Antiviral Medications to Treat/Prevent Influenza (the Flu) during Pregnancy

In every pregnancy, a woman starts out with a 3-5% chance of having a baby with a birth defect. This is called her background risk. This sheet talks about whether exposure to antiviral medications may increase the risk for birth defects over that background risk. This information should not take the place of medical care and advice from your health care professional.

What are antiviral medications and what do they do?
Antiviral medications discussed in this fact sheet are those that are used to reduce the ability of some influenza viruses to multiply. When indicated, antiviral medication should be started as soon as possible after the start of symptoms of influenza (the “flu”), ideally within 48 hours, to lessen the symptoms and reduce the risk of serious illness. Some of these medications may also be used to prevent a person from catching the flu.

The symptoms of influenza may include fever, headache, chills, muscle aches, coughing, congestion, runny nose, and sore throat. Some people can also have stomach upset with vomiting and diarrhea.

Which antiviral medications are used to treat or prevent the flu?
There are four antiviral medications currently approved in the U.S. for influenza prevention and treatment: amantadine (Symmetrel®), rimantadine (Flumadine®), oseltamivir (Tamiflu®), and zanamivir (Relenza®). Amantadine, oseltamivir and zanamivir are approved in Canada for these indications. The medicine your health care provider gives you will depend on which type of influenza is most likely making you sick.

The 2009 H1N1 flu (formerly called the swine flu) responds only to oseltamivir or zanamivir. For more information about the 2009 H1N1 flu and pregnancy, see the OTIS fact sheet H1N1 Flu and Pregnancy.

Can I skip getting the flu vaccine during my pregnancy and just take one of these medications if I happen to get sick?
No. Antiviral medications are not a substitute for the flu vaccine. Pregnant women are at an increased risk for complications from the flu. Women who are pregnant or planning to become pregnant should get the injected form of the flu vaccine (flu shot). The nasal-spray form of the influenza vaccine is not recommended during pregnancy. For more information about the seasonal flu vaccine and pregnancy, see the OTIS fact sheet Seasonal Influenza Vaccine (Flu Shot) during Pregnancy.

Can taking an antiviral medication during pregnancy cause a birth defect?
Current information indicates that antiviral medications do not increase the risk for birth defects. However, the information is more limited for some of these medications.

Several studies with more than 4000 women who had been treated with oseltamivir during pregnancy report the absence of higher risk for birth defects. Most of these treatments were taken during the second or the third trimester. However, there was no increase in birth defects or problems in babies born to about 700 women who were treated with oseltamivir during their first trimester of pregnancy.

There is less information available about the safety of the other antiviral medications during pregnancy. Several studies report a total of about 260 women treated with zanamivir during pregnancy, with about 50 of them in the first trimester, without a higher risk of birth defects. Zanamivir is given by inhalation. This limits the amount of the medication that gets into your bloodstream. For this reason, zanamivir may have less risk of crossing the placenta and getting to the developing baby. However, this also means that zanamivir may not work as well as oseltamivir.

Limited information from animal and human studies does not suggest an increased risk for birth defects or pregnancy complications when amantadine or rimantadine are used in pregnancy. One study of 108 babies born to women receiving amantadine or rimantadine during pregnancy, including 12 women who were treated during their first trimester, did not find an increased risk for harmful effects. Another study of 64 women treated with amantadine during the first trimester did not show evidence of a higher risk of malformations.

Can taking antiviral medication during pregnancy cause pregnancy complications?
No. Several studies found no higher risk of miscarriage, preterm birth or low birth weight when women had been treated with oseltamivir during pregnancy. Less information is published for other antiviral medications. However, results tend to come to the same conclusions.
I am pregnant and think I may have the flu. Should I talk to my health care provider about antiviral medication?

Yes. Pregnant women are at an increased risk for complications from the flu. Some of these complications can put both the mother’s and her developing baby’s health at serious risk. Taking an antiviral medication within 48 hours of your first symptoms can reduce the chance that you will have severe complications. If you have symptoms of the flu you should talk to your health care provider as soon as possible. Antiviral medications are most effective when they are taken within 2 days of becoming sick. They may still be helpful when they are started later than this, so talk to your health care provider even if you have already been sick for more than 2 days. For current recommendations regarding prevention and treatment of flu with antiviral medications during pregnancy, visit the Centers for Disease Control and Prevention (CDC)’s Web site at www.cdc.gov.

I am pregnant and my husband has the flu. Should I take oseltamivir so that I don’t get sick?

Talk with your health care provider if you have been in close contact with someone who has the flu. Because pregnant women are at an increased risk for complications from the flu, some women may benefit from taking antiviral medications, usually oseltamivir or zanamivir, to prevent getting the flu after they have been exposed. Your health care provider can help you decide whether taking an antiviral medication for flu prevention is best for you. Depending on your condition, your health care provider may suggest to start an early treatment only if you have symptoms of flu instead of taking an antiviral to prevent infection.

Be sure that you and others around you are doing the following to help prevent spread of the flu:

- Wash your hands with soap and water frequently
- Avoid touching your eyes, nose, or mouth
- Try to avoid close contact with sick people
- Cover your nose and mouth when you cough or sneeze
- Stay home and avoid close contact with others if you are sick

Is there a concern if my partner was taking an antiviral medication when I got pregnant?

In general, medications that the father takes do not increase risk to a pregnancy. For more information, please see the OTIS fact sheet Paternal Exposures and Pregnancy at http://www.mothertobaby.org/files/paternal.pdf

I am breastfeeding and have just come down with the flu. Can I take one of the antiviral medications to shorten the number of days that I will be sick?

Oseltamivir is found in breast milk in very low amounts and is not likely to be harmful to the breastfed infant. Zanamivir is given by inhalation. This limits the amount of the medication that gets into your bloodstream. For this reason, zanamivir is unlikely to enter breast milk in high amounts and probably would not affect a breastfed infant. There are no studies looking at amantadine and rimantadine during breastfeeding. It may be best to avoid using amantadine while breastfeeding since it may reduce milk supply. Be sure to talk to your health care provider about all your options for breastfeeding.

OTIS is currently conducting the OTIS Vaccines and Medications in Pregnancy Study (VAMPSS).

The purpose of the study is to learn more about influenza vaccines and antiviral medication use in pregnancy. If you are pregnant and have received the influenza vaccine or have taken an antiviral medication to prevent or treat the flu (including Tamiflu® or Relenza®), and you are interested in learning more about this study, please contact the OTIS VAMPSS Coordinating Center at 877-311-8972.

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Selected References:


If you have questions about the information on this fact sheet or other exposures during pregnancy, call OTIS at 1-866-626-6847.