

# **Vermont Guidelines for Universal HIV Counseling and Voluntary HIV Testing for Pregnant Women**

<b>What is the Intent of These Recommendations?</b> .....	1
<b>How Were These Recommendations Developed?</b> .....	2
<b>Principles of Routine Screening</b> .....	3
<b>A. Preconception Counseling and Care</b> .....	3
<b>B. Universal Opt-Out Screening</b> .....	3
<b>C. Addressing Reasons for Declining Testing</b> .....	4
<b>D. Timing of HIV Testing</b> .....	4
<b>Recommendations for HIV Positive Women</b> .....	5
<b>A. General Principles of Counseling</b> .....	5
<b>B. General Principles of Treatment</b> .....	5
<b>C. Recommendations for Follow-up of Infected Women and Perinatally Exposed Children</b> .....	7
<b>D. Confirmatory Testing</b> .....	7
<b>What if a Woman’s HIV Status is Unknown at the Time of Labor &amp; Delivery?</b> .....	8
<b>A. Rapid Testing During Labor</b> .....	8
<b>B. Postpartum/Newborn Testing</b> .....	9
<b>Resource List</b> .....	11

## What is the Intent of These Recommendations?

The intent of these recommendations is to further decrease perinatal HIV transmission in Vermont. Routine HIV testing of pregnant women has contributed to a decrease in the number of HIV positive children born in the United States. As stated in the CDC's September 2006 *Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health Care Settings*,

“...[the] incidence of pediatric HIV/AIDS in the United States has declined substantially since the 1990s, when prevention strategies began to include specific recommendations for routine HIV testing of pregnant women. Perinatal transmission rates can be reduced to <2% with universal screening of pregnant women in combination with prophylactic administration of antiretroviral drugs, scheduled cesarean delivery when indicated, and avoidance of breast feeding.”<sup>1</sup>

Advances in HIV therapies have made early identification of HIV infection critical in improving the health of pregnant women and their children. Early knowledge of HIV infection before pregnancy or during the antenatal period has proven to have many benefits:

- 1) The woman can receive antiretroviral treatment and prophylaxis against opportunistic infection for her own health.
- 2) The woman can receive chemoprophylaxis during pregnancy and labor and the newborn can receive chemoprophylaxis during the first weeks of life to reduce the risk of HIV transmission from mother to child.
- 3) The HIV-infected woman can be advised against breastfeeding.
- 4) The HIV-exposed child can be given *Pneumocystis jiroveci* pneumonia (PCP) prophylaxis at age 4-6 weeks.
- 5) The HIV-exposed child can receive early diagnostic evaluation to identify HIV infection and permit early, aggressive therapy.

During the 1990s these benefits of early knowledge of pregnant women's HIV status led the Public Health Service (PHS), the American Academy of Pediatrics, the American College of Obstetricians and Gynecologists, and the American Academy of Family Physicians (AAFP) to recommend universal HIV counseling and voluntary HIV testing with consent as the standard for all pregnant women in the United States.<sup>2</sup>

While universal HIV testing of pregnant women remains the standard, recent efforts to ensure that all pregnant women are tested for the virus has led to the recommendation that HIV testing be offered as part of the routine panel of prenatal tests. Thus the CDC's 2006 *Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health Care Settings* reiterate the recommendation for universal HIV screening early in pregnancy but advise:

- o simplifying the screening process to maximize opportunities for women to learn their HIV status during pregnancy
- o preserving the woman's option to decline HIV testing

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<sup>1</sup> CDC. Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health Care Settings. MMWR 2006;55 (no. RR-14). This document can be accessed via the CDC's website: <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5514a1.htm>

<sup>2</sup> Centers for Disease Control and Prevention. Guidelines for the use of antiretroviral agents in pediatric HIV Infection. MMWR 1998; 47(No.RR-4).

- o ensuring a provider-patient relationship conducive to optimal clinical and preventive care.

HIV screening should also be a routine component of preconception care, maximizing opportunities for all women to know their HIV status before conception. In addition, screening early in pregnancy enables HIV-infected women and their infants to benefit from appropriate and timely interventions.

### **How Were These Recommendations Developed?**

The Vermont Guidelines for Universal HIV Counseling and Voluntary Testing for Pregnant Women (1999) were revised using input from the following sources:

1. Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health Care Settings (*MMWR September 22, 2006 / Vol. 55*).
2. Public Health Service Task Force Recommendations for Use of Antiretroviral Drugs in Pregnant HIV-1 Infected Women for Maternal Health and Interventions to Reduce Perinatal HIV-1 Transmission in the United States. (*Perinatal HIV Guidelines Working Group. October 12, 2006; 1-65*).
3. Guidelines for the Use of Antiretroviral Agents in Pediatric HIV Infection. (*Working Group on Antiretroviral Therapy and Medical Management of HIV-Infected Children. October 26, 2006; 1-126*).
4. An eleven member panel which revised the original Vermont Guidelines for Universal HIV Counseling and Voluntary Testing for Pregnant Women (1999). Panelists included:
  - o Mike Bassett (Resource Coordinator, Vermont Department of Health)
  - o Jill Clark, MPH (Perinatal HIV Prevention Section, Centers for Disease Control and Prevention)
  - o Elizabeth Bonney, M.D. (University of Vermont, Fletcher Allen Health Care)
  - o Eleanor Capeless, M.D. (University of Vermont, Fletcher Allen Health Care)
  - o Fran Cohen (Clinical Quality Improvement Director, Planned Parenthood of Northern New England)
  - o Wendy Davis, M.D. (Director Of Maternal Child Health, Vermont Department of Health)
  - o Michelle Force, MA, PhD (HIV Prevention Supervisor, Vermont Department of Health)
  - o Cathleen M. Harris, M.D. (University of Vermont, Fletcher Allen Health Care)
  - o Kathleen Keleher, RN, MPH, FACNM (Acting Director of Public Health Nursing, Vermont Department of Health)
  - o Deborah Kutzko, RN, FNP (University of Vermont, Fletcher Allen Health Care)
  - o Rob Lunn, MPA (Director, HIV/AIDS/STD/Hepatitis C Program, Vermont Department of Health)
  - o Kerry Stanley (Counseling and Testing Coordinator, Vermont Department of Health)

## **Principles of Routine Screening**

### **A. Preconception Counseling and Care**

Health care providers should provide HIV counseling and offer testing to women before they become pregnant or as early in pregnancy as possible to allow women to know their infection status both for their own health and to reduce the risk for perinatal HIV transmission. Informed and timely therapeutic and reproductive decisions can then be made by the woman if she is HIV positive.

“The Centers for Disease Control and Prevention (CDC), the American College of Obstetrics and Gynecology (ACOG), and other national organizations recommend offering all women of childbearing age the opportunity to receive preconception counseling and care as a component of routine primary medical care. The purpose of preconception care is to improve the health of each woman prior to conception by identifying risk factors for adverse maternal or fetal outcome, providing education and counseling targeted to the patient’s individual needs, and treating or stabilizing medical conditions to optimize maternal and fetal outcomes [105]. Preconception care is not a single clinical visit, but rather a process of ongoing care and interventions integrated into primary care to address the needs of women during the different stages of reproductive life. Because more than half of all pregnancies are unintended [106], it is important that preconception care be integrated into routine health visits. Therefore, HIV care providers who routinely care for women of reproductive age play an important role in promoting preconception health. The fundamental principles of preconception counseling and care have been outlined by the CDC Preconception Care Work Group’s “Recommendations to Improve Preconception Health and Health Care” [107]. In addition to the general components of preconception counseling and care that are appropriate for all women of reproductive age, HIV-1-infected women have specific needs that should be addressed [108].”<sup>3</sup>

### **B. Universal Opt-Out Screening<sup>4</sup>**

- All pregnant women in the United States should be screened for HIV infection.
- Screening should occur after a woman is notified that HIV screening is recommended for all pregnant patients and that she will receive an HIV test as part of the routine panel of prenatal tests unless she declines (opt-out screening).
- HIV testing must be voluntary and free from coercion. No woman should be tested without her knowledge.
- Pregnant women should receive oral or written information that includes an explanation of HIV infection, a description of interventions that can reduce HIV transmission from mother to infant, and the meanings of positive and negative test results and should be offered an opportunity to ask questions and to decline testing.
- No additional process or written documentation of informed consent beyond what is required for other routine prenatal tests should be required for HIV testing.

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<sup>3</sup> Pages 12-13 of the Perinatal HIV Guidelines Working Group. Public Health Service Task Force Recommendations for Use of Antiretroviral Drugs in Pregnant HIV-1 Infected Women for Maternal Health and Interventions to Reduce Perinatal HIV-1 Transmission in the United States. October 12, 2006 1-65. Available at <http://aidsinfo.nih.gov/ContentFiles/PerinatalGL.pdf>. Accessed April 13, 2007.

<sup>4</sup> CDC. Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health Care Settings. MMWR 2006;55 (no. RR-14). This document can be accessed via the CDC’s website: <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5514a1.htm>

- If a patient declines an HIV test, this decision should be documented in the patient's medical record.

### **C. Addressing Reasons for Declining Testing<sup>5</sup>**

- Providers should discuss and address reasons for declining an HIV test (e.g., lack of perceived risk; fear of the disease; and concerns regarding partner violence or potential stigma or discrimination).
- Women who decline an HIV test because they have had a previous negative test result should be informed of the importance of retesting during each pregnancy.
- Logistical reasons for not testing (e.g., scheduling) should be resolved.
- Certain women who initially decline an HIV test might accept at a later date, especially if their concerns are discussed.
- Certain women will continue to decline testing, and their decisions should be respected and documented in the medical record.

### **D. Timing of HIV Testing**

- To promote informed and timely therapeutic decisions, health care providers should test women for HIV prior to conception or as early as possible during each pregnancy. Women who decline the test early in prenatal care should be encouraged to be tested at a subsequent visit.<sup>6</sup>
- A second HIV test during the third trimester is recommended for women who:<sup>7</sup>
  - Women who are known to be at high risk for acquiring HIV (e.g., injection-drug users and their sex partners, women who exchange sex for money or drugs, women who are sex partners of HIV-infected persons, and women who have had a new or more than one sex partner during this pregnancy).
  - Women who have signs or symptoms consistent with acute HIV infection. When acute retroviral syndrome is a possibility, a plasma RNA test should be used in conjunction with an HIV antibody test to diagnose acute HIV infection (96).
- All women who test negative for HIV should be counseled about the limitations of a single blood test (i.e., time lag between infection and detectable levels of antibodies).
- Uninfected pregnant women and pregnant women who refuse testing who continue to practice high-risk behaviors (e.g., injection-drug use and unprotected sexual contact with an HIV-infected or high-risk partner) should be counseled on strategies to decrease risk, referred to appropriate support services, and encouraged to be tested/retested for HIV throughout the pregnancy.

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<sup>5</sup> CDC. Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health Care Settings. MMWR 2006;55 (no. RR-14). This document can be accessed via the CDC's website: <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5514a1.htm>

<sup>6</sup> CDC. Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health Care Settings. MMWR 2006;55 (no. RR-14). This document can be accessed via the CDC's website: <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5514a1.htm>

<sup>7</sup> CDC. Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health Care Settings. MMWR 2006;55 (no. RR-14). This document can be accessed via the CDC's website: <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5514a1.htm>

## **Recommendations for HIV Positive Women**

“Antiretroviral therapy administered during pregnancy, labor, and delivery and then to the newborn, as well as elective cesarean section for women with high viral loads (more than 1,000 copies/ml), can reduce the rate of perinatal HIV transmission to 2% or less [3]. If medications are started during labor, decreased rate of perinatal transmission can still be achieved (less than 10%).”<sup>8</sup>

### **A. General Principles of Counseling**

- Pregnant, HIV positive women should be offered the care of an HIV specialty physician. Medical care of the HIV-infected pregnant woman requires coordination and communication between the HIV specialist caring for the woman when she is not pregnant and her obstetrician.<sup>9</sup>
- HIV-infected pregnant women should be evaluated to determine their need for support services. For women who anticipate or experience negative effects, counseling may also include a) information on how to minimize these potential consequences, b) assistance in identifying supportive persons in their own social network, and c) referral to appropriate psychological, social, and legal services.
- HIV-infected women should be encouraged to obtain HIV testing for their sexual partners and any of their children born after the woman may have become infected.
- HIV-infected women should be informed that discrimination based on HIV status regarding matters such as housing, employment, state programs, and public accommodations (including health care facilities) is illegal under the Americans with Disabilities Act (ADA).

### **B. General Principles of Treatment**

“Discussion of treatment options should be noncoercive, and the final decision regarding use of antiretroviral drugs is the responsibility of the woman. Decisions regarding use and choice of antiretroviral drugs for persons who are not pregnant are becoming increasingly complicated as the standard of care moves toward simultaneous use of multiple antiretroviral drugs to suppress viral replication below detectable limits. These decisions are further complicated in pregnancy because the long-term consequences for the infant who has been exposed to antiretroviral drugs *in utero* are unknown. A woman's decision to refuse treatment with ZDV or other drugs should not result in punitive action or denial of care. Further, use of ZDV alone should not be denied to a woman who wishes to minimize exposure of the fetus to other antiretroviral drugs and therefore, after counseling, chooses to receive only ZDV during pregnancy to reduce the risk for perinatal transmission.

A long-term treatment plan should be developed after discussion between the patient and the health care provider and should emphasize the importance of adherence to any prescribed antiretroviral regimen. Depending on individual circumstances, provision of support services, mental health services, and drug abuse treatment may be required. Coordination of services among prenatal care providers, primary care and HIV-1 specialty care providers, mental health and drug abuse

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<sup>8</sup> CDC Fact Sheet: Mother-to-Child (Perinatal) HIV Transmission and Prevention. May 2006. Available at <http://www.cdc.gov/hiv/resources/factsheets/PDF/perinat1.pdf> Accessed April 16, 2007.

<sup>9</sup> Perinatal HIV Guidelines Working Group. Public Health Service Task Force Recommendations for Use of Antiretroviral Drugs in Pregnant HIV-1 Infected Women for Maternal Health and Interventions to Reduce Perinatal HIV-1 Transmission in the United States. October 12, 2006 1-65. Available at <http://aidsinfo.nih.gov/ContentFiles/PerinatalGL.pdf>. Accessed April 13, 2007.

treatment services, and public assistance programs is essential to ensure adherence of the infected woman to antiretroviral treatment regimens.”<sup>10</sup>

- The HIV-infected woman should be advised against breastfeeding.<sup>11</sup>

Therapy should be offered according to the most current, appropriate regimens in published recommendations. Use of antiretrovirals with pediatric patients and with pregnant women is evolving rapidly. The most recent information available at [www.aidsinfo.nih.gov](http://www.aidsinfo.nih.gov). *AIDSinfo* is a U.S. Department of Health and Human Services (DHHS) project that offers the latest federally approved information on HIV/AIDS clinical research, treatment and prevention, and medical practice guidelines. This website provides up-to-date information on:

- Antiretroviral Treatment
  - Guidelines for Adolescents and Adults
  - Pediatric Guidelines
  - Safety and Toxicity of Individual Antiretroviral Agents in Pregnancy
- Maternal-Child Transmission
  - Perinatal Guidelines
- Management of HIV Complications

Another resource for clinicians treating HIV-infected pregnant women is the National HIV/AIDS Clinicians' Consultation Center's Perinatal Hotline. The hotline is available 24 hours a day and provides consultation on treating HIV-infected pregnant women and their infants as well as advice from HIV experts on indications and interpretations of HIV testing. The hotline can be reached at 1-888-448-8765. Information about the hotline is available at the following website: [www.ucsf.edu/hivcntr/Hotlines/Perinatal.html](http://www.ucsf.edu/hivcntr/Hotlines/Perinatal.html).

Health care providers who are treating HIV-1 infected pregnant women and their newborns are strongly advised to report instances of prenatal exposure to antiretroviral drugs (either alone or in combination) to the Antiretroviral Pregnancy Registry. This registry is an epidemiologic project to collect observational, nonexperimental data regarding antiretroviral exposure during pregnancy for the purpose of assessing the potential teratogenicity of these drugs. Registry data will be used to supplement animal toxicology studies and assist clinicians in weighing the potential risks and benefits of treatment for individual patients.

Referrals should be directed to:  
Antiretroviral Pregnancy Registry  
Research Park  
1011 Ashes Drive  
Wilmington, NC 28405  
Telephone: 1-800-258-4263  
Fax: 1-800-800-1052  
Internet access [www.APRegistry.com](http://www.APRegistry.com)

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<sup>10</sup> Page 14 Perinatal HIV Guidelines Working Group. Public Health Service Task Force Recommendations for Use of Antiretroviral Drugs in Pregnant HIV-1 Infected Women for Maternal Health and Interventions to Reduce Perinatal HIV-1 Transmission in the United States. October 12, 2006 1-65. Available at <http://aidsinfo.nih.gov/ContentFiles/PerinatalGL.pdf>. Accessed April 13, 2007.

<sup>11</sup> Centers for Disease Control and Prevention. Guidelines for the use of antiretroviral agents in pediatric HIV Infection. MMWR 1998; 47(No.RR-4).



### **C. Recommendations for Follow-up of Infected Women and Perinatally Exposed Children**

- After obtaining consent, maternal health care providers should notify the pediatric-care providers of the impending birth of an HIV-exposed child, any anticipated complications, and the mother's decision regarding antiretroviral treatments for her child.
- If HIV is first diagnosed in the child, the child's health care providers should discuss the implication of the child's diagnosis for the woman's health and assist the mother in obtaining care for herself. Providers are encouraged to build supportive health care relationship that can facilitate discussion of pertinent health information. Confidential HIV-related information should be disclosed or shared only with informed *written* consent.
- Following pregnancy, HIV-infected women should be provided ongoing HIV-related medical care as needed.
- HIV-infected women should continue to receive primary health care, HIV specialty care, and gynecological care (including regular Pap smears, reproductive counseling, counseling on how to prevent sexual transmission of HIV and other STDs, and treatment of gynecologic conditions).
- HIV-infected women (or the guardians of their children) should be informed of the importance of follow-up for their children who may have been exposed. These children should receive follow-up care to determine their infection status, to initiate prophylactic therapy to prevent PCP, and, if infected, to determine the need for antiretroviral and other prophylactic therapy.
- Because the identification of an HIV-infected mother also identifies a family that needs or will need medical and social service, health care providers should ensure that referrals to these services focus on the needs the entire family, including other HIV positive members.

### **D. Confirmatory Testing**

- Whenever possible, uncertainties regarding laboratory test results indicating HIV infection status should be resolved before final decisions are made regarding reproductive options, antiretroviral therapy, cesarean delivery, or other interventions.<sup>12</sup>
- The immediate initiation of antiretroviral prophylaxis for prevention of mother-to-child HIV transmission is strongly recommended while awaiting confirmatory testing results after an initial positive rapid HIV test.<sup>13, 14</sup>

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<sup>12</sup> CDC. Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health Care Settings. MMWR 2006;55 (no. RR-14). This document can be accessed via the CDC's website: <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5514a1.htm>

<sup>13</sup> Working Group on Antiretroviral Therapy and Medical Management of HIV-Infected Children. Guidelines for the Use of Antiretroviral Agents in Pediatric HIV Infection. October 26, 2006; 1-126. Available at <http://aidsinfo.nih.gov/ContentFiles/PediatricGuidelines.pdf>. Accessed April 13, 2007.

<sup>14</sup> CDC. Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health Care Settings. MMWR 2006;55 (no. RR-14). This document can be accessed via the CDC's website: <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5514a1.htm>

## **What if a Woman's HIV Status is Unknown at the Time of Labor & Delivery?**

The Vermont Department of Health recommends that **100%** of pregnant women are screened for HIV prior to labor & delivery. Hospitals should utilize internal quality assurance measures to determine the percentage of pregnant women screened for HIV. The following recommendations are for situations where a woman's HIV status is unknown at the time of labor & delivery.

### **A. Rapid Testing During Labor**

- For hospitals **with a rapid testing program for HIV** it is recommended that any woman with undocumented HIV status, or whose records are unavailable at the time of labor, be screened with a rapid HIV test unless she declines (opt-out screening).
- Reasons for declining a rapid test should be explored and documented.
- Any woman who declines HIV testing in labor and delivery should be informed that it is strongly recommended that her baby receive an HIV test as soon as possible after birth.
- Immediate initiation of appropriate antiretroviral prophylaxis should be recommended to women on the basis of a reactive rapid test result without waiting for the result of a confirmatory test.<sup>15</sup>
  - If medications are started during labor, a decreased rate of perinatal transmission can still be achieved (less than 10%).<sup>16</sup>
- It is strongly recommended that antiretroviral prophylaxis be initiated for the infant while awaiting confirmatory testing results after an initial positive rapid test in the mother or the infant.<sup>17</sup>
  - The benefits of neonatal antiretroviral prophylaxis are best realized when it is initiated <12 hours after birth.<sup>18</sup>

*Rapid testing in labor and delivery has become the common practice for situations where the woman's HIV status is undocumented. Rapid testing in labor and delivery can provide preliminary results in less than an hour, thus allowing for the immediate initiation of antiretroviral prophylaxis to the mother and her newborn in the event of a preliminary positive result. The provision of rapid testing in labor and delivery avoids any delays associated with conventional HIV testing procedures so that antiretroviral prophylaxis can be administered at the time it is most likely to be effective. However, it is up to individual hospitals to determine whether or not a rapid testing program is appropriate for the facility. Issues to consider regarding the implementation of a rapid testing program in labor and delivery include:*

- Patient population (how many deliveries does the hospital do, and how many women have an unknown HIV status at the time of delivery?)

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<sup>15</sup> Perinatal HIV Guidelines Working Group. Public Health Service Task Force Recommendations for Use of Antiretroviral Drugs in Pregnant HIV-1 Infected Women for Maternal Health and Interventions to Reduce Perinatal HIV-1 Transmission in the United States. October 12, 2006 1-65. Available at <http://aidsinfo.nih.gov/ContentFiles/PerinatalGL.pdf>. Accessed April 13, 2007.

<sup>16</sup> CDC Fact Sheet: Mother-to-Child (Perinatal) HIV Transmission and Prevention. May 2006. Available at <http://www.cdc.gov/hiv/resources/factsheets/PDF/perinatl.pdf> Accessed April 16, 2007.

<sup>17</sup> Working Group on Antiretroviral Therapy and Medical Management of HIV-Infected Children. Guidelines for the Use of Antiretroviral Agents in Pediatric HIV Infection. October 26, 2006; 1-126. Available at <http://aidsinfo.nih.gov/ContentFiles/PediatricGuidelines.pdf>. Accessed April 13, 2007

<sup>18</sup> CDC. Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health Care Settings. MMWR 2006;55 (no. RR-14). This document can be accessed via the CDC's website: <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5514a1.htm>

- Testing location (at bedside or in the laboratory?)
- Staff training (how many staff need training?)
- Proficiency (how often will rapid testing in labor and delivery be performed? when will staff need refresher training?)
- Cost (up front costs such as trainings, recurring costs such as test kits and controls)
- Is there an infrastructure in place to support rapid HIV testing and antiretroviral prophylaxis? (protocols, test kits, antiretrovirals)
- Communication (how will HIV test results be communicated to the obstetrician? to the patient? to the pediatrician?)
- Follow up (how will HIV-infected women and exposed infants be connected to care?)

For more information please see: *Rapid HIV Antibody Testing During Labor and Delivery for Women of Unknown HIV Status A Practical Guide and Model Protocol*. CDC, January 30, 2004. This document can be accessed via the CDC's website: [www.cdc.gov/hiv/topics/testing/resources/guidelines/pdf/Labor&DeliveryRapidTesting.pdf](http://www.cdc.gov/hiv/topics/testing/resources/guidelines/pdf/Labor&DeliveryRapidTesting.pdf)

*The Vermont Department of Health can assist facilities in locating resources that may help guide the implementation of a rapid testing program for labor and delivery. This technical assistance could include facilitating communication with a Vermont hospital, or hospitals, that have established a rapid testing program in labor and delivery, or facilitating communication with the CDC or another external organization that can assist with implementation issues.*

- For hospitals **where rapid testing for HIV is unavailable** it is recommended that any woman with undocumented HIV status at the time of labor be screened with a conventional HIV test unless she declines (opt-out screening). The conventional HIV test should be expedited so that results are available within 12 hours.
- Reasons for declining a HIV test should be explored and documented.
- Any woman who declines HIV testing in labor and delivery should be informed that it is strongly recommended that her baby receive an HIV test as soon as possible after birth.
- Appropriate antiretroviral treatment and follow-up care is recommended for a woman who tests positive and for her infant.

## **B. Postpartum/Newborn Testing**

Perinatal HIV transmission may occur *in utero*, during delivery, or through breastfeeding. Transmission risk is increased with such things as: higher maternal viral load, premature rupture of the amniotic membranes, vaginal delivery (as opposed to elective caesarean section), and breastfeeding. Depending on when transmission occurs (whether it occurs *in utero*, during delivery or through breastfeeding) an infant may or may not test positive on HIV viral load (DNA PCR or RNA assay) tests during the first weeks of life.<sup>19</sup> A positive antibody test (such as a rapid test) conducted with an infant up to 18 months of age may be indicating the presence of *maternal* HIV antibodies. "HIV infection can be definitively diagnosed through the use of virologic assays in most HIV-infected infants by age 1 month and in virtually all infected infants by age 6 months. Tests for antibodies to HIV, including newer rapid tests, do not establish the presence of HIV infection in infants because of transplacental transfer of maternal antibodies; therefore a virologic test should be utilized."<sup>20</sup> Regardless of the type of test performed with the

<sup>19</sup> Dunn, D., Brandt, C., Krivine, A., et al. The sensitivity of HIV-1 DNS polymerase chain reaction in the neonatal period, and the relative contributions of intra-uterine and intra-partum transmission. *AIDS*, 1996; 9 (F7-F11).

<sup>20</sup> Page 5 Working Group on Antiretroviral Therapy and Medical Management of HIV-Infected Children. Guidelines for the Use of Antiretroviral Agents in Pediatric HIV Infection. October 26, 2006; 1-126. Available at <http://aidsinfo.nih.gov/ContentFiles/PediatricGuidelines.pdf>. Accessed April 13, 2007

infant (virologic or antibody), immediate initiation of antiretroviral prophylaxis is recommended for infants with a positive or reactive test result.

- For hospitals **with a rapid testing program for HIV** it is recommended that the woman be screened immediately postpartum with a rapid HIV test (opt-out screening). If HIV screening was declined during labor & delivery, repeating the recommendation of an HIV test post-partum is at the discretion of the health care providers.
- If documentation of the mother's HIV status is not available, rapid testing of the newborn as soon as possible after birth is strongly recommended so antiretroviral prophylaxis can be offered to HIV-exposed infants. Women should be informed that identifying HIV antibodies in the newborn indicates that the mother is infected.<sup>21</sup>
- If a woman declines an HIV test for herself or for her child then the reasons for declining the HIV test should be explored and documented.
- For infants whose HIV exposure status is unknown and who are in foster care, the person legally authorized to provide consent should be informed that rapid HIV testing is recommended for infants whose biologic mothers have not been tested.<sup>22</sup>
- The benefits of neonatal antiretroviral prophylaxis are best realized when it is initiated <12 hours after birth.<sup>23</sup>
  
- For hospitals **where rapid testing for HIV is unavailable** it is recommended that the woman be screened immediately postpartum with a conventional HIV test unless she declines (opt-out screening). The conventional HIV test should be expedited so that results are available within 12 hours. If HIV screening was declined during labor & delivery, repeating the recommendation of an HIV test post-partum is at the discretion of the health care providers.
- If documentation of the mother's HIV status is not available, antibody HIV testing of the newborn as soon as possible after birth is strongly recommended so antiretroviral prophylaxis can be offered to HIV-exposed infants. The conventional HIV test should be expedited so that results are available within 12 hours. Women should be informed that identifying antibodies in the newborn indicates that the mother is infected.
- If a woman declines an HIV test for herself or for her child then the reasons for declining the HIV test should be explored and documented.
- For infants whose HIV exposure status is unknown and who are in foster care, the person legally authorized to provide consent should be informed that HIV testing is recommended for infants whose biological mothers have not been tested.

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<sup>21, 22, 23</sup> CDC. Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health Care Settings. MMWR 2006;55 (no. RR-14). This document can be accessed via the CDC's website: <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5514a1.htm>

## Resource List

CDC Fact Sheet: Mother-to-Child (Perinatal) HIV Transmission and Prevention. May 2006. Available at <http://www.cdc.gov/hiv/resources/factsheets/PDF/perinatl.pdf> Accessed April 16, 2007.

Goldschmidt, R. and Fogler, J. Opportunities to Prevent HIV Transmission in Newborns. *Pediatrics*, January 2006; 117 (no. 1) pp 208-209.

Guidelines for the Use of Antiretroviral Agents in Pediatric HIV Infection. (*Working Group on Antiretroviral Therapy and Medical Management of HIV-Infected Children*. October 26, 2006; 1-126). [www.aidsinfo.nih.gov](http://www.aidsinfo.nih.gov)

Public Health Service Task Force Recommendations for Use of Antiretroviral Drugs in Pregnant HIV-1 Infected Women for Maternal Health and Interventions to Reduce Perinatal HIV-1 Transmission in the United States. (*Perinatal HIV Guidelines Working Group*. October 12, 2006; 1-65). [www.aidsinfo.nih.gov](http://www.aidsinfo.nih.gov)

Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health Care Settings. *MMWR*, 2006;55 (no. RR-14). This document can be accessed via the CDC's website: <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5514a1.htm>

Rapid HIV-1 Antibody Testing During Labor and Delivery for Women of Unknown HIV Status *A Practical Guide and Model Protocol*. CDC, January 30, 2004. This document can be accessed via the CDC's website: [www.cdc.gov/hiv/topics/testing/resources/guidelines/pdf/Labor&DeliveryRapidTesting.pdf](http://www.cdc.gov/hiv/topics/testing/resources/guidelines/pdf/Labor&DeliveryRapidTesting.pdf)

The **Comprehensive Care Clinics (CCC)** are four statewide HIV clinics serving the entire state of Vermont. The CCC provides primary and infectious disease specialty care for people with HIV disease. Each clinic is housed in a regional hospital or hospital outpatient clinic. The clinics provide complete medical care for people with HIV at all stages of disease.

CCC  
Brattleboro Memorial Hospital  
17 Belmont Avenue  
Brattleboro, VT 05301  
802-257-8860

CCC  
Northern Counties Health Care, Inc  
Hospital Drive  
St Johnsbury, VT 05819  
802-748-9405

CCC  
Fletcher Allen Health Care, Inc  
Medicine Outpatient Clinics  
5th Floor, ACC, East Pavillion  
111 Colchester Avenue  
Burlington, VT 05401  
802-847-4594

CCC  
Rutland Regional Medical Center  
160 Allen Street  
Rutland, VT 05701  
802-747-1831

**Dartmouth-Hitchcock Medical Center** is located near White River Junction, VT and provides HIV prevention and care services: One Medical Center Drive Lebanon, NH 03756 603-650-6060

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