CLINICIAN CONSULTATION CENTER
National rapid response for HIV management and bloodborne pathogen exposures.

Strategies for the Care of Neonates at Higher Risk of Perinatal HIV Transmission: Prophylaxis and "Presumptive Treatment" with Antiretroviral Medications

The optimal approach to preventing perinatal transmission of HIV includes treatment with antiretroviral (ARV) medications throughout pregnancy and labor to maintain an undetectable maternal HIV viral load, followed by administering zidovudine prophylaxis to the infant. When HIV-positive mothers have not received antepartum ARVs or when maternal HIV viral load is not suppressed late in pregnancy, however, neonates are at higher risk for *in utero* or intrapartum transmission. The DHHS perinatal guidelines[1] define infants at higher risk as "those born to HIV-infected women who have received only intrapartum [ARVs] or have not received antepartum or intrapartum [ARVs] or have received antepartum [ARVs] but have had suboptimal viral suppression (>1000 copies/mL) near delivery." Additionally, many experts would classify an infant born to a mother who had a viral load >1,000 copies/mL at some point in the 3rd trimester as higher risk, while others remain concerned about even lower viral loads (i.e. viremia ≤1000 copies/mL).

Two strategies are commonly being used to reduce perinatal transmission for higher risk infants.

1. The DHHS perinatal guidelines recommend combination prophylaxis with zidovudine plus 3 doses of nevirapine. This regimen was shown to reduce intrapartum transmission to infants born to mothers who had not received any antepartum ARVs.

2. Some experts treat higher risk HIV-exposed infants with a multi-drug regimen that aims to provide therapeutic drug levels (i.e. "treatment dose") of zidovudine, lamivudine and nevirapine. While there are no clinical data to support this specific strategy, the goal is to properly treat infants who are born with HIV infection established *in utero* or further reduce the risk of intrapartum transmission to those not yet infected. The DHHS perinatal guidelines recommend that a decision to administer three-drug ARVs be made only in consultation with a specialist. Currently, treatment doses of nevirapine remain investigational and only available for infants >34 weeks gestational age who weigh ≥ 1.5kg.

Clinicians should refer to the DHHS perinatal guidelines (https://aidsinfo.nih.gov/guidelines) for guidance. Our Perinatal HIV Hotline (888-448-8765) is pleased to provide decision support for clinicians making these challenging management decisions. Consultation involves a careful consideration of risks and benefits of each approach as well as regimen and dosing recommendations. Ultimately, an informed discussion between the treating clinician and the infant's parent(s) or guardian(s) will be essential in selecting a strategy.

[1] Panel on Treatment of HIV-Infected Pregnant Women and Prevention of Perinatal Transmission. 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. Available at http://aidsinfo.nih.gov/contentfiles/lvguidelines/PerinatalGL.pdf.