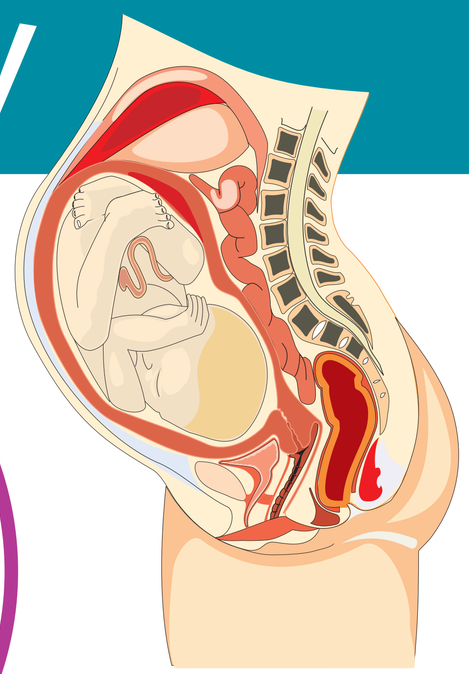
*Consider rapid HIV testing for women presenting in labor with unknown HIV status and risk for HIV infection and/or no prenatal care.*

*Provide ongoing counseling and support on the role of Antiretroviral Therapy and importance of adherence.*

# Preventing Mother to Child Transmission of HIV



## 1st Trimester

Discuss possible risks/benefits of Antiretroviral Therapy. Information on teratogenic effects of HIV medications during 1st trimester is limited.

**If on HAART:**

- ✓ Re-evaluate combination of medications for compatibility with pregnancy-see ***Medication Alerts** **-OR-**
- ✓ Interrupt HAART until 2nd trimester. STOP all drugs simultaneously and restart together in 2nd trimester

**If Not on HAART:**

- ✓ Evaluate patient's health status and consider HAART including ZDV as per protocol **-OR-**
- ✓ Defer HAART until 2nd trimester

## ZDV PROTOCOL

**For the Prevention of MTCT of HIV**

- ✓ **Antepartum:** ZDV 300 mg PO BID starting at 14 – 34 weeks gestation
- ✓ **Intrapartum:** ZDV 2mg/kg IV over 1 hour, followed by a continuous infusion of 1mg/kg/hr until delivery
- ✓ **Postpartum:** Newborn receives ZDV syrup 2mg/kg PO Q6h initiated 8 – 12 h p birth, continuing for 6 weeks

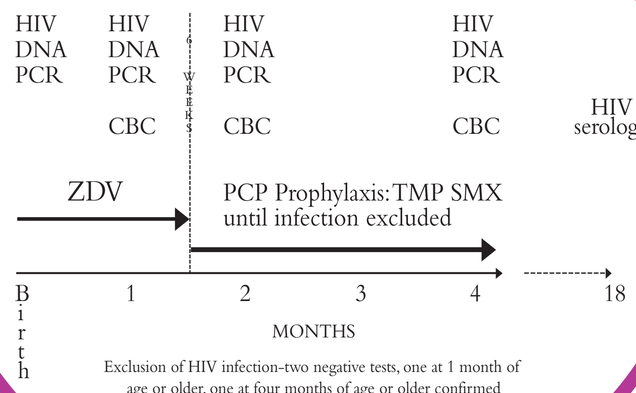
**HAART is preferred:** Choice of medications is dictated by mother's stage of disease, treatment history/resistance and expected side effects. ZDV monotherapy as per protocol is an option for HIV infected pregnant women unable/unwilling to take HAART.

## 2nd Trimester

**Monitor CD4 count & %, VL and all other routine prenatal labs**

- ✓ Continue pregnancy compatible HAART regimen as used in 1st trimester **-OR-**
- ✓ Start pregnancy compatible HAART regimen to include ZDV as per protocol if previously deferred

## Care of Infant




Exclusion of HIV infection-two negative tests, one at 1 month of age or older, one at four months of age or older confirmed by negative serology at 18 months.

(Monitor serum chemistry as needed for infants exposed to multiple drugs in utero)

## BASELINE ASSESSMENT:

*This should be done at whatever point the HIV-infected woman enters care*

Assess Gestational Age

HIV Antibody Serology
(if HIV infection unconfirmed or + test by other technique)

CD4 count/% & VL

Screen for TB
(>or=5mm induration is +)

Hepatitis serology: HBsAg, anti-HCV
(order anti-HBs or anti-HBc to screen for vaccine candidates)

CMV IgG Toxoplasmosis IgG
& All other routine prenatal labs

## 3rd Trimester

**To determine mode of delivery, check CD4 count & %, and VL at 34 – 36 weeks:**

- ✓ If VL >1000, scheduled C-section reduces risk of HIV transmission.
- ✓ If VL is unknown and the patient is not on HAART, or on ZDV alone, C-section may reduce risk of HIV transmission.
- ✓ Counsel patient on the risks/benefits of scheduled C-section to reduce MTCT of HIV.
- ✓ To reduce HIV risk, C-section must be performed before ROMs or onset of labor, usually scheduled for 38 completed weeks.

## Postpartum

- ✓ Refrain from breastfeeding.
- ✓ Newborn: Start ZDV as per protocol.
- ✓ See "*Options" for newborns whose mothers did not receive antepartum Antiretroviral Therapy.
- ✓ Seek expert advice if mother has high VL or resistance to ZDV.
- ✓ Check newborn's HIV DNA PCR (qualitative) within 48 hours of delivery, before discharge.
- ✓ Establish plan for follow up care for mother and baby.
- ✓ Evaluate mother's need for continued Antiretroviral Therapy.

## Labor & Delivery

- ✓ Administer ZDV as per protocol.
- ✓ ZDV infusion should be initiated 3 hours preoperatively for C-section.
- ✓ Do not interrupt other antiretroviral medications regardless of route of administration.
- ✓ Minimize infant's exposure to maternal blood by avoiding invasive procedures such as fetal scalp electrodes, and artificial ROMs. Wash newborn promptly. Use forceps, episiotomies judiciously balancing risks/benefits.
- ✓ Increased duration of ROMs may increase risk of HIV transmission.

## *Options in L&D

**for preventing MTCT when women have not received antepartum Antiretroviral Therapy**

**OPTIONS:** (1 alone, 2 alone, 1 & 2 together, or 3)

1. **Mother & Baby:** ZDV as per protocol and/or
2. **Mother:** NVP 200mg po at onset of labor
   **Baby:** NVP 2mg/kg po x 1 at 48-72 hrs or
3. **Mother:** ZDV 600mg and 3TC 150mg po at onset of labor then ZDV 300 mg q 3 hrs and 3TC 150 mg q 12 hrs until delivery
   **Infant:** ZDV 4 mg/kg po q 12 hrs and 3 TC 2 mg/kg po q 12 hrs for 7 days

***Medication Alerts**:

- **Amprenavir (Agenerase) oral solution:** **CONTRAINDICATED** in pregnancy and children under 4 years due to high levels of propylene glycol not contained in capsules.
- **Hydroxyurea:** **CONTRAINDICATED** in pregnancy.
- **Efavirenz (Sustiva):** **CONTRAINDICATED** in pregnancy.
- **Indinavir (Crixivan):** Avoid in late pregnancy due to risk for hyperbilirubinemia and renal calculi.
- **Protease Inhibitors:** Closely monitor for hyperglycemia.
- **Stavudine (Zerit) and zidovudine (Retrovir):** Are pharmacologically antagonistic and should not be used together.

**Abbreviation Key:**

**3TC:** lamivudine (Epivir)

**D4T:** stavudine (Zerit)

**EFV:** efavirenz (Sustiva)

**HAART:** highly active antiretroviral therapy, consisting of combinations of 3 or more antiretroviral medications

**HIV DNA PCR:** this qualitative test is the preferred diagnostic method in infants <18 months.

**MTCT:** mother to child transmission of HIV

**NVP:** nevirapine (Viramune)

**OI:** opportunistic infection

**ROMs:** rupture of membranes

**VL:** viral load, quantitative measurement of HIV-1 in plasma, methods include HIV-1 RNA PCR or bDNA

**ZDV:** zidovudine (Retrovir), in the past abbreviated as AZT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Special Immunology Service, Children's National Medical Center. (2001). Protocol for Infants Born to HIV-Seropositive Mothers. Unpublished.


*Offer HIV Testing to ALL pregnant women. If results are negative and risk occurred within 6 months, or is ongoing, consider re-testing in 3rd trimester.*

*Avoid invasive procedures like amniocentesis throughout pregnancy.*

*Offer family planning services and preconception counseling to all HIV+ women—DO NOT ASSUME CONDOM USE.*

*To track pregnancy outcomes, patients may be registered anonymously with the Antiretroviral Pregnancy Registry: 1-800-258-4263 or www.APRegistry.com*

*Throughout pregnancy, provide counseling on the importance of continued risk reduction measures such as condom use and refraining from sharing injection equipment.*