

ANTIVIRAL MEDICATION FOR INFLUENZA PREVENTION AND TREATMENT FACT SHEET

What are antiviral medications?

Prescription antiviral medications play an important role in influenza prevention and treatment, particularly for people who suffer from chronic diseases and are at increased risk for complications. In fact, antivirals are one of the three pillars (along with vaccination and good hygiene habits) identified by the Centers for Disease Control and Prevention (CDC) that help protect against the spread of influenza.¹

Taken within 12-48 hours of symptom onset, antiviral medications can reduce influenza symptoms and may shorten the duration of illness. Antivirals can also be prescribed prophylactically to help prevent influenza when someone has been exposed to the virus.

Currently, four antiviral medications are marketed in the United States. For the 2007-2008 season, the CDC recommends use of either oseltamivir (Tamiflu) or zanamivir (Relenza), for treatment and prevention of influenza. Neither amantadine nor rimantadine should be used for the treatment or chemoprophylaxis of influenza, due to high levels of resistance.² Resistance to oseltamivir (Tamiflu) and zanamivir (Relenza) remains extremely uncommon.³

Are antivirals a substitute for the influenza vaccine?

While not a substitute for vaccination, prescription antiviral medications are an important complement to vaccines in preventing and controlling the spread of seasonal influenza. Antivirals can be given prophylactically to people who have been exposed to influenza to help contain its spread in crowded settings, such as:

- Institutions such as a nursing homes or hospital wards
- Households and workplaces
- Other closed or semi-closed settings (e.g., dormitories, cruise ships)

In the event of an outbreak, public health practice is to combine the use of influenza vaccine and antiviral medications.⁴ For example, nursing home residents and staff are given vaccine during an outbreak and also are given antiviral medications to prevent influenza until the vaccine takes effect (about two weeks). This practice continues as long as influenza is occurring in that setting.

People with chronic conditions who are at increased risk for complications of influenza may benefit from taking an antiviral medication to prevent or treat influenza. Antivirals can also be used in those patients who cannot receive a traditional influenza vaccine (“flu shot”) because of egg allergies.

How effective are antivirals in treating the flu?

Antiviral treatment should be initiated within two days of symptom onset. It is important to note that the sooner antivirals are administered, the greater the treatment benefit.⁵

For example, in clinical trials, adult patients who took Tamiflu within 48 hours of symptom onset, felt better sooner (30% or 1.3 days faster) than patients who did not take Tamiflu.

In another study, Tamiflu showed a reduction of 1.8 days at 24 hours versus placebo.

How do antiviral medications work?

Virtually all common flu viruses have the neuraminidase protein on their surface, which enables them to migrate from cell to cell, replicating and spreading throughout the body. Both oseltamivir (Tamiflu) and zanamivir (Relenza) belong to a group of medicines called neuraminidase inhibitors (NAIs). Inhibiting the neuraminidase activity is believed to interfere with the replication process, possibly causing the viruses to become trapped and die out.

Who can take antiviral medications?

Oseltamivir (Tamiflu) is an oral medication approved for the treatment and prevention of influenza A and B in patients one year and older. It is available in capsules (75 mg, 45 mg, and 30 mg dosages) as well as a liquid suspension formulation. Zanamivir (Relenza) is an inhaled medication approved for treatment of influenza A and B in patients over the age of seven, and prophylaxis in patients over five.

People who are at high risk of serious complications from influenza may benefit most from antiviral medications. This includes: people 65 years of age and older, children 12-23 months of age, and people with chronic medical conditions (for example, heart or lung disease, diabetes).⁶

When should antivirals be prescribed?

With antiviral therapy, speed is critical. If taken within 12-48 hours of symptom onset, antiviral medications can reduce the duration of influenza, which is characterized by fever (up to 103°), aches, chills, and tiredness, and sudden onset.

For prevention of influenza, antivirals should also be prescribed within 12-48 hours of exposure to the virus. In the event of an influenza outbreak in a home, institution, or community, the CDC notes that a health care provider may choose to prescribe antiviral medications as a preventive measure, especially for those at high risk for complications from influenza.⁷

Will antivirals be widely available this season?

Yes. The prescription antiviral medication Tamiflu is anticipated to be in ample supply during the 2007-2008 flu season in pharmacies across the U.S.

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- ¹ <http://www.cdc.gov/flu/protect/preventing.htm> (Accessed August 1, 2007)
 - ² <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr56e629a1.htm>
 - ³ <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr56e629a1.htm>
 - ⁴ <http://www.cdc.gov/flu/protect/antiviral/> (Accessed August 1, 2007)
 - ⁵ <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr56e629a1.htm>
 - ⁶ <http://www.cdc.gov/flu/protect/antiviral/> (Accessed August 1, 2007)
 - ⁷ <http://www.cdc.gov/flu/protect/antiviral/> (Accessed August 1, 2007)