



GUIDELINES & RECOMMENDATIONS

Influenza Antiviral Medications: Interim Chemoprophylaxis and Treatment Guidelines

December 17, 2003

The following guidelines should be considered interim recommendations from CDC on the use of antiviral drugs for influenza during the 2003-04 influenza season. The interim guidelines were developed to provide clinicians and public health officials with guidance on the use of these drugs and will be updated over time as more information becomes available and more experience is gained.

In the United States, oseltamivir and zanamivir (the neuraminidase inhibitors) and amantadine and rimantadine (the adamantanes) have been approved either for treatment or chemoprophylaxis of influenza, or for both. All of them are prescription medications. More detailed clinical information about these drugs, including dosages, approved indications and ages, and adverse effects can be found in Antiviral Agents for Influenza: Background Information for Clinicians at (<http://www.cdc.gov/flu/professionals/antiviralback.htm>) and Prevention and Control of Influenza, Recommendations of the Advisory Committee on Immunization Practices (ACIP) (<http://www.cdc.gov/flu/professionals/ACIP/acipcurrent.htm>)

General Considerations

Influenza antiviral medications have long been used to limit the spread and impact of institutional influenza outbreaks. They also are generally used for treatment of patients or chemoprophylaxis of individuals in other settings.

- When used for chemoprophylaxis, they are estimated to be 70-90% effective for prevention of illness in healthy adults.
- When used for treatment within 48 hours of illness onset, they can decrease the duration of clinical illness by an average of 1-2 days and reduce virus shedding.
- Although data are limited, treatment with oseltamivir has been reported to be associated with decreased hospitalizations and lower rates of respiratory complications (e.g., pneumonia) of influenza.
- There are few data on the use of influenza antiviral drugs in pregnant women, and no data on the use of influenza antiviral drugs in infants aged < 1 year.

The decision of whether and how to use these antiviral drugs must be made on an individual basis since many considerations may be involved. Some general considerations include the following:

- The influenza antiviral drugs differ in terms of routes of administration, approved uses, approved ages, dosing adjustments based on age and renal function, side effects, and costs. These differences are summarized in the package inserts as well as in Antiviral Agents for Influenza: Background Information for Clinicians at (<http://www.cdc.gov/flu/professionals/antiviralback.htm>) and Prevention and Control of Influenza, Recommendations of the Advisory Committee on Immunization Practices (ACIP) (<http://www.cdc.gov/flu/professionals/ACIP/acipcurrent.htm>)

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- The availability of these drugs must be taken into account. For example, some potential uses of these drugs could outstrip locally available supplies. In other instances, local decisions about whether to use antivirals for high-risk persons only, or for high-risk and healthy persons, should take local availability of drugs into account.
- People who are at elevated risk of serious complications from influenza may benefit most from antiviral drugs. Therefore, in general, people who fall into these high-risk groups should be given priority for use of influenza antiviral drugs if the drugs are in limited supply.
- Influenza diagnostic testing of each individual patient is not a prerequisite for administration of antiviral drugs. In the event of confirmed influenza activity in a community, a clinical diagnosis without laboratory testing for influenza often accurately predicts infection in patients presenting with influenza-like illness. More information on influenza diagnostic testing may be found in Laboratory Diagnostic Procedures for Influenza at <http://www.cdc.gov/flu/professionals/labdiagnosis.htm>.

Situations in Which Influenza Antiviral Drugs Should be Used

- **Outbreaks in Institutions Housing High-Risk Persons**
Influenza antiviral drugs should be used to control outbreaks of influenza occurring within institutions or other semi-enclosed settings that house many high-risk individuals. Examples of such settings include nursing homes, long-term care facilities, residential communities of high-risk persons, hospitals, and cruise ships carrying elderly high-risk persons. In these situations, and along with other outbreak control measures (such as cohorting of patients or residents, institution of droplet precautions, limiting of visitors) the antiviral drugs should be used for:
 - Treatment of all persons who have been ill with influenza for less than 48 hours. Treatment should last for a period of 5 days.
 - Chemoprophylaxis of all other patients or residents for the duration of the institutional outbreak, regardless of their vaccination status. In addition, attempts should be made to vaccinate unvaccinated patients or residents if vaccine is available.
 - Chemoprophylaxis of unvaccinated employees who have contact with patients or residents for the duration of the institutional outbreak. In addition, attempts should be made to vaccinate unvaccinated employees if vaccine is available.

Situations in Which Influenza Antiviral Drugs Should be Considered

- Influenza antiviral drugs should be considered for **treatment of high-risk persons aged ≥ 1 year** with influenza infection. Treatment should be started within 48 hours of illness onset and continue for 5 days.
- Influenza antiviral drugs should be considered for the **chemoprophylaxis of unvaccinated high-risk persons aged ≥ 1 year in a variety of settings**, including during community influenza outbreaks and influenza outbreaks in other settings (such as hospitals, cruise ships, camps, college dormitories). Ideally, high-risk persons in these situations should be vaccinated and chemoprophylaxis administered for two weeks after vaccination if inactivated vaccine is administered. If live, attenuated vaccine is used, antiviral drugs should not be administered since they will decrease the effectiveness of the vaccine. If vaccination is not possible, or if vaccination is unlikely to provide adequate protection because the patient cannot mount an adequate antibody response to the vaccine, then chemoprophylaxis for the duration of influenza activity in the community should be considered, though data and experience are limited on prolonged use (i.e., several weeks) of antivirals for chemoprophylaxis.

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- Influenza antiviral drugs should be considered for the **chemoprophylaxis of unvaccinated health care workers who have close contact with influenza-infected patients**. Ideally, unvaccinated health care workers should be vaccinated and chemoprophylaxis administered for a period of two weeks following vaccination. If vaccination is not possible, then chemoprophylaxis of these health care workers for the duration of influenza activity at the community level should be considered, though data are limited on prolonged use of antivirals for chemoprophylaxis.

- Treatment or chemoprophylaxis of **high-risk or healthy persons** in a variety of other settings can be considered. For example:
 - Treatment of seriously ill influenza-infected patients admitted to the hospital, though data are limited on use of influenza antiviral drugs in such persons.
 - Chemoprophylaxis of family members of high-risk individuals during local community influenza activity.
 - Treatment of persons without high-risk factors who are infected with influenza can be considered if supplies of antiviral drugs are adequate.

In each of these instances, the use of the antiviral agents should be guided by clear objectives for the use of these drugs, predefined limits on the duration of treatment or chemoprophylaxis, and an awareness of the locally available supply of the drugs.

For more information, visit www.cdc.gov/flu, or call CDC's Clinician Information Line at (877) 554-4625.