



Interim WHO guidance for the surveillance of human infection with swine influenza A(H1N1) virus

27 April 2009

Introduction

The audiences for this guidance document are the National Focal Points for the International Health Regulations (IHR(2005)) and competent national public health authorities. The primary focus of this guidance document is global surveillance. It also gives some suggestions on the types of signals that Member States and IHR States Parties can capture in their event-based surveillance. These signals can aid identification of individuals for whom investigation of swine influenza A(H1N1) virus infection is warranted.

This is an interim WHO guidance on the global surveillance of the emerging swine influenza A(H1N1) virus infection. This is a living document that will be reviewed on a weekly basis and modified in accordance with changes in the epidemiology of this virus. As the event evolves, there will be a need to switch surveillance activities to the longer-term monitoring of the disease. WHO will alert countries when a change in surveillance objectives and methods occurs. WHO's data requirements will remain as flexible as possible to accommodate different surveillance systems and reporting capacity around the world.

This document will form part of a suite of guidance documents being produced by WHO in response to this public health emergency of international concern as determined by the Director General of WHO on 25 April 2009. New influenza virus sub-types and clusters of unknown and unusual disease are notifiable to WHO in accordance with the Annex 2 decision instrument of the IHR (2005).

At this early stage of the outbreak of swine influenza A(H1N1) virus, the main aims of surveillance are the early warning of virus spread and laboratory confirmation of virus circulating in new geographical areas and countries. Accordingly, WHO encourages all Member States and IHR States Parties to enhance their surveillance and diagnostic capacity for influenza and other acute respiratory infections, building on existing surveillance structure and resources.

Objectives of enhanced global surveillance for human infections with swine influenza A(H1N1) virus

Specific objectives of this surveillance activity are to guide global prevention and control activities through the following actions:

1. Detect and confirm cases of swine influenza A(H1N1) virus infection
2. Establish the extent of international spread of swine influenza A(H1N1) virus infection
3. Assist in the early severity assessment of the disease

Case definitions for infections with swine influenza A(H1N1) Virus

In order to understand the spectrum of severity of the disease caused by swine influenza A(H1N1) virus infection, the clinical case description includes both mild form of influenza-like illness (ILI) and more severe forms (lower respiratory tract infections including pneumonia and severe acute respiratory illness (SARI)). In addition, asymptomatic laboratory-confirmed infections should be reported.

The following case definitions are for the purpose of reporting probable and confirmed cases of swine influenza A(H1N1) virus infection to WHO.

Clinical case description

Acute febrile respiratory illness (fever $>38^{\circ}\text{C}$) with the spectrum of disease from influenza-like illness to pneumonia.

1. A **Confirmed case** of swine influenza A(H1N1) virus infection is defined as an individual with laboratory confirmed swine influenza A(H1N1) virus infection by one or more of the following tests*:
 - real-time RT-PCR
 - viral culture
 - four-fold rise in swine influenza A(H1N1) virus specific neutralizing antibodies.

2. A **Probable case** of swine influenza A(H1N1) virus infection is defined as an individual with an influenza test that is positive for influenza A, but is unsubtypeable by reagents used to detect seasonal influenza virus infection **OR**

A individual with a clinically compatible illness or who died of an unexplained acute respiratory illness who is considered to be epidemiologically linked to a probable or confirmed case.

* Note: The test(s) should be performed according to the most currently available guidance on testing (<http://www.who.int/csr/disease/swineflu/en/index.html>).

Reporting requirements for confirmed and probable cases of swine influenza A(H1N1)

Under the IHR (2005), immediate reporting to WHO is required for human influenza due to a new influenza virus sub-type. All information will be treated in accordance with the IHR (2005) provisions.

Reports should be sent by the National IHR Focal Point to the relevant WHO IHR Contact Point at the WHO Regional Office, the WHO Country Representative, where applicable, and WHO headquarters in Geneva should be copied on the correspondence (<http://www.who.int/csr/alertresponse/ihreventinfo/>).

Reporting of individual(s) or clusters under investigation for swine influenza A(H1N1) virus infection

Countries that identify unusual clusters of acute respiratory illness should immediately notify WHO. These consultations will not be reflected in global statistics until their investigation confirms that they are laboratory-confirmed or probable cases.

Definition of cluster

A cluster is defined as two or more persons presenting with manifestations of unexplained, acute respiratory illness with fever $>38^{\circ}\text{C}$ or who died of an unexplained respiratory illness and that are detected with onset of illness within a period of 14 days and in the same geographical area and/or are epidemiologically linked.

Triggers/signals for the investigation of possible cases of swine influenza A(H1N1)

The primary focus of early investigation is to trigger the initial investigation. Specific triggers include:

- Clusters of cases of unexplained ILI or acute lower respiratory disease
- Severe, unexplained respiratory illness occurring in one or more health care worker(s) who provide care for patients with respiratory disease
- Changes in the epidemiology of mortality associated with the occurrence of ILI or lower respiratory tract illness, an increase in deaths observed from respiratory illness or an increase in the occurrence of severe respiratory disease in previously healthy adults or adolescents
- Persistent changes noted in the treatment response or outcome of severe lower respiratory illness.

Epidemiological risk factors that should raise suspicion of swine influenza A(H1N1) include:

- Close contact[#] to a confirmed case of swine influenza A(H1N1) virus infection while the case was ill
- Recent travel to an area where there are confirmed cases of swine influenza A (H1N1)

[#]Close contact: having cared for, lived with, or had direct contact with respiratory secretions or body fluids of a probable or confirmed case of swine influenza A(H1N1).

Member States reporting cases of swine influenza A(H1N1) virus infection for the first time

As soon as a the National IHR Focal Point or competent national public health authority notifies WHO of the first laboratory-confirmed or probable case(s) of swine influenza A(H1N1), WHO will make available the case summary form and database for the recording of detailed clinical, laboratory and epidemiological data in accordance with WHO pandemic surveillance guidelines.

Member States where cases of swine influenza A(H1N1) virus infection have already been reported

Until further notice, the National IHR Focal Points or competent national public health authorities should report to WHO all probable and confirmed cases on a daily basis. Deaths should be reported for both probable and confirmed cases.

WHO will present the cumulative number of cases for global reporting back to Member States and the public. This activity will only continue for the initial period of data collection.

In order to understand the severity of the disease it is very important that comprehensive data collection and follow up is carried out for all probable and confirmed cases of swine influenza A(H1N1) virus infection. WHO's data requirements are detailed in the *Global Surveillance during an Influenza Pandemic Version 1 Updated draft April 2009* (Comprehensive Assessment, Clinical characteristics: Database of information for 100 cases). Many countries and territories will have already developed questionnaires for influenza A(H5N1) related investigation. These can be adapted and used for the investigation of individuals for whom swine influenza A(H1N1) virus infection is considered.

Confirmed and probable cases reported are to be attributed to the country or territory in which they are currently located or where they have died. Changes in case classification from probable to confirmed, as well as determination of the final outcome of the disease, should be signalled when reporting and will be reflected in the updates to be published by WHO.

The reported case-based data will be used by WHO to compile daily global surveillance summaries. These summaries will be presented on the WHO headquarters website (<http://www.who.int>) as the latest cumulative case count and maps of geographical distribution.

Access to Laboratory Confirmation

Countries without current capacity to confirm swine influenza A(H1N1) should contact WHO to arrange access to a laboratory with this capability.