

## **EPI Update for Friday January 20, 2006**

### **Center for Acute Disease Epidemiology**

### **Iowa Department of Public Health**

#### *Items for this week's EPI update*

- CDC recommends **against** the use of amantadine and rimantidine for treatment of seasonal influenza
- Influenza update
- The public health impact of viral encephalitis/meningitis
- Meeting announcements

#### **CDC recommends against the use of amantadine and rimantidine for treatment of seasonal influenza**

On the basis of recently available antiviral testing results, the Centers for Disease Control and Prevention (CDC) recommends that neither amantadine nor rimantidine be used for the treatment or chemoprophylaxis of influenza A infections in the U.S. for the remainder of the 2005-06 influenza season. During this period, oseltamivir or zanamivir should be prescribed if an antiviral medication is indicated for the treatment of influenza. Oseltamivir should be prescribed for chemoprophylaxis of influenza.

From Oct. 1, 2005 to Jan. 14, 2006, a total of 123 influenza A viruses collected from 23 states were tested at CDC for adamantane resistance. Among the 120 influenza A (H3N2) viruses tested, 109 (91 percent) demonstrated the S31N substitution in the M2 protein that confers resistance to amantadine and rimantidine. These high levels of resistance necessitate the interim change in recommendations for the use of these drugs. Testing of influenza isolates for resistance to antivirals will continue throughout the 2005-06 influenza season. Recommendations will be updated as needed.

Recommendations for the use of oseltamivir and zanamivir have not changed. The Food and Drug Administration (FDA) recently extended chemoprophylaxis approval of oseltamivir to include children aged 1-12 years; previously, chemoprophylaxis approval had been limited to children 13 years old and older.

When administered for treatment within 48 hours of illness onset, neuraminidase inhibitors can reduce the duration of uncomplicated influenza A and B illness by approximately one day. Persons at high risk for serious complications from influenza can benefit most from neuraminidase inhibitors. CDC recommends that neuraminidase inhibitors be used as treatment for any person experiencing a potentially life-threatening influenza-related illness and for persons at high risk for serious complications from influenza. CDC recommends that oseltamivir be used as chemoprophylaxis for 1) persons who live or work in institutions caring for persons at high risk for serious complications

from influenza infection in the event of an institutional outbreak, and 2) persons at high risk for serious influenza complications if they are likely to be exposed to others infected with influenza. The FDA-approved indications for the use of neuraminidase inhibitors are available at [www.cdc.gov/flu/professionals/treatment](http://www.cdc.gov/flu/professionals/treatment).

To view the CDC dispatch, go to [www.cdc.gov/flu/han011406.htm](http://www.cdc.gov/flu/han011406.htm).

## **Influenza update**

### ***Seasonal influenza: Iowa and the United States***

Twenty-four Iowa counties have had recent flu activity. Scott County has had both influenza A and B activity. Only one case of influenza B has been confirmed this season. All confirmed strains still match the vaccine strain. Nearly 50 cases of influenza have been confirmed by the University Hygienic Lab (UHL) this season.

There was a slight decrease in influenza-like illness (ILI) activity for all Iowa Influenza Surveillance Network (IISN) reporting groups. However, cases of flu continue to be confirmed in new counties at similar levels to the previous two weeks. This indicates that Iowa cases have not yet peaked, and that levels of ILI could increase at any time.

Several Western states are still reporting widespread activity. For more information on influenza, please visit our Web site at [www.idph.state.ia.us/adper/flu.asp](http://www.idph.state.ia.us/adper/flu.asp).

### ***Avian influenza***

Cases continue to be reported by Turkish health officials, though not all have been confirmed by the World Health Organization (WHO). Turkey reports 21 cases and four deaths. Of those, WHO has confirmed four cases and two deaths. Activity remains the same in five countries, Turkey, China, Thailand, Indonesia and Vietnam.

## **The public health impact of viral encephalitis/meningitis**

In last week's Epi Update, we discussed the public health response to bacterial meningitis. Viruses can also cause meningitis, an inflammation of the surrounding membranes of the brain and spinal cord, and is relatively common. Many different viruses can cause meningitis, but the coxsackievirus and echovirus - both enteroviruses - are responsible for the majority of identified viral meningitis cases in the U.S. Most viruses that cause meningitis are transmitted primarily person to person. However, because the disease is normally not severe and since there is no recommended prophylaxis for contacts, a public health response is not indicated for individual cases.

Arboviral encephalitis, inflammation of the brain, includes diseases spread by mosquitoes. Individual case reports and public health follow up is required. Some of the diseases in this category are Saint Louis Encephalitis, LaCrosse Encephalitis, Western Equine Encephalitis, Eastern Equine Encephalitis and Venezuelan Equine Encephalitis. West Nile Virus may cause either meningitis or encephalitis and both require a public health response.

## **Meeting announcements**

UHL will present the Diagnostic Microbiology for Epidemiologists course over the Iowa Communications Network (ICN) again this year. This course is designed to introduce public

health professionals to microbiology laboratory testing including culture, antigen detection, serology, and molecular amplification laboratory techniques for bacteria, viruses, parasites and fungi. It is offered through the University of Iowa's College of Public Health. The course number is 173:155.

**Have a Healthy and Happy Week**  
**Center for Acute Disease Epidemiology**  
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