant women to the following services: community health clinics/services (39%); social workers (56%); infectious disease specialists (52%); and maternal-fetal medicine specialists (54%).

Labor and Delivery Departments

Almost all (97%) of responding hospital labor and delivery departments have an HIV testing policy for pregnant women. Over one-half (57%) follow the opt-out testing strategy, 28% follow opt-in, and 12% report following other approaches. There were 41 different clarifications of “other.”

Eighty percent of departments have the capability to do rapid and/or expedited HIV testing and 81% test all women with an undocumented HIV status in the current pregnancy. Thirty-eight percent re-test women with a documented negative test from the first and/or second trimester who also have risk factors for contracting HIV.

As with the other departments surveyed, labor and delivery departments most commonly reported referring HIV-infected pregnant women to the following services: community health clinics/services (45%); social workers (52%); infectious disease specialists (52%); and maternal-fetal medicine specialists (54%).

Receipt of College Materials

When asked about the preferred means of communication to receive College perinatal HIV testing materials in the future, all three departments indicated that they prefer mailings, followed by emails. Emergency departments also look to websites for information. Women’s health and labor and delivery departments indicated a preference for emails with links to websites and print articles. (see Table 1)

Discussion

It was encouraging that over one-half of reporting hospital emergency departments have the capability to perform rapid or expedited HIV testing; however, it was discouraging to learn that less than one-third have policies pertaining to testing pregnant women. It is especially worrisome that so few emergency departments are performing an HIV test on pregnant women with risk factors for acquiring HIV. This is a missed opportunity to link previously undiagnosed women to care and services for their pregnancy and for HIV.

Also, it was surprising that only 25% of the sample emergency departments are following an opt-out testing strategy given that approximately 60% of states now allow that testing approach. Using opt-out testing (where legally possible) could significantly reduce the most commonly reported barriers

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to testing pregnant women—limited or no availability of HIV counseling and lack of time.

As was expected, the majority of responding hospital women’s health departments have policies in place for testing pregnant women for HIV, and 98% report testing all pregnant women. There is concern about the 2% that only test pregnant women with risk factors in spite of the fact that recommendations (from the CDC, the College, and others) to test all pregnant women have been in effect for many years.

Several states, including Florida and Texas, now have legal requirements to conduct a repeat HIV test in the third trimester for women with a documented first and/or second trimester negative test. Still it was surprising to learn that one-half of responding women’s health clinics report this practice even though both the CDC and the College recommendations are for risk-based testing (including in high risk geographic areas and settings) for this population. At the other end of the spectrum, one-third report not ever ordering a repeat test if there is a documented negative first and/or second trimester test.

While most (97%) labor and delivery departments have HIV testing policies in place, 20% do not have the capability to perform rapid and/or expedited testing and are not testing all women with an undocumented HIV status in the current pregnancy. An analysis of testing approaches other than opt-in or opt-out suggest that some labor and delivery departments may be relying on alternative testing resources, such as physician offices, prenatal clinics, hospital admissions blood work, or newborn testing. Fifty-seven percent report following the opt-out testing strategy, which is consistent with the number of states that allow this approach for pregnant women.

Survey results from all departments questioned indicate that print mailings still are the most popular method to receive College educational materials. Departments likely to be staffed by obstetric providers (women’s health and labor and delivery) site print materials such as Obstetrics and Gynecology (the Green Journal) and the College newsletter ACOG Today as a less preferred (18%) method, while emergency departments (probably not staffed by ob-gyn experts) had no interest at all in those publications.

**Conclusions**

The majority of hospital women’s health and labor and delivery departments have perinatal HIV testing policies in place and are testing pregnant women appropriately. Hopefully, with time and continued education, labor and delivery departments that currently do not have the capability to perform rapid or expedited testing for women with undocumented HIV status will develop policies and incorporate this practice. The fact that 51% of hospital-based women’s health departments report re-testing all women with a documented negative first/and or second trimester HIV test is surprisingly high given that this exceeds CDC’s and the

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College’s recommendations and is only required in a handful of states.

The primary intent of this study was to examine perinatal HIV testing in hospital emergency departments, and results suggest there is room for considerable improvement. Pregnant women with undocumented HIV status continue to access care via emergency departments, with some arriving in labor with little or no prenatal care. This is an opportunity to identify women with undiagnosed HIV infection and make referrals for obstetric care and HIV treatment. Further education about 1) the value of perinatal HIV testing in this setting and how this practice may help to reduce mother-to-child transmission and 2) how using the opt-out testing approach can expedite testing should be targeted to physicians and other emergency staff.

Table 1: Preferred Method to Receive College Educational Materials by Hospital Department

<table>
<thead>
<tr>
<th>Means of Communication</th>
<th>Emergency (%)</th>
<th>Women’s Health (%)</th>
<th>Labor &amp; Delivery (%)</th>
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<td>35</td>
<td>38</td>
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<tr>
<td>Print Articles (Green Journal and ACOG Today)</td>
<td>--</td>
<td>18</td>
<td>18</td>
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</tbody>
</table>


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