

Weekly Influenza Update

February 12, 2009

Wisconsin:

Influenza activity has significantly increased in Wisconsin. There have been 153 laboratory-confirmed detections including 93 influenza A (H1), 28 A(H3), 10 A(not subtyped), and 22 B viruses. 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%.

15.4% 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 2.0%.

CLINICAL NOTES:

Prophylaxis

Continue to offer influenza vaccine to anyone interested. Full immunity is achieved within 2 weeks of vaccination.

Vaccination is targeted towards:

- all high risk individuals
- children from 6 months to 18 years
- adults 50 years and above
- pregnant women
- healthcare workers

Diagnosis

- influenza infections continue to be rare at this time
- PPV of rapid influenza tests is fair, NPV is excellent

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
185 out of 190 A(H1) viruses were resistant to Oseltamivir (97%)

0/41 A(H3) and 0/77 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
2/190 A(H1N1) viruses were resistant to adamantanes (1%)
41/41 A(H3N2) viruses were resistant to adamantanes (100%)
Adamantane antivirals are ineffective against influenza B viruses

Across the upper Midwest, 74% of influenza viruses to date have been A(H1N1), 13% A(H3N2) and 12% B. Therefore:

- Oseltamivir alone will be effective in 27% of cases
(cost per Rx = \$119.99)
- Zanamivir alone will be effective in 100% of cases
(cost per Rx = \$72.99)
- Amantadine/Rimantadine alone will be effective in 72% of cases
(cost per rimantadine Rx = \$28.19)
(cost per Amantadine Rx = \$12.89)
- Oseltamivir plus Amantadine/Rimantadine will be effective in 100% of cases
(cost per combined Rx = \$132.79 - \$148.18)

Other

- RSV prevalence is moderate and increasing
- Adenovirus, parainfluenza and rhinovirus continue to circulate in Wisconsin
- Rotavirus isolations are at low levels

Across the U.S.:

As of January 31st, 4,336 positive surveillance cultures have been recorded in the United States. 16.2% of respiratory specimens during week 4 (January 25-31) were positive for influenza.

-84.0% of isolates have been type A

87.0% of all sub-typed A viruses have been H1N1

13.0% of A viruses have been H3N2

-16.0% of isolates have been type B

-7.0% of deaths during week 4 (January 25-31) were due to pneumonia or influenza

[below the epidemic threshold of 7.9%] -three pediatric influenza deaths [from Colorado, Texas and New York City] have been reported this season

Global News [from the WHO]: The Ministry of Health and Population of Egypt has announced a new human case of avian influenza A(H5N1) virus infection in a one and a half year old male whose symptoms began on 6 February and was hospitalized on 7 February where he remains in a stable condition.

Since 2003, there have been 406 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 254 associated deaths (case fatality rate= 62.6%). 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:

Today is the 200th birthday of Abraham Lincoln and of Charles Darwin.

What is interesting is the place that their advocacies have attained in contemporary culture. Lincoln--the emancipator of slaves and the uniter of a divided nation--is often held as a paragon of equality. Darwin posited that inequity (i.e., diversity) and differential natural selection were the engines of biology.

February 12 Phenology: Today's photoperiod is 10 hours and 26 minutes, and daylength is increasing by 2 minutes and 40 seconds per day.

Statement from the Department of Health and Human Services Regarding the Decisions of the U.S. Court of Federal Claims in the Omnibus Autism Proceeding (released 2/12/09): Three rulings related to autism and vaccine injury compensation cases were issued today by the Special Masters of the U.S. Court of Federal Claims. The rulings were part of the Omnibus Autism Proceeding created by the National Vaccine Injury Compensation Program to handle the large volume of claims that vaccines induce autism. In order to ensure that the over 4,900 cases were dealt with in a timely manner, the U.S. Court of Federal Claims divided the claims into three different theories:

Theory 1: MMR in combination with thimerosal-containing vaccines can cause autism Theory 2: Thimerosal-containing vaccines alone can cause autism Theory 3: The MMR vaccine alone can cause autism

In three separate rulings issued today, each of the Special Masters ruled that the measles-mumps-rubella vaccine, whether administered alone or in conjunction with thimerosal-containing vaccines, were not causal factors in the development of autism or autism spectrum disorders. The specific rulings can be found at:

<http://www.uscfc.uscourts.gov/node/5026>

"As these cases illustrated, there's no doubt that autism and autism spectrum disorders place a heavy burden on many families. That is one reason why the U.S. Department of Health and Human Services continues to support research to better understand the cause of autistic disorders and develop more effective methods of treatment.

The medical and scientific communities have carefully and thoroughly reviewed the evidence concerning the vaccine-autism theory and have found no association between vaccines and autism. If parents have questions or concerns about childhood vaccines, they should talk with their child's health care provider.

Hopefully, the determination by the Special Masters will help reassure parents that vaccines do not cause autism." HHS
2/12/09

Conference on TB Management and Multiple Drug Resistant TB: March 31 - April 3, 2009 (see pdf)

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