

Health Update:

Novel H1N1 Influenza Update 8: Worldwide Illness Patterns, Serious Disease Risk in Pregnant Women, Rapid Influenza Tests, New Guidance for Ill Persons, Vaccine Issues

August 10, 2009

This document will be updated as new information becomes available. The current version can always be viewed at <http://www.dhss.mo.gov>

The Missouri Department of Health & Senior Services (DHSS) is now using 4 types of documents to provide important information to medical and public health professionals, and to other interested persons:

Health Alerts convey information of the highest level of importance which warrants immediate action or attention from Missouri health providers, emergency responders, public health agencies or the public.

Health Advisories provide important information for a specific incident or situation, including that impacting neighboring states; may not require immediate action.

Health Guidances contain comprehensive information pertaining to a particular disease or condition, and include recommendations, guidelines, etc. endorsed by DHSS.

Health Updates provide new or updated information on an incident or situation; can also provide information to update a previously sent Health Alert, Health Advisory, or Health Guidance; unlikely to require immediate action.

Health Update
August 10, 2009

FROM: MARGARET T. DONNELLY
DIRECTOR

SUBJECT: Novel H1N1 Influenza Update 8: Worldwide Illness Patterns, Serious Disease Risk in Pregnant Women, Rapid Influenza Tests, New Guidance for Ill Persons, Vaccine Issues

This Health Update contains the following:

- A recent summary of worldwide patterns of illness associated with novel influenza A (H1N1) virus infection.
- A report on increased risk of serious disease in pregnant women infected with novel H1N1 virus, and current recommendations on their management.
- Guidance on proper interpretation of rapid influenza diagnostic tests.
- New recommendations for persons with influenza-like illness.
- Links to information on development and anticipated use of a vaccine for novel H1N1 virus.

Worldwide Illnesses Patterns Associated With Novel H1N1 Virus Infection

On July 31, the World Health Organization (WHO) provided the following updated information on illness patterns associated with novel H1N1 virus infection:

Worldwide, the majority of patients infected with the pandemic virus continue to experience mild symptoms and recover fully within a week, even in the absence of any medical treatment. Monitoring of viruses from multiple outbreaks has detected no evidence of change in the ability of the virus to spread or to cause severe illness.

In addition to the enhanced risk documented in pregnant women, groups at increased risk of severe or fatal illness include people with underlying medical conditions, most notably chronic lung disease (including asthma), cardiovascular disease, diabetes, and immunosuppression. Some preliminary studies suggest that obesity, and especially extreme obesity, may be a risk factor for more severe disease.

Within this largely reassuring picture, a small number of otherwise healthy people, usually under the age of 50 years, experience very rapid progression to severe and often fatal illness, characterized by severe pneumonia that destroys the lung tissue, and the failure of multiple organs. No factors that can predict this pattern of severe disease have yet been identified, though studies are under way.

Clinicians, patients, and those providing home-based care need to be alert to danger signs that can signal progression to more severe disease. As progression can be very rapid, medical attention should be sought when any of the following danger signs appear in a person with confirmed or suspected H1N1 infection:

- shortness of breath, either during physical activity or while resting
- difficulty in breathing
- turning blue
- bloody or colored sputum
- chest pain
- altered mental status
- high fever that persists beyond 3 days
- low blood pressure

In children, danger signs include fast or difficult breathing, lack of alertness, difficulty in waking up, and little or no desire to play.

(http://www.who.int/csr/disease/swineflu/notes/h1n1_pregnancy_20090731/en/index.html)

A brief summary of the current situation in Missouri was provided in the preceding (July 28) Health Update, available at http://www.dhss.mo.gov/BT_Response/HAdS/HU7SwineFlu7-28-09.pdf.

Office of the Director
912 Wildwood
P.O. Box 570

Jefferson City, MO 65102
Telephone: (800) 392-0272
Fax: (573) 751-6041

Web site: <http://www.dhss.mo.gov>

Pregnant Women and Novel H1N1 Virus Infection

The July 31st WHO statement also contained information on the increased risk of serious illness among pregnant women infected with novel H1N1 virus:

Research conducted in the USA and published 29 July in *The Lancet* has drawn attention to an increased risk of severe or fatal illness in pregnant women when infected with the H1N1 pandemic virus.

Several other countries experiencing widespread transmission of the pandemic virus have similarly reported an increased risk in pregnant women, particularly during the second and third trimesters of pregnancy. An increased risk of fetal death or spontaneous abortions in infected women has also been reported.

Evidence from previous pandemics further supports the conclusion that pregnant women are at heightened risk.

While pregnant women are also at increased risk during epidemics of seasonal influenza, the risk takes on added importance in the current pandemic, which continues to affect a younger age group than that seen during seasonal epidemics.

(See Jamieson DJ, et al. H1N1 2009 influenza virus infection during pregnancy in the USA. *The Lancet*, Early Online Publication, July 29, 2009. The abstract is available at [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(09\)61304-0/abstract](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(09)61304-0/abstract).)

The Centers for Disease Control and Prevention (CDC) recommends early treatment with influenza antiviral medication for pregnant women with suspected influenza illness. Because of its systemic activity, the current drug of choice for treatment of pregnant women is oseltamivir. Recommended duration of treatment is five days. Treatment should not be delayed while waiting for the results of viral testing. As is recommended for other persons who are treated, antiviral treatment should be initiated as soon as possible after the onset of influenza symptoms, with benefits expected to be greatest if started within 48 hours of onset, based on data from studies of seasonal influenza. However, data from studies on seasonal influenza indicate benefit for hospitalized patients even if treatment is started more than 48 hours after onset. Thus, antiviral medications are recommended for high risk persons, including pregnant women, presenting for care more than 48 hours after illness onset, particularly for those who require hospitalization.

Complete clinical management guidelines for pregnant women are available from CDC at http://www.cdc.gov/h1n1flu/clinician_pregnant.htm. Included here is the recommendation that fever in pregnant women should be treated because of the risk that hyperthermia appears to pose to the fetus. Acetaminophen appears to be the best option for treatment of fever during pregnancy.

CDC additionally states that post-exposure antiviral chemoprophylaxis can be considered for pregnant women who are close contacts of persons with suspected or laboratory-confirmed novel H1N1 virus infection. For more information, go to http://www.cdc.gov/h1n1flu/clinician_pregnant.htm.

Related guidance from CDC, entitled “Considerations Regarding Novel H1N1 Flu Virus in Obstetric Settings”, is found at <http://www.cdc.gov/h1n1flu/guidance/obstetric.htm>.

As more information becomes available, these guidelines may be modified. Medical professionals caring for pregnant women and newborns are encouraged to check these websites periodically for updates.

Information on Rapid Influenza Diagnostic Tests

CDC has recently released a document entitled “Interim Guidance for the Detection of Novel Influenza A Virus Using Rapid Influenza Diagnostic Tests”, which provides information on these tests, including their limitations, to help guide their proper use and interpretation. Go to http://www.cdc.gov/h1n1flu/guidance/rapid_testing.htm.

New Guidance on the Amount of Time Persons with Influenza-Like Illness Should Remain at Home

CDC now recommends that people with influenza-like illness remain at home (except when necessary to seek required medical care) until at least 24 hours after they are free of fever (100° F [37.8°C]), or signs of a fever without the use of fever-reducing medications (<http://www.cdc.gov/h1n1flu/guidance/exclusion.htm>). Note that this is a change from the previous recommendation that ill persons stay home for 7 days after illness onset or until 24 hours after the resolution of symptoms, whichever was longer.

Keeping people with a fever at home may reduce the number of other individuals who get infected, since elevated temperature is associated with increased shedding of influenza virus. CDC recommends this exclusion period regardless of whether or not antiviral medications are used.

This new recommendation applies to camps, schools, businesses, mass gatherings, and other community settings where the majority of people are not at increased risk for influenza complications.

This new guidance does not apply to health care settings where the exclusion period should be continued for 7 days from symptom onset or until the resolution of symptoms, whichever is longer; see http://www.cdc.gov/h1n1flu/guidelines_infection_control.htm for updates about the health care setting.

More guidance for patients is available from CDC at <http://www.cdc.gov/h1n1flu/guidance/#a6>.

Novel H1N1 Virus Vaccine

CDC's Advisory Committee on Immunization Practices (ACIP) met July 29 to determine who should receive vaccine against novel H1N1 virus when it becomes available, and to determine which groups of the population should be prioritized if the vaccine is initially available in limited quantities. Recommendations from this meeting are summarized at <http://www.cdc.gov/h1n1flu/vaccination/acip.htm> and <http://www.cdc.gov/media/pressrel/2009/r090729b.htm>.

Current information for medical providers on the manufacture of novel H1N1 vaccine, and the anticipated delivery system that will be utilized once it becomes available, is found at <http://www.cdc.gov/h1n1flu/vaccination/provider/preparing.htm>.

Guidance on novel H1N1 vaccination for public health officials is available from CDC at <http://www.cdc.gov/h1n1flu/vaccination/statelocal/>.

Links to comprehensive information for medical providers on novel H1N1 influenza are available at http://www.dhss.mo.gov/BT_Response/MedProfs.html.

As new information becomes available, the Missouri Department of Health and Senior Services (DHSS) will issue additional Health Updates.

Questions on novel H1N1 influenza should be directed to your local public health agency, or to DHSS' Bureau of Communicable Disease Control and Prevention at 573/751-6113, or 866-628-9891.