



2009 H1N1 Influenza

Guidance on Case Definitions to be Used for Infection Control in California Health Care Settings

February 4, 2010

Revision History: Supersedes case definitions in August 20, 2009 guidance: California Department of Public Health Pandemic (H1N1) 2009 Influenza Infection Control Recommendations for Hospitalized Patients

Background

As of the week of January 11, 2010, only 5% of a sample of hospitalized patients tested for 2009 H1N1 influenza were PCR positive, as compared to other periods in the pandemic when the rate of positive tests has been 30% or greater. The low percentage of positive tests calls into question the usefulness of the current California Department of Public Health (CDPH) definition of a suspect 2009 H1N1 influenza case (i.e., any patient <60 years of age with febrile respiratory illness and a new onset cough) for infection control purposes at this time.

Therefore, CDPH is revising the 2009 H1N1 influenza infection control suspect case definition. This revision reflects the current decreased prevalence of 2009 H1N1 influenza relative to other respiratory pathogens that produce a clinical illness similar to that of both 2009 H1N1 and seasonal influenza.

For the purposes of infection control guidance only, CDPH considers a period of “low incidence” to be any period in which the rate of positive 2009 H1N1 influenza PCR tests in hospitalized patients is less than 10% for three consecutive weeks. CDPH will be monitoring the rate of positive samples and will make further updates to the recommendations if the situation changes.

Updated 2009 H1N1 Case Definitions for Infection Control Purposes

- A **suspect case** of 2009 H1N1 influenza is any patient whom a health care provider suspects, based on the patient’s history and illness, of being infected with 2009 H1N1 influenza virus.
- A **probable case** of 2009 H1N1 influenza is a person with a syndrome clinically compatible with influenza who has a PCR test that is positive for influenza A and unsubtypeable for A/H1 or A/H3.
- A **confirmed case** of 2009 H1N1 influenza is a person with a syndrome clinically compatible with influenza who has laboratory confirmed 2009 H1N1 influenza by one or more of the following tests: real-time RT-PCR or viral culture.

Rationale

During periods in which there is a low incidence of 2009 H1N1 influenza it is reasonable to rely on the clinical judgment of professional staff in determining whether a patient is likely to have 2009 H1N1 infection, based on the patient's clinical presentation, history, age, the local incidence of 2009 H1N1 influenza, recent ill contacts, 2009 H1N1 influenza vaccination status, and other factors.

Respiratory protection

- CDPH continues to recommend the use of respiratory protection at least as protective as a fit-tested N95 respirator for health care workers providing care to suspect, probable or confirmed 2009 H1N1 influenza patients.
- Health care workers should have the option of wearing a respirator when in contact with patients with acute respiratory symptoms even if a clinician has not determined that the patient is suspected of being infected with 2009 H1N1 influenza.
- Health care workers with unprotected exposures to confirmed 2009 H1N1 influenza patients should be provided the opportunity for a medical evaluation. Most, but not all, health care workers who have received 2009 H1N1 influenza vaccine will be immune. Decisions about the need for antiviral post-exposure prophylaxis should be made on a case-by-case basis.

Clinical presentation of influenza

The clinical presentation of 2009 H1N1 influenza infection is largely indistinguishable from that of seasonal influenza. The diagnosis of influenza based on clinical presentation is difficult and varies with the age of the patient. High fever is common in children with seasonal influenza but decreases in frequency with age, while adults are more likely than children to have headache and myalgia.¹

A recent study among patients with acute respiratory illness found that the absence of leukocytosis (white blood cell count above the normal range) was positively associated with 2009 H1N1 and seasonal influenza. The absence of leukocytosis added the greatest discriminatory power when combined with the CDC/WHO influenza-like illness definition (presence of temperature >38.0°C and cough or sore throat).²

However, even during peak influenza activity, the accuracy of the clinical diagnosis of influenza may be limited because of the presence of other respiratory pathogens that can cause symptoms similar to those of influenza viruses.³

Patient history and severity of illness should be considered in the decision for initial precautions. The decision to isolate may be made by the physician or nursing staff. Isolation should be discontinued by the physician when it is no longer necessary.

References

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Thank you for your ongoing commitment to the 2009 H1N1 influenza response.