Australian Government

Department of Health and Ageing

UPDATE: 5 MAY 2009

CHIEF MEDICAL OFFICER

Dear Colleague,

H1N1 Influenza 09 (Human Swine Influenza) outbreak: Current situation

This letter is to update you further on developments globally and actions undertaken by the Department of Health and Ageing with respect to this outbreak and suggested public health and clinical management. Updates will be provided on a regular basis as the situation evolves.

As of 0600 5th May, we are aware of confirmed cases of this strain of influenza in a broad spread of countries across the Americas, Canada, Europe and Asia. Countries include Mexico, Canada, USA, Austria, Costa Rica, Denmark, France, Germany, Israel, Hong Kong, New Zealand, Netherlands, Peru, South Korea, Spain and Switzerland. At this time there were 1085 WHO confirmed cases worldwide with 26 confirmed deaths (25 of these in Mexico, 1 in the USA) and 3673 suspected cases. The majority of cases outside of Mexico are still being reported as a mild illness only. However this needs ongoing monitoring.

There are NO confirmed cases in Australia at this stage. States and Territories have investigated approximately 454 suspected cases and excluded approximately 89% of these. For the remainder, results of investigations are pending.

Actions that are currently being coordinated and undertaken by the National Incident Room (NIR), along with jurisdictional colleagues in the Australian Health Protection Committee (AHPC) are as follows:

- Regular and updated advice to General Practitioners and Emergency Departments providing the updated definitions of a suspected case and contact, and advising on actions to be taken for management of suspected cases and contacts;

  Note: this information is subject to change as the situation unfolds. (See Attachment A)

- State and Territory Public Health Units have increased surveillance, and are able to advise and assist you in the detection and management of cases and contacts;
- Enhanced surveillance has been enacted at international airports for inbound flights, including in-flight announcements. Passengers are now required to fill out Health Declaration Cards and thermal scanners to help detect suspected cases of *H1N1 Influenza 09 (Human Swine Influenza)* are being used at all major airports receiving international flights;

- Persons identified with influenza like illness are assessed by a Quarantine Officer at the airport. A clinical presence is available at airports to assist with entry screening and case detection;
- An information hotline, Commonwealth Health Hotline for Swine Influenza (Telephone 180 2007) has been established. A website www.healthemergency.gov.au is also operational. The healthemergency website will continue to be updated with clinical, public health and other information;
- For travel advice, the Department of Foreign Affairs and Trade (DFAT) has published a H1N1 Influenza 09 (Human Swine Influenza) Travel Bulletin on the SmarTraveller website which provides detailed advice to Australians travelling and living overseas. DFAT has advised Australians to reconsider their need to travel to Mexico and is regularly updating its travel advisories to Mexico and other affected countries.

The Communicable Diseases Network Australia (CDNA) has considered the available information to date about H1N1 Influenza 09 (Human Swine Influenza) Infection at its daily meetings. I am attaching a summary of information relevant to your practice and patients (Attachment A). Further information will be provided in updates to the website www.healthemergency.gov.au.

Please report any suspected cases (defined in Attachment A) promptly to your local Public Health Unit. Public Health Unit staff can assist with identification of cases and contacts and provide advice about whether antiviral therapy is appropriate. Antiviral therapy prescribing needs to be carefully targeted to those who will benefit *based on clear indications*. Public Health Unit staff will arrange urgent tracing of contacts of 'Influenza A-positive-suspected' and confirmed cases. A contact list for Public Health Units has been provided for ease of reference (Attachment B).

In summary, the outbreak now involves more countries. The Mexican experience is associated with a higher case fatality rate but more testing will define this situation more clearly. Elsewhere, the disease appears mild. This could reflect a good public health response. There are no confirmed cases in Australia, but we expect that there will be cases. Then, we will contain the disease by careful isolation, contact tracing and treatment. I believe the public and the profession have reacted well to this issue being aware of the disease but not unduly anxious about it.

Yours sincerely

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MD MMed MBBS FRACP FRCPA

4 May 2009

Attachment A

H1N1 influenza 09 (Human Swine Influenza) Infection Australia: Delay Phase[1]

Update as of 4th May 09

1. The disease

Infectious agents
H1N1 influenza 09 (Human Swine Influenza) infecting humans is a novel influenza A virus infecting humans. Influenza viruses are composed of an RNA core surrounded by an envelope containing two surface glycoproteins - haemagglutinin and neuraminidase. These antigens have the ability to rapidly mutate and produce minor or major changes to the antigenic structure, known as antigenic drift and antigenic shift respectively. H1N1 influenza 09 (Human Swine Influenza) appears to be formed through reassortment of human and swine-origin influenza strains, creating an virus against which humans have little or no immunity.

Mode of transmission
Definitive information regarding the mode of transmission of H1N1 influenza 09 (Human Swine Influenza) is not yet available, however it seems likely that it shares the same transmission dynamics as seasonal influenza – i.e. it is most commonly spread from person-to-person by inhalation of infectious droplets produced while talking, coughing and sneezing. Transmission may also occur through direct and indirect (fomite) contact. The virus may persist on hard surfaces for 1-2 days, particularly in cold or low humidity conditions. **The virus may remain viable on hands for 5 minutes.**

Incubation Period
While the maximum incubation period could be seven days, a shorter incubation period of up to three days is common.

This may change as more information about the H1N1 influenza 09 (Human Swine Influenza) virus is available.

Infectious period
The infectious period is assumed to be from 24 hours (one day) prior to the onset of symptoms until either 7 days after the onset of symptoms or until the acute respiratory symptoms have resolved , which ever is the longer period. Note: this may change as more information becomes available about the disease.

Clinical presentation
The characteristics of the typical presentation with H1N1 influenza 09 (Human Swine Influenza) are still be determined. Seasonal influenza typically commences with symptoms of fever, cough, fatigue, sore throat, headache, myalgia, arthralgia and rigors or chills.

Information to date is that 95% of cases of H1N1 Influenza 09 (Human Swine Influenza) reported fever, plus cough and/or sore throat, which is a generally accepted definition for influenza-like illness.

[1] Australian Health Management Plan for Pandemic Influenza 2008. Commonwealth of Australia 2008

Symptoms of pneumonia may be present if lower respiratory tract infection occurs (breathing difficulty, productive cough, bloody sputum, pain when breathing). Chest X-rays may show pneumonia. Acute respiratory distress syndrome (ARDS) may develop several days after disease onset.

2. Case definition

(Case definitions are subject to regular review. Further updates will be available on the website www.healthemergency.gov.au)

Case definitions may need to change depending on the epidemiological characteristics of the new influenza virus, and the stage of the H1N1 influenza 09 (Human Swine Influenza) response. The following case definitions have been agreed for use within Australia by the CDNA. These case definitions will be effective from **Sunday 3 May 2009**.

Start date for case collection: onset 15 April 09.

A suspected case of human swine influenza A (H1N1) virus infection is defined as a person with acute febrile respiratory illness* with onset:

- within 7 days of close contact with a person who is a confirmed case of human swine influenza A (H1N1) virus infection or a suspected case with an influenza A positive test result OR
- within 7 days of travel to Mexico, USA or Canada (or other countries where there is evidence of local transmission).

A suspected case with an influenza A positive result is defined as a person who meets the suspected case definition AND who is positive for influenza A by PCR (but not for influenza A H3 sub-type, if known), OR by an influenza rapid antigen or other antigen test eg immunofluorescence assay (IFA)..

A confirmed case of human swine influenza A (H1N1) virus is defined as a person with an acute febrile respiratory illness* with laboratory confirmed human swine influenza A (H1N1) virus infection by one or more of the following tests:

- viral sequencing
- human swine influenza (H1N1) specific -PCR
- viral culture

*An acute febrile respiratory disease is defined as a measured temperature of 38^0C or greater OR a good history of fever, AND recent onset of at least one of the following symptoms: rhinorrhoea, nasal congestion, sore throat or cough.

3. Testing

Suspected cases should be tested for respiratory viruses using nose and throat swabs, provided this can be done within 7 days of onset. Nasopharyngeal aspirates are <u>not</u> recommended unless the

specimen can be collected safely in a controlled clinical setting. Swabs from suspected cases should be sent directly to the State/Territory reference laboratory for urgent testing for respiratory viruses. Specimens that test positive for influenza A by PCR should be urgently typed. Until such time as there are specific PCR tests available for H1N1 influenza 09 (Human Swine Influenza) in local laboratories, specimens typed as influenza A H1 positive or influenza A H1/H3 negative should be sent urgently to the WHO Collaborating Centre for Influenza in Melbourne to be tested for H1N1 influenza 09 (Human Swine Influenza). Blood, rather than swabs, should be collected for future serologic testing for suspect cases where presentation is more than 7 days after onset, and may also be collected at the same time as swabs are collected in other cases, depending on circumstances.

4. Case management

- All persons meeting the definition for a suspected case must be assessed urgently and notified to the local Public Health Unit promptly.

- Antiviral treatment should be given to 'Suspected', 'Influenza A-positive-suspected' and 'Confirmed' cases within 48 hours of illness onset. Antiviral treatment may be commenced more than 48 hours after onset in rare circumstances where clinically indicated.

- Public Health Unit staff will assist with identification of cases for treatment, and appropriate medication and dosage regimes.

- The H1N1 influenza 09 (Human Swine Influenza) virus is susceptible to oseltamivir (Tamiflu) and zanamivir (Relenza), but is resistant to amantadine.

- 'Suspected', 'Influenza A-positive suspected' and 'Confirmed' cases must be isolated at home until the diagnosis is excluded or the infectious period is over.

- Cases in home isolation should wear a surgical mask when in the same room as other household members and stay at least 1 metre distant. Where possible they should sleep in a separate room.

- State and Territory Public Health Unit staff will assist with provision of information about the illness, antiviral and mask usage, requirements for isolation and hygiene measures. Public Health Unit staff will ensure isolated cases are contacted regularly to assess their clinical progress.

- Case isolation may be ceased when the case is no longer in the infectious period, or when H1N1 influenza 09 (Human Swine Influenza) has been excluded OR an alternative diagnosis that is consistent with the case's symptoms has been made.

5. Contact management

Contact definition

Only people in close contact with an 'Influenza A-positive suspected case or a confirmed case require public health intervention. Therefore, contacts are defined as people who, during the infectious period (see **Infectious Period**) of an Influenza A-positive suspected case or a confirmed case, were:

- household members;
- close workplace contacts, including people sharing an office or cubicle area or whose work has brought them into close physical proximity (sitting within one metre for at least 15 minutes) with the case, but not people who share general office space;

- members of a case's class or child care group and their teacher / child care supervisor, where the case is a child in the same class for most of the day;
- others in close physical proximity (sitting within one metre for at least 15 minutes), but not other people who share the classroom, where the case is a child in multiple classes in a day (such as in a typical secondary school setting);
- other contacts identified by a case, household members or workplace associates of the case, as having been in close physical contact (hugging, kissing, sitting within one metre for at least 15 minutes);
- passengers and crew travelling on an aircraft with a case as defined below:
    1. passengers seated in the same row, and within two (2) rows in front of and behind the case;
    2. any passengers identified by the case who moved from elsewhere in the aircraft to spend more than 15 minutes near a case;
    3. airline staff (unless they did not service the section of the plane in which a case was seated).

Public Health Unit staff will arrange urgent tracing of contacts of 'Influenza A-positive-suspected' and confirmed cases.

Chemoprophylaxis and education

Contacts of Suspected plus Influenza A-positive and 'Confirmed' cases should receive antiviral medication, in order to reduce the risk of infection and transmission, provided it is commenced within 7 days of last contact with the case while the case was still infectious.

Particularly vulnerable contacts (eg those with underlying disease or elderly) of suspected cases should be considered for prophylaxis.

Public Health Unit staff will assist with identifying contacts who are eligible for chemoprophylaxis and appropriate medication and dosage regimes. Public Health Unit staff will provide information to contacts about the illness and the symptoms to look for, hand hygiene and other measures.

Quarantine and isolation

Contacts of Suspected plus Influenza A-positive and confirmed cases should be quarantined at home for up to 7 full days since the last exposure to H1N1 influenza 09 (Human Swine Influenza) Infection (that is, while the case is considered to be infectious), if the contact has not become symptomatic during that time.

Contacts of *suspected plus influenza A-positive* cases should be quarantined at home and advised as follows:

- Leaving the home is not permitted except for essential purposes as agreed by the Public Health Unit or delegate, and provided they remain more than 1 metre away from other people at all times.
- They should remain more than 1 metre away at all times from other people in the house
- Where possible, they should sleep in a room on their own.

Contacts of ***'Confirmed'*** cases should be quarantined at home.

- They should not leave the house.
- They should not go to work, school, college or public or social events.
- They should remain more than 1 metre away at all times from other people in the house, if possible
- Where possible, they should sleep in a room on their own.

Contacts are not required to wear masks.

Contacts will be followed up by Public Health Unit staff on a regular basis to assess their clinical status and ensure they are observing restrictions and taking any antiviral prophylaxis prescribed. Contacts will be instructed to notify Public Health Unit staff immediately if they develop symptoms. Public Health Unit staff will arrange for medical assessment if a quarantined contact develops symptoms.

Criteria for lifting quarantine restrictions: Quarantine of contacts may be ceased when:

- the person for whom they are a contact has been excluded as a case, or
- up to 7 full days have elapsed since the last exposure to H1N1 influenza 09 (Human Swine Influenza), (that is, while the case is still considered to be infectious), if the contact has not become symptomatic during that time.

6. Risk assessment

Routine prevention activities
Routine advice regarding hygiene and cough etiquette is relevant to human infections with H1N1 influenza 09 (Human Swine Influenza). No specific vaccine is currently available and preliminary reports suggest available seasonal vaccines is unlikely to provide protection.

Threat and vulnerability
As H1N1 influenza 09 (Human Swine Influenza) has not been seen in human populations before, the Australian community is susceptible to infection. There are limited serological studies that suggest people over 60 years have some immunity.

Risk mitigation
In the Delay Phase of the Australian response to a pandemic virus, public health activity is focussed on mitigating the risk of entry and transmission of the virus in the population through:

- Heightened awareness among incoming international passengers through measures such as positive pratique, announcements on aircraft, signage in arrival halls and completion of passenger declaration cards;
- Health screening clinics at international air borders;
- Heightened public and health care worker awareness, facilitating early case detection, isolation and treatment of cases, and appropriate management of exposed contacts; and
- Enhanced surveillance.

Attachment B

State and Territory Health Department Communicable Disease Contacts

The following phone numbers should be used by medical practitioners for the reporting of communicable disease cases and for assistance in the management of communicable disease outbreaks:

Australian Capital Territory

(02) 6205 2155

New South Wales

The reporting of communicable disease cases in New South Wales is facilitated by the individual Public Health Units (http://www.health.nsw.gov.au/public-health/phus/phus.html)

Northern Territory

(08) 8922 8044
a/h Royal Darwin Hospital: (08) 8922 8888

Queensland

(07) 3234 1155

South Australia

(08) 8226 7177

Tasmania

0408 532 708

Victoria

1300 651 160

Western Australia

(08) 9388 4999 (bh)
(08) 9328 0553 (ah)