

## Information provided by Ministry of Health, 01 July 2009

### Guidance on the diagnosis and management of Novel Influenza A (H1N1) 09 in the Pandemic 'Management' phase No 2.

This guidance updates initial guidance provided 19 June 2009 and includes procedures for collecting nasopharyngeal samples and the use of antiviral medications. The current case definitions are appended.

## 1 Diagnosis

Diagnosis will be based largely on history and clinical presentation. In most people, it will not be possible to distinguish Novel Influenza A (H1N1) 09 infection from seasonal influenza. However, management will be similar in most cases, in particular for people with mild to moderate disease.

### 1.1. Testing

**Routine collection of nasopharyngeal samples in primary care is not recommended.** Health workers should prioritise taking nasopharyngeal samples according to this guidance and any further guidance from local Public Health Units, in light of local laboratory capacity. Nasopharyngeal viral samples should only be taken from people with symptoms. If the health worker is not confident in their ability to take a pernasal nasopharyngeal sample, then a nasal sample can be substituted.

Testing should now be limited to the following three indications:

- General practices who are part of the national influenza **sentinel surveillance** programme, which is currently being enhanced, should continue collecting samples as per the usual protocol. This will be an important part of overall surveillance for Novel Influenza A (H1N1) 09.
- Where **clinically indicated** for individuals
- Where indicated for **public health or infection control** reasons.

See more details below.

Nasopharyngeal samples for Novel Influenza A (H1N1) 09 testing are to be taken within the first 48 hours of symptom onset for people presenting with influenza-like illness [defined as (i) history of fever, chills and sweating **or** clinically documented fever  $\geq 38^{\circ}\text{C}$ , **plus** (ii) cough **or** sore throat].

#### WHEN TO TAKE NASOPHARYNGEAL SAMPLES

Testing should generally be done where a result is important for the management of an individual.

The Ministry of Health recommends the following may be clinical indications for testing, if required to inform clinical management decisions:

1. **Patients with severe clinical influenza-like illness, regardless of whether they are admitted to hospital**
2. **Hospitalized patients with upper or lower respiratory tract symptoms**
3. **People with influenza-like illness at high risk of influenza-related complications.**

The Ministry of Health recommends testing if there is a public health or infection control rationale in the following situations:

4. **For people who live or work in high risk institutions (see below)**
5. **For the purpose of cluster identification and control, or infection control.**

It is likely to be sufficient to test a small sample of close contacts in the identification of clusters. The extent of testing is at the discretion of the local Public Health Unit. Nasopharyngeal samples are appropriate to diagnose Novel Influenza (H1N1) 09 and inform outbreak control among people who work in health care settings and essential services.

### **1.2. Samples from people on antiviral medication**

Antiviral medication reduces the yield from viral samples. If an adult case has commenced a twice-daily treatment course of antiviral medication, do not take a sample. Children excrete a higher viral load. If a child case has been on a twice-daily treatment course of antiviral medication for >48 hours do not take samples. For contacts on once-daily prophylaxis with antiviral medication who develop symptoms, a sample, if indicated, should be taken within 48 hours of commencing antiviral medication.

## **2 Management**

Most cases will be able to self manage at home and should be encouraged to do so by being provided with appropriate health advice. Cough and sneeze etiquette and hand hygiene are paramount.

### **2.1 Interim Antiviral Treatment Guidelines for Novel Influenza A (H1N1) 09 (including from the national reserve supply)**

The Ministry of Health does **not** currently recommend the routine use of antivirals for pre- or post-exposure prophylaxis.

The Ministry of Health recommends the prudent use of antivirals for treatment.

Treatment should begin within 48 hours of symptom onset for people presenting with influenza-like illness [defined as (i) history of fever, chills and sweating **or** clinically documented fever  $\geq 38^{\circ}\text{C}$ , **plus** (ii) cough **or** sore throat].

Treatment should start immediately where indicated, rather than waiting for the results of testing if this has been done.

Only consider initiating antiviral treatment after 48 hours of the onset of symptoms for people with severe clinical illness, where possible in discussion with an infectious disease physician.

## WHO TO TREAT WITH ANTIVIRALS

Antiviral use should be confined to the following groups:

### 1. All patients with severe clinical influenza-like illness, regardless of whether they are admitted to hospital

Symptomatic patients should be treated as with seasonal flu. People with moderately-severe and severe illness should be referred to hospital.

A sepsis assessment tool, such as the SIRS (see below), may be useful in deciding who to treat with Tamiflu and/or refer to hospital. This should not replace clinical judgment but rather support and/or confirm it. Note that the CRB-65 was provided in version 1 of this advice but has been removed as it is less suitable in this role.

### 2. Hospitalised patients with upper or lower respiratory tract symptoms

This includes:

- people who are hospitalised for any reason, but who are symptomatic with respiratory symptoms that could be due to influenza
- hospitalised patients who are close contacts of a confirmed case.

### 3. Symptomatic people at high risk of influenza-related complications

- People who are immune compromised or suppressed due for example to transplantation, haematological and solid organ malignancy on chemotherapy/radiotherapy, HIV, autoimmune disorders, the anti-psychotic drug clozapine<sup>1</sup> (because of white cell suppression), etc.
- Pregnant women: Pregnant women appear to have higher rates of hospitalisation with influenza for variety of reasons and fever in the first trimester is associated with twice the rate of neural tube defects in the fetus. Therefore both antipyretics and antivirals may be useful. Influenza close to the time of delivery poses extra challenges for maternal and newborn health, as well as challenges to infection prevention in the delivery suite. The Ministry's Pandemic Influenza Technical Advisory Group recommends early administration with either oseltamavir (Tamiflu) or Zanamavir (Relenza) when indicated, and oseltamavir may be more easily accessed. Neither medicine is contraindicated during pregnancy, however there is limited information related

---

<sup>1</sup> The following information was provided by the Ministry of Health's Director of Mental Health, Dr David Chaplow: In light of concerns raised about certain mental health patients' vulnerability to influenza the Ministry of Health's Pandemic Influenza Technical Advisory Group (PITAC) has agreed that patients being treated with clozapine are a special case given the white cell repression associated with that medication. PITAC found good reason to include them on the list of people who should be treated with Tamiflu early if they present with an influenza-like illness (ILI). The current definition of an ILI is (i) history of fever, chills, and sweating or clinically documented fever  $\geq 38$  °C, plus (ii) cough or sore throat. The Ministry will update our advice accordingly.

to their use. Whereas preclinical studies suggest that the risks are low, their potential to cause fetal toxicity or malformations in humans is currently unknown; therefore it is recommended that they should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus. A local obstetric or infectious diseases specialist should be consulted where there are concerns.

- Anyone over six months of age with chronic medical conditions, such as:
  - Severe or poorly controlled congestive heart failure
  - Severe chronic respiratory disease
  - More severe asthmatics (e.g. people on oral steroids, high dose steroid inhalers, or steroids and long-acting beta-agonists)
  - Renal replacement therapy.

#### **4. Symptomatic people who live or work in high risk institutions, where appropriate**

These groups of people may warrant antiviral treatment if symptomatic. Antivirals should not be used prophylactically in these groups.

- Health care and other care providers in facilities and community settings who, through their activities, are capable of transmitting influenza to those at high risk of influenza complications.
- People who provide services within closed or relatively closed settings to persons at high risk (e.g. prisons, early child care centres).
- People of any age who are residents of a nursing home and other chronic care facilities.

#### **5. As part of cluster and/or infection control, where appropriate**

### **2.2 Guidance on post-exposure prophylactic use of antiviral medications**

The Ministry of Health does **not** currently recommend the routine use of antivirals for pre- or post-exposure prophylaxis. However, there may be situations where post-exposure prophylaxis is indicated e.g. for essential workers and hospital staff where there have been significant breaches of PPE, on a case by case basis. If considering the post-exposure prophylactic use of antiviral medication (Tamiflu or Relenza), this should be discussed with your local Public Health Unit.

### **2.3 SIRS (systemic inflammatory response syndrome) criteria**

These signs may indicate significant physiologic disruption, including sepsis. White cell count is the fourth criterion, but is not included for this purpose. SIRS can be diagnosed when two or more of the following criteria are fulfilled:

- Temperature  $\geq 38$  degrees Celsius
- Heart Rate  $>90$
- Respiratory Rate  $>20$ .

## APPENDIX 1: CASE DEFINITIONS FOR NOTIFICATION OF NOVEL INFLUENZA A (H1N1) 09\* FOR PANDEMIC 'MANAGEMENT' PHASE

### **Confirmed case**

A confirmed case of Novel Influenza A (H1N1) 09 virus infection is defined as a person with laboratory confirmed Novel Influenza A (H1N1) 09 virus infection by one or more of the following tests:

- real-time RT-PCR
- viral culture
- four-fold rise in Novel Influenza A (H1N1) 09 virus specific neutralising antibodies.

### **Probable case**

A probable case of Novel Influenza A (H1N1) 09 virus infection is defined as a person with an influenza like illness\*\* who has a strong epidemiological link to a confirmed case or defined cluster.

### **Close contact**

Close contact is defined as having cared for, lived with, or had direct contact with respiratory secretions or bodily fluids of a probable or confirmed case.

\* Also termed non-seasonal influenza or influenza A (H1N1) 09.

\*\*Influenza-like illness: (i) history of fever, chills, and sweating **or** clinically documented fever  $\geq 38$  °C, **plus** (ii) cough **or** sore throat.

### **Notes**

Widespread contact tracing will not be carried out as areas move from 'containment' to 'management'.

The purpose of the new case definitions is to assist:

- with ongoing surveillance and international reporting obligations
- with clinical management decisions
- with public health or infection control responses.

There is no longer a suspected case definition as there is community transmission in several places in New Zealand and a travel history is no longer a prerequisite for having suspected Novel Influenza A (H1N1) 09.