

EPI Update for Friday (or Fluday!), December 28, 2012
Center for Acute Disease Epidemiology (CADE)
Iowa Department of Public Health (IDPH)

Items for this week's EPI Update include:

- **Are vaccinated people getting influenza?**
- **Updated confirmatory influenza test guidance**
- **Give the influenza vaccine before children return to school**
- **Influenza and other respiratory viruses update**
- **Dual influenza type positive case report in Iowa**
- **Bats in your Christmas tree?**
- **Meeting announcements and training opportunities**

Are vaccinated people getting influenza?

The efficacy of the influenza vaccine is high as it pertains to preventing serious illness (hospitalizations and death) but only about 60% to 85% effective in preventing all symptoms of the flu. The efficacy of the vaccine can also vary by patient's age, health, previous vaccine/disease history, etc. And this is when the vaccine strains and the influenza strains in the community are well matched (this year they are well matched).

We do NOT expect everyone who is vaccinated to NEVER have any flu infections/ flu symptoms (as is sometimes expected by the public). People who are healthy, young and been vaccinated in previous years will have about 90% protection against infection/symptoms and probably close to 100% protection from death after being vaccinated for that flu season. But those who are elderly, sick, and never been vaccinated in previous years, may have only a 40 - 60% protection from any symptoms, and about 70%- 80% protection from death. (Note - These are all rough estimates).

Bottom line: The flu vaccine is the best tool we have to prevent influenza. However, the answer is "yes"- we expect some people who have been vaccinated to get the flu and have some symptoms, but we don't expect very many of them to have serious, life threatening illnesses.

Updated confirmatory influenza test guidance

The prevalence of influenza in Iowa has increased to the level in which the positive predictive value of the rapid influenza screening tests is now acceptable. Thus, in most situations positive tests using rapid influenza screening will no longer need to be confirmed at SHL.

However, confirmatory testing at SHL is still recommended in the following situations:

- Patients that are hospitalized (inpatient, not ER patient) with influenza-like illness (regardless of the rapid test result or if not tested).
- When an influenza outbreak is suspected (especially in high-risk situations or a closed population such as a long-term care, schools, child care, hospitals, etc.). We recommend obtaining specimens from a few ill patients for testing to identify

the microbe responsible. This can help target interventions such as anti-viral meds, quarantine and isolation, and prophylactic treatments.

- Patients with influenza-like illness from designated influenza surveillance sentinel sites.
- If confirmation is desired because of special circumstances (please note circumstances on the test request form when submitted to SHL).

It is also recommended to perform specific viral testing for high risk patients (hospitalized, immune-compromised, etc) especially when influenza and RSV are in the differential diagnosis – so that antiviral agents can be appropriately used (or stopped as the case may be).

For more information on influenza testing at SHL, visit www.shl.uiowa.edu/services/influenza/. For influenza activity reports, visit www.idph.state.ia.us/IdphArchive/Archive.aspx?channel=FluReports.

Give the influenza vaccine before children return to school

Before children return to school after the holidays, it is recommended that all school age children receive a flu vaccine if not already immunized. Thus far in December, there have been 89 times that a school reported a day when more than 10 percent of their student body was out due to influenza-like-illness, reflecting the high risk of being exposed to the flu at school. Also, Iowa typically sees a surge in school outbreaks of flu when children return to the classroom after the holidays.

CDC recommends everyone over 6 months of age be vaccinated. Some children between 6 months and 8 years of age will need two doses. For information on the influenza vaccine dosing for children aged 6 months through 8 years, visit www.idph.state.ia.us/ImmTB/Immunization.aspx?prog=Imm&pg=Flu and click on “2012-2013 Influenza Dosing Algorithm.”

For more information about influenza in schools, visit, www.idph.state.ia.us/Cade/Influenza.aspx?pg=FluSchools

Influenza and other respiratory viruses update

Current surveillance in Iowa shows that the majority of circulating influenza is the typical seasonal A(H3N2) which is a good match for the vaccine strain. Also being seen in Iowa is the A(H1N1) strain, which is also in the vaccine.

Because the vaccine is not 100% effective (especially in the elderly, those with chronic diseases and who are immune-compromised), “cocooning” is recommended around these high-risk people and around babies who are too young to be vaccinated. Also recommended are the “Three C’s” – covering cough, cleaning hands and containing self at home when ill.

Surveillance is also detecting parainfluenza virus types 2 and 3, RSV, rhinovirus and adenovirus. The influenza vaccine does not protect against any these other respiratory viruses.

Dual influenza type positive case report in Iowa

Last week, a seven year old patient (whose last influenza vaccination was in January 2011) presented for medical care because of a fever, cough, and headache. A rapid influenza test was positive. The specimen was then sent to SHL for confirmation testing, which detected both influenza A(H3) and influenza B. Dual infections are rare, but can occur during times when several influenza strains are circulating simultaneously. Currently influenza A (H3), influenza A(H1N1) and influenza B are all circulating in Iowa, so potentially a person could be sick with all three flu viruses at the same time if they weren't vaccinated.

Bats in your Christmas tree?

One Iowan recently had an unfortunate encounter with a bat while decorating his house for Christmas. He had stored his tree and Christmas ornaments in the attic, and a bat had sought refuge in these decorations (guess the bat was feeling Christmassy too). Unfortunately, the bat was then unknowingly brought down stairs with the Christmas decorations, after which it abandoned its refuge and began to circle the room. The Iowan tried to capture the bat and in doing so was bitten. Turned out to be not such a Merry Christmas for either of them.

For more information on rabies, potential exposures and how to get a bat tested, visit www.idph.state.ia.us/Cade/DiseaseIndex.aspx?disease=Rabies .

Meeting announcements and training opportunities

None

We wish everyone very Happy and Healthy New Year!

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