09-ID-43

Committee: Infectious

Title: Public Health Reporting and National Notification for Novel Influenza

I. Statement of the Problem

The Council of State and Territorial Epidemiologists (CSTE) position statement 07-EC-02 recognized the need to develop an official list of nationally notifiable conditions and a standardized reporting definition for each condition on the official list. The position statement also specified that each definition had to comply with American Health Information Community recommended standards to support "automated case reporting from electronic health records or other clinical care information systems." In July 2008, CSTE identified sixty-eight conditions warranting inclusion on the official list, each of which now requires a standardized reporting definition.

II. Background and Justification

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.

Justification

Novel Influenza meets the definition of a nationally and **immediate-urgent** notifiable condition—as specified in CSTE position statement 08-EC-02—for the following reason(s):

- The condition is identified as immediately reportable by the revised International Health Regulations (IHR).
- A majority of state/territorial jurisdictions— or state/territorial jurisdictions that when taken together comprise a majority of the US population—have laws or regulations requiring **immediate** reporting of the condition from local health care providers or medical laboratorians to public health authorities; the Centers for Disease Control and Prevention (CDC) requests **immediate** notification of the condition from state public health agencies.

III. Statement of the desired action(s) to be taken

CSTE requests that CDC adopt this standardized reporting definition for Novel Influenza to facilitate more timely, complete, and standardized local reporting and national notification of this condition.

IV. Goals of Surveillance

To rapidly identify, contain and apply preventative measures for control of any Novel Influenza infections.

V. Sources of Surveillance Data

Surveillance for Novel Influenza should use the sources of data and the extent of coverage listed in table 1.

Table V. Recommended sources of data and extent of coverage for ascertaining cases of Novel Influenza

	Coverage
Source of data for case ascertainment	Population-wide
clinician reporting	x
laboratory reporting	x
reporting by other entities (e.g., hospitals, veterinarians, pharmacies)	x
death certificates	x
hospital discharge or outpatient records	
extracts from electronic medical records	
telephone survey	
school-based survey	
other _____	

VI. Criteria for Reporting

Reporting refers to the process of healthcare providers or institutions (e.g., clinicians, clinical laboratories, hospitals) submitting basic information to governmental public health agencies about cases of illness that meet certain reporting requirements or criteria. The purpose of this section is to provide those criteria to determine whether a specific illness should be reported.

A. Narrative description of criteria to be used to determine whether a case should be reported to local/state public health authorities

Report any illness to local/state public health authorities that meets the following criteria:

Reports should be made on persons who fulfill of the following criteria:

- Human infection with a non-subtypeable influenza A infection reported by a WHO collaborating laboratory.

Or

- Illness compatible with influenza virus infection (fever >100 degrees Fahrenheit with cough or sore throat) occurring in a contact of a confirmed case of novel influenza virus infection.

Or

- Illness compatible with influenza virus infection and
- Influenza A virus detected with methods available for detection of currently circulating human influenza viruses
- Close contact with ill animals known to transmit novel subtypes of influenza, such as wild birds or poultry, swine or other mammals **and/or**
- Travel within 14 days to any country where a novel influenza A virus such as A(H5N1) has been identified in animals or people.

Other recommended reporting procedures

- All cases of Novel Influenza should be reported.
- Reporting should be on-going and routine.
- Reporting should be immediate.

B. Table of criteria to be used to determine whether a case should be reported to public health authorities

Table VI-B. Table of criteria to determine whether a case should be reported to public health authorities. Requirements for reporting are established under State and Territorial laws and/or regulations and may differ from jurisdiction to jurisdiction. These criteria are suggested as a standard approach to identifying cases of this condition for purposes of reporting, but reporting should follow State and Territorial law/regulation if any conflicts occur between these criteria and those laws/regulations.

Criterion	**Reporting**		
Clinical Evidence			
Fever		O	N
Cough		O	O
Severe pharyngeal pain		O	O
Laboratory Evidence			
Non-subtypeable influenza A virus determined by WHO collaborating laboratory.	S		
Influenza A, rapid diagnostic test			O
Influenza A, viral culture			O
Influenza A, RT-PCR			O

Influenza A H1			O
Influenza A H3			O
Epidemiologic Evidence			
Contact to a confirmed case of novel influenza virus infection		N	
Travel within 14 days to any country where a novel influenza A virus such as A(H5N1) has been identified in animals or people			O
Veterinarian			O
Works on a poultry farm			O
Works on a swine farm			O
Works in a poultry processing plant			O
Works in a swine processing plant			O
Works with wild birds			O
Contact with sick birds			O

Notes:
S = This criterion alone is Sufficient to identify a case for reporting.
N = All "N" criteria in the same column are Necessary to identify a case for reporting.
O = At least one of these "O" (Optional) criteria in each category (i.e., clinical evidence and laboratory evidence) in the same column—in conjunction with all "N" criteria in the same column—is required to identify a case for reporting. (These optional criteria are alternatives, which means that a single column will have either no O criteria or multiple O criteria; no column should have only one O.)

C. Disease Specific Data Elements:

Disease-specific data elements to be included in the **initial report** are listed below.

State
County
Age
Sex
Ethnicity
Race
Date of illness onset
Animal Exposure
Date of travel to influenza H5N1 endemic country
Influenza test type
Influenza test result

VII. Case Definition for Case Classification

A. Narrative description of criteria to determine whether a case should be classified as confirmed, probable (presumptive), or suspected (possible) is provided below:

Clinical Presentation

An illness compatible with influenza virus infection (fever >100 degrees Fahrenheit with cough or sore throat).

Laboratory Evidence

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 CDC's influenza laboratory.

Criteria for epidemiologic linkage: a) the patient has had contact with one or more persons who either have or had the disease and b) 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.

Case Classification

Confirmed: A case of human infection with a novel influenza A virus confirmed by CDC's influenza laboratory.

Probable: A case meeting the clinical criteria and epidemiologically linked to a confirmed case, but for which no laboratory testing for influenza virus infection has been performed.

Cases under investigation: A case meeting 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 H3 viruses is classified as a suspected case until the confirmation process is complete.

B. Classification Tables

Table VII-B lists the criteria that must be met for a case to be classified as confirmed and probable (presumptive).

Table VII-B. Table of criteria to determine whether a case is classified.

Criterion	Case Definition		
	Confirmed	**Probable**	**Case Under Investigation**
Clinical Evidence			
Fever		N	N
Cough		O	O
Headache		O	O
Myalgia		O	O
Severe pharyngeal pain		O	O
Laboratory Evidence			
Novel influenza A virus confirmed by CDC's influenza laboratory.	S	S	
Laboratory test to confirm novel influenza A virus pending			N
Epidemiologic Evidence			
Contact to a confirmed case of novel influenza virus infection		N	

Notes:
S = This criterion alone is Sufficient to classify a case.
N = All "N" criteria in the same column are Necessary to classify a case.
O = At least one of these "O" (Optional) criteria in each category (i.e., clinical evidence and laboratory evidence) in the same column—in conjunction with all "N" criteria in the same column—is required to classify a case.

VIII. Period of Surveillance

Surveillance should be on-going.

IX. Data sharing/release and print criteria

Notification to CDC for confirmed cases of novel influenza is recommended.

- Data reported to the Influenza Division staff is collaboratively investigated with the state health department of the reporting state. Electronic reports of confirmed cases in NNDSS are summarized weekly in the MMWR Table 1. Annual case data is also summarized in the yearly Summary of Notifiable Diseases.
- Novel influenza detections that pose a significant public health threat are reported immediately. In other case scenarios, the frequency of reports/feedback to the states and territories will be dependent on the current epidemiologic situation in the country. Frequency of cases, epidemiologic distribution, transmission risk, and other factors will

influence frequency and method of communication and information feedback. State-specific compiled data will continue to be published in the weekly and annual MMWR.

- State-specific compiled data will continue to be published weekly in the MMWR and influenza activity report, FluView, then in the annual MMWR Summary. All cases are verified with the states/territories before publication, and only cases confirmed by CDC/CCID/ID will be reported.
- CDC's notification to all parties is conducted through the weekly influenza activity report, FluView.

X. References

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