



Florida/Caribbean AIDS Education and Training Center

HIV CareLink

A Newsletter for HIV/AIDS Primary Care Providers

ABOUT US

The Florida/Caribbean AIDS Education and Training Center provides state-of-the-art HIV education, consultation, and resource materials to health care providers in Florida, Puerto Rico and the US Virgin Islands.

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Special Bulletin: Updated Perinatal Treatment Guidelines

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The DHHS Panel on Treatment of HIV-Infected Pregnant Women and Prevention of Perinatal Transmission made revisions to the July 8, 2008 guidelines, Recommendations for Use of Antiretroviral Drugs in Pregnant HIV-1-Infected Women for Maternal Health and Interventions to Reduce Perinatal Transmission in the United States. New information on MTCT trials is presented. Safety and toxicity tables have been updated as have the drug tables. There are formatting changes with relevant tables and references located after each section. *Perinatal HIV Guidelines Working Group. Public Health Service Task Force Recommendations for Use of Antiretroviral Drugs in Pregnant HIV-Infected Women for Maternal Health and Interventions to Reduce Perinatal HIV Transmission in the United States. April 29, 2009; pp 1-90. Available at <http://aidsinfo.nih.gov/ContentFiles/PerinatalGL.pdf>. Accessed (April 29, 2009)*

Lessons Learned from Clinical Trials:

- There are a number of studies that demonstrate efficacy of infant prophylaxis with nevirapine (NVP) or NVP/zidovudine (ZDV) to prevent breastfeeding transmission of HIV. Another method of prevention of transmission via breast milk is maternal treatment
- The PEPI-Malawi trial compared single dose (SD) NVP to 14 weeks of either NVP or NVP/ZDV and found a 50% decrease in MTCT at 9 months
- The SWEN study performed in three countries compared SD NVP to 6 weeks of daily NVP and found a significant 50% decrease in transmission at 6 weeks of age and a lesser non-significant difference at 9 months
- Two observational cohorts of maternal HAART therapy for up to 6 months postpartum while breastfeeding (Kenya and Tanzania) demonstrated significant decreases in infection rates at 6 months of age
- In the US and other parts of the world where replacement feeding is safe, affordable, acceptable and sustainable, breastfeeding by HIV positive women (including those on HAART) is not recommended

Neonatal Postnatal Care

- All HIV-exposed infants should receive postpartum antiretroviral drugs to reduce perinatal HIV transmission.

A 6 week course of ZDV is recommended for all HIV-exposed infants.

- In Europe, the neonatal chemoprophylaxis regimen is 4 weeks and observational studies demonstrate similarly low transmission rates. Thus this guideline version states that a 4 week course can be considered if there are concerns of adherence or toxicity.
- The 6 week course is still the standard and the only regimen studied in the US

Antiretroviral Drug Use in Pregnancy

There are numerous updates to the tables with individual information on antiretroviral drugs in pregnancy

Table 2 Preclinical and Clinical Data Relevant to the Use of Antiretrovirals in Pregnancy

- Essentially all of the drugs have expanded animal teratogen data: however, there are no changes to the FDA pregnancy category
- Etravirine (Intelence™), the new NNRTI, has been added. The carcinogenicity studies are on-going. Animal teratogen studies are negative

Table 3 Antiretroviral Drug Use in Pregnant HIV-Infected Women

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National Clinicians' Consultation Hotline:

1-800-933-3413

- Etravirine (Intelence™), the new NNRTI, has been added. There are no pharmacokinetic studies in human pregnancy and insufficient safety data to recommend its use in pregnancy.
- Atazanvir is recommended as an alternative agent in combination with low dose ritonavir. Pharmacokinetic studies have shown decreased plasma concentrations during pregnancy which are further reduced by 25% if used in combination with tenofovir. There are no recommendations for increased dose but ritonavir boosting is strongly encouraged. Transplacental passage is low like many of the PIs.
- Tenofovir has been placed under "Use in Special Circumstances" because of limited data on use in pregnancy but unique indication for hepatitis B co-infected women or women with antiretroviral resistance. Renal function should be monitored.
- Efavirenz has also moved to "Special Circumstances" category for use after the first trimester when is the best choice for a pregnant women. It remains an FDA pregnancy category D due to significant CNS malformations in cynomolgus monkeys and 6 case reports of neural defects in humans with first trimester exposure.
- Both tenofovir and lamuvidine have activity against hepatitis B and if discontinued after pregnancy can result in a flare of hepatitis
- Pharmacokinetic data on boosted indinavir and saquinavir tablets demonstrate adequate levels during pregnancy
- Emtricitabine levels are slightly lower in the third trimester but no dose adjustment is recommended
- There is no or limited data on the use of many of the new antiretroviral agents in pregnancy. This includes darunavir, tipranavir, maraviroc, enfuvrtide and raltegravir.

Summary

- The guidelines continue to provide up-to-date, comprehensive data on the use of antiretroviral agents in pregnant women and the prevention of mother-to-child transmission. Many questions remain regarding the optimal method to prevent MTCT with the lowest potential exposure and toxicity. This is particularly critical in resource limited settings where access to both antiretrovirals and safe formula is challenging.
- Studies continue to collect and evaluate the pharmacokinetic and safety data of agents. Recent pharmacokinetic studies on atazanavir, emtricitabine, boosted indinavir and saquinavir tablets are outlined, Close monitoring of possible toxicities and viral load response particularly in the third trimester is critical.
- There is new encouraging data showing effectiveness of extended infant prophylaxis or maternal antiretroviral treatment to prevent breast feeding transmission

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