



Nebraska Department of Health and Human Services



HEALTH ALERT NETWORK

Update



TO: Nebraska Healthcare Providers, Infection Control & Laboratories

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RE: 2009-10 Influenza Season Update: Epidemiology, Lab Testing,
Antiviral Guidance & Vaccine Guidance

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The Nebraska Department of Health & Human Services Division of Public Health continues to work closely with the Nebraska Public Health Lab (NPHL) and our local health department (LHD) partners in addressing the various issues raised by the 2009 H1N1 flu virus. This Health Alert Network Update provides updated information and guidance regarding epidemiology, antiviral use and influenza vaccine.

Epidemiology

- Nebraska surveillance data indicates that influenza is currently widely prevalent in all areas of the state **at levels comparable to the peak** of our influenza season this past March 2009. This is based on 1) weekly surveillance of 80 Nebraska laboratories performing rapid influenza tests; 2) weekly surveillance data from designated primary care physicians across the state who track influenza-like illness (ILI) in their practices; and daily surveillance of 13 primary care clinics operated by UNMC in the Douglas county area.
- The **primary** strain of influenza circulating at the present time is the novel pandemic H1N1 (swine-like) influenza virus which first appeared this past Spring. Virtually **all** influenza isolates (191/192, 99.4%) tested by PCR at NPHL during the past 7 weeks have been the pandemic H1N1 strain. These isolates are susceptible to oseltamivir (Tamiflu) and zanamivir (Relenza) but not to the adamantanes (amantadine and rimantadine).
- Younger age groups are disproportionately affected by the pandemic H1N1 flu virus. Infection in persons over 65 years of age is uncommon, and the infection rate in persons 25-64 years of age appears significantly lower than that in the 0-24 year age group.

Recommendations on Laboratory Testing

- Not every patient with influenza-like illness needs to be tested; clinical diagnosis is sufficient for many/most patients.

- Rapid flu tests can detect pandemic H1N1 influenza A. Both the collection of a high-quality naso-pharyngeal swab and the training/skills of the test operator are critical to optimizing the sensitivity/specificity of these tests.
- False-positive and false-negative rapid flu tests can occur, and may be more common with the pandemic H1N1 strain than with the seasonal influenza strains.
- All fatalities related to influenza-like illness (ILI) should have tissue and other clinical specimens forwarded to NPHL regardless of the result (+/-) of the rapid influenza test.
- Sentinel influenza surveillance providers are asked to submit up to 3 nasopharyngeal specimens on patients with ILI per week per office to NPHL.
- All providers in NE are encouraged to submit nasopharyngeal specimens to NPHL for any/all pregnant patients seen with ILI. We are especially interested in having any hospitalized pregnant women with ILI tested by influenza PCR at NPHL regardless of the result (+/-) of the rapid influenza test.
- Hospitalized patients with suspected influenza should undergo a diagnostic workup using rapid flu tests, viral culture or PCR testing through the hospital's in-house and reference laboratories. Commercial laboratory testing for influenza PCR (LabCorp, Quest/Focus Laboratories) and respiratory viral culture is currently available, and should be utilized when indicated.
- Any patient admitted to the Intensive Care Unit (ICU) with influenza-like illness (ILI) should have a nasopharyngeal specimen forwarded to NPHL regardless of the result (+/-) of the rapid influenza test.
- Any hospitalized patient for whom influenza diagnostic laboratory testing can not be obtained through a private, commercial reference laboratory can be tested through NPHL. Contact your local health department to arrange for this testing; complete a requisition (<http://www.dhhs.ne.gov/puh/epi/flu/docs/flunphltestrequisition.pdf>); keep the specimen refrigerated and in viral transport media following collection; indicate on the requisition that the patient is hospitalized; do not delay in shipping to NPHL (contact NPHL client services for advice on expedited courier service 1-866-290-1406).

Recommendations Regarding Vaccination and Pregnancy

There are concerns being voiced by pregnant women about 2009 H1N1 and seasonal flu immunization as well as many myths and misperceptions. Doctors caring for pregnant women need to counter these myths and advocate strongly for both H1N1 and seasonal flu vaccines.

Some pregnant women who have been infected with the 2009 H1N1 virus have had severe illness. Overall, pregnant women have had higher rates of hospitalization than the general population. About 6% of confirmed H1N1 2009 influenza deaths in the US have been in pregnant women, while only about 1% of the general population is pregnant at any given time. One recent large case control study found that the seasonal flu shot (inactivated flu vaccine) given to pregnant women reduced flu illness in their infants under 6 months of age by 63%. This study confirms that seasonal flu vaccination of pregnant women can benefit both mothers and infants. The Advisory Committee on Immunization Practices (ACIP) designated pregnant women as one of the initial target groups to receive the 2009 H1N1 vaccine as soon as it is available. Clinical trials evaluating the vaccine in pregnant women are underway by the National Institute of Allergy and Infectious Diseases (NIAID). Additional information about these trials can be found at <http://www3.niaid.nih.gov/news/QA/H1N1pregnanttrials.htm>.

Of note: There is **no** evidence that thimerosal (a mercury preservative in the multi-dose vaccine) is harmful to a pregnant woman or her fetus or is linked to autism. Although the 2009 H1N1 influenza virus is new, the vaccine has been made and tested the same way as the seasonal flu vaccine. Millions of pregnant women have received the flu vaccine for more than 45 years. Flu vaccine has not been shown to cause harm to pregnant women or their babies.

For an excellent Q & A for patients and providers regarding flu vaccine and pregnancy:
http://www.cdc.gov/h1n1flu/vaccination/pregnant_qa.htm

For an excellent Q & A for health care providers of pregnant patients:
http://www.cdc.gov/h1n1flu/vaccination/providers_qa.htm

For an excellent Q & A for providers regarding H1N1 vaccine:
http://www.cdc.gov/h1n1flu/vaccination/clinicians_qa.htm

Advice Regarding the Use of Inhaled Influenza Vaccine (Flumist)

Many providers have never prescribed or administered the live attenuated influenza vaccine (LAIV), and may benefit from more information on this vaccine. This is an excellent product that has been on the U.S. market for over 5 years. Obviously it does away with the injection, which is a wonderful feature. The flu virus used to manufacture this vaccine grew well, which led to an earlier and more plentiful supply of LAIV than the injected flu vaccine formulations. Providers are encouraged to use this vaccine in the recommended patient populations. The LAIV is approved for healthy persons over 2 and less than 50 years of age, but is not recommended in the following groups:

- People with a medical condition that places them at high risk for complications from influenza, including those with chronic heart or lung disease, such as asthma or reactive airways disease; people with medical conditions such as diabetes or kidney failure; or people with illnesses that weaken the immune system, or who take medications that can weaken the immune system.
- Children <5 years old with a history of recurrent wheezing
- Children or adolescents receiving aspirin
- People with a history of Guillain–Barré Syndrome that occurred after receiving influenza vaccine
- Pregnant women
- People who have a severe allergy to chicken eggs or who are allergic to any of the nasal spray vaccine components.

For more detailed information, providers can find an excellent Q & A reference document at this website:

<http://www.cdc.gov/FLU/about/qa/nasalspray.htm>