

Weekly Influenza Update

January 28, 2010

Wisconsin:

Wisconsin continues to have very low influenza activity. This low level of activity may be due to ecologic exclusion of seasonal influenza viruses by the extensive spread of H1N1 or due to possible low levels of cross protection afforded by H1N1 infection. Since the arrival of H1N1, there have been 13,272 confirmed and probable cases, 1317 hospitalizations and 55 deaths in Wisconsin.

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 1.5%.

11.4% 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 1.5%

CLINICAL NOTES:

Prophylaxis

The total allocation of the 2009 H1N1 vaccine as of January 11 is approximately 137.7 million doses. Vaccinate anyone interested in protection from influenza infection with H1N1 and seasonal vaccines Pneumococcal vaccine is indicated for smokers, and people with asthma and other chronic lung conditions as well as a number of other chronic conditions

Demographics and Symptoms (based on laboratory-confirmed H1N1 cases in Wisconsin primary care sites)

Median time from onset to clinic visit: 2 days

Mean age: 23.9 years

Sex Ratio: female 46%; Male 54%

% with probable exposure to similar illness within 1-3 days of onset: 38%

Common symptoms

Fever: 82%

Cough: 100%

Sore Throat: 73%

Runny Nose: 73%

Headache: 56%

Any GI symptom: 27%

Severity: mild - 10%; moderate 90%; severe 0%

Diagnosis

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

Treatment (see: <http://www.cdc.gov/H1N1flu/recommendations.htm>)

Prompt empiric treatment is recommended for persons with suspected or confirmed influenza and:

- Illness requiring hospitalization
- Progressive, severe, or complicated illness, regardless of previous health status
- Patients at risk for severe disease

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

Resistance Patterns

- a number of H1N1 viruses have been tested for antiviral resistance this season
- all tested 2009 H1H1 viruses have been sensitive to zanamivir

1.4% of 2009 H1N1 viruses have been resistant to oseltamivir
99.7% of 2009 H1N1 have been resistant to adamantane antivirals

Other

- RSV is increasing across Wisconsin
- adenoviruses, coronaviruses and parainfluenza viruses are co-circulating at low levels in Wisconsin

Across the U.S.:

3.7% of respiratory specimens during week 2 (January 10-16, 2010) were positive for influenza.

- 96.7% of subtyped isolates have been type A
 - 98.5% of all sub-typed A viruses have been 2009 H1N1
 - 0.0% of A viruses have been seasonal H1N1
 - 1.5% of A viruses have been H3N2
- 3.3% of isolates have been type B

Since August 30, 2009, there have been 38,454 lab-confirmed influenza-associated hospitalizations and 1,779 lab-confirmed influenza-associated deaths.

- 8.0% of deaths during week 2 (January 10-16, 2010) were due to pneumonia or influenza
[below the epidemic threshold of 7.6%]

-307 pediatric have been reported since April 26th. Of these, 258 were associated with 2009 H1N1, 47 with unknown subtype A, and 2 with seasonal influenza. Bacterial co-infections were noted in 40 of 123 cases which had samples collected from a normally sterile site (32.5%).

Global News [from the WHO]: As of 17 January 2010, worldwide more than 209 countries and overseas territories or communities have reported laboratory confirmed cases of pandemic influenza H1N1 2009, including at least 14,142 deaths. The most intense transmission of pandemic influenza virus continues to occur in North Africa, South Asia, and in limited areas of Eastern Europe. Overall pandemic influenza activity in the temperate northern hemisphere peaked between late October and late November 2009 and has continued to decline.

Avian Influenza (H5N1): There has been no additional H5N1 activity since my last update. Since 2003, there have been 467 laboratory-confirmed cases of Avian influenza (A-H5N1). There have been 282 associated deaths (case fatality rate= 60.4%).

Other Observations:

January 28th Phenology: Today's photoperiod is 9 hours and 48 minutes, and daylength is increasing by 2 minutes and 15 seconds per day.

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