

# Weekly Influenza Update

**April 10, 2009**

Wisconsin:

Influenza activity is declining in Wisconsin. In the last week, influenza B viruses have comprised 73% of isolates. The prevalence of influenza-like illness [fever of 100oF or higher and either cough or sore throat] in Wisconsin's primary care patients is estimated to be 1.9%.

12.4% of last week's primary care patients had acute respiratory infections (ARI).

The prevalence of acute diarrheal illness (ADI) in Wisconsin's primary care patients is at 1.7%.

## CLINICAL NOTES:

### Prophylaxis

Based on historic trends, 94% of cases have already occurred. Given the high percentage of B viruses in Wisconsin and low vaccine match for B viruses, vaccine offers little additional protection at this time.

### Diagnosis

- influenza infections are at low levels at this time
- PPV of rapid influenza tests is moderate, NPV is high

### Treatment

- Antivirals need to be started with 48 hours of symptom onset to be effective
- Antivirals started after 48 hours may be effective for hospitalized patients with confirmed influenza
- a limited number of viruses have been tested for neuraminidase inhibitor resistance this season
  - 649 out of 654 A(H1) viruses were resistant to Oseltamivir (99.2%)
  - 0/94 A(H3) and 0/274 B viruses have been resistant to oseltamivir.
  - All viruses tested have been sensitive to zanamivir
- a limited number of viruses have been tested for adamantane resistance this season
  - 3/605 A(H1N1) viruses were resistant to adamantanes (0.5%)
  - 94/94 A(H3N2) viruses were resistant to adamantanes (100%)
  - Adamantane antivirals are ineffective against influenza B viruses

Across Wisconsin, 73% of influenza viruses in the last week have been B, with 27% A(H1) and 0% A(H3). Therefore:

- Zanamivir alone will be effective in 100% of cases  
(cost per Rx = \$72.99)
- Oseltamivir plus Amantadine/Rimantadine will be effective in 100% of cases  
(cost per combined Rx = \$132.79 - \$148.18)
- Oseltamivir alone will be effective in 73% of cases  
(cost per Rx = \$119.99)
- Amantadine/Rimantadine alone will be effective in 27% of cases  
(cost per rimantadine Rx = \$28.19)  
(cost per Amantadine Rx = \$12.89)

### Other

- RSV prevalence is declining
- human metapneumoviruses, adenoviruses, coronaviruses, rhinoviruses, and parainfluenza viruses are circulating in Wisconsin and causing acute respiratory symptoms
- Rotavirus isolations appear to have peaked at low levels

Across the U.S.:

As of March 28, 23,849 positive surveillance cultures have been recorded in the United States. 16.8% of respiratory specimens during week 12 (March 22-28) were positive for influenza.

- 67.9% of isolates have been type A
  - 90.2% of all sub-typed A viruses have been H1N1
  - 9.8% of A viruses have been H3N2
- 32.1% of isolates have been type B

- 7.3% of deaths during week 12 (March 22-28) were due to pneumonia or influenza [below the epidemic threshold of 7.9%]
- 43 pediatric influenza deaths have been reported this season

Global News [from the WHO: The Ministry of Health of Egypt has reported 3 new confirmed human cases of avian influenza. The first case is a 2 year-old boy who developed symptoms on 27 March and was admitted to the hospital on the 30 March where he was started on oseltamivir. He remains in a stable condition. The second case is also a 2 year-old boy from the same district and was detected through the investigation around the above-mentioned case. He developed symptoms on 31 March and was admitted to the hospital on 1 April where he was started on oseltamivir. He remains in a stable condition. Both boys had contact with sick/dead poultry prior to the illness onset. The third case is a 6 year-old boy who developed symptoms on 22 March and was admitted to the hospital on 28 March where he was started on oseltamivir on 3 April. He was exposed to sick/dead poultry prior to the illness onset. He is in a critical condition.

The Ministry of Health in Viet Nam has reported a new confirmed case of human infection with the H5N1 avian influenza virus. The case is a 3 year old boy who developed symptoms on 12 March, was hospitalized on 13 March, and died on 19 March. Investigations into the source of infection indicated a history of close contact with sick and dead poultry prior to the onset of symptoms.

Since 2003, there have been 417 laboratory-confirmed cases of Avian influenza (A-H5N1). The cases been confined to Laos, Viet Nam, Thailand, Indonesia, Cambodia, the People's Republic of China, Turkey, Iraq, Azerbaijan, Egypt, Djibouti, Nigeria, Myanmar and Pakistan. There have been 257 associated deaths (case fatality rate= 61.6%). There is enhanced avian influenza surveillance in Wisconsin. Contact Tom Haupt at the Wisconsin Division of Public Health (608-266-5326) prior to submitting specimens for fee-exempt testing for patients with influenza-like illness returning from Southeast Asia within 10 days.

#### Other Observations:

(Thanks to Jim Zack, MD - UW Stevens Point) Mark Johnson who has spent years recording musicians around the world playing the same pieces of music and mixed their recordings as if they were in the same studio -- pretty amazing.

<http://www.pbs.org/moyers/journal/10242008/profile2.html>

See the following for a nice rendition...

<http://www.youtube.com/watch?v=4xjPODksI08&feature=channel>

#### Wisconsin Statistics:

(From my daughter's middle school) These statistics aren't something to cheer about.

Wisconsin ranks number one in:

- Binge Drinkers (22%)
- Casual Drinkers (68%)
- Chronic Heavy Drinkers (7.4%)
- Alcohol use in the past month (62%)
- Brandy Consumption
- Drinking among high school youth

April 10 Phenology: Today's photoperiod is 13 hours and 11 minutes, and daylength is increasing by 2 minutes and 51 seconds per day.

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