February 26, 2012

Wisconsin:
Wisconsin continues to have low influenza activity, although a few small outbreaks have been reported. Of the Influenza A specimens that have been subtyped, 97% were A(H3) and 3% were 2009(H1). The prevalence of influenza-like illness [fever of 100°F or higher and either cough or sore throat] in Wisconsin's primary care patients is estimated to be 1.3% and is rising slightly.

14.9% of last week's primary care patients had all-cause respiratory infections. The prevalence of acute diarrheal illness (ADI) in Wisconsin's primary care patients is stable at 2.0%

Primary Care Snapshot:
The most common identified causes of Acute Respiratory Infection (ARI) in Wisconsin surveillance clinics are RSV and Influenza A. Over the past 4 weeks the typical ARI case presenting for primary care has been 36.7 years old and 74% of patients have been female. 60% of patients identified a sick contact 1-3 days before illness onset and typically presented to the clinic 3.6 days after illness onset. 40% of illnesses are characterized as mild, with 57% having moderate symptoms and 3% having severe symptoms.

Typical symptoms include:
- cough - 86%
- nasal congestion - 69%
- sore throat - 62%
- nasal discharge - 60%
- fever - 52%
- headache - 38%

CLINICAL NOTES:

Prophylaxis
There appears to be an excellent match between the current influenza vaccine and circulating strains
- Influenza vaccine is recommended for everyone 6 months and older, including pregnant women
- Pneumococcal vaccine (PPSV-23) for adult smokers, asthmatics and a number of other chronic conditions

Diagnosis
- influenza infections are at 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
Antivirals need to be started with 48 hours of symptom onset to be effective against influenza
Antivirals started after 48 hours may be effective for hospitalized patients with confirmed influenza

Resistance Patterns
- all tested recent influenza A and B isolates have been sensitive to oseltamivir and zanamivir
- high levels of adamantine resistance exist in influenza A isolates from around the world

Other
- Rhinovirus, Human metapneumovirus and Coronavirus predominate Wisconsin isolates from patients with respiratory infection, while adenovirus and parainfluenza virus are co-circulating at low levels
- RSV activity is near peak in Wisconsin

Pertussis
For the week ending February 11, B. pertussis was detected in 9.3% (n=323) specimens tested by PCR in Wisconsin. Current 2011-2012 Bordetella pertussis/parapertussis activity can be viewed at:
http://www.slh.wisc.edu/labupdates/reports/bordetella.dot

Across the U.S.:
500 (15.5%) respiratory specimens during week 6 (February 5-11, 2012) were positive for influenza.
For the 2011-2012 influenza season to date:
- 90.0% of subtyped isolates have been type A
  - 16.0% of all sub-typed A viruses have been 2009 H1N1
  - 84.0% of A viruses have been H3N2
- 10.0% of isolates have been type B
- 6.7% of deaths during week 6 (February 5-11, 2012) were due to pneumonia or influenza
  [below the seasonally-adjusted epidemic threshold of 7.9%]
- three pediatric deaths have been reported this season.

**Global News [from the WHO]:**

**Avian Influenza (H5N1):** The Ministry of Health and Population of Egypt has notified WHO of two new cases of human infection with avian influenza A (H5N1) virus. The first case is a 45 year-old who developed symptoms on 10 February 2012, received oseltamivir treatment on 17 February 2012 and is still recovering. Epidemiological investigation into the source of infection indicates that the case had exposure to backyard poultry. The second case is a one year-old female who developed symptoms on 14 February 2012 and was admitted to a hospital on 15 February 2012, where she received oseltamivir treatment upon admission. She is in good medical condition. Preliminary investigations indicate presence of backyard poultry in her area of residence.

The Ministry of Health of Indonesia has announced one new confirmed case of human infection with avian influenza A(H5N1) virus. The case is a 19 year-old female who developed symptoms on 8 February 2012, was hospitalized on 12 February 2012 and died on 13 February 2012.

Since the beginning of 2012, there have been 9 laboratory-confirmed cases and 6 deaths due to Avian influenza (A-H5N1) from Cambodia, China, Egypt, Indonesia, and Viet Nam. Since 2003, there have been 587 laboratory-confirmed cases of Avian influenza (A-H5N1). There have been 346 associated deaths (case fatality rate= 58.9%).

**Other Observations:**

**February 26th Phenology:** Today's photoperiod is 11 hours and 6 minutes. Daylength is increasing by 2 minutes and 52 seconds each day.

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