



Nebraska Health and Human Services  
**HEALTH ALERT NETWORK**  
Update



Based on current Nebraska surveillance data, we appear to be in the middle of the flu season; influenza has not yet peaked. Approximately 60% of isolates tested by our public health laboratory are influenza A and 40% are influenza B, which is similar to nationwide data. In addition, as is being seen elsewhere in the United States, the influenza A isolates are shifting to be predominantly the H1 strain. Over the last thirty days there have been 18 influenza A H1 isolates and zero H3 isolates. Studies indicate the circulating influenza A viruses are well-matched to the influenza A (H1N1) vaccine component (A/Brisbane/59/2007) and the A (H3N2) vaccine component (A/Brisbane/10/2007) of the 2008-09 influenza vaccine. Unfortunately, for influenza B the vaccine is only well-matched to a minority (approximately 30%) of the circulating viruses.

The circulating influenza A H1 strains are resistant to oseltamivir (Tamiflu). The adamantanes (rimantadine or amantadine) should work for influenza A H1 but have more side effects. Rimantidine currently is in short supply and hard to locate in NE. Of the two adamantanes, amantadine is more likely to cause side effects\*.

This is a challenging influenza season for the following reasons:

1. Influenza A H1 is resistant to oseltamivir (Tamiflu);
2. only about 30% of the influenza B strains are well-matched to the current 2008-09 vaccine;
3. rimantadine is in short supply and may be difficult to find.

**Treatment Recommendations:**

Current state and national public health recommendations include:

**For lab confirmed influenza A:**

zanamivir (Relenza\*\*) alone or combination  
oseltamivir (Tamiflu) plus rimantadine or  
amantadine

**For lab confirmed influenza B:**

oseltamivir (Tamiflu) alone or zanamivir  
(relenza) alone

**\*(Side effects of Adamantane derivatives (amantadine and rimantadine):** Gastrointestinal and central nervous system (CNS) adverse effects have been reported during controlled chemoprophylaxis studies of amantadine and rimantadine in healthy adults and elderly nursing home residents. Chemoprophylactic use of both drugs has been associated with CNS toxicity such as lightheadedness, difficulty concentrating, nervousness, insomnia, and seizures in patients with pre-existing seizure disorders. Rimantadine use has been associated with fewer CNS side effects than amantadine. Amantadine is teratogenic and embryo toxic in animals. Rimantadine has not been found to be mutagenic. The safety of amantadine and rimantadine has not been established in pregnancy.

\*\*Relenza is not recommended for treatment or prophylaxis of influenza in individuals with underlying airways disease.

We will continue to closely monitor the types of influenza circulating in Nebraska and report the results and treatment recommendations to the Nebraska medical community.

For additional information regarding the 2008-2009 Nebraska influenza epidemiologic data search for "Nebraska influenza" or go to <http://www.dhhs.ne.gov/flu>.