

Weekly Influenza Update

April 23, 2009

EARTH DAY - 2009

Wisconsin:

Influenza activity is declining in Wisconsin. In the last week, influenza B viruses have comprised 80% of isolates. Based on historic trends, 97% of cases have already occurred. 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 1.2%.

11.3% 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 1.6%.

CLINICAL NOTES:

Prophylaxis

Vaccine offers little 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

743 out of 748 A(H1) viruses were resistant to Oseltamivir (99.3%)

0/108 A(H3) and 0/301 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

3/729 A(H1N1) viruses were resistant to adamantanes (0.4%)

108/108 A(H3N2) viruses were resistant to adamantanes (100%)

Adamantane antivirals are ineffective against influenza B viruses

Other

- RSV prevalence has declined to low levels
- adenoviruses, rhinoviruses, and parainfluenza viruses are circulating in Wisconsin and causing acute respiratory symptoms
- Rotavirus isolations have peaked at low levels and are declining

Across the U.S.:

As of April 11th, 25,407 positive surveillance cultures have been recorded in the United States. 9.0% of respiratory specimens during week 14 (April 5-11) were positive for influenza.

-66.8% of isolates have been type A

89.6% of all sub-typed A viruses have been H1N1

10.4% of A viruses have been H3N2

-33.2% of isolates have been type B

-7.8% of deaths during week 14 (April 5-11) were due to pneumonia or influenza

[equal to the epidemic threshold of 7.8%]

-53 pediatric influenza deaths have been reported this season

Global News [from the WHO: The Ministry of Health of Egypt has reported four new confirmed human cases of avian influenza.

The first case is a 33 year old female. Her symptoms began on 7 April and she was hospitalized on 15 April where she was started on oseltamivir. She is in a critical condition. Investigations into the source of her infection indicate a history of close contact with dead and sick poultry prior to becoming ill.

The second case is a 25-year old pregnant female. Her symptoms began on 6 April and she was hospitalized on 11 April where she was started on oseltamivir on 16 April. She is in a critical condition. Investigations into the source of her infection indicated close contact with sick poultry prior to becoming ill.

The third case is 18-month old female. Her symptoms began on 15 April and she was hospitalized on 18 April where she was started on oseltamivir. Her condition is stable. Investigations into the source of infection indicated close contact with dead and sick poultry prior to becoming ill.

The fourth case is a 4 year old male. His symptoms began on 18 April and he was hospitalized on 18 April and started on oseltamivir. He is in a stable condition. Investigations into the source of his infection indicate a history of close contact with dead and sick poultry prior to becoming ill.

Since 2003, there have been 421 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= 61.0%). 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:

Earth Day 2009: Earth Day, celebrated in the US on April 22, is a day designed to inspire awareness and appreciation for the Earth's environment. It was founded by Wisconsin's own U.S. Senator, Gaylord Nelson, as an environmental teach-in in 1970 and has been celebrated in many countries every year since.

In celebration of Earth Day and in an unapologetic promotion of the Wisconsin Department of Natural Resources Office of the Great Lakes, please click on the following link to view the winning photos from the 2009 Great Lakes Photo Contest, then click on "winning photos" (courtesy of my wife, Jo).

<http://dnr.wi.gov/org/water/greatlakes/contest/>

An interesting perspective on the "lost generation," also appropriate for Earth Day, is available at:

<http://www.youtube.com/watch?v=42E2fAWM6rA>

April 23 Phenology: Today's photoperiod is 13 hours and 47 minutes, and daylength is increasing by 2 minutes and 41 seconds per day.

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