

Weekly Influenza Update

March 19, 2010

HAPPY SPRING!

(Vernal Equinox at precisely 12:32 pm CDT on 3/20/2010)

Wisconsin:

Wisconsin continues to have incredibly low influenza activity. Since the arrival of H1N1, there have been 13,443 (46 since 1/3/10) confirmed and probable cases, 1317 hospitalizations (6 since 1/3/10) and 55 deaths (none since 1/3/10) 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 1.1% and is at baseline.

13.5% 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 1.9%

CLINICAL NOTES:

Prophylaxis

As of January 2, an estimated 28% of the U.S. population (86 million persons) had been vaccinated against H1N1. Continue vaccinating anyone interested in protection from influenza H1N1 infection

- Continue vaccinating with seasonal influenza vaccine if available
- Pneumococcal vaccine is indicated for smokers, and people with asthma and other chronic lung conditions as well as a number of other chronic conditions

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 detections have peaked and are declining across Wisconsin
- adenoviruses, rhinoviruses, human metapneumovirus, coronaviruses and parainfluenza viruses are co-circulating at low levels in Wisconsin

Across the U.S.:

200 (5.6%) respiratory specimens during week 10 (March 7-13, 2010) were positive for influenza.

- 98.5% of subtyped isolates were type A
 - 100.0% of all sub-typed A viruses were 2009 H1N1
 - 0.0% of A viruses were seasonal H1N1
 - 0.6% of A viruses were H3N2
- 1.5% of isolates were type B

Since August 30, 2009, there have been 41,322 lab-confirmed influenza-associated hospitalizations and 2,061 lab-confirmed influenza-associated deaths. Statistical estimates from CDC suggest that there have been around 59 million cases of H1N1, 265,000 hospitalizations and 12,000 deaths due to H1N1.

- 7.3% of deaths during week 10 (March 7-13, 2010) were due to pneumonia or influenza [below the epidemic threshold of 7.9%]

-331 pediatric have been reported since April 26, 2009. Of there, 278 were associated with 2009 H1N1, 51 with unknown subtype A, and 2 with seasonal influenza. Bacterial co-infections were noted in 49 of 141 cases which had samples collected from a normally sterile site (34.7%).

Global News [from the WHO]: The most active areas of pandemic influenza transmission are currently in Southeast Asia, however, lower levels of pandemic virus circulation persist in other parts of Asia and in Eastern and South-eastern Europe. In West Africa, limited data suggests that pandemic influenza virus transmission may be increasing in region. Of note, seasonal influenza B viruses have been increasingly detected in Asia and appear to be spreading westward.

Avian Influenza (H5N1): The Ministry of Health of Egypt has announced two new cases of human H5N1 avian influenza infection. The first case is a 20 year-old pregnant female who was hospitalized on 5 March where she received oseltamivir treatment and died on 9 March. The second case is a 1 and a half year-old male who was hospitalized on 2 March, where he received oseltamivir treatment. He is in a stable condition. Investigations into the source of infection indicated that the two cases had exposure to sick and dead poultry.

The Ministry of Health of Viet Nam has reported a new confirmed case of human infection with the H5N1 avian influenza virus. The case is a 25 year old who developed symptoms on 5 March 2010 and was hospitalized on 7 March 2010. On 10 March 2010, her condition had worsened so she was transferred to a tertiary care hospital where she is being provided with ventilation. An epidemiological investigation showed that the patient had exposure to sick and dead poultry.

Since the beginning of 2010, there have been 21 laboratory-confirmed cases and 7 deaths of Avian influenza (A-H5N1). Since 2003, there have been 489 laboratory-confirmed cases of Avian influenza (A-H5N1). There have been 289 associated deaths (case fatality rate= 59.1%).

Other Observations:

March 19th Phenology: Today's photoperiod is 12 hours and 6 minutes, and daylength is increasing by 2 minutes and 57 seconds per day. This change per day is at the annual maximum.

Vaccine Court Rules that Thimerosal-containing vaccines do not cause autism On March 12, three Special Masters of the U.S. Court of Federal Claims ruled that thimerosal-containing vaccines do not cause autism. The rulings are part of the Omnibus Autism Proceeding created by the National Vaccine Injury Compensation Program to consolidate the large number of claims that vaccines induce autism.

The U.S. Court of Federal Claims today exonerated vaccines in the debate over the causes of autism. The three judges ruled that thimerosal-containing vaccines do not cause autism. The ruling supports a series of biological and epidemiological studies which have failed to show a link between vaccines and the widely-diagnosed neurodevelopmental disorder. Another ruling last year from the same court declared that the measles-mumps-rubella vaccine, or MMR, in combination with thimerosal-containing vaccines, does not cause autism.

The decision is the result of an extensive deliberation by three Special Masters, judges responsible for claims filed in the National Vaccine Injury Compensation Program. In one opinion, Special Master George Hastings wrote, "This case, however, is not a close case. The overall weight of the evidence is overwhelmingly contrary to the petitioners' causation theories. . . . In short, this is a case in which the evidence is so one-sided that any nuances in the interpretation of the causation case law would make no difference to the outcome of the case."

To access the three rulings, go to:

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

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