

Weekly Influenza Update

December 31, 2008

Wisconsin:

Influenza activity appears to be rising in Wisconsin. As this is still early in the seasonal outbreak, immunization presents the best protection against influenza. At present, there appears to be a good match between the vaccine and circulating strains. 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 an estimated to be 3.1%.

15.3% 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 1.5%.

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 poor, NPV is excellent

Treatment

- Antivirals need to be started with 48 hours of symptom onset to be effective
- a limited number of viruses have been tested for neuraminidase inhibitor resistance this season
 - 64 out of 65 A(H1N1) viruses were resistant to Oseltamivir (98%)
 - 0/10 A(H3) and 0/29 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
 - 0/50 A(H1N1) viruses were resistant to adamantanes
 - 8/8 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), 7% A(H3N2) and 20% 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 74% 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

- Rhinovirus and adenovirus continue to circulate in Wisconsin
- RSV prevalence is slowly increasing
- Rotavirus isolations are at low levels

Across the U.S.:

As of December 20, 846 positive surveillance cultures have been recorded in the United States. 3.4% of respiratory specimens during week 51 (December 14-20) were positive for influenza.

-80.4% of isolates have been type A

91.7% of all sub-typed A viruses have been H1N1

8.3% of A viruses have been H3N2

-19.6% of isolates have been type B

-6.9% of deaths during week 51 (December 14-20) were due to pneumonia or influenza

[below the epidemic threshold of 7.4%] -no pediatric influenza deaths have been reported to CDC this season

Global News [from the WHO]: Since 2003, there have been 391 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 247 associated deaths (case fatality rate= 63.2%). 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's light is with us 4 minutes and 54 seconds more than on the Winter solstice. Sunset today will occur at 4:33 PM, 7 minutes later than on December 21 (the winter solstice) and a whopping 11 minutes later than on the season's earliest sunset on December 9.

Tomorrow's sunrise will occur at 7:29 AM, which is actually 3 minutes later than on the solstice. This delayed sunrise will continue with us (at 7:29 AM) through January 8 ... all the more reason to sleep in a bit tomorrow. Drive carefully. Best wishes for a happy and healthy 2009!

Jonathan L. Temte, MD/PhD

Advisory Committee on Immunization Practices Associate Professor Department of Family Medicine University of Wisconsin
School of Medicine and Public Health
777 South Mills Street
Madison, Wisconsin 53715

Telephone: 608-263-3111

Fax: 608-263-6663

email: Jon.Temte@fammed.wisc.edu