Safety of Anti-HIV Medications During Pregnancy

I am HIV infected and pregnant. Is it safe to use anti-HIV medications during my pregnancy?

Women infected with HIV can safely use many anti-HIV medications during pregnancy to protect their health and to prevent transmitting HIV to their babies. However, some anti-HIV medications can cause problems when used during pregnancy. Knowing more about the safety of anti-HIV medications and pregnancy will help you and your health care provider decide what medications are right for you.

Is my baby at risk from anti-HIV medications I take during pregnancy?

It's not known if babies will have any long-term effects from the anti-HIV medications their mothers use during pregnancy. However, the risk of **mother-to-child transmission of HIV** is known. And the illness that results when HIV infection is passed from a mother to her child is very real. Because anti-HIV medications can greatly reduce the risk of passing HIV infection from a mother to her child during pregnancy, all pregnant women infected with HIV should take anti-HIV medications.

Information on the use of anti-HIV medications during pregnancy is limited. But enough information is known to make recommendations about the safety of the most commonly used medications from the three most commonly used classes of anti-HIV medications—**protease inhibitors (PIs)**, **non-nucleoside reverse transcriptase inhibitors (NNRTIs)**, and **nucleoside reverse transcriptase inhibitors (NRTIs)**. (Not enough information is known to make recommendations about use during pregnancy of **entry inhibitors** and **integrase inhibitors**, two additional classes of anti-HIV medications.)

Protease inhibitors (PIs)

There may be a link between the use of some PIs and high blood sugar (**hyperglycemia**) or **diabetes**. For some women, the risk of hyperglycemia increases in pregnancy. It is unclear if taking PIs adds to this risk. Talk to your health care provider about the use of PIs during pregnancy and about when to have blood tests to check for hyperglycemia or diabetes.

Non-nucleoside reverse transcriptase inhibitors (NNRTIs)

Two NNRTIs, **Sustiva** and **Viramune**, should be used in pregnant women only under certain conditions.

- Sustiva may cause birth defects that develop during the first few months of pregnancy. Therefore, if possible, use of Sustiva should be avoided in the first trimester of pregnancy. **Atripla**, a combination pill that contains Sustiva,

Terms Used in This Fact Sheet:

Mother-to-child transmission of HIV: the passing of HIV from a woman infected with HIV to her baby during pregnancy, during labor and delivery, or by breastfeeding.

Protease inhibitor (PI): a class of anti-HIV medications. PIs block HIV protease, an enzyme HIV needs to make copies of itself.

Non-nucleoside reverse transcriptase inhibitor (NNRTI): a class of anti-HIV medications. NNRTIs bind to and alter reverse transcriptase, an enzyme HIV needs to make copies of itself.

Nucleoside reverse transcriptase inhibitor (NRTI): a class of anti-HIV medications. NRTIs block reverse transcriptase, an enzyme HIV needs to make copies of itself.

Entry inhibitor: a class of anti-HIV medications. Entry inhibitors block CCR5 , a protein on the CD4 cells that HIV needs to enter the cells.

Integrase inhibitor: a class of anti-HIV medications. Integrase inhibitors work by blocking HIV integrase, a protein HIV needs to make copies of itself.

Hyperglycemia: too much glucose (sugar) in the blood.

Diabetes (also known as diabetes mellitus): high levels of glucose (sugar) in the blood.

Sustiva: an anti-HIV medication in the NNRTI class. Sustiva is also called efavirenz or EFV.

Viramune: an anti-HIV medication in the NNRTI class. Viramune is also called nevirapine or NVP.

Atripla: a combination of three anti-HIV medications in one pill—Sustiva (also called efavirenz or EFV), Emtriva (also called emtricitabine or FTC), and Viread (also called tenofovir or TDF).

CD4 count: CD4 cells, also called T cells or CD4+ T cells, are white blood cells that fight infection. HIV destroys CD4 cells, making it harder for the body to fight infections. A CD4 count is the number of CD4 cells in a sample of blood. A CD4 count measures how well your immune system is working.

Lactic acidosis: a condition caused by too much lactic acid in the blood.

Zerit: an anti-HIV medication in the NRTI class. Zerit is also called stavudine or d4T.

Videx: an anti-HIV medication in the NRTI class. Videx is also called didanosine or ddI.

This information is based on the U.S. Department of Health and Human Services' *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/guidelines).

Reviewed February 2012

should also be avoided in the first trimester of pregnancy. After the first trimester, Sustiva or Atripla can be used safely.

- Viramune increases the risk of very serious liver damage in women with **CD4 counts** greater than 250 cells/mm^3. Viramune should only be started in pregnant women with CD4 counts higher than 250 cells/mm^3 if the benefits very clearly outweigh the risks. Women who begin using Viramune during pregnancy are carefully monitored for early signs of liver damage. Women taking Viramune without problems before they become pregnant can safely continue to take the medication. Liver damage from Viramune use in pregnancy has not been seen in women already taking the medication without side effects.

Nucleoside reverse transcriptase inhibitors (NRTIs)

Using NRTIs can sometimes lead to **lactic acidosis**, a condition caused by the buildup of a specific acid in the blood. Women should not take the combination of **Zerit** and **Videx** during pregnancy because the combination has caused deaths from lactic acidosis and liver failure. Women taking NRTIs during pregnancy are watched carefully for signs of lactic acidosis.

Talk to your health care provider about the safety of anti-HIV medications during pregnancy. There are many anti-HIV medications to choose from that will keep you and your baby healthy.

For more information:

Contact an AIDS*info* health information specialist at 1–800–448–0440 or visit http://aidsinfo.nih.gov. See your health care provider for medical advice.

This information is based on the U.S. Department of Health and Human Services' *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/guidelines).

Reviewed February 2012