

# Weekly Influenza Update

September 28, 2009

HAPPY AUTUMN

For a glimpse into the future, I am attaching a surveillance report from Australia, which--due to the nuances of seasonality--is six months ahead of the U.S. in terms of the H1N1 pandemic and is emerging from their influenza season. Australia has a population about four times that of Wisconsin (and one fifteenth that of the entire US).

Wisconsin:

Influenza activity has declined in Wisconsin over the past week. Much of the current activity appears due to circulation on college campuses.

Since August 30th, there have been 322 confirmed and probable H1N1 cases, 6 hospitalizations and no deaths.

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 2.9%. 9.4% 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 1.4%

CLINICAL NOTES:

Prophylaxis

H1H1 vaccine has been licensed for general use by the FDA and should be arriving in early October.

Diagnosis

- influenza infections are at moderate levels at this time
- the best performing rapid antigen test will miss 31% of true cases of 2009 H1N1. Trust the positives.
- a negative test in a patient with influenza-like illness does not rule out influenza

Treatment (see: <http://www.cdc.gov/h1n1flu/recommendations.htm> )

- Note: Oseltamivir suspension is in short supply nationwide.

The best alternative to the commercially available suspension is for pharmacists to prepare a suspension from capsules.

- Note: Potential Medication Errors with Tamiflu for Oral Suspension

see:

<http://www.fda.gov/Drugs/DrugSafety/InformationbyDrugClass/ucm183649.htm>

- Antiviral treatment should be used judiciously. The target recipients for empiric therapy are:

Children younger than 2 years old;

Persons aged 65 years or older

Pregnant women

Persons of any age with certain chronic medical or immunosuppressive conditions  
Persons younger than 19 years of age who are receiving long-term aspirin therapy

- 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
  - all tested 2009 H1H1 viruses have been sensitive to zanamivir
  - 0.6% of 2009 H1N1 viruses have been resistant to oseltamivir
  - 100% of 2009 H1N1 have been resistant to adamantane antivirals

Other

- Rhinovirus, adenovirus, parainfluenza viruses and enteroviruses are circulating in Wisconsin

Across the U.S.:

24.9% of respiratory specimens during week 37 (September 13-19) were positive for influenza.

-99.9% of isolates were type A during week 37

99.6% of all sub-typed A viruses were 2009 H1N1

0.3% of A viruses were seasonal H1N1

0.1% of A viruses were H3N2

-0.1% of isolates were type B

-6.1% of deaths during week 37 (September 13-19) were due to pneumonia or influenza  
[below the epidemic threshold of 6.3%]

-49 pediatric deaths associated with 2009 H1N1 have been reported this season - bacterial co-infections were noted in five of 19 cases which had samples collected from a normally sterile site (26.3%). Sixty-seven percent of the children had one or more high-risk medical conditions, most commonly neurodevelopmental disorders (61%).

Global News [from the WHO]: In the temperate regions of the northern hemisphere, influenza-like-illness (ILI) activity continues to increase in many areas. In North America, the United States has reported continued increases in activity above the seasonal baseline for the last

2 to 3 weeks, primarily in the southeast but now also appearing in the upper midwest and the northeast. In Europe and Central and Western Asia, the United Kingdom is reporting regional increases in ILI activity in Northern Ireland and Scotland and the Netherlands, France, Ireland, and Israel are reporting rates above the seasonal baseline. In Japan, influenza activity continues to be slightly above the seasonal epidemic threshold. The increases in ILI activity have been accompanied by increases in laboratory isolations of pandemic influenza H1N1 2009 in most of these areas.

In the temperate regions of the southern hemisphere, influenza transmission has largely returned to baseline (Chile, Argentina, and New

Zealand) or is continuing to decline (Australia and South Africa).

Since 2003, there have been 442 laboratory-confirmed cases of Avian influenza (A-H5N1). There have been 262 associated deaths (case fatality rate= 59.3%).

Other Observations:

September 18th Phenology: We entered Autumn at 4:19 PM on September 22. Daylight and night were not equally matched until September 25, owing to refraction of sunlight by Earth's atmosphere. Today's photoperiod is 11 hours and 52 minutes, and daylength is decreasing by 2 minutes and 54 seconds per day.

H1N1 Rap by family physician Dr. John Clarke <<http://www.youtube.com/watch?v=gwUdmPI0bU>>

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