Perinatal HIV Prevention:
Current Policies, Practices and Barriers to use of Rapid Testing in Maryland Labor and Delivery Rooms

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Perinatal HIV Transmission

- Pregnant women who are HIV positive have a 25% risk of transmitting the virus to their offspring.
- Risk can be decreased from 25% to 2% in women who are identified early in their pregnancy as HIV infected.
- ARV prophylaxis during labor or within 12 hours after birth, reduces risk from 25% to 9-13%.
HIV among Maryland Women

- 37.8% of new HIV cases are women
- 200-225 HIV-positive women give birth each year
- Perinatal HIV transmission decreasing since 1992
  - 2003: 5 cases
  - 1998: 24 cases
  - 1992: 35 cases

Maryland 2005 HIV/AIDS Annual report, p 91
Study Goals:
- To determine which MD hospitals are currently offering rapid HIV testing in L&D units
- Assess the readiness, barriers, and technical assistance needs

Ultimate Goals:
- Develop targeted intervention to increase the availability and use of rapid HIV tests
- Eliminate mother-child HIV transmission
Methods

- 28-question survey
  - Distributed to Nurse manager/director
    - At all 32 Hospitals in Maryland with obstetric services
- 81% response rate
  - 26 hospitals in 13 counties
Knowledge regarding Rapid Testing

Awareness of Point-of-Care HIV test that does not need to be read in a Laboratory

- Yes: 69%
- No: 31%
Familiarity with CDC's Model Protocol for Rapid HIV Antibody Testing during Labor and Delivery

- 52% No, have not seen it
- 24% Seen it only
- 24% Seen it and used it
Hospital Policy/Protocols

Presence of Hospital Protocol for Providing Rapid HIV Testing in L&D

- Yes: 34%
- No Policy, Testing Available: 32%
- No Policy, Testing Unavailable: 32%
Hospital Policies/Protocols

- Offered to all women without HIV test results in the prenatal record
- One differed in actual practice: only offered to women without prenatal care
Practices of Hospitals without Policy/Protocol but where HIV testing is available:

- Offered to women without HIV tests in prenatal record
- Offered to women with no prenatal care
- Offered to high risk women
- Offered if HIV is suspected
Policies: Documentation Requirements

60% Requires documentation of offering, acceptance, refusal and test results

20% Requires documentation of acceptance, refusal, and test results

10% Requires documentation of offering only

10% Does not require documentation
### Hospital Policies/Protocols:

<table>
<thead>
<tr>
<th>Tests Used For Initial HIV Screen</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Reveal Rapid</td>
<td>38%</td>
</tr>
<tr>
<td>ELISA/EIA</td>
<td>31%</td>
</tr>
<tr>
<td>OraQuick Rapid</td>
<td>23%</td>
</tr>
<tr>
<td>Uni-Gold Rapid</td>
<td>8%</td>
</tr>
<tr>
<td>DNA PCR</td>
<td>0%</td>
</tr>
<tr>
<td>RNA PCR</td>
<td>0%</td>
</tr>
<tr>
<td>Other:</td>
<td>15%</td>
</tr>
</tbody>
</table>

**Confirmatory Test:**

Western Blot
Rapid Test Practices

- HIV testing is performed in the hospital lab or an off-site laboratory. Only one hospital currently conducts HIV testing in the L&D unit.

- Quality assurance of tests drawn in L&D is conducted by a designated lab personnel.

- Testing is drawn by nurse or phlebotomist, but results are given by physician or midwife.

- Results are available within 1 hour in 57% of hospitals, and within 4 hours for all but one hospital.
<table>
<thead>
<tr>
<th>Location</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee Health</td>
<td>57%</td>
</tr>
<tr>
<td>Labor and Delivery</td>
<td>43%</td>
</tr>
<tr>
<td>Emergency Department</td>
<td>38%</td>
</tr>
<tr>
<td>Inpatient</td>
<td>28%</td>
</tr>
<tr>
<td>Outpatient Centers</td>
<td>19%</td>
</tr>
<tr>
<td>Other (lab)</td>
<td>10%</td>
</tr>
<tr>
<td>Trauma</td>
<td>10%</td>
</tr>
<tr>
<td>Urgent Care Center</td>
<td>10%</td>
</tr>
<tr>
<td>Not Available</td>
<td>14%</td>
</tr>
</tbody>
</table>
Reasons for using Oraquick Rapid HIV-1 in the lab instead of L&D

- Privacy Issues
- Regulatory Issues (e.g. CLIA)
- State or local laws
- Organizational Requirements
- Clinical Staff decline responsibility for HIV Testing
- **Concerns over quality control**
- **Able to receive timely results from the laboratory**
Policy/Protocol for women and their infants with a positive HIV test result during labor and delivery

82% Provide antiretroviral medication to woman in labor and neonate as soon as possible

5% ARV medication not provided to either woman or neonate until confirmatory positive test results are obtained

14% No such hospital policy/protocol
ARV medications available in Hospital’s Pharmacy

- Nearly all hospitals had either Zidovudine (AZT or ZDV) IV or tablets 24hrs/day, 7 days per week
  - 57% both IV and Tab
  - 28% IV only
  - 14% Tab only
Protocol for women who were not tested for HIV in prenatal care or prior to delivery

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>43%</td>
<td><strong>Mother only</strong> is approached for HIV testing postpartum</td>
</tr>
<tr>
<td>10%</td>
<td>With parental consent, HIV testing is routinely offered for <strong>newborn only</strong></td>
</tr>
<tr>
<td>14%</td>
<td><strong>Both</strong> mother and newborn are approached for testing</td>
</tr>
<tr>
<td>14%</td>
<td>Newborns whose mothers are at high risk</td>
</tr>
<tr>
<td>5%</td>
<td>Testing is routinely done on the newborn without parental consent</td>
</tr>
<tr>
<td>24%</td>
<td>Other</td>
</tr>
</tbody>
</table>
Factors rated “Very Important” in explaining why HIV testing is not part of their routine L&D care for women with undocumented HIV Status

- Privacy Issues
- Legal and regulatory Issues
- State or local laws
- Insufficient linkages for HIV care
Conclusions

- Poor Knowledge regarding HIV Rapid Testing
- Few hospitals with established policies/protocols regarding HIV testing
- Low availability of rapid testing
- Suboptimal use of Rapid Testing
Recommendations

- Education regarding Rapid Tests
- Bring staff up-to-date on current HIV testing and perinatal prevention recommendations and guidelines
- Assist in establishing policies/protocols regarding HIV testing in labor and delivery units
- Staff training in administration of the tests, pre and post-test counseling
- Limited provision of rapid HIV test kits
Limitations

- No internal validation
- Sampling nurse managers only