PANDEMIC (H1N1) 2009 INFLUENZA
UPDATED RECOMMENDATIONS FOR HEALTH CARE SETTINGS
AUGUST 20, 2009

The California Department of Public Health (CDPH) has previously issued infection prevention and control recommendations for known or suspected pandemic (H1N1) 2009 influenza patients in inpatient, outpatient, and long-term health care settings. CDPH last updated the guidelines on May 19, 2009. This document provides further updated recommendations.

DEFINITION OF SUSPECT PANDEMIC (H1N1) 2009 INFLUENZA FOR INFECTION CONTROL PURPOSES:

Any patient less than 60 years of age with a fever (>37.8°C or 100°F) and new onset of cough

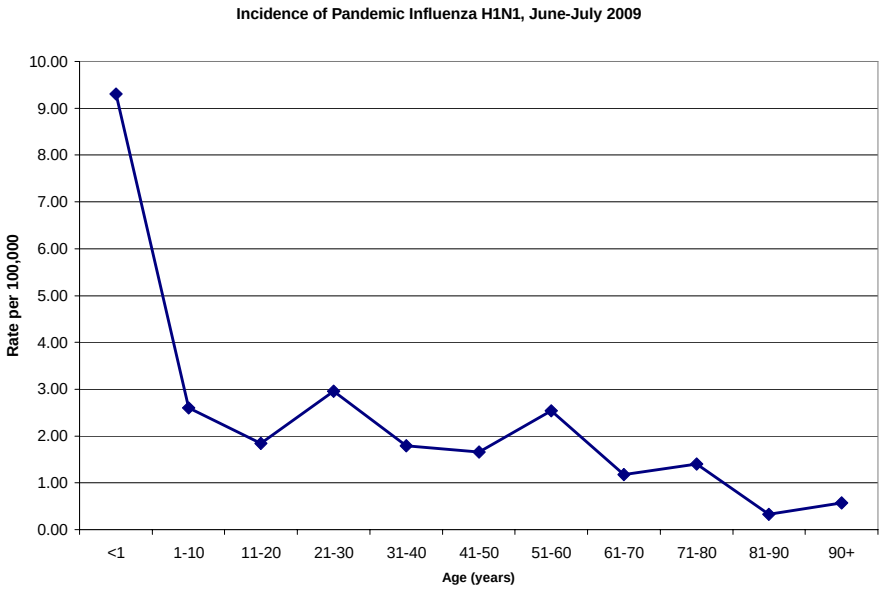
OR

Any patient whom a health care provider believes, based on the patient's history and illness, to have a high likelihood of being infected with pandemic (H1N1) 2009 influenza virus.

Rationale

In the May 19, 2009 update, CDPH recommended that enhanced precautions be used for all patients with febrile respiratory illness, defined as fever (>37.8°C or 100°F) plus one or more of the following: rhinorrhea or nasal congestion, sore throat, or cough. CDPH has revised this case definition for infection control purposes by adding the age criterion of less than 60 years and dropping the symptoms of rhinorrhea, nasal congestion, and sore throat for the following reasons:

Age: CDPH epidemiologic data for hospitalized patients for June and July 2009 show a significant relationship between rates of pandemic (H1N1) 2009 influenza and age (Figure). Ninety-two percent of hospitalized patients with pandemic (H1N1) 2009 influenza are below 60 years of age. In spite of the presence of laboratory-confirmed cases of pandemic (H1N1) 2009 influenza in residents and staff of skilled nursing facilities, transmission and illness in those facilities have been limited and no significant outbreaks have been reported.



Symptoms: The CDPH and Centers for Disease Control and Prevention (CDC) surveillance case definitions (to be used for case investigations) were changed May 19, 2009 to influenza-like illness (ILI), which includes only cough or sore throat in addition to fever. CDPH chose to include fever and cough and exclude sore throat for infection control purposes because fever and cough are most predictive of influenza in children (present in approximately 75% of pediatric patients with influenza) and adults (50-70% depending upon the population studied). The occurrence of sore throat has been variable in studies of influenza, ranging from 20 to 84%, and is less specific to influenza. This greater specificity with little if any loss of sensitivity is appropriate for infection control purposes at this time. Additionally, patients with cough present a greater risk of transmission to health care workers than those with just sore throat.

Any patient who is suspected by a health care provider as having pandemic (H1N1) 2009 influenza should be considered a suspect case, since any symptom-based definition will exclude a significant proportion of infected patients. For example, many patients (5-40% depending upon age) with seasonal and presumably pandemic (H1N1) 2009 influenza do not have fever. Moreover, no one set of signs and symptoms will identify more than approximately 60% of adults, or 40% of those over age 60 years, with influenza. In a case series of more than 200 adult inpatients with confirmed influenza over the course of three seasons, only half met the CDC surveillance criteria for ILI.[1] In another study of 3744 persons of all ages with influenza-like symptoms, 63% of those with laboratory-confirmed influenza had acute onset of fever and cough.[2] In a study of 1838 elderly patients with influenza-like complaints and serological evidence of influenza, only 34% had fever and 27% had acute onset of fever and cough.[3]

ADMISSION AND TRANSFER OF PATIENTS TO LONG-TERM CARE FACILITIES:

The admission and transfer to long-term care facilities of patients with ILI who are 60 years of age or older should be based upon the ability of the facility to provide appropriate care and not upon previous recommendations for isolation for known and suspected cases of pandemic (H1N1) 2009 influenza. Based on the change in the definition of an H1N1 suspected case, these facilities should follow precautions for seasonal influenza and other respiratory illness for residents with ILI (http://www.cdph.ca.gov/certlic/facilities/Documents/LNC-AFL-08-33Attachment.pdf**).**

The CDPH guidelines for pandemic (H1N1) 2009 influenza for long-term care facilities (http://www.cdph.ca.gov/HealthInfo/discond/Documents/CDPH-AFL-Update-Infection-Control-H1N1-Influenza-Long-Term-Healthcare-Settings.pdf**) should be followed for any resident or patient suspected by a health care provider of having infected with pandemic (H1N1) 2009 influenza. These patients should be placed in isolation according to CDPH recommendations and Cal/OSHA requirements, regardless of age.**

Rationale

The change in the definition of suspect pandemic (H1N1) 2009 influenza for infection control purposes to exclude those 60 years of age or older means that enhanced isolation precautions are not recommended in facilities where patients and residents are at least 60 years of age, unless those patients and residents are suspected by a health care provider of having pandemic (H1N1) 2009 influenza.

DURATION OF EXCLUSION PERIOD FOR HEALTH CARE WORKERS:

In health care settings where all patients or residents are 60 years of age or older, health care workers with influenza-like illness should remain off work until at least 24 hours after they are free of fever ((>37.8°C or 100°F) or signs of a fever without the use of fever-reducing medications. In other health care settings the exclusion period should be continued for seven days from symptom onset or until the resolution of symptoms, whichever is longer.

Rationale

On August 5, 2009, CDC issued revised “Recommendations for the Amount of Time Persons with Influenza-Like Illness Should be Away from Others” (http://www.cdc.gov/h1n1flu/guidance/exclusion.htm), recommending that people with ILI remain at home until at least 24 hours after they are free of fever **(>37.8°C or 100°F)** or signs of a fever without the use of fever-reducing medications. The guidance stated that this recommendation does not apply to health care settings, where the exclusion period should be continued for seven days from symptom onset or until the resolution of symptoms, whichever is longer. However, given their low risk of infection, CDPH recommends that this change be extended to facilities where patients or residents are 60 years of age or older.

ANTIVIRAL POSTEXPOSURE PROPHYLAXIS FOR HEALTH CARE WORKERS:

Antiviral chemoprophylaxis for up to ten days after last exposure can be considered for health care workers who were not using appropriate personal protective equipment during close contact with an infectious patient, co-worker, or household contact. The priority for prophylaxis should be those who are at increased risk of complications of influenza (e.g., immunosuppression, pregnancy) and those who provide care to persons at increased risk of complications, including transplant recipients, pregnant women, and young children (e.g., under two years of age).

Rationale

CDPH and CDC guidances have in the past been interpreted as recommending that all health care workers with unprotected exposure to infectious persons be offered chemoprophylaxis. However, health care workers have had repeated unprotected exposures in health care facilities as the result of failure to implement appropriate precautions and this has resulted in administration of prophylaxis to many health care workers and multiple courses to some workers. Extensive pandemic (H1N1) 2009 transmission in most communities, resulting in health care worker exposure outside of health care facilities, raises concern about the development of antiviral resistance. Thus, the benefits of prophylaxis for those who are not at increased risk of complications of influenza relative to the risk of antiviral resistance has become uncertain. This CDPH recommendation is consistent with current CDPH (http://www.cdph.ca.gov/HealthInfo/discond/Documents/CDPH_H1N1_HealthAlert072209.pdf) and CDC (http://www.cdc.gov/h1n1flu/recommendations.htm) recommendations for antiviral prophylaxis.

RELATIONSHIP TO CAL/OSHA AEROSOL TRANSMISSIBLE DISEASES STANDARD

On August 5, 2009, the Cal/OSHA Aerosol Transmissible Diseases (ATD) Standard went into effect (http://www.dir.ca.gov/oshsb/atd0.html). The standard specifies that Diseases/Pathogens Requiring Airborne Infection Isolation include any disease for which CDPH or the local health officer recommends airborne isolation. CDPH continues to recommend airborne isolation precautions for confirmed or suspect pandemic (H1N1) 2009 influenza cases, including the use of N95 or higher respirators and airborne infection isolation rooms when available.

Therefore, patients defined by CDPH recommendations as confirmed or suspect pandemic (H1N1) 2009 influenza cases must be managed in accordance with the ATD Standard specific to the setting. Hospitals are regulated differently from other health care settings, which are designated as “referring employers.” However, in all health care settings, when providing care to a patient identified as a confirmed or suspect pandemic (H1N1) 2009 influenza case, respiratory protection that is at least as effective as an N95 filtering facepiece respirator must be used. Questions about the application and specific provisions of the standard should be directed to Cal/OSHA.

[1] Fraser et al. Infect Control Hosp Epidemiol 2006;27:266-270.
[2] Monto et al. Arch Intern Med. 2000;160:3243-3247
[3] Govaert et al. *Fam Pract*. 1998;15:16-22.