

# Weekly Influenza Update

**November 26, 2008**

INFLUENZA is here

Wisconsin:

Influenza activity is at baseline in Wisconsin. Four influenza A (H1) and two influenza B viruses has been isolated from patients in Wisconsin. Two of the A and one of the B viruses were likely acquired abroad. The prevalence of influenza-like illness [fever of 100oF or higher and either cough or sore throat] in Wisconsin's primary care patients is an estimated to be 1.5%.

14.7% 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 1.4%.

CLINICAL NOTES:

Prophylaxis

Continue to offer influenza vaccine to anyone interested. There is an abundance of influenza vaccine this year. 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 rare at this time
- PPV of rapid influenza tests is poor, NPV is excellent

Treatment

- a limited number of viruses have been tested this season.
  - One of two A(H1) viruses was resistant to Oseltamivir.
  - A(H3) and B viruses have all been sensitive to oseltamivir.
  - All viruses tested have been sensitive to zanamivir -10.4% of H1N1 viruses at the end of last season exhibit a mutation that confirms resistance to oseltamivir
- a limited number of viruses showed full resistance to the adamantane antivirals

Other

- Rhinovirus, parainfluenza type 3 and adenovirus continue to circulate in Wisconsin
- RSV prevalence is increasing
- rotavirus isolations are at low levels

Across the U.S.:

As of November 15, 218 positive surveillance cultures have been recorded in the United States. 0.9% of respiratory specimens during week 46 (November 9-15) were positive for influenza.

- 80.3% of isolates have been type A
  - 83.8% of all sub-typed A viruses have been H1N1
  - 16.2% of A viruses have been H3N2
- 19.7% of isolates have been type B

- 6.4% of deaths during week 46 (November 9-15) were due to pneumonia or influenza  
[below the epidemic threshold of 6.9%] -no pediatric influenza deaths have been reported to CDC this season

Global News [from the WHO]: There have been no new cases of Avian influenza (A-H5N1) reported since 9/10/08.

Since 2003, there have been 387 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 245 associated deaths (case fatality rate= 63.3%). 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:

Thanksgiving: Consumption of turkey does not prevent influenza. On the other hand, widespread movement of the US population and high levels of age mixing does enhance the transmission of influenza. About 41 million Americans will travel at least 50 miles for the Thanksgiving holiday weekend (a decline of 600,000 people from last year). About 4.54 million people (1.4% of the US population) plan to travel by in the confined airspace of airplanes (a nice incubator for influenza). Despite a decline in air travelers, airline experts said that planes will be more crowded as a result of cuts in airline capacity.

Enjoy your Thanksgiving. Give thanks for all the wonderful things that you have. And remember to wash your hands and cover your coughs.

Google Flu Trends: Each week, millions of users around the world search for online health information. As you might expect, there are more flu-related searches during flu season. Google Flu Trends uses aggregated Google search data to estimate flu activity in the US and in each state up to two weeks faster than traditional flu surveillance systems. This is an interesting use of browser activity and probably serves a similar function to the US Influenza Sentinel Provider Surveillance Network, but without age stratification. It is limited--as is the USISPSN--by a lack of specificity. Hence it will serve as a marker of influenza-like illness. To explore this tool, please go to:

<http://www.google.org/flutrends>

Rotavirus infection continues to be the leading cause of severe acute diarrhea among young children throughout the world. There were an estimated 527,000 deaths of children under the age of 5 last year, with 85% of the deaths occurring in low-income countries in Africa and Asia. RotaTeq was licensed for use in infants in February 2006 and was subsequently recommended for universal immunization by ACIP. Since that time, coverage has increased to an estimated 56% first dose coverage of this three dose series. Family physicians, however, have lagged behind pediatricians in their provision of this safe and effective vaccine. Notwithstanding, there has been an estimated 67% reduction in rotavirus detections through the National Enteric and Respiratory Virus Surveillance System. We have seen similar such trends in Wisconsin. In June 2008, RotaRix-a two dose rotavirus vaccine-was licensed and recommended by ACIP as an additional option to prevent rotavirus gastroenteritis.

For Wisconsin Rotavirus activity, click on the below link:

<http://www.slh.wisc.edu/labupdates/rota.dot>

For US trends, please see:

<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm57e625a1.htm>

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