TO: All HAN Recipients

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Maine CDC/DHHS Update on Novel Influenza A (H1N1) Virus  
July 11, 2009

Overview Update of H1N1 in Maine

Although very few people in Maine with H1N1 need to be or are being tested, Maine CDC has tested and confirmed a total of 203 cases as of July 10th. 114 are Maine residents, and 89 are out of state residents, mostly either summer residents or residential youth campers.

Maine residents with confirmed H1N1 are concentrated in the southern half of the state, where there appears to be widespread transmission in many areas. A total of 10 have been hospitalized, including 2 out of state residents. About 60% of Maine resident cases are under the age of 24. Weekly updates with demographic data, including county breakdowns, can be found at: http://www.maine.gov/dhhs/boh/swine-flu-2009.shtml.

H1N1 is widespread in much of the rest of New England, has been detected in all 50 states and 122 countries. 24 states have had deaths due to H1N1 (a total of 211 on July 10).

US CDC update: http://www.cdc.gov/h1n1flu/  

Prevention of H1N1 is most important, especially now that the virus is becoming more widespread in Maine. Respiratory etiquette (covering coughs and sneezes with a sleeve or tissue, washing hands frequently, and staying home if ill with a fever) is a shared responsibility of everyone in Maine, especially to protect people who are at higher risk for complications from H1N1. Those at higher risk for complications from H1N1 should take extra precautions (see CDC Information for Specific Groups: http://www.cdc.gov/h1n1flu/groups.htm and Maine CDC’s H1N1 website at http://www.maine.gov/dhhs/boh/swine-flu-2009.shtml).

Maine CDC is working with a number of statewide partners to plan for large scale vaccine campaigns this fall. The first is a school-located seasonal influenza vaccine campaign. The second is for the possible arrival of H1N1 vaccine later in the fall, which may be a two-dose vaccine a month apart. Four representatives from Maine attended the Federal Flu Summit on July 9th, which focused on shared responsibilities of everyone to address H1N1 and on upcoming H1N1 flu vaccine campaign.  


US CDC recently issued recommendations for state and local planning for a 2009 novel H1N1 influenza vaccination program. We recommend all stakeholders in the public and private sectors review this document, since the upcoming vaccine campaigns are expected to involve all sectors in Maine. There are preliminary plans for a flu vaccine summit to be convened in Maine later this summer. Details are expected soon. http://www.cdc.gov/h1n1flu/vaccination/statelocal/planning.htm

Oseltamivir (Tamiflu) Resistance

The World Health Organization recently announced the identification of 3 people with oseltamivir resistant novel H1N1 virus infection (http://www.who.int/csr/disease/swineflu/en/). Located in Denmark, Japan, and China (in a person arriving ill from the United States), all 3 fully recovered after uncomplicated illnesses and did not have contact with each other. Results from ongoing testing of novel H1N1 viruses indicate that oseltamivir resistance remains rare and the interim recommendations for the use of antiviral medications for chemoprophylaxis and treatment have not been changed http://www.cdc.gov/h1n1flu/recommendations.htm.
Until recently, all novel H1N1 viruses tested have been susceptible to oseltamivir and zanamivir (neuraminidase inhibitors), and resistant to amantadine and rimantadine (M-2 channel blockers, or adamantanes). However, judicious use of antiviral medications is recommended to reduce the possibilities of the development and spread of antiviral resistant influenza viruses.

**Use of zanamivir or oseltamivir should be focused on treatment of persons with suspected novel H1N1 influenza who are 1) hospitalized or 2) at higher risk for complications due to influenza, even if hospitalization is not required.** Initiation of antiviral therapy should be as early as possible, preferably within 48 hours since symptom onset; however antiviral therapy for hospitalized persons is recommended even if it is not possible to begin therapy until more than 48 hours after symptoms began.

Personal hygiene practices such as hand washing and practices to prevent the spread of an ill person’s respiratory secretions should continue during treatment because an infected person may continue to shed virus in respiratory secretions up to four or more days while on antiviral therapy.

Use of oseltamivir for chemoprophylaxis should be reserved for certain specific situations, such as when a person at high risk for influenza-related complications is exposed to a person with influenza. Antiviral agents are discouraged for prevention of illness in healthy children or adults based on potential exposures in the community, school, camp or other settings. In addition, there is no safety data regarding long term or frequent use of antiviral agents in children, and limited data for healthy adults.

Chemoprophylaxis with antiviral medications can be considered for health care workers with an exposure to influenza due to inadequate personal protective equipment. Appropriate administrative controls (e.g. having health care personnel stay home from work when ill, and triaging for identification of potentially infectious patients) and personal protective equipment should be used to reduce the need for post-exposure chemoprophylaxis among health care workers.

**Persons at Higher Risk for Complications of H1N1 Virus Infection**

- Children younger than 5 years old. The risk for severe complications from seasonal influenza is highest among children younger than 2 years old.
- Adults 65 years of age and older.
- Persons with the following conditions:
  - Chronic pulmonary (including asthma), cardiovascular (except hypertension), renal, hepatic, hematological (including sickle cell disease), neurologic, neuromuscular, or metabolic disorders (including diabetes mellitus);
  - Immunosuppression, including that caused by medications or by HIV;
  - Pregnant women;
  - Persons younger than 19 years of age who are receiving long-term aspirin therapy;
  - Residents of nursing homes and other chronic-care facilities.

Equipment should be used to reduce the need for post-exposure chemoprophylaxis among health care workers.

**Intensive Care Patients With Severe H1N1 Infection – Michigan, June 2009**

This US CDC MMWR report describes the clinical findings of a limited series of patients with novel influenza A (H1N1) virus infection and refractory ARDS admitted to a tertiary-care ICU for advanced mechanical ventilation. This patient group represents the most severely ill subset of persons with novel influenza A (H1N1) virus infection and is notable for the predominance of males, the high prevalence of
obesity (especially extreme obesity), and the frequency of clinically significant pulmonary emboli and MODS. All required advanced mechanical ventilator support, reflecting severe pulmonary damage. The pulmonary compromise described in this report suggests that severe pulmonary damage occurred as a result of primary viral pneumonia.

http://www.cdc.gov/mmwr/preview/mmwrhtml/mm58d0710a1.htm

**New or Recently Updated US CDC Guidance Related to Pregnant Women**

Considerations Regarding Novel H1N1 Influenza Virus in Obstetric Settings:
http://www.cdc.gov/h1n1flu/guidance/obstetric.htm

Pregnant Women and Novel Influenza A H1N1 Virus: Considerations for Clinicians
http://www.cdc.gov/h1n1flu/clinician_pregnant.htm

Novel H1N1 Influenza and Feeding Your Baby: What Parents Should Know
http://www.cdc.gov/h1n1flu/infantfeeding.htm

**Other New or Recently Updated US CDC H1N1 Guidance or News**

General Business and Workplace Guidance for the Prevention of Novel Influenza A (H1N1) in Workers
http://www.cdc.gov/h1n1flu/guidance/workplace.htm

Research shows 2009 H1N1 is a descendant of the 1918 pandemic influenza strain:

Novel Influenza A (H1N1) Virus Infections Among Health-Care Personnel --- United States, April--May 2009
http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5823a2.htm

**For more information**

U.S. CDC H1N1 Recommendations and Guidance
http://www.cdc.gov/h1n1flu/recommendations.htm
http://www.cdc.gov/h1n1flu/guidance/

Maine CDC H1N1 Website

Maine CDC Clinical Consultation 24x7 line: 1-800-821-5821