

Chief Health Officer Advisory

12 February 2015

Status: Active

H7N9 Influenza

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Date issued: 12 February 2015

Issued by: Dr Rosemary Lester, Chief Health Officer, Victoria

Issued to: Clinicians and Laboratories

Key messages

- **Current situation** - As of 4 February 2015*, 571 cases of avian influenza A (H7N9), including 204 deaths, have been reported in China (including Hong Kong). Although the environmental source has not yet been definitively determined, some of the confirmed cases have been associated with exposure to infected live poultry or contaminated environments, including markets where live poultry are sold.

See WHO website on the current situation, including epidemiological updates, FAQs and guidance documents: Disease Outbreak News (<http://www.who.int/csr/don/en/index.html>)

- **Cases predicted in 2015** - There have been two waves of human infections with avian influenza A (H7N9) in China in 2013 (starting in February and peaking in April) and 2014 (starting in December and peaking in February) and WHO is predicting that it likely that we will see a similar picture in 2015, with more human cases in China covering a wider geographical area.

Chinese New Year will be celebrated on 19 February 2015, it is also expected that during the month of February the number of incoming passengers to Australia from China will rise substantially. With the anticipated increase in incoming passengers during this period there is a possibility of cases of H7N9 presenting in Australia.

- **Prevention** - It is important to promote prevention measures in travellers to China (see travel advice).
- In patients with pneumonia with a history of travel to China within seven days of illness onset, or contact with known confirmed or probable cases, the following is recommended:
 - Place the patient in a single room with negative pressure air-handling, or a single room from which the air does not circulate to other areas, and implement standard and transmission-based precautions (contact and airborne), including the use of personal protective equipment (PPE).
 - Investigate and manage the patient as for community acquired pneumonia.
 - Arrange testing of any suspected or probable cases (see case definition) in accordance with the instructions below. Contact the Communicable Disease Prevention and Control Section on 1300 651 160 to arrange testing.
 - Notify any suspected, probable or confirmed cases promptly to the Department on the above number.

* WHO is periodically updating its WHO Risk Assessments – which include the latest figures of human infections

What is the issue?

Influenza (A)H7 viruses are a group of influenza viruses that normally circulate among birds. H7N9 is a reassortant derived from three different avian influenza viruses. Unlike other influenza strains, including highly pathogenic avian influenza H5N1, this new virus is hard to detect in poultry because this virus causes little to no signs of disease in animals.

Although there is no evidence of human-to-human transmission of H7N9 to date, sequence analysis indicates the virus has properties to infect mammalian cells; therefore, the potential for avian-human and human-human transmission exists but requires further investigation. Sequences previously associated with high virulence of A(H7) in humans (PB2 gene) have been detected in isolates in the current outbreak

An animal influenza virus that develops the ability to transmit easily from person to person could theoretically carry a risk of causing a pandemic. However, at present this virus is causing disease in people through exposure to poultry or contaminated environments. Whether the H7N9 virus will ever change to transmit easily from person to person and actually cause a pandemic is unknown.

Who is at risk?

The routes of transmission to humans of the H7N9 influenza have not yet been fully determined, but there is currently no evidence that this strain can spread easily from human to human.

Health care workers often come into contact with patients with infectious diseases. Infection prevention and control recommendations for suspected, probable and confirmed cases aim to provide the highest level of protection for health care workers, given the current limited state of knowledge.

Symptoms and transmission

H7N9 has been identified in patients with severe pneumonia. Common symptoms include fever, cough and shortness of breath. There have only been a small number of people who presented with influenza-like symptoms and then recovered without medical attention.

Testing information

Who do I test for H7N9 influenza?

Testing should be considered for:

1. Individuals with pneumonia and history of travel to, or residence in China within the previous 7 days.
2. Individuals with pneumonia and history of contact with those in point 1 above.
3. Health care workers with pneumonia, who have been caring for patients with severe acute respiratory infections, particularly patients requiring intensive care, without regard to place of residence or history of travel.

How do I test for H7N9 influenza?

- Where H7N9 infection is suspected, samples should be referred to the Victorian Infectious Diseases Reference Laboratory for testing. Specimens can be handled and transported routinely. They should be clearly identified as requiring urgent testing for influenza A/H7N9, and separated from non-urgent specimens. Please notify the Communicable Disease Prevention and Control Section on 1300 651 160 when considering testing.
- Collect combined nose and throat swabs (usually from adults) or nasopharyngeal aspirates (usually from children) and place in viral transport medium. Sputum is strongly recommended wherever possible. Bronchoalveolar samples and lung biopsy should also be sent if available.
- Gloves, gown, P2 mask and eye protection should be worn as a minimum when collecting samples from patients. If a negative pressure room is unavailable, the patient should be placed in a single room with the door closed.
- Testing for other infectious causes can be undertaken at the referring laboratory using PC2 precautions, processing of samples in a biosafety cabinet and use of PPE including a surgical mask and eye protection. Routine tests for acute pneumonia should be performed where indicated, including bacterial culture, serology, urinary antigen testing and tests for influenza viruses.

- The laboratory carrying out the influenza testing should immediately refer all unsubtypeable or presumptive H7 influenza A virus to VIDRL or the WHOCC in Melbourne.
- Laboratory staff should handle specimens under enhanced PC2 conditions, with handling of open samples in a biosafety cabinet and the use of gloves, gowns, masks and eye protection. PC3 conditions are required for virus culture.

Advice for contacts of cases

Contacts of cases should be directed to the Communicable Disease Prevention & Control Section (Ph. 1300 651 160) for advice.

Travel advice

WHO does not advise special screening at points of entry with regard to this event, nor does it currently recommend any travel or trade restrictions.

Advice for travellers to China - Travellers to countries with known outbreaks of avian influenza should avoid poultry farms, or contact with animals in live bird markets, or entering areas where poultry may be slaughtered, or contact with any surfaces that appear to be contaminated with faeces from poultry or other animals. Travellers should also wash their hands often with soap and water. Travellers should follow good food safety and good food hygiene practices.

Advice for returned travellers - At this time, if returned travellers meet the testing criteria but have a less severe respiratory illness, advice regarding further management should be sought from the Communicable Disease Prevention and Control Section (Ph. 1300 651 160).

More information

Clinical information –

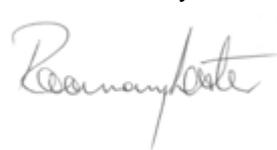
Health information for travellers to China is available at Smart Traveller
<http://www.smarttraveller.gov.au/zw-cgi/view/Advice/China>

Information on pandemic preparedness is contained in the Victorian health management plan for pandemic influenza available at: <http://www.health.vic.gov.au/pandemicinfluenza/>

UN Food and Agriculture Organization of the United Nations (FAO)
<http://www.fao.org/news/story/en/item/173655/icode/>

If you have a suspected case call the Communicable Disease Prevention and Control Section on 1300 651 160.

Yours sincerely



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Chief Health Officer

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