



Rod R. Blagojevich, Governor
Damon T. Arnold, M.D., M.P.H., Director

122 S. Michigan Ave., Suite 7000 • Chicago, IL 60603-6119 • www.idph.state.il.us

Date: December 23, 2008
To: Illinois Physicians
From: Craig S. Conover, MD, Medical Director, Office of Health Protection
Kenneth Soyemi, MD, Assistant Medical Director, Office of Health Protection
Karen McMahon, Chief, Immunization Section
Re: Influenza Antiviral Resistance Advisory # 1

- Preliminary data from 12 states indicate that the prevalence of influenza A (H1N1) virus strains resistant to the antiviral medication oseltamivir is high.
- Of the 50 A (H1N1) viruses tested to date, 98% were resistant to oseltamivir (Tamiflu®); all were susceptible to zanamivir (Relenza®), amantadine (Symmetrel®) and rimantadine (Flumadine®).
- Consider use of influenza tests that can distinguish influenza A from B. Encourage confirmatory testing on early season cases and periodically throughout the peak weeks of the influenza season. Confirmatory testing may be conducted at IDPH Laboratory.
- When influenza A (H1N1) virus infection or exposure is suspected, zanamivir or a combination of oseltamivir and rimantadine are more appropriate options than oseltamivir alone.

Preliminary data from 12 states indicate that the prevalence of influenza A (H1N1) virus strains resistant to the antiviral medication oseltamivir is high. Therefore, CDC is issuing interim recommendations for antiviral treatment and chemoprophylaxis of influenza during the 2008-09 influenza season. Local influenza surveillance data and laboratory testing can help with physician decision-making regarding the choice of antiviral agents for their patients. The 2008-09 influenza vaccine is expected to be effective in preventing or reducing the severity of illness with currently circulating influenza viruses, including oseltamivir-resistant influenza A (H1N1) virus strains. Since influenza activity remains low and is expected to increase in the weeks and months to come, CDC recommends that influenza vaccination efforts continue. To view the entire advisory, visit www.cdc.gov/flu/professionals/antivirals/index.htm

IDPH Recommendations:

- Review the CDC Health Advisory at www.cdc.gov/flu/professionals/antivirals/index.htm . The advisory includes an Antiviral Guideline Table (see below) for health care providers.

- Consider use of influenza tests that can distinguish influenza A from B. Encourage confirmatory testing on early season cases and periodically throughout the peak weeks of the influenza season. Confirmatory testing may be conducted at IDPH Laboratory.
- Persons who are candidates for preventive treatment or chemoprophylaxis (e.g., residents in an assisted living facility during an influenza outbreak, or persons who are at higher risk for influenza-related complications and have had recent household or other close contact with a person with laboratory confirmed influenza) should be provided with medications most likely to be effective against the influenza virus that is the cause of the outbreak, if known. The guidelines for which antivirals to use for chemoprophylaxis are the same as for treatment.
- Vaccination should be promoted and provided to patients. Oseltamivir-resistant influenza A strains (H1N1) are similar to the influenza A (H1N1) strain in the vaccine, and CDC recommends that influenza vaccination efforts continue as the primary method to prevent influenza.
- Review state influenza virus surveillance data regularly to determine which strains are currently circulating in Illinois.
- If a patient tests negative for influenza, consider treatment options based on local influenza activity and clinical impression of the likelihood of influenza. Because rapid antigen tests may have low sensitivity, treatment should still be considered during periods of high influenza activity for persons with respiratory symptoms consistent with influenza that test negative and have no other apparent diagnosis.
- Persons who are candidates for preventive treatment or chemoprophylaxis (e.g., residents in an assisted living facility during an influenza outbreak, or persons who are at higher risk for influenza-related complications and have had recent household or other close contact with a person with laboratory confirmed influenza) should be provided with medications most likely to be effective against the influenza virus that is the cause of the outbreak; contact IDPH for assistance to determine strain causing outbreak.
- Persons whose need for chemoprophylaxis is due to potential exposure to a person with laboratory-confirmed influenza A (H3N2) or influenza B should receive oseltamivir or zanamivir (no preference). Zanamivir should be used when persons require chemoprophylaxis due to exposure to influenza A (H1N1) virus. Rimantadine can be used if zanamivir use is contraindicated.

For more information about CDC guidelines visit: www.cdc.gov/flu/

For Illinois Influenza activity visit : <http://www.idph.state.il.us/flu/surveillance.htm>

For more information regarding diagnosis, management, and reporting of Influenza contact your local health department, or the IDPH Immunization Section, at 1-800-526-4372

Table: Interim Recommendations for the Selection of Antiviral Treatment Using Laboratory Test Results and Viral Surveillance Data, United States, 2008-09 season‡

Rapid antigen or other laboratory test	Predominant virus(es) in community	Preferred medication(s)	Alternative (combination antiviral treatment)
Not done or negative, but clinical suspicion for influenza	H1N1 or unknown	Zanamivir	Oseltamivir + Rimantadine*
Not done or negative, but clinical suspicion for influenza	H3N2 or B	Oseltamivir or Zanamivir	None
Positive A	H1N1 or unknown	Zanamivir	Oseltamivir + Rimantadine*
Positive A	H3N2 or B	Oseltamivir or Zanamivir	None
Positive B	Any	Oseltamivir or Zanamivir	None
Positive A+B**	H1N1 or unknown	Zanamivir	Oseltamivir + Rimantadine*
Positive A+B**	H3N2 or B	Oseltamivir or Zanamivir	None

*Amantadine can be substituted for rimantadine but has increased risk of adverse events. Human data are lacking to support the benefits of combination antiviral treatment of influenza; however, these interim recommendations are intended to assist clinicians treating patients who might be infected with oseltamivir-resistant influenza A (H1N1) virus.

**Positive A+B indicates a rapid antigen test that cannot distinguish between influenza and influenza B viruses

‡ Influenza antiviral medications used for treatment are most beneficial when initiated within the first two days of illness. Clinicians should consult the package insert of each antiviral medication for specific dosing information, approved indications and ages, contraindications/warnings/precautions, and adverse effects.