

# Interim Advice for Health Professionals: Novel Coronavirus (2019-nCoV)

3 February 2020

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As this information is frequently updated, please ensure that you check for the updated health professional advice on Ministry website at [health.govt.nz/our-work/diseases-and-conditions/novel-coronavirus-china-2019-ncov](https://www.health.govt.nz/our-work/diseases-and-conditions/novel-coronavirus-china-2019-ncov)

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# Introduction

## Purpose

The purpose of this document is to provide health professionals, including hospital-based, community-based and public health practitioners, with information on how to identify and investigate any cases of novel coronavirus (2019-nCoV), as well as how to apply appropriate contact tracing and infection control measures to prevent its spread.

The aim of the guidance is to minimise transmission of 2019-nCoV in New Zealand, rather than to prevent the introduction of the virus to New Zealand or to detect all cases.

Information in this document is based on current advice from the World Health Organization (WHO). This guidance has taken into account that there are still questions regarding the epidemiology of the virus.

A separate document with advice for primary health care is available at: [health.govt.nz/our-work/diseases-and-conditions/novel-coronavirus-china-2019-ncov](https://www.health.govt.nz/our-work/diseases-and-conditions/novel-coronavirus-china-2019-ncov)

All advice will be updated as more information becomes available.

## Background

Coronaviruses are a large and diverse family of viruses which include some known to cause illness in animals and humans, including the common cold, Severe Acute Respiratory Syndrome (SARS) and the Middle East Respiratory Syndrome (MERS).

A novel coronavirus currently called 2019-nCoV has caused a cluster of viral respiratory illness in Wuhan. The novel coronavirus detected in Wuhan (2019-nCoV) had not previously been detected in humans or animals.

The cluster was initially reported on 31 December 2019. The Chinese authorities identified a new type of coronavirus, which was isolated on 7 January 2020. Phylogenetic analysis shows it to be related to SARS CoV, the virus responsible for the SARS pandemic which began in China in 2003<sup>1</sup>.

The number of detected cases due to 2019-nCoV have been increasing in Wuhan and elsewhere in China and individual cases have been detected in other countries. An increasing number of cases have not spent time in Wuhan. The virus can be spread through person-to-person contact. The growing number of confirmed cases is due in part to increased surveillance and testing.

The clinical signs and symptoms of 2019-nCoV infection that have been reported as ranging from non-specific respiratory symptoms such as fever, cough, sore throat to shortness of breath and symptoms of pneumonia and severe acute respiratory infection. Reports suggest that most cases have mild illness, with about 20 percent have more severe illness requiring hospitalisation (mainly due to pneumonia). The virus has an approximately two percent fatality rate with most of those who have died from the virus to date suffering from pre-existing health problems.

<sup>1</sup> [ecohealthalliance.org/2020/01/phylogenetic-analysis-shows-novel-wuhan-coronavirus-clusters-with-sars](https://ecohealthalliance.org/2020/01/phylogenetic-analysis-shows-novel-wuhan-coronavirus-clusters-with-sars)

## What is the risk to New Zealand

A risk assessment was undertaken by the Ministry of Health in the week of 27 January 2020 in consultation with their Technical Advisory Group. The risk assessment considered:

1. The likelihood of a case being identified in New Zealand
2. The likelihood of transmission of 2019-nCoV in New Zealand

The likelihood of one or more imported cases of 2019-nCoV infection in New Zealand is **high**. This assessment takes into account that the reported numbers are rapidly increasing overseas, New Zealand has close transport links to China, and Chinese New Year celebrations that are occurring in late January / early February 2020 (and associated increased travel).

The likelihood of limited person-to-person transmission is **moderate** and the likelihood of sustained transmission, and widespread outbreaks, is **low**, although it may be high in some settings (eg institutions, aged care facilities etc). This assessment takes into account the evidence to date which suggests human-to-human transmission and that there may be some transmission prior to the development of symptoms. It assumes that the timely and robust management of both cases and their contacts will limit the spread of disease.

It is important to note that this is an emerging, rapidly evolving situation and this risk assessment may change as more information on the 2019-nCoV and its epidemiology becomes available.

Because of the risk of importation of cases to New Zealand, awareness of 2019-nCoV among health care professionals is essential, particularly those working in hospitals.

## Local readiness and response plans

District Health Boards (DHBs) should make sure they have local readiness and response plans in place.

Information for border health operations has been provided through another channel. As advised by WHO there are no travel restrictions and no specific measures for travellers in place.

# Guidelines for health professionals

- Rapidly obtain a travel history from any patient with respiratory infection
- All patients with respiratory infection and recent travel history should be provided with a surgical mask upon entry to the facility

## Case definition of 2019-nCoV infection

The Ministry of Health has developed the following case definition for 2019-nCoV based on expert advice from our Technical Advisory Group. The case definition takes into account both the epidemiology of the virus as well as its clinical presentation. The criteria are provisional only and will be revised as more precise information emerges on the outbreak including characteristics of transmission, incubation and infectivity period and geographical spread.

- **Suspect case (under investigation)**

The patient is classified as a suspect case if they satisfy **both** the epidemiological and clinical criteria.

*Epidemiological criteria*

Travel to or from (including transit through) mainland China within 14 days before onset of illness

**OR**

Close contact (refer close contact section) in 14 days before onset of illness with a confirmed case of 2019-nCoV infection

*Clinical criteria*

Fever or history of fever ( $\geq 38^{\circ}\text{C}$ ) and acute respiratory infection with at least one of the following symptoms: shortness of breath, cough or sore throat.

- **Probable case**

A suspect case where other known aetiologies that fully explain the clinical presentation have been excluded, and for whom testing for 2019-nCoV is inconclusive or for whom testing is positive on a pan-coronavirus assay.

- **Confirmed case**

A person with laboratory confirmation of infection with 2019-nCoV<sup>1</sup>.

## What should be done if a patient is considered a suspect case of 2019-nCoV infection?

- Infection prevention and control precautions (standard, contact and droplets) should apply and the patient should always wear a surgical mask, and be placed in a single room.
- Immediately contact the local medical officer of health to discuss whether it should be considered as a suspect case.
- If admission or further assessment is required, the local hospital should be contacted and clearly informed that the patient is a suspect case before the patient is sent.

## **Reporting**

'Novel coronavirus capable of causing severe respiratory illness' has been added to Section B of Part 1 of Schedule 1 of the Health Act 1956 and is now a notifiable disease (effective from 30 January 2020). Notifiable diseases are required to be reported to the local Medical Officer of Health on suspicion by phone and email. Please refer to the Ministry of Health website for further information on how to notify a case of 2019-nCoV: [www.health.govt.nz/our-work/diseases-and-conditions/novel-coronavirus-2019-ncov](http://www.health.govt.nz/our-work/diseases-and-conditions/novel-coronavirus-2019-ncov).

All confirmed cases should be immediately notified by phone to the Office of the Director of Public Health.

All close contacts of a confirmed case (particularly an overseas confirmed case) should also be reported to the local Medical Officer of Health.

Under the International Health Regulations, 2005, the Ministry will also notify the WHO of a probable or confirmed case of 2019-nCoV within 24 hours of identification, by providing the minimum data set outlined in 'Interim case reporting form for 2019 Novel Coronavirus of confirmed and probable cases'.

## **Management of travellers coming from mainland China**

All travellers arriving in New Zealand from, or who have transited through, mainland China after 2 February 2020 should self-isolate for 14 days after leaving mainland China, and should be provided with information on what they need to do if they develop symptoms.

Travellers who are close contacts of confirmed 2019-nCoV cases should be followed up by the public health unit, self-isolate for 14 days following exposure, and be provided with information on what they need to do if they develop symptoms.

Travellers with respiratory illness coming from mainland China should be assessed with infection prevention and control precautions (standard, contact and droplet). If they meet the suspect case definition, they should be immediately notified by phone to the local Medical Officer of Health. In a hospital setting, the local Infectious Disease Physician should also be immediately contacted.

As the Northern Hemisphere is in the middle of the winter season, common respiratory illnesses are expected among travellers from China. It is therefore important to remind all travellers to maintain simple infection prevention and control behaviour such as basic hand and respiratory hygiene, avoiding close contacts with those suffering respiratory illness, staying home if unwell and practicing good coughing and sneezing etiquette.

Primary health care professionals should also refer to the advice for Primary Health Care (2019-nCoV) when it becomes available.

### ***Self-isolation***

Self-isolation means avoiding situations that could facilitate the transmission of the virus such as social gatherings and events where people come into contact with others in particular, child care/pre-school centres, primary and secondary schools (including staff and students), aged care, healthcare facilities, prisons, public gatherings. It also means avoiding situations that would meet our close contact criteria, such as limiting face to face contact (less than 1 metre) to less than 15 minutes in any setting

# Minimum precautions to reduce the general risk of transmission of acute respiratory infections

- Avoid close contact with people suffering from any acute respiratory infections.
- Frequent hand-washing, especially after direct contact with ill people or their environment.
- People with symptoms of acute respiratory infection should practice cough etiquette (maintain distance, cover coughs and sneezes with disposable tissues or clothing and wash hands) and stay home if unwell.
- Adhere to standard infection prevention and control practices in primary health care. All patients with respiratory infection and recent overseas travel history should be provided with a surgical mask upon entry to the facility. For suspect cases of 2019-nCoV infection, include contact and droplet precautions, such as personal protective equipment (PPE).
- Aerosol-generating procedures should be avoided in primary health care.

## Infection prevention and control (IPC)

Basic hygiene measures (as outlined above) are the most important way to stop the spread of infections, including the 2019 novel coronavirus (2019-nCoV).

In a health care setting, in addition to basic hygiene measures, standard precautions should apply for all patients. These include:

- hand and respiratory hygiene
- the use of appropriate personal protective equipment (PPE)
- safe waste management
- injection safety practices
- proper linen
- environmental cleaning
- sterilization of shared patient-care equipment.

As soon as a case of 2019-nCoV infection is suspected, additional precautions (droplet and contact and, whenever applicable, airborne precautions) should be implemented as per Table 1).

Table 1 summarises the use of PPE by setting. Of note, for most health care settings, a particulate face mask is not needed as a medical / surgical face mask is sufficient.

**Table 1 – Recommendations on the use of personal protective equipment by setting**  
(shaded area shows recommendation)

Setting		Recommendation			
		Face mask	Gloves	Gown or apron	Eye protection
<b>General public</b>					
No symptoms of coronavirus		Not recommended			
Person with symptoms of an acute respiratory illness and risk assessment indicates at risk of novel coronavirus		Surgical / medical mask			
<b>Workplace</b>					
People who <b>can maintain more than 1 metre contact distance</b> from people with potential coronavirus symptoms	Receptionists and other staff in health care settings (eg pharmacy staff, orderlies, cleaners, and dieticians), education staff	Not recommended			
People who, due to the nature of their job, <b>may be unable to maintain more than 1 metre contact distance</b> from people with potential coronavirus symptoms	Police, prison staff, customs staff	Surgical / medical mask	If direct contact likely		
People who, due to the nature of their job, <b>cannot maintain at least 1 metre contact distance</b> from people with potential coronavirus symptoms	Primary health care clinical staff, ambulance staff, emergency department staff	As per infection prevention protocols – eg surgical / medical masks, gloves, aprons and eye protection			
People who, due to the nature of their job, <b>cannot maintain at least 1 metre contact distance</b> from people with potential coronavirus <b>AND have a high likelihood of potential contact with aerosolised respiratory secretions</b> from invasive procedures – ventilation, suctioning etc	ICU staff, recovery room staff, people providing hands-on hospital care to people in Droplet and Contact precautions	As per infection prevention protocols			

Please refer to WHO recommendations on infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected.

**[who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-\(ncov\)-infection-is-suspected](https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-(ncov)-infection-is-suspected)**

## **Management of a suspect, probable or confirmed case**

Patients with suspected infection of novel coronavirus should be managed medically according to their symptoms and clinical state. They do not need to be hospitalised unless clinically indicated.

### **Non-hospitalised cases**

Non-hospitalised cases should remain in isolation at home or in their current accommodation while symptomatic. They should be provided with infection prevention and control advice along with advice regarding what to do if symptoms worsen and followed up by public health.

### **Hospitalised cases**

It is important to rapidly obtain a travel history and implement precautionary infection prevention and control measures within hospitals to prevent transmission in health care settings. Given the evidence that human-to-human transmission of SARS and MERS viruses is increased in hospital settings, a cautious approach with patients with symptoms of pneumonia and a history of travel to or from (including transiting through) mainland China is advised in these settings.

The case should be accommodated in a single room.

In addition to standard precautions, contact and droplet precautions should be taken. When performing an aerosol-generating procedure, apply airborne precautions including the use of an airborne infection isolation room (negative pressure room) where possible.

Please refer to WHO recommendations on clinical management of severe acute respiratory infection when novel coronavirus (nCoV) infection is suspected.

**[www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/patient-management](https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/patient-management)**

## **Laboratory testing for diagnosis of 2019-nCoV infection**

### **Who should be tested?**

Testing should be done for any person meeting the suspect case definition.

Clinicians should be aware that immunocompromised patients may not present with typical symptoms so should be considered as a suspect if they meet the epidemiological criteria.

Testing in hospitals should be done in consultation with the Infectious Disease Physician and testing in primary care should be done in consultation with the local Medical Officer of Health.

## How should they be tested?

Routine tests for acute pneumonia should always be performed first, including bacterial culture, serology, urinary antigen testing and tests for respiratory viruses, including influenza.

- Contact the clinical microbiologist for diagnostic testing.
  - Appropriate clinical specimens should be collected and transported to the microbiology laboratory under appropriate conditions.
  - An adequate volume of clinical material should be sampled. More than one specimen type may need to be collected.
  - Repeat testing may be required but will be at the direction of the clinical microbiologist.

In addition to standard precautions, airborne precautions should be followed when collecting specimens if there is a risk of aerosol generation. The collection of specimens should occur in an airborne infection isolation room if available.

Laboratory staff should handle clinical specimens under PC2 conditions in accordance with *AS/NZS 2243.3:2010 Safety in Laboratories Part 3: Microbiological Safety and Containment*. Any procedure that may generate aerosols should be performed in a Class II biological safety cabinet. For a list of activities which may be performed in a PC2 laboratory as well as additional precautions please refer to the WHO biosafety guidelines for handling of SARS specimens.

**[who.int/csr/sars/biosafety2003\\_04\\_25/en/](http://who.int/csr/sars/biosafety2003_04_25/en/)**

Specific 2019-nCoV screening and confirmation testing is available in New Zealand from 31 January 2020.

WHO technical guidance on laboratory testing for 2019-nCoV can be found on the WHO website, **[www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/laboratory-guidance](http://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/laboratory-guidance)**. It includes details on how and which specimens to collect.

Laboratories can also refer to CDC's interim laboratory biosafety guidelines on how to handle specimens from suspected cases in their laboratories.

**[cdc.gov/coronavirus/2019-nCoV/lab-biosafety-guidelines.html](https://www.cdc.gov/coronavirus/2019-nCoV/lab-biosafety-guidelines.html)**

## Contact tracing and management

### Purpose of contact tracing

The purpose of contact tracing is to prevent potential onward transmission, raise awareness and support early detection of suspected cases. This should be coordinated by the local public health unit.

### Who is a close contact?

A case is considered as potentially infectious 48 hours prior to developing symptoms, while symptomatic and until symptom-free for 24 hours.

Anyone with one of the following contacts with a case while the case is infectious:

- Direct contact with the case or their body fluids or their laboratory specimens, or in the same room in a health care setting when an aerosol generating procedure is undertaken on the 2019-nCoV case, without appropriate personal protective equipment (PPE)
- Living in the same household or household-like setting (e.g. in a hostel) as a 2019-nCoV case

- Having spent two hours or longer in the same room (such as a general practice or ED waiting room) as a 2019-nCoV case
- Having been seated within 2 rows either side of a 2019-nCoV case on a flight, bus or train for two hours or longer
- Having been face-to-face (within one metre of the case) for more than 15 minutes in any setting

## **Who is a casual contact?**

Casual contact is defined as any person having had a contact with a case who does not meet the criteria for a close contact.

## **Contact assessment**

All persons identified as having had contact with a confirmed case should be assessed to see if they should be classified as a close contact.

## **Management of contacts**

1. Identify close contacts, level of contact, and contact details with priority given to household, health-care associated close contacts, and high-risk contacts (those with co-morbidities, pregnant and immunocompromised).
2. Close contacts should be counselled about their risk and the symptoms of 2019-nCoV and provided with a 2019-nCoV Factsheet. They should be advised to self-isolate for 14 days since last exposure with the confirmed case. If they develop symptoms they should immediately notify their public health unit (PHU) and, for healthcare workers, their facility infection control unit. The PHU will monitor close contacts as appropriate to encourage and support early reporting of symptoms.
3. The local PHU should advise casual contacts to monitor their health for 14 days and report any symptoms immediately to the local public health unit. There are no restrictions on movements; however casual contacts should be advised to isolate themselves and contact the public health unit if they develop symptoms.

## **Outbreaks in healthcare or aged-care facilities**

If one or more confirmed 2019-nCoV cases have occurred within a healthcare or aged-care facility, an outbreak management team should be convened, including a senior facility manager, an infection control practitioner and appropriate clinical staff, in consultation with PHU staff.

## **Where to get further information and advice**

Please see the webpages below for the latest information:

- *General information for the public:*

**[health.govt.nz/our-work/diseases-and-conditions/novel-coronavirus-china-2019-ncov](https://www.health.govt.nz/our-work/diseases-and-conditions/novel-coronavirus-china-2019-ncov)**

- *World Health Organization (WHO) situation updates and advice:*

**[www.who.int/emergencies/diseases/novel-coronavirus-2019](https://www.who.int/emergencies/diseases/novel-coronavirus-2019)**