

Weekly Influenza Update

February 27, 2009

Wisconsin:

Influenza activity has increased in Wisconsin to moderate levels.

There have been 414 confirmed laboratory detections of influenza including 243 influenza A(H1N1), 38 influenza A(H3N2), 36 influenza A(not subtyped) and 97 influenza B viruses. 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 2.8%. Keep in mind that last year, the volume of ILI patients during late February was nearly threefold higher.

17.9% 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 1.7%.

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 are at low to moderate levels at this time
- PPV of rapid influenza tests is moderately high, NPV is moderately high

Treatment

- 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 neuraminidase inhibitor resistance this season
 - 264 out of 268 A(H1N1) viruses were resistant to Oseltamivir (98.5%)
 - 0/51 A(H3N2) and 0/119 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
 - 2/268 A(H1N1) viruses were resistant to adamantanes (1%)
 - 51/51 A(H3N2) viruses were resistant to adamantanes (100%)
 - Adamantane antivirals are ineffective against influenza B viruses

Across the upper Midwest, 77% of influenza viruses to date have been A(H1N1), 8% A(H3N2) and 15% B. Therefore:

- Zanamivir alone will be effective in 100% of cases
(cost per Rx = \$72.99)
- Oseltamivir plus Amantadine/Rimantadine will be effective in 99% of cases
(cost per combined Rx = \$132.79 - \$148.18)
- Amantadine/Rimantadine alone will be effective in 76% of cases
(cost per rimantadine Rx = \$28.19)
(cost per Amantadine Rx = \$12.89)
- Oseltamivir alone will be effective in 24.5% of cases
(cost per Rx = \$119.99)

Other

- RSV prevalence has peaked and is declining
- Human metapneumoviruses, adenoviruses, coronaviruses, rhinoviruses and parainfluenza viruses are circulating in Wisconsin

- Rotavirus isolations are at low levels

Across the U.S.:

As of February 14th, 8,120 positive surveillance cultures have been recorded in the United States. 24.4% of respiratory specimens during week 6 (February 8-14) were positive for influenza.

-79.3% of isolates have been type A

89.5% of all sub-typed A viruses have been H1N1

10.5% of A viruses have been H3N2

-20.7% of isolates have been type B

-6.8% of deaths during week 6 (February 8-14) were due to pneumonia or influenza

[below the epidemic threshold of 8.0%] -Nine pediatric influenza deaths have been reported this season – bacterial co-infections were noted in six of these cases (66.7%)

Global News [from the WHO]: The Ministry of Health in Viet Nam has announced the deaths of two previously confirmed cases of H5N1 infection.

Since 2003, there have been 408 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 256 associated deaths (case fatality rate= 62.7%). 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:

February 26 Phenology: Today's photoperiod is 11 hours and 8 minutes, and daylength is increasing by 2 minutes and 52 seconds per day.

New from the ACIP: On 2/25/09, the ACIP voted to recommend Hepatitis

A vaccine for anyone who will have close contact with an international adoptee coming from any country with moderate to high levels of endemic hepatitis A. This applies to any close contact during the first 60 days following arrival in the United States. Vaccination should be initiated as soon as adoption plans are made, and preferably at least 14 days prior to the arrival of the international adoptee.

The antigenic strains for the 2009-2010 influenza vaccine have been selected, including the current influenza A(H1N1) and A(H3N2) strains and a new influenza B strain to better match circulating viruses.

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