

Weekly Influenza Update

January 21, 2010

Wisconsin:

Wisconsin is nearly influenza-free at this time with a surprising lack of activity. This absence of influenza 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 13,261 confirmed and probable cases, 1313 hospitalizations and 52 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 0.8%.

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 1.5%

CLINICAL NOTES:

Prophylaxis

The total allocation of the 2009 H1N1 vaccine as of January 11 is approximately 137.7 million doses. As of January 2, an estimated 20.3% of the U.S. population (61 million persons) had been vaccinated against H1N1, including 27.9% of persons in the initial target groups. An estimated 29.4% of U.S. children aged 6 months-18 years had been vaccinated. Vaccinate anyone interested in protection from influenza infection

- Continue vaccinating with seasonal influenza vaccine
- 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 H1N1 viruses have been sensitive to zanamivir
 - 1.3% of 2009 H1N1 viruses have been resistant to oseltamivir
 - 99.6% 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.:

3.6% of respiratory specimens during week 1 (January 2-9, 2010) were positive for influenza.

- 98.6% of subtyped isolates have been type A
 - 100% of all sub-typed A viruses have been 2009 H1N1
 - 0.0% of A viruses have been seasonal H1N1
 - 0.0% of A viruses have been H3N2
- 1.4% 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.

- 7.3% of deaths during week 1 (January 2-9, 2010) were due to pneumonia or influenza
[below the epidemic threshold of 7.6%]

-300 pediatric have been reported since April 26th. Of these, 255 were associated with 2009 H1N1, 43 with unknown subtype A, and 2 with seasonal influenza. Bacterial co-infections were noted in 39 of 121 cases which had samples collected from a normally sterile site (32.2%).

Global News [from the WHO]: As of 10 January 2010, worldwide more than

208 countries and overseas territories or communities have reported laboratory confirmed cases of pandemic influenza H1N1 2009, including at least 13,554 deaths.

The most intense areas of pandemic influenza virus transmission currently are in parts of North Africa, South Asia, and east and southeastern Europe.

In temperate regions of the southern hemisphere, sporadic cases of pandemic influenza continued to be reported without evidence of sustained community transmission. This suggests that the level of population immunity in areas that experienced intense, high-level transmission during a winter season is high enough to prevent sustained transmission from recurring during the summer when the virus is less transmissible.

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 21st Phenology: Today's photoperiod is 9 hours and 33 minutes, and daylength is increasing by 1 minute and 57 seconds per day.

This day marks the point of lowest average seasonal temperature in Wisconsin. It's also my eldest daughter's birthday (Happy Birthday Emily!)

Haiti: The earthquake in Haiti serves as a sobering reminder of the fragility of society and of health, especially when poverty and inequity are left unchecked. The January 12 earthquake has killed an estimated 100,000 to 200,000 people. Most of the basics are missing or barely functional. Hospitals are overwhelmed. Doctors Without Borders cite 10-to-12-day backlogs of patients at some of its surgical sites as well as infections of untreated wounds.

"The next health risk could include outbreaks of diarrhea, respiratory tract infections and other diseases among hundreds of thousands of Haitians living in overcrowded camps with poor or nonexistent sanitation," said Dr. Greg Elder, deputy operations manager for Doctors Without Borders in Haiti.

A quick listing of sites for donating to Haitian relief efforts can be found at:

<http://www.google.com/relief/haitiearthquake/index.html>

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