Care for the HIV-Positive Pregnant Woman and Her Infant

A MOTHER-BABY APPROACH

Objectives

Upon completion of this program, participants will be able to:

• Describe the elements of care for HIV-positive pregnant women and their infants, according to the *Recommendations for Use of Antiretroviral Drugs in Pregnant HIV-1-Infected Women for Maternal Health and Interventions to Reduce Perinatal HIV Transmission in the United States*

• Describe the Florida law and guidelines concerning HIV testing during pregnancy, rapid screening in labor and delivery and postpartum testing of HIV-exposed infants

• List possible barriers to care and strategies that can be implemented to overcome some challenges

• State ways to increase coordination of care for these patients with other entities within their local Department of Health
### POLK COUNTY INFANTS BORN TO HIV POSITIVE MOTHERS

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
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<tr>
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<td>12</td>
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<td>19</td>
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<tr>
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<td>1</td>
<td>1</td>
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Note: The map shows the distribution of HIV-infected newborns by year from 2007 to 2013. The data indicates a decrease in the number of exposed infants over the years, with a notable decrease in 2013. The number of infected infants remains low across all years.
OUR PERINATAL HIV PROGRAM

HISTORY

• Started in 2005
• Initially perinatal coordinator; exposed children were cared for at All Children’s
• 2008- E- baby clinic started
• Mother-baby clinic evolved
• Perinatal coordinator
OUR TEAM

• HIV physician - internal medicine/pediatric trained, adult infectious disease specialist, 2 ARNP.
• Perinatal coordinator - Whitney Albert
• Clinic LPN
• High risk OB - 2 OB/Gyn, nursing supervisor
• Disease Intervention Specialists
• Surveillance
• Case Management
• Healthy Start/ Strong Start

Coordination of Care

• Perinatal Coordinator
• HIV care received at Specialty Care Clinic
• Most OB care received at DOH High Risk OB
• Coordination with private providers
• Case Manager on site
• DIS
• Monthly Interdisciplinary Meeting
  — DIS, Case Management, High Risk Ob, Surveillance, Clinical
ADVANTAGES OF MOTHER-BABY APPROACH

• Easier coordination of appointments
• Keeping mom in care
• Preconceptional care
• Less transportation difficulties
• Baby’s doctor already knows mother’s history.
• HIV physician is same for mother before pregnancy, during and after pregnancy.
• Education on baby’s care can be performed during pregnancy.

Mrs. A

• Ms. A is 20 years old. She acquired HIV vertically. She has been followed by our clinic since she was 17. She is on a stable HIV regimen of Ritonavir-Atazanavir-TDF/FTC and her viral load has been undetectable since she started at our clinic. Her last CD4 count was 620.
• Ms. A now informs us she thinks she is pregnant and would like to come in for a pregnancy test.
Mrs. B

• Mrs. B is a 38 year old G6P5 Hispanic woman who came into the DOH Women’s Health clinic for management of her pregnancy. She refused HIV testing. Upon further discussion, the midwife convinced her of allowing HIV testing. Her HIV test (mid-second trimester) was positive.

Mrs. C

• 30 y/o patient well known to us.
• 4th pregnancy. Her other 3 children are not in her care.
• Substance abuse history.
• HIV positive since 2003. Not adherent with care.
• Multiple resistance
• Last CD4 count (2012)- 54. VL- 850
CARE OF THE PREGNANT MOTHER

OUR MODEL

• Patients seen at the Polk County DOH Specialty Care Clinic and patients who are referred due to positive test results.
• HIV provider manages ART.
• OB/Gyn manages gynecologic aspects.
• Perinatal coordinator “coordinates” between both sites.
• Case management and DIS involved with all.
Mrs. A

- Ms. A is pregnant. LMP 8 weeks prior.
- She would like to know how to protect her baby from vertical transmission.
- She also wants to know the risk that her baby would be HIV positive.
MOTHER-TO-CHILD TRANSMISSION

- If not identified and treated
  - 25–35% of HIV positive pregnant mothers will pass HIV to their newborns
- In the absence of breastfeeding:
  - 30% of transmission in utero
  - 70% of transmission during the delivery
- Additional risk with breastfeeding
  - 14% ↑ risk with established infection
  - 29% ↑ risk with primary infection


ANTIRETROVIRAL THERAPY

- Suppress HIV viral load
  - Decrease risk of transmission to the infant
  - Improve maternal health and immune status
  - Decrease transmission to sexual partners
  - Decrease development of resistance

USE OF ANTIRETROVIRALS IN PREGNANCY

• WOMEN WHO ARE ALREADY ON ANTIRETROVIRALS
  – Continue their current regimen
  – Note on Efavirenz- pregnancy class D.
    • Current guidelines suggest continuation in pregnancy.
    • Avoid use in women of childbearing age.

Mrs. A

• Continue Ritonavir-Atazanavir-TDF/FTC
• Discuss increase Atazanavir to 400 mg at 20 weeks.
• Obtain initial appointment at High Risk OB
• Influenza vaccine administered prior to this pregnancy. TDAP to be given in 3rd trimester.
• TB testing performed. (Quantiferon)
• Education conducted.
Mrs. B

- Mrs. B is our newly diagnosed woman pregnant with her 5th child.
- She is very reluctant to access care.
- Focused on how she could have acquired HIV.
- 27 weeks pregnant at first visit with us and with High Risk OB.
- CD4- 330  VL- 5200

USE OF ANTIRETROVIRALS
IN PREGNANCY

- ANTIRETROVIRAL NAÏVE WOMEN
  - Potent ART regimen should be initiated
  - Initiation may be delayed until 12-14 weeks.
  - Dual NRTI should be used.
  - Genotype should be obtained
  - Preferred choices:
    - Ritonavir-Atazanavir-TDF/FTC
    - R-Lopinavir- AZT/3TC

Mrs. B

- Genotype showed no resistance
- Started on Ritonavir-Atazanavir (400 mg)-Truvada.
- Finally started taking them around 30 weeks.
- At 34 weeks, viral load was 250.
- TDAP given at 30 week follow up. Influenza had already been given.

PERINATAL COORDINATOR

- Coordination between Specialty Care and High Risk OB
- Patient education
  - Health Pregnancy
  - Perinatal Prevention- what to expect
  - Adherence
- Alert hospitals
- Educate Private OB Providers
- Coordinate with Healthy Start
- Ensure testing is completed and immunizations administered.
IMMUNIZATIONS RECOMMENDED IN PREGNANCY FOR HIV POSITIVE WOMEN

- Influenza vaccine.
- TDAP between 27 and 36 weeks regardless of past immunization status. (AICP 2013 recommendation).


Mrs. C

- Mrs. C comes in for her initial appointment. Her CD4 count is now 11 and her viral load is 120,000. She has not been taking her ART since her last child was born. She is now 32 weeks pregnant.
Mrs. C

- Genotype is pending.
- Last regimen: Ritonavir-Prezista-TDF/FTC-Raltegravir initiated.
- Influenza and TDAP vaccines given.
- Follow up ordered 2 weeks from today.
- Records sent to all area hospitals.
COORDINATION OF CARE

- Education to hospital staff
- Information sent ahead of time by high risk OB to OB department
- Fax to infection control with name, last CD4 and last viral load.

LOCAL HOSPITALS

- IV AZT
- Cesarean if indicated.
- Patients to bring their medication - discuss Atazanavir (400 mg while still pregnant, 300 mg after delivery).

Mrs. C

• Mrs. C presents in labor at 33 weeks. She has been on antiretrovirals for past 4 days.
• Delivers (c-section) a premature male baby who requires intubation and mechanical ventilation.

Mrs. B

• Presents to the hospital in precipitous labor at 37 weeks.
• IV AZT not given.
• Rupture of membranes aprox. 1 hour prior to delivery.
• Baby girl appears healthy.
CARE OF THE NEWBORN AND INFANT

IMMEDIATE NEWBORN CARE

- Immediate bathing
- Bathing before needles
- No breastfeeding

CDC, MMWR, 2006 at http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5514a1.htm
MANAGEMENT OF NEWBORN

• Birth PCR
• PCR after 48 hours if we think it will be difficult to obtain at 2 weeks.
• Start AZT 4 mg/kg po q 12 hours (if term)
• Educate mother on dosing.


Baby B

• Birth PCR is negative.
• Repeat PCR is obtained at the time of discharge (50 hours).
• AZT delivered by specialty pharmacy to the hospital prior to discharge.
• Follow up established at Specialty Care clinic at 2 weeks old.
• Follow up with pediatrician in 1-2 days.
Baby C

- Baby C was started on IV AZT. Unable to use oral route, so other medications not initiated immediately.
- At about 24 hours old, Nevirapine and Lamivudine were initiated.
- Birth PCR was negative.
- Second PCR was obtained at 48 hours, also negative.
- Went to foster home at 4 weeks old.

THE AT-RISK CHILD

- No pediatric ID available in Polk County hospitals.
- Current hospital protocols include Nevirapine dosing 0, 48 hours and 96 hours after 2nd dose.
- Consider changing protocols to include initiation of Lamivudine.
Baby B

- Seen at 2 weeks old, 6 weeks old, 4 months old.
- PCR at birth, 48 hours, 6 weeks and 4 months negative.
- Stopped oral AZT at 6 weeks old.
- Followed routinely by pediatrician.
- ELISA/WB to be obtained around 18 months old.
- Discussed pre-mastication of food.

PREMASTICATION AND HIV INFECTION

- Passed to children if infected blood is present in saliva.
- Three documented cases in two cities (Memphis and Miami) between 1993 and 2004.
- Infection is suspected as a result of eating premasticated food.
- Providers should ensure that parents (most importantly HIV+ parents) and caregivers know that this risk of transmission exists and discuss safer feeding options.

Baby C

- Baby C completed oral AZT at 6 weeks old.
- Nevirapine was stopped after the 3rd dose and Lamivudine was stopped after 2 weeks.
- PCR at 6 weeks and 4 months negative. Seen for follow up with foster parents at 6 weeks and 4 months old.
- Followed routinely by pediatrician.
- Scheduled to have ELISA around 18 months old.

KEEPING THE MOTHER IN CARE
MOTHER-BABY CLINIC

- Goal to keep moms in care.
- Successful during first 4 months.
- If child less than 6 months old, 60% remain in care vs. 30% for mothers with older children.
- Women who would have remained in care, continue to do so.
- Barriers remain the same, where denial, mental health problems and substance abuse are still most important.

Mrs. B

- Came in for follow up together with her child 2 weeks post-partum and 4 months post-partum.
- Appointment given 3 months after.
- Missed appointment.
- ? Possibly bring back to care at time of child’s ELISA.
Mrs. C

• No follow up again.
• Consented to a tubal ligation at the time of c-section.
• Foster parents mention that she is back to using drugs and has made no contact with the child in the past 2 months.

Questions?