Interim Guidance for Infection Control for Care of Patients with Confirmed or Suspected Swine Influenza A (H1N1) Virus Infection in a Healthcare Setting

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This document provides interim guidance and will be updated as needed. State and local health departments should contact CDC Influenza Division Epidemiology and Prevention Branch at (404) 639-3747 (Monday – Friday, 8:30 AM - 5:00 PM or the on-call epidemiologist at (770) 488-7100 (all other times)

Background

To date, human cases of swine influenza A (H1N1) virus infection have been confirmed in residents of California, Texas, and Mexico. Illness signs and symptoms have consisted of influenza-like illness - fever and respiratory tract illness (cough, sore throat, runny nose), headache, muscle aches - and some cases have had vomiting and diarrhea. These cases had illness onset during late March to mid-April 2009. However, cases of severe respiratory disease, including fatal outcomes, have been reported in Mexico. The potential for exacerbation of underlying chronic medical conditions or invasive bacterial infection with swine influenza virus infection should be considered.
The swine influenza A (H1N1) virus that has infected humans in the U.S. and Mexico is a novel influenza A virus that has not previously been identified in North America. This virus is resistant to the antiviral medications amantadine and rimantadine, but is sensitive to oseltamivir and zanamivir. Investigations of these cases suggest that on-going human-to-human swine influenza A (H1N1) virus is occurring.

Interim Recommendations

For clinical care or collection of respiratory specimens from a symptomatic individual (acute respiratory symptoms with or without fever) who is a confirmed case, or a suspected case (ill close contact of a confirmed case) of swine influenza A (H1N1) virus infection:

Infectious Period

Persons with swine influenza A (H1N1) virus infection should be considered potentially contagious for up to 7 days following illness onset. Persons who continue to be ill longer than 7 days after illness onset should be considered potentially contagious until symptoms have resolved. Children, especially younger children, might potentially be contagious for longer

periods. The duration of infectiousness might vary by swine influenza A (H1N1) virus strain.
Non-hospitalized ill persons who are a confirmed or suspected case of swine influenza A (H1N1) virus infection are recommended to stay at home (voluntary isolation) for at least the first 7 days after illness onset except to seek medical care.

Case Definitions for Infection with Swine Influenza A (H1N1) Virus

A ***confirmed case*** of swine influenza A (H1N1) virus infection is defined as a person with an acute febrile respiratory illness with laboratory confirmed swine influenza A (H1N1) virus infection at CDC by one or more of the following tests:

1. real-time RT-PCR
2. viral culture

A ***probable case*** of swine influenza A (H1N1) virus infection is defined as a person with an acute febrile respiratory illness who is:

- positive for influenza A, but negative for H1 and H3 by influenza RT-PCR, or
- positive for influenza A by an influenza rapid test or an influenza immunofluorescence assay (IFA) plus meets criteria for a suspected case

A ***suspected case*** of swine influenza A (H1N1) virus infection is defined as a person with acute febrile respiratory illness with onset

- within 7 days of close contact with a person who is a confirmed case of swine influenza A (H1N1) virus infection, or
- within 7 days of travel to community either within the United States or internationally where there are one or more confirmed swine influenza A(H1N1) cases, or
- resides in a community where there are one or more confirmed swine influenza cases.

Close contact is defined as: within about 6 feet of an ill person who is a confirmed or suspected case of swine influenza A (H1N1) virus infection.
Acute respiratory illness is defined as recent onset of at least two of the following: rhino rhea or nasal congestion, sore throat, cough (with or without fever or feverishness)
Clinicians should consider swine influenza A (H1N1) virus infection in the differential diagnosis of patients with febrile respiratory disease and who 1)

live in San Diego and Imperial Counties, California, or Guadalupe County, Texas, or traveled to these counties or 2) who traveled recently to Mexico or were in contact with persons who had febrile respiratory illness and were in the two U.S. counties or Mexico in the 7 days preceding their illness onset.

Infection Control of Ill Persons in a Healthcare Setting

Patients with suspected or confirmed case-status should be placed in a *single-patient room* with the door kept closed. If available, an airborne infection isolation room (AIIR) with negative pressure air handling with 6 to 12 air changes per hour can be used. Air can be exhausted directly outside or be recirculated after filtration by a high efficiency particulate air (HEPA) filter. For suctioning, bronchoscopy, or intubation, use a procedure room with negative pressure air handling.
The *ill person should wear a surgical mask when outside of the patient room*, and should be encouraged to wash hands frequently and follow respiratory hygiene practices. Cups and other utensils used by the ill person should be washed with soap and water before use by other persons. Routine cleaning and disinfection strategies used during influenza seasons can be applied to the environmental management of swine influenza. More information can be found at http://www.cdc.gov/ncidod/dhqp/gl_environinfection.html.

Standard, Droplet and Contact precautions should be used for all patient care activities, and maintained for 7 days after illness onset or until symptoms have resolved. Maintain adherence to *hand hygiene by washing with soap and water or using hand sanitizer* immediately after removing gloves and other equipment and after any contact with respiratory secretions.
Personnel providing care to or collecting clinical specimens from suspected or confirmed cases should *wear disposable non-sterile gloves, gowns, and eye protection* (e.g., goggles) to prevent conjunctival exposure.
Masks and respirators: Until additional, specific information is available regarding the behavior of this swine influenza A (H1N1), the guidance in the October 2006 "Interim Guidance on Planning for the Use of Surgical Masks and Respirators in Healthcare Settings during an Influenza Pandemic"
http://www.pandemicflu.gov/plan/healthcare/maskguidancehc.html should be used. These interim recommendations will be updated as additional information becomes available.
Interim recommendations:

- Personnel engaged in aerosol generating activities (e.g., collection of clinical specimens, end tracheal intubation, nebulizer treatment, bronchoscopy, and resuscitation involving emergency intubation or cardiac pulmonary resuscitation) for suspected or confirmed swine influenza A (H1N1) cases should wear a fit-tested disposable N95 respirator.*
- Pending clarification of transmission patterns for this virus, personnel providing direct patient care for suspected or confirmed swine influenza A (H1N1) cases should wear a fit-tested disposable N95 respirator when entering the patient room.

*Respirator use should be in the context of a complete respiratory protection program in accordance with Occupational Safety and Health Administration (OSHA) regulations. Information on respiratory protection programs and fit test procedures can be accessed at www.osha.gov/SLTC/etools/respiratory. Staff should be medically cleared, fit-tested, and trained for respirator use, including: proper fit-testing and use of respirators, safe removal and disposal, and medical contraindications to respirator use.
Additional information on N95 respirators and other types of respirators may be found at: http://www.cdc.gov/niosh/npptl/topics/respirators/factsheets/respfact.html, and at www.fda.gov/cdrh/ppe/masksrespirators.html.