Policy and guidelines

NEW SURVEILLANCE CASE DEFINITION: AVIAN INFLUENZA IN HUMANS (AIH)

The Case Definitions Working Group (CDWG) is a subcommittee of the CDNA and comprises members representing all states and territories, the Australian Government Department of Health, the Public Health Laboratory Network, OzFoodNet, the Kirby Institute, the National Centre for Immunisation Research and Surveillance and other communicable disease experts. CDWG develops and revises surveillance case definitions for all diseases reported to the National Notifiable Diseases Surveillance System. Surveillance case definitions incorporate laboratory, clinical and epidemiological elements as appropriate.

The following new case definition has been reviewed by CDWG and endorsed by CDNA.

This case definition was implemented on 1 July 2015.

Avian influenza in humans (AIH)

Reporting

Both confirmed cases and probable cases should be notified. Suspected cases shouldn't be notified.

Confirmed case

A confirmed case requires laboratory definitive evidence AND clinical evidence

Laboratory definitive evidence

Isolation of an Avian Influenza (AI) virus

OR

Detection of AI by nucleic acid testing using two different targets, e.g. primers specific for influenza A and AI haemagglutinin (genetic sequencing should be employed to confirm diagnosis);

OR

A fourfold or greater rise in antibody titre to the AI virus detected in the outbreak (or AI virus suspected of causing the human infection), based on testing of an acute serum specimen (collected 7 days or less after symptom onset) and a convalescent serum specimen. The convalescent neutralising antibody titre must also be 80 or higher.

OR

An antibody titre to the AI virus detected in the outbreak (or AI virus suspected of causing the human infection) of 80 or greater in a single serum specimen collected at day 14 or later after symptom onset. The result should be confirmed in at least two different serological assays (i.e haemagglutinin-inhibition, microneutralisation, positive Western blot, etc).

Note: Tests must be conducted in a national, regional or international influenza laboratory whose Avian Influenza in Humans (AIH) test results are accepted by WHO as confirmatory

Clinical evidence

An acute illness characterised by:

a. Fever (>38ºC) or history of fever AND one or more of; cough OR rhinorrhoea OR myalgia OR headache OR dyspnoea OR diarrhoea;

OR

b. Conjunctivitis

OR

c. infiltrates or evidence of an acute pneumonia on chest radiograph plus evidence of acute respiratory insufficiency (hypoxaemia, severe tachypnoea).

Probable case

A probable case requires laboratory suggestive evidence AND Clinical evidence AND Epidemiological evidence

Laboratory suggestive evidence

Confirmation of an influenza A infection but insufficient laboratory evidence for AIH infection.

Clinical evidence

As with confirmed case

Epidemiological evidence

One or more of the following exposures in the 10 days prior to symptom onset:

a. Close contact (within 1 metre) with a person (e.g. caring for, speaking with, or touching) who is a probable, or confirmed AIH case;

b. Exposure (e.g. handling, slaughtering, defeathering, butchering, preparation for consumption) to poultry or wild birds or their remains or to environments contaminated by their faeces in an area where AI infections in animals or humans have been suspected or confirmed in the last month;

c. Consumption of raw or undercooked poultry products in an area where AI infections in animals or humans have been suspected or confirmed in the last month;

d. Close contact with a confirmed AI infected animal other than poultry or wild birds (e.g. cat or pig);

e. Handling samples (animal or human) suspected of containing AI virus in a laboratory or other setting.

Suspected case

A suspected case requires clinical evidence AND epidemiological evidence

Clinical evidence for suspected case

As with confirmed case

Epidemiological evidence

As with probable case.

Note: For overseas exposures, an AI-affected area is defined as a region within a country with confirmed outbreaks of AI strains in birds or detected in humans in the last month (seek advice from the National Incident Room when in doubt). With respect to the H5N1 AI outbreak that commenced in Asia in 2003, information regarding H5-affected countries is available from the World Health Organization Global Health Observatory Map Gallery (http://gamapserver.who.int/mapLibrary/). With respect to the H7N9 outbreak that commenced in eastern China in 2013, information regarding H7-affected countries is available from the World Health Organization Avian influenza web site (http://www.who.int/influenza/human_animal_interface/influenza_h7n9/en/).