

Antiviral Drugs for the 2009-2010 Influenza Season

[Announcer] This podcast is presented by the Centers for Disease Control and Prevention. CDC – safer, healthier people.

Hello, I'm Dr. Tony Fiore. Welcome to this CDC podcast for clinicians on antivirals.

For most people who have 2009 H1N1 influenza or seasonal influenza, medical care or antiviral drugs are not needed, and the benefits of using antiviral drugs may be modest. Since mid-September 2009, over 99 percent of the influenza strains circulating in the United States are 2009 H1N1 virus. The 2009 H1N1 viruses are susceptible to the neuraminidase inhibitor type of antiviral drugs, oseltamivir and zanamivir.

For the 2009-2010 influenza season, the priority use for antiviral drugs is for two groups of people. First, those who are severely ill with influenza, such as those who are hospitalized or whose illness has deteriorated to concerning signs and symptoms, such as shortness of breath, chest pain or pressure, dizziness, or confusion, and second, patients who are at higher risk for influenza-related complications.

People with suspected influenza who have symptoms of lower respiratory tract illness or who have severe illness requiring hospitalization should receive prompt empiric antiviral therapy, regardless of previous health or age. Antiviral drugs work best if started within two days of illness onset. But for severely ill persons, it's quite reasonable to start treatment even if more than two days have passed since the illness began.

People at higher risk for influenza complications include the following:

- pregnant women and women in the two week postpartum period;
- children younger than two years old;
- people with chronic health conditions, including chronic pulmonary disease; asthma; cardiovascular disease; renal, hepatic, neurologic, neuromuscular, or metabolic disorders, including diabetes;
- hematological disorders, including sickle cell disease;
- immunosuppression, including that caused by medications or by HIV;
- adults 65 years of age or older;
- and persons younger than 19 years of age who are receiving long-term aspirin therapy.

It is also important to know that children who are two through four years old also have a higher rate of complications compared to older children, although the risk for these children is lower than the risk for children younger than two years.

Clinical judgment is a critical factor in all treatment decisions, and making decisions about treating outpatients can be challenging. It's important to know who is at higher risk for developing complications of influenza, and consider early treatment for these persons.

Regardless of a patient's age or underlying health conditions; however, clinicians still must rely on their clinical judgment in making treatment decisions. For example, people who are already beginning to feel better don't need to be treated.

Most people do not need to be tested for influenza, but if a clinician decides to test, the initiation of treatment should not be delayed to wait for test results. Clinicians should keep in mind that rapid influenza diagnostic tests are more likely to *fail* to detect influenza viruses, compared to tests like RT-PCR.

A negative rapid test result should not be used to rule out influenza, and clinicians should still use antivirals to treat severely ill or higher risk patients that they believe may have influenza, regardless of the rapid test result.

Patients with severe influenza who are at higher risk for influenza complications should begin treatment with oseltamivir or zanamivir as soon as possible after the onset of their illness. The recommended duration of treatment is five days. However, hospitalized patients with severe infections might require longer treatment courses.

Use of oseltamivir for children less than one year old was recently approved by the U.S. Food and Drug Administration under an Emergency Use Authorization, or E-U-A. Dosing for children younger than one year old is age-based in the E-U-A guidance. However, some experts prefer weight-based dosing for this age group, particularly for premature or underweight infants. A discussion of dosing options is available at www.cdc.gov/h1n1flu.

Discussing treatment issues with patients who are ill, as well as those who are at higher risk for severe illness, is important. Health care providers can minimize delays in treatment initiation by counseling patients at higher risk for influenza complications about signs and symptoms of influenza and the need for early treatment after symptom onset. Request that high risk patients contact you immediately if signs or symptoms of influenza develop. Ensure rapid access to telephone consultation and clinical evaluation for these patients, as well as patients who report severe illness. Consider empiric treatment of high risk patients based on telephone contact if this will substantially reduce delay before treatment is initiated.

Patients who begin treatment should be told that some people may shed influenza virus for up to four or more days after beginning therapy. Therefore, patients should continue good hand washing and respiratory hygiene practices during the entire period of time that they receive antiviral therapy to prevent transmission of virus to others.

Both seasonal and 2009 H1N1 influenza vaccines are currently available and are being recommended by CDC for specific groups. However, a history of receipt of either or both vaccines does not necessarily rule out infection with influenza virus. Therefore, early empiric treatment, when indicated, is still emphasized for vaccinated persons in higher risk groups with suspected influenza infection.

Now I would like to discuss using antiviral drugs for prevention of influenza. Antiviral drugs can prevent illness if given soon after being exposed to someone with influenza. Exposures that are

more likely to end up causing illness are usually those that involve close contact, such as those that might occur in a household, talking face-to-face with someone, or while providing healthcare to an ill person.

CDC recommends that the use of antiviral medications for prevention be limited to certain circumstances. Use of oseltamivir or zanamivir for prevention should only be considered for people at higher risk for influenza complications, or persons who work in healthcare settings or provide emergency medical care. Don't start antiviral drugs to prevent illness if more than 48 hours have passed since the exposure. Keep in mind that there is another option to starting antiviral drugs after an exposure. Many people might prefer to monitor their own symptoms, and to contact their healthcare provider to discuss possible immediate treatment if influenza symptoms develop. This watchful waiting approach avoids unnecessary antiviral side effects and expense, and might help with reducing the risk of spreading antiviral resistant influenza viruses.

For more information on influenza for healthcare providers, please visit www.cdc.gov/h1n1flu and www.flu.gov.

[Announcer] For the most accurate health information, visit www.cdc.gov or call 1-800-CDC-INFO, 24/7.