



Merlin disease code: 48790 Influenza, Novel or Pandemic Strains

CONTACT THE BUREAU OF EPIDEMIOLOGY



Specimens for all cases must be sent to the Bureau of Public Health Laboratories and must be cleared through the Bureau of Epidemiology (850) 245-4401.

[Paper case report form](#) required

No Merlin extended data

Background

Human infections with novel influenza A viruses that can be transmitted from person to person may signal the beginning of an influenza pandemic. Rapid detection and reporting of human infections with novel influenza A viruses (viruses against which there is little to no pre-existing immunity) will facilitate prompt detection and characterization of influenza A viruses with pandemic potential and accelerate the implementation of effective public health responses.

Clinical criteria for case classification

An illness compatible with influenza virus infection (fever $>100^{\circ}\text{F}$, with cough or sore throat).

Laboratory criteria for case classification

A **human** case of infection with an influenza A virus subtype that is different from currently circulating human influenza H1 and H3 viruses. Novel subtypes include, but are not limited to, H2, H5, H7, and H9 subtypes. Influenza H1 and H3 subtypes originating from a non-human species or from genetic reassortment between animal and human viruses are also novel subtypes. Novel subtypes will be detected with methods available for detection of currently circulating human influenza viruses at state public health laboratories (e.g., real-time reverse transcriptase polymerase chain reaction [RT-PCR]). Confirmation that an influenza A virus represents a novel virus will be performed by the CDC influenza laboratory. Once a novel virus has been identified by CDC, confirmation may be made by public health laboratories following CDC-approved protocols for that specific virus, or by laboratories using a Food and Drug Administration-authorized test specific for detection of that novel influenza virus.

Epidemiological criteria for case classification

Both of the following:

- The patient has had contact with one or more persons who either have or had the disease
- **And** transmission of the agent by the usual modes of transmission is plausible.

A case may be considered epidemiologically linked to a laboratory-confirmed case if at least one case in the chain of transmission is laboratory-confirmed. Laboratory testing for the purposes of case classification should use methods mutually agreed upon by CDC and the Council of State and Territorial Epidemiologists (CSTE). Currently, only viral isolation, RT-PCR, gene sequencing, or a fourfold rise in strain-specific serum antibody titers are considered confirmatory.

Case classification

Confirmed:

A person infected with a novel influenza A virus confirmed by CDC's influenza laboratory or using methods agreed upon by CDC and CSTE.

Probable:

A person that meets the clinical criteria and is epidemiologically linked to a confirmed case, but for whom no laboratory testing for influenza virus infection has been performed or test results are inconclusive for a novel influenza A virus infection.

Suspect:

A person that meets the clinical criteria, pending laboratory confirmation. Any case of human infection with an influenza A virus that is different from currently circulating human influenza H1 and H3viruses is classified as a suspected case until the confirmation process is complete.

Criteria to distinguish a new case from previous reports

Not applicable.

Comments

This is a generic case definition for novel influenza infection. During an outbreak or pandemic situation such as for 2009 Novel Influenza A H1N1 event specific outbreak case definitions and reporting criteria will be developed. Please contact the Bureau of Epidemiology for the latest case definition during an outbreak or pandemic event.

For additional information about influenza or influenza surveillance, refer to the Bureau of Epidemiology Influenza website www.floridahealth.gov/diseases-and-conditions/influenza/index.html or the CDC Influenza web site: www.cdc.gov/flu/.

On December 13, 2006, the United States formally accepted the revision of the International Health Regulations, referred to as IHR (2005) (<http://archive.hhs.gov/news/press/2006pres/20061213.html>). The IHR (2005) are an international legal instrument that governs the roles of the World Health Organization (WHO) and its member countries in identifying and responding to and sharing information about public health emergencies of international concern (http://whqlibdoc.who.int/publications/2008/9789241580410_eng.pdf). The updated rules are designed to prevent and protect against the international spread of diseases, while minimizing interference with world travel and trade. The revised regulations add human infections with new influenza strains to the list of conditions that Member States must immediately report to WHO. An outbreak of infections with a new influenza A virus that demonstrates human-to-human transmission could signal the beginning of the next pandemic. Robust epidemiologic and laboratory surveillance systems are required for a coordinated public health response to infections with a novel influenza virus subtype. Early detection of an influenza virus with pandemic potential will permit identification of viral characteristics (e.g., genetic sequence, antiviral susceptibility, and virulence) that will affect clinical management and public health response measures. It should also facilitate development of a virus-specific vaccine and testing strategies.

All state public health laboratories have the capacity to test respiratory specimens for influenza viruses with sensitive and specific assays that can detect human and non-human influenza A viruses. They also have the capacity to subtype currently circulating human influenza A H1, H3, and avian H5 (Asian lineage) viruses. The detection or confirmation by a state public health laboratory of an influenza A virus that is unsubtypable with standard methods (e.g., real-time RT-PCR for human influenza A(H3) or (H1) viruses), or a non-human influenza virus (e.g., H5) from a human specimen, could be the initial identification of a virus with pandemic potential. Prompt notification of CDC by a state epidemiologist in conjunction with the public health laboratory will permit rapid confirmation of results and reporting to WHO. In addition, it will aid prompt viral characterization, and the development of virus-specific diagnostic tests.