

Michigan Guidelines: HIV, Syphilis, HBV in Pregnancy

Presenter:

Theodore B. Jones, MD

Maternal Fetal Medicine

**Wayne State University School of
Medicine**

Beaumont Dearborn Hospital



HIV, Syphilis, HBV in Pregnancy: Michigan Testing/Reporting Guidelines

In Michigan, all pregnant women should be evaluated for HIV, Syphilis and HBV

- **As soon as possible in pregnancy, as part of their routine prenatal care**
- **Testing should occur:**
 - **At the initial prenatal visit**
 - **With diagnosis of pregnancy at any health care facility, including:**
 - **Emergency rooms**
 - **Primary care offices**
 - **Urgent care centers**
- **All pregnant women in Michigan should be tested again at 26-28 weeks gestation**
- **All pregnant women should be offered these routine prenatal tests twice, regardless of perceived risk or previous, pre-pregnancy testing results**

HIV, Syphilis, HBV in Pregnancy: Michigan Testing Guidelines

All pregnant women who:

- **Engage in behaviors that put them at increased risk for infection**

or

- **Present in labor with no available, documented record of appropriate testing**

should be tested again, using a rapid or expedited test, at 36 weeks gestation or at the onset of labor, regardless of previous negative test results

Testing Infants and Children

- HIV testing is also recommended for all infants and children whose biological mothers have not been tested appropriately during their pregnancy
- Remember: **Informed consent is required** for maternal and for newborn HIV testing in Michigan

Documentation

According to Michigan law and guidelines:

- **Testing**
- **Refusal to test**
- **Refusal to accept treatment**
- **Descriptions of any required perinatal tests that were not performed for any reason**

should be documented in both the mother's and the baby's medical records, along with the dates of testing, refusal, and the dates and results of any ordered tests

Young Women and HIV

- **HIV transmission from mother to child during pregnancy, labor and delivery, or breastfeeding is known as perinatal transmission**
- **Perinatal transmission is the most common route of HIV infection in children**
 - **Each year, 6,000 to 7,000 HIV-positive women deliver a baby in the United States**
 - **Fewer than 200 HIV infected infants are born in the US each year**
 - **40% of HIV-infected infants are born to mothers who don't know their HIV status**

HIV Testing and Pregnancy

- **While preventing HIV infection in women is the best way to prevent perinatal transmission,**
 - **Treatment is available to prevent transmission from an HIV-positive mother to her baby**
 - **With good medical care and antiretroviral therapy, HIV-infected parents become significantly less infectious to their partners, and live long, healthy lives**

Offer HIV testing twice to all pregnant women

Antiretroviral Therapy in Pregnancy

- **Antiretroviral medications given to the mother during pregnancy protect the infant by:**
 - **Reducing the amount of virus in the mother's blood**
 - Antiretroviral therapy decreases the infant's exposure to the virus in the uterus
 - **Crossing the placenta**
 - Antiretroviral therapy provides the infant with both pre- and post-exposure prophylaxis
 - **Reducing the mother's genital viral load**
 - Antiretroviral therapy decreases the infant's exposure in the birth canal

Antiretroviral Treatment

- Antiretroviral medications should be prescribed and continued for the entire pregnancy, regardless of the mother's viral load and CD4 cell count
- Combination Antiretroviral Treatment should be started **as soon as HIV is diagnosed during pregnancy**
 - Data demonstrate an association between earlier viral suppression and significantly lower risk of transmission
 - The choice of regimen should take into account:
 - Current adult treatment guidelines
 - What is known about the use of specific drugs in pregnancy
 - Recent data indicate no clear association between first-trimester exposure to any ARV drug and increased risk of birth defects
 - Women on cART prior to pregnancy should continue life-long antiretroviral therapy after delivery

Labor, Delivery and Postpartum

- Continue HIV antiretroviral therapy during labor and delivery
 - Add AZT intravenously if maternal viral load is $\geq 1,000$
- The antiretroviral drug regimen a woman is receiving should be taken into consideration when treating postpartum bleeding resulting from uterine atony:
 - Avoid methergine in women who are taking a protease inhibitor.
 - If methergine is used, administer the lowest effective dose for the shortest possible duration
 - In women taking nevirapine, efavirenz, or etravirine, additional uterotonic agents may be needed
- HIV-positive women should continue antiretroviral treatment postpartum for their own health and to prevent transmission

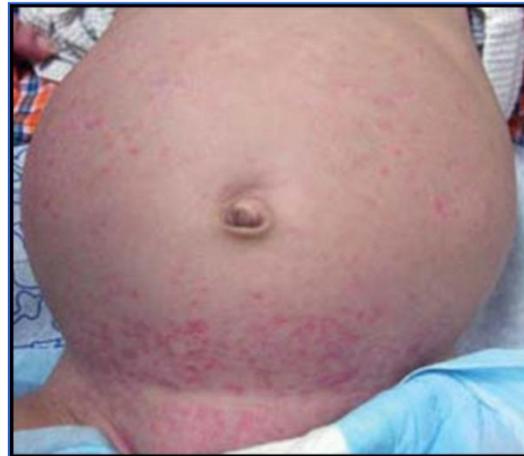
Vaginal or Cesarean Delivery?

- **HIV-positive pregnant women should make a delivery plan with their physician or midwife**
 - **The risk of HIV transmission is low, and vaginal delivery is possible, for women who:**
 - **Take anti-HIV medications during pregnancy**
 - **Have a viral load less than 1,000 near the time of delivery**
 - **A scheduled cesarean delivery is recommended for HIV-infected women who have:**
 - **Not taken anti-HIV medications during pregnancy**
 - **A viral load greater than 1,000 near the time of delivery**
 - **An unknown viral load near the time of delivery**
 - **Requested cesarean delivery**

Antiretroviral Therapy for the Newborn

- **A 4-6 week AZT prophylaxis regimen is recommended for all HIV-exposed neonates to reduce perinatal transmission of HIV**
- **Infants at higher risk of HIV should receive multidrug prophylaxis with:**
 - **AZT given for 6 weeks combined with**
 - **Three doses of nevirapine in the first week of life**
- **Some experts recommend triple antiretroviral prophylaxis for infants at higher risk of acquisition**
- **Any decision to administer multidrug antiretroviral prophylaxis should be made in [consultation with a pediatric HIV specialist, preferably before delivery](#)**

Syphilis and Pregnancy



Diagnosing Syphilis

- **Syphilis is frequently referred to as the “great imitator”**
 - **Syphilis can be misdiagnosed because its symptoms mimic other diseases**
- **Syphilis is spread through direct contact with an infectious lesion during oral, vaginal or anal sex**

Syphilis in Pregnancy

- Pregnant women can pass syphilis to their babies who may:
 - Die before or shortly after birth
 - Become developmentally delayed
 - Have seizures



What are the Symptoms of Syphilis?

- **Signs and symptoms of syphilis vary by the stage of the disease**
- **Primary stage:**
 - **The length of time from infection to the presence of the first symptom ranges from 10-90 days**
 - **A single lesion (chancre) appears on the body at the place where the bacterium entered**
 - **Chancre is small, firm, round, painless and usually lasts for 3-6 weeks**



- **Secondary stage:**
 - **A rough, red rash that does not itch is typically found on the palms and soles of the feet**
 - **Rash may be faint and hard to detect**
 - **Rash may appear on other parts of the body**
 - **Rash may appear and disappear**
 - **Other symptoms include:**
 - **Fever**
 - **Swollen lymph glands**
 - **Headaches**
 - **Fatigue**
 - **Muscle aches**
 - **Weight loss**
 - **Patchy hair loss**



- **Late stage:**
 - **No external symptoms are visible for years**
 - **Damage to internal organs eventually leads to:**
 - **Paralysis**
 - **Dementia**
 - **Blindness**
 - **Numbness**
 - **Lack of coordination**
 - **Death**

- **Diagnosing Syphilis**
 - **Dark field microscopy of fluid from lesion**
 - **Blood test**
 - **Non-treponomal test**
 - **VDRL, RPR**
 - **Measure IgM and IgG antibody and are not specific for T. pallidum**
 - **Levels correlate with disease activity**
 - **Reported quantitatively**
 - **Usually become nonreactive with time after treatment**
 - **Treponomal test**
 - **TP-PA, FTA-ABS, EIA**
 - **Measure antibody directed against T. pallidum**
 - **Correlate poorly with disease activity**
 - **Often remain reactive for life**

What is the Treatment for Syphilis?

- **Preferred treatment for all stages of syphilis is benzathine penicillin G**
 - **Primary, secondary and early syphilis (< 1 year)**
 - 2.4 million units IM, once
 - **Latent syphilis (> 1 year)**
 - 2.4 million units IM once every week for 3 weeks
 - **Asymptomatic neurosyphilis, HIV negative**
 - 2.4 million units IM once a week for 3 weeks
 - Aqueous benzyl PCN-G or procaine PCN-G, 9 million units IM in doses of 600,000 U/d over 15 days
 - **Symptomatic neurosyphilis or asymptomatic neurosyphilis in an HIV positive person**
 - 2-4 million units IV every 4 hours; alternatively, continuously for 10-14 days (may add oral PCN to supplement levels)
 - Procaine PCN-G at 2.4 million U/d intramuscularly plus probenecid at 500 mg orally 4 times per day for 10-14 days
- **Pregnant women should be treated with the penicillin regimen appropriate for their stage of infection**

Hepatitis B and Pregnancy



Testing for Hepatitis B in Pregnancy

- **Michigan guidelines call for HBsAg testing for all pregnant women as soon as possible in the first trimester of pregnancy, as part of routine care during:**
 - **Initial prenatal visit**
or
 - **Diagnosis of pregnancy at any health care facility**
- **An infectious disease specialist and a pediatric infectious disease specialist should be consulted promptly upon confirmation of a positive test result**

Testing for Hepatitis B in Pregnancy

- **Pregnant women assessed to be at high risk for HBV infection should be re-tested in the third trimester**
 - **Risks for infection include:**
 - **STI during pregnancy**
 - **Injection drug use**
 - **A partner who injects drugs**
 - **A partner who has had sexual contact with a man**
 - **An HBsAg-positive household member or sex partner**
 - **A new, or more than one, partner**
- **Pregnant women who present to Labor/Delivery or Emergency Department with no available, documented test results should be tested STAT**

How is Hepatitis B Transmitted?

- **Hepatitis B can be transmitted when blood, semen, or other body fluids from a person with the virus enter the body of someone who is not infected**
 - **The virus is very infectious and is passed easily through breaks in the skin or across mucous membranes in the nose, mouth, anus, genitalia, urethra and eyes**
 - **Hepatitis B can be spread through sex with an infected person**
- **Transmission occurs through direct contact with blood from an infected person, even in amounts too small to see**

Hepatitis B and Newborns

- **Hepatitis B virus can be transmitted from mother to baby during vaginal delivery or C-section**
- **Without prompt prophylaxis after birth, as many as 90% of newborns infected with Hepatitis B develop lifelong, chronic infection**
 - **1 in 4 infants with chronic Hepatitis B will ultimately die from chronic liver disease**



Treating Hepatitis B in the Newborn

- **Infants born to HBsAg-positive mothers should begin treatment as soon as possible after delivery, optimally within the first 12 hours, with:**
 - **Hepatitis B immune globulin**
 - **HBV vaccine, dose 1**
 - **HBV-exposed infants receive two subsequent doses of HBV vaccine, at 1-month and 6-months of age**
- **Infants should be tested for HBsAg and anti-HBs at 12-15 months of age to monitor the final success or failure of therapy**
 - **Mothers with HBV can be encouraged to breastfeed their infants**

Accessing the Guidelines

- https://www.michigan.gov/documents/mdch/Guidelines_for_Perinatal_Testing_and_Reporting_488717_7.pdf
- <http://aidsinfo.nih.gov>
- <http://www.matecmichigan.org>

Expert Consultation for Michigan Providers

MATEC Michigan

- **forsyth@sun.science.wayne.ed**
 - **Questions answered within
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