



QUESTIONS & ANSWERS

Revised Recommendations for the Use of Influenza Antiviral Drugs

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Background

On September 8, 2009 CDC updated its recommendations for the use of influenza antiviral medicines to provide additional guidance for clinicians in prescribing antiviral medicines for treatment and prevention (chemoprophylaxis) of influenza during the upcoming 2009-2010 flu season. These recommendations are intended to help clinicians prioritize use of antiviral drugs for treatment and prevention of influenza. In general, the priority for the use of antiviral medications this season continues to be in persons at increased risk of influenza-related complications as outlined in the antiviral recommendations posted on May 6, 2009.

How is the new guidance different from the guidance that was issued on May 6, 2009?

The priority use for antiviral medications during the upcoming influenza season remains the same as outlined in the antiviral recommendations posted on May 6, 2009; that is to prioritize use of these drugs for those patients who are severely ill (hospitalized) and those patients who are ill with influenza-like illness and who are at high risk for influenza related complications. The updated guidance provides additional context and guidance for clinicians in an effort to ensure that antiviral drugs are prescribed appropriately this season and that they reach those in greatest need quickly. This includes actions that clinicians may consider taking to reduce possible delays between illness onset in high risk patients and treatment, including a suggestion that clinicians consider providing prescriptions for antiviral medications ahead of time for such patients. In addition, the updated guidance provides more information about the appropriate (and limited) situations in which antiviral medications should be used for chemoprophylaxis (prevention) this season. The updated guidance states that antiviral drugs should not be used for prevention in healthy persons based on community exposures. In addition, the guidance places an emphasis on the use of antiviral drugs for early treatment (versus preventatively). The updated recommendations seek a balance between providing clinicians the information and guidance needed to reach those at greatest risk with appropriate and timely treatment; to reduce the chances of antiviral-resistance through inappropriate or unnecessary chemoprophylaxis; and yet to still recognize the overarching importance of clinical judgment in making treatment and chemoprophylaxis decisions.

What are influenza antiviral drugs?

Influenza antiviral drugs are prescription drugs (pills, liquid, or inhaler) that decrease the ability of flu viruses to reproduce. While getting a flu vaccine each year is the first and most important step in protecting against flu, antiviral drugs are a second line of defense in the prevention and treatment of flu.

Who is prioritized for treatment with influenza antiviral drugs?

Most people ill with influenza will recover without complications.

Some people are at increased risk of influenza complications and are prioritized for treatment with influenza antiviral drugs this season. They include:

- People hospitalized with suspected or confirmed influenza
- People with suspected or confirmed influenza who are at higher risk for complications
 - Children younger than 5 years old (children under 2 years old are at higher risk for complications than older children)
 - Adults 65 years and older
 - Pregnant women
 - People with certain chronic medical or immunosuppressive conditions
- People younger than 19 years of age who are receiving long-term aspirin therapy

Physicians may also decide not to treat some people in these groups and/or treat people who are not in these groups based on their clinical judgment.

Who is lower priority for treatment with influenza antiviral drugs?

Treatment with influenza antiviral drugs is generally not needed for people who are not at higher risk for complications or do not have severe influenza, such as those requiring hospitalization. However, any suspected influenza patient who presents with emergency warning signs (for example, difficulty breathing or shortness of breath) or signs of lower respiratory tract illness should promptly receive antiviral therapy. Doctors may treat some people who are not in a high risk group based on their clinical judgment. In addition, doctors also may decide that treatment is not needed for some who are in a high risk group based on their clinical judgment.

Which influenza antiviral drugs should be used for treatment this season?

At this time, treatment with oseltamivir (trade name Tamiflu®) or zanamivir (trade name Relenza®) is recommended for all people with suspected or confirmed influenza who require hospitalization.

What are the treatment benefits of influenza antiviral drugs?

For treatment, antiviral drugs should be started within 2 days after becoming sick. When used this way, these drugs can reduce the severity of flu symptoms and shorten the time you are sick by 1 or 2 days. They may also prevent serious flu complications. Antiviral drugs may be especially important for people who are very sick (hospitalized) or people who are sick with the flu and who are at increased risk of serious flu complications, such as pregnant women, young children and those with chronic health conditions.

How effective are antiviral drugs at preventing the flu?

When used to prevent the flu, antiviral drugs are about 70% to 90% effective against susceptible viruses (i.e., viruses that are not resistant to the antiviral medication). It's important to remember that flu antiviral drugs are not a substitute for getting a flu vaccine.

When should health care providers start treatment with antiviral drugs?

Once the decision to administer antiviral treatment is made, treatment with zanamivir or oseltamivir should be initiated as soon as possible after the onset of symptoms. Evidence for benefits from antiviral treatment in studies of seasonal influenza is strongest when treatment is started within 48

hours of illness onset. However, some studies of oseltamivir treatment of hospitalized patients with seasonal influenza have indicated benefit, including reductions in mortality or duration of hospitalization even for patients whose treatment was started more than 48 hours after illness onset. When treatment is indicated, health care providers generally should not wait for laboratory confirmation of influenza to begin treatment with antiviral drugs because laboratory testing can delay treatment and because a negative rapid test for influenza does not rule out influenza. The sensitivity of rapid influenza diagnostic tests can range from 10-70% for 2009 H1N1 virus.

What can health care providers do to reduce delays in antiviral treatment?

Clinicians can take several actions to reduce delays in antiviral treatment initiation. These include:

1. Informing people at higher risk for influenza complications of the signs and symptoms of influenza and the need for them to get treated early.
2. Ensuring quick access to telephone consultation and clinical evaluation for these patients as well as patients who report severe illness.
3. Considering empiric treatment of patients at higher risk for influenza complications based on telephone contact if hospitalization is not indicated and if this will substantially reduce delay before treatment is initiated.

What are the symptoms of seasonal influenza or 2009 H1N1 influenza?

The symptoms of seasonal and 2009 H1N1 influenza include fever, cough, sore throat, runny or stuffy nose, body aches, headache, chills and fatigue. Some people may also have vomiting and diarrhea. Some people may be infected with the flu, including 2009 H1N1, and have respiratory symptoms without a fever.

Who is at higher risk of influenza related complications?

Groups at higher risk for influenza related complications are similar to those at higher risk for seasonal influenza complications and include: children younger than 5 years old; adults 65 years of age and older, pregnant women, people of any age with certain chronic medical conditions (for example, asthma, diabetes, lung disease, people with weakened immune systems, etc.) and people younger than 19 years of age who are receiving long-term aspirin therapy.

For children younger than 5 years of age, note that the risk for severe complications from seasonal influenza is highest among children younger than 2 years old.

What actions should health care providers take when waiting for influenza test results?

When treatment is indicated, health care providers should consider empiric treatment while influenza test results are pending, if the clinicians decided to test, especially if there will be a significant delay before testing can be performed. Once the decision to administer antiviral treatment is made, treatment with oseltamivir or zanamivir should be initiated as soon as possible after the onset of symptoms.

How long should patients receive treatment with antiviral drugs?

The recommended duration of treatment is five days. However, hospitalized patients with severe infections might require longer treatment courses.

When should clinicians prescribe antiviral drugs for prevention of influenza?

Pre-exposure antiviral chemoprophylaxis should only be used in limited circumstances, and in consultation with local medical or public health authorities. Certain people at ongoing occupational risk for exposure (health care personnel, public health workers, or first responders who are working in communities with influenza A H1N1 outbreak), especially those at higher risk for complications of influenza, should carefully follow guidelines for appropriate personal protective equipment to prevent influenza exposure to influenza. Health care workers at high risk of influenza-related complications who cannot minimize exposure may consider temporary reassignment.

Who should receive antiviral drugs for prevention of influenza?

Antiviral chemoprophylaxis generally should be reserved for people at higher risk for influenza-related complications who have had contact with someone likely to have been infected with influenza. As an alternative to chemoprophylaxis, clinicians can also choose to counsel people at higher risk for influenza-related complications about the early signs and symptoms of influenza and advise them to immediately contact a health care provider for evaluation and possible early treatment if clinical signs or symptoms develop.

Post-exposure antiviral chemoprophylaxis with either oseltamivir or zanamivir can be considered for health care personnel, public health workers, or first responders who have had a recognized, unprotected close contact exposure to a person with confirmed, probable, or suspected 2009 H1N1 or seasonal influenza during that person's infectious period. However, use of recommended PPE and other administrative controls (e.g. having health care personnel stay home from work when ill, and triaging for identification of potentially infectious patients) should be used to reduce the need for post-exposure chemoprophylaxis among health care workers. As an alternative to chemoprophylaxis, health care personnel who have occupational exposures, can also be counseled about the early signs and symptoms of influenza, and advised to immediately contact their healthcare provider for evaluation and possible early treatment if clinical signs or symptoms develop.

Should antiviral agents be used for post exposure chemoprophylaxis in healthy individuals?

Antiviral agents are discouraged for prevention of illness in healthy children or adults based on potential exposure in community, school, camp or other settings. In addition, there are no safety data regarding long term or frequent use of antiviral agents in children, and limited data for healthy adults.

Which antiviral drugs should health care providers prescribe for chemoprophylaxis of 2009 H1N1?

For antiviral chemoprophylaxis of 2009 H1N1 influenza virus infection, either oseltamivir or zanamivir are recommended. Currently, circulating 2009 H1N1 viruses are susceptible to oseltamivir and zanamivir, but resistant to amantadine

What is the recommended duration for antiviral chemoprophylaxis if used following exposure to someone with influenza?

Duration of antiviral chemoprophylaxis *post-exposure* is 10 days after the last known exposure.

What is the treatment of choice for pregnant women with suspected or

confirmed 2009 H1N1 infection?

Oseltamivir and zanamivir are "Pregnancy Category C" medications, indicating that no clinical studies have been conducted to assess the safety of these medications for pregnant women. Pregnancy should not be considered a contraindication to oseltamivir or zanamivir use. Because of its systemic activity, oseltamivir is preferred for treatment of pregnant women.

What side effects can occur with influenza antiviral drugs?

Side effects differ for each drug. If an antiviral drug has been prescribed for you, ask your doctor to explain how to use the drug and any possible side effects. Health care professionals prescribing flu antiviral drugs should alert patients about adverse events that can occur. For more information about side effects, see [Antiviral Drugs: Summary of Side Effects](#).

Can antiviral drugs be helpful for people unable to take the flu vaccine?

Yes. CDC and ACIP recommend use of antiviral drugs for people allergic to eggs (which can cause them to have an allergic reaction to the vaccine) or for people who previously have encountered complications from Guillain-Barre syndrome (GBS) associated with influenza vaccination. In addition, taking antiviral drugs may be recommended among persons that may not have a good immune response to the flu vaccine.

Should people use antiviral drugs before or after receiving the live attenuated influenza vaccine (LAIV) called FluMist®

LAIV is one of two types of flu vaccine. It is given as a nasal spray and contains weakened, live virus. Flu antiviral drugs taken from 48 hours before through 2 weeks after getting LAIV can lower or prevent the vaccinated person from responding to the vaccine and the person may not get immune protection from the vaccine.

Antiviral drugs can be taken with the inactivated (i.e. killed) flu vaccine.

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