

Weekly Influenza Update

September 18, 2009

Wisconsin:

Influenza activity has increased significantly in Wisconsin over the past two weeks. Much of this activity appears due to circulation on college campuses. Throughout the summer, Wisconsin has registered the nation's highest apparent incidence of 2009 H1N1 infection with 116 confirmed and probable cases per 100,000. Wisconsin also has the lowest case fatality rate in the nation at 0.12%. This estimate is most likely inflated due to a great under-assessment of the true number of H1N1 cases.

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 2.2% (excluding college campuses).

7.0% of last week's primary care patients had acute respiratory infections (ARI); this percentage jumped-as always-after the beginning of the school year.

The prevalence of acute diarrheal illness (ADI) in Wisconsin's primary care patients is at 1.6%

CLINICAL NOTES:

Prophylaxis

H1H1 vaccine has been licensed for general use by the FDA. At this time, we are awaiting guidance regarding 1 or 2 doses, and the interval between doses if two are recommended.

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. Don't trust the negatives

Treatment

- Antiviral treatment should be used judiciously. The target recipients are:
 - any severe LRI
 - hospitalized patients
 - children younger than 5 years of age
 - adults 65 and older
 - people with chronic pulmonary, cardiovascular, renal, hepatic, hematological, neurologic, neuromuscular, or metabolic disorders
 - people with immunosuppression
 - pregnant women
 - children < 19 years on long-term aspirin therapy
- Antivirals need to be started within 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 antiviral 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

- Rhinoviruses, parainfluenza viruses and enteroviruses are circulating in Wisconsin

Across the U.S.:

20.5% of respiratory specimens during week 35 (August 30 -September 5) were positive for influenza.

-100% of isolates have been type A
94.4% of all sub-typed A viruses have been 2009 H1N1
1.9% of A viruses have been seasonal H1N1
3.7% of A viruses have been H3N2
-0% of isolates have been type B

-5.3% of deaths during week 35 (August 30 - September 5) were due to pneumonia or influenza
[below the epidemic threshold of 6.3%]

-44 pediatric deaths associated with 2009 H1N1 have been reported this season - bacterial co-infections were noted in three of 14 cases which had samples collected from a normally sterile site (21.4%). 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 region of the southern hemisphere (represented by countries such as Chile, Argentina, Australia, New Zealand, and South Africa), influenza activity continues to decrease or return to baseline. The Global Influenza Surveillance Network continues monitoring the global circulation of influenza viruses, including seasonal viruses. The total number of specimens reported positive for influenza viruses was 93,628. Of these, 56,812 (60.7%) were pandemic H1N1, 5429 (5.8%) were seasonal A (H1), 12,476 (13.3%) were A (H3), 15,326 (16.4%) were A (not subtyped) and 3585 (3.8%) were influenza B.

Since 2003, there have been 440 laboratory-confirmed cases of Avian influenza (A-H5N1). There have been 262 associated deaths (case fatality rate= 59.5%).

Other Observations:

September 18th Phenology: Today's photoperiod is 12 hours and 21 minutes, and daylength is decreasing by 2 minutes and 54 seconds per day.

Nice 67 y.o. male has brush with mortality: a thoughtful view on health reform by Garrison Keillor
<http://www.chicagotribune.com/news/columnists/chi-oped0916keillorsep16,0,4606270.column>

... and for the dads out there, a little inspiration
<http://www.youtube.com/watch?v=rhnnpq0AX-Q&NR=1>

Jonathan L. Temte, MD/PhD
Advisory Committee on Immunization Practices Professor Department of Family Medicine University of Wisconsin
School of Medicine and Public Health 1100 Delaplaine Court Madison, Wisconsin 53715

Telephone: 608-263-3111
Fax: 608-263-6663
email: Jon.Temte@fammed.wisc.edu