COVID-19

Interim protocol

COVID-19 is an emerging infectious disease. This protocol is based on interim Ministry of Health advice and information on the Ministry of Health *and* World Health Organization COVID-19 websites[1, 2], and in the Communicable Diseases Network Australia COVID-19 National Guidelines for Public Health Units[3]. Further Ministry of Health documents are available in NCTS under the "knowledge" tab.

Protocol users should check those documents and websites **for any recent updates**. Links in this document point to the specific pages of each site wherever possible. Recently updated content is blue.

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1. Associated documents

CDHB Māori Health policy
CDHB Te Reo policy
CDHB Tikanga policy
CDHB Interpreter procedure | CPH Interpreting and Written Translation procedure
CDHB Privacy/Nohotapu policy
CPH COVID-19 procedures, forms, checklists, orders, letters, etc and reference documents from the Ministry of Health and other agencies are in the CPH COVID-19 document library
Contact details for COVID-19 external agencies

2. The illness

Epidemiology

SARS-CoV-2 is the infective agent that causes COVID-19. SARS-CoV-2 is a novel coronavirus that was first identified in humans in Wuhan, China, in December 2019. On 12 March 2020 the World Health Organization declared COVID-19 a global pandemic.

The SARS-CoV-2 virus has been noted to change over time resulting in a number of virus variants with altered properties including transmissibility, virulence and responsiveness to standard public health measures including vaccination. The Ministry of Health provides a regular New Variants Update on its Science News page.

The Ministry of Health's "Current cases" webpage shows up-to-date information on the New Zealand COVID-19 situation.

Clinical description

The most common symptoms of COVID-19 are fever, cough, shortness of breath, sore throat and loss of smell or loss of taste. Other non-specific symptoms of COVID-19 include: fatigue, headache, runny nose, acute blocked nose (congestion), muscle pain, joint pain, diarrhoea, nausea/vomiting and loss of appetite.

Evidence suggests that the severity of infection with the Omicron variant is less than previous strains. Observational studies indicate that people infected with the Omicron variant are less likely to be hospitalised than patients infected with the previous variants.

Incubation

Prior to the emergence of the Delta variant, the median incubation period for people who became symptomatic was 5 to 6 days after coming into contact with another infected person, with a range of 1 to 14 days. Around 1% of COVID-19 cases developed symptoms more than 14 days after exposure. Some studies suggest that the incubation period of more recent SARS-CoV-2 variants may be shorter than wild type SARS-COV-2.

There is currently limited evidence to determine how the incubation period for breakthrough infection in vaccinated individuals may differ from infection in unvaccinated individuals.

Transmission

SARS-COV-2 can be transmitted through respiratory droplets, smaller particles (aerosols), direct physical contact with an infected individual, and indirectly through contaminated objects and surfaces. Those who have been in close contact with a COVID-19 case are at highest risk. Preliminary evidence indicates that the Omicron variant has a transmission advantage over previous variants in highly vaccinated populations likely due to immune escape and increased inherent transmissibility.

Aerosol transmission

There is a gradient from large droplets to smaller aerosols, which may contribute to transmission of SARS-CoV-2 in certain situations. These include during aerosol generating procedures in clinical settings, certain behaviours, such as singing and shouting, and certain environmental conditions. These behaviours and conditions can increase the force and range of spread of both large and small particles. Where an indoor environment has a low air exchange rate (i.e. less movement of outside air replacing the air indoors), small particles that are normally rapidly dispersed may remain suspended or be recirculated for longer periods. The particles may be moved around by natural airflow, fans or air conditioners. In these situations, airflow may play a role in transmission.

Indirect transmission

Respiratory droplets and secretions expelled by an infectious person can contaminate surfaces and objects. Indirect transmission via contact with contaminated surfaces and objects may be possible but does not present the same degree of risk as direct close contact with an infected person. Live SARS-CoV-2 virus can survive on surfaces for several hours to a few days, depending on the surface type and environmental conditions. However, SARS-CoV-2 can be rapidly inactivated by alcohol, household bleach, and other chemicals.

Communicability

Several studies have confirmed the occurrence of pre-symptomatic and asymptomatic transmission. Pre-symptomatic transmission can occur 1-3 days before symptom onset. Peak viral load in upper respiratory tract samples occurs most often around the time of symptom onset and declines after the first week following symptom onset.

High viral loads have been detected in asymptomatic, pre-symptomatic and symptomatic individuals, suggesting the potential for transmission irrespective of the presence of symptoms. However, faster viral clearance and subsequent shorter infectious periods have been observed for asymptomatic individuals. Symptomatic and pre-symptomatic individuals have a greater role in the spread of SARS-CoV-2 with a higher secondary attack rate than those who remain asymptomatic throughout their illness.

The period of communicability is considered to start **48 hours before onset of symptoms** and continue for 7 days after the day of symptom onset – see Infectious period and isolation.

For **asymptomatic** cases, the presumed infectious period is considered to start 48 hours before the first positive test. In general, if the asymptomatic case has had a recent negative PCR test they may be assumed to have been non-infectious at least until that swab was taken.

Prevention

COVID-19 **vaccine** is available in line with the Ministry of Health's vaccine rollout plan. Vaccine information is available on the Ministry website.

Treatment

Current information about about COVID-19 therapeutics is available in a series of pages on the Ministry website.

Paxlovid and molnupiravir are oral treatments which may be prescribed to people who have been diagnosed with COVID-19, have symptoms, and are at a higher risk of hospitalisation including Māori and Pacific peoples, those with complex health needs, the elderly and unvaccinated populations, and people with disabilities. Access criteria for Paxlovid™ are set by Pharmac. Further information about oral agents is available on the Ministry website and on HealthPathways.

Long COVID[i]

Long COVID is considered as experiencing symptoms of COVID-19 after 12 weeks of infection. It is estimated 1 in 10 people feel symptoms of long COVID 12 weeks after infection. Symptoms of long COVID may include; low energy and fatigue, shortness of breath and cough, headaches, low mood, difficulty concentrating (brain fog), ongoing chest paints, racing pulse, aches and pains in muscles, ongoing changes to sense of smell and taste, and poor quality of sleep.

There is ongoing research internationally on the effects of long COVID. Researchers are also looking at ways of treating long COVID. The Ministry of Health will provide further advice based on international evidence and are funding a study by Victoria University of Wellington to assess the long-term effects of COVID on people in New Zealand.

Information about long COVID is available on the Ministry website.

[i] Advice from COVID-19 Response Update 15 March 2022 (COVID-19 Group, DPMC)

3. New Zealand Strategy

COVID-19 Care in the Community

As both case numbers and vaccination rates have increased, the Ministry of Health has developed a COVID-19 Care in the Community framework setting out expectations and guidance for regionally co-ordinated, locally-led integrated COVID-19 services. There are COVID hubs in Christchurch, Timaru and three on the West Coast, which coordinate care, including monitoring for those not enrolled with a primary care provider and alternative accommodation where necessary. They coordinate with MSD for provision of welfare support.

New Zealand Omicron Strategy

New Zealand has a 3-stage Omicron strategy. Phase 3 began on Thursday 24th February 2022. This protocol incorporates the Ministry of Health's Phase 3 guidance.

- The Phase 3 situation is: widespread community cases, need to change tack to manage pressure on health services
- The Phase 3 objective is: preserve (protect vulnerable communities and critical services and infrastructure)

Key features of Phase 3 are included in Table 1.

4. Notification

Although medical practitioners are legally required to notify all notifiable diseases to the medical officer of health, in practice this is not expected for COVID-19, and advice on Hospital and Community HealthPathways has been updated.

A procedure for CPH staff to respond to death notifications is available via the COVID-19 document directory. It is the responsibility of the DHB chief medical officer or medical officer of health to notify the Ministry's IMT of any COVID-19 deaths they are aware of, following the Ministry's Reporting of COVID-19 Related Deaths protocol. An initial phone notification can be made between 6am and 11pm to the IMT Response Manager on 021 514 725 (alternatives: 021 556 968 or 0800 GET MOH option 1). An email should be sent as soon as possible to COVIV_IMT_ResponseMgr@health.govt.nz

Table 1: key features of Phase 3 (details have been updated with changes announced since 25 February 2022)

Testing
• Focus PCR testing on those who are unwell and more susceptible to the effects of COVID-19, including members of priority populations. • Border workforce regular RATs. • Positive RAT results do not need to be confirmed with a PCR test unless this is advised. • 'Close Contact Exemption Scheme' if needed for asymptomatic critical workers who are household contacts with daily RATs. • RATs available at a variety of locations, depending on reason for testing, including Community Testing Centres/Pick Up Points, GPs, pharmacies, community providers or workplaces.
Case investigation and contact tracing

End to end electronic pathway utilised and cases self-notify close contacts.
Cases:
• Identified via positive PCR, RATs or symptoms.
• Upload positive RAT to My COVID Record.
• Notified by text and directed to online self-investigation tool.
• Self investigation tool will focus on household contacts, very high-risk settings eg, transitional housing facilities, aged residential care settings.
• WGS prioritised based on PHU and MOH advice and only on PCR results.
Household contacts:
• Notified via text if loaded into the online self-investigation tool by the case.
• Household contacts provided information to self-manage.
• RAT test on Case's Day 3 and 7 of isolation and if symptomatic.
• Upload positive RAT to My COVID Record.
• QR scanning to remain to support case investigation.
• Locations of interest won't be published and no push notifications.
• Close Contact Exemption Scheme using RATS for asymptomatic healthcare and critical infrastructure workforce who are household contacts.
• The contact tracing system will manage cases, and high-risk exposure events including:
  ○ Residential housing (transitional housing, boarding houses, youth justice, soup kitchens, homeless shelter);
  ○ Faith-based places of worship;
  ○ Aged residential care;
  ○ Marae / Tangihanga.
Public health response:
• PHUs focus on outbreak management and very high-risk settings and supporting communities.
• NCIS will prioritise phone-based case investigations for Māori, Pacific and cases in high deprivation areas for those that have not complete the self-serve tool.

Isolation and quarantine
Cases: • Isolate for 7 days (self-release after day 7). Household Close Contacts: • Isolate with case (test when symptoms develop or when the case reaches day 3 and day 7 of isolation). Release on the same day as the case (after the case has completed 7 days isolation) provided no new or worsening symptoms AND negative day 7 test. Testing with RATS provided by community. Close Contacts: • Not required to self-isolate. • Critical infrastructure/health workforce capacity will be supported by public health guidance to enable contacts and if appropriate cases to work, which may include asymptomatic surveillance testing using RATS.
Care in the community
• Majority of positive cases are self-managed. • Clinical care is focused on those with high needs. • Wraparound health and welfare support services will focus on those with high needs. • Support for positive cases to isolate in their usual place of residence and unlikely there will be alternative accommodation capacity available for cases that are unable to safely isolate at home. • Lower risk individuals and households with welfare needs may present through other channels/services (such as community providers) as case numbers reach very high levels. • Community providers designated as a critical workforce.

5. Case definition

Clinical criteria

Common symptoms of COVID-19 are similar to colds or influenza. A person may have one or more of the following symptoms.

Common symptoms:

- new or worsening cough
- sneezing and runny nose
- fever
- temporary loss of smell or altered sense of taste
- sore throat
- shortness of breath
- fatigue/feeling of tiredness.

Less common symptoms of COVID-19 may include diarrhoea, headache, muscle aches, nausea, vomiting, malaise, chest pain, abdominal pain, joint pain or confusion/irritability. These almost always occur with one or more of the common symptoms.

Case classification

Case classifications are provided on the Ministry website as follows:

Confirmed case:

- A case that has laboratory definitive evidence. Laboratory definitive evidence requires at least one of the following:
  - detection of SARS-CoV-2 from a clinical specimen using a validated NAAT (PCR). Very weak positive results will only be labelled a confirmed case when the result is confirmed on a second sample.
  - detection of coronavirus from a clinical specimen using pan-coronavirus NAAT (PCR) and confirmation as SARS-CoV-2 by sequencing.
  - significant rise in IgG antibody level to SARS-CoV-2 between paired sera.
  - detection of SARS-CoV-2 from a clinical specimen using a validated laboratory multi-target NAAT (PCR) OR a validated single target point of care NAAT (PCR) test.

Probable case:

- A close contact of a confirmed case that has a high exposure history, meets the clinical criteria and for whom testing cannot be performed, or
- A close contact of a confirmed case that has a high exposure history, meets the clinical criteria, and has a negative PCR result but it has been more than 7 days since symptom onset before their first negative PCR test was taken.
- An individual with a positive result from a clinical specimen using a certified rapid antigen test (RAT), either supervised or self-tested who:
  - has symptoms consistent with COVID-19, OR
  - is a close contact of a confirmed or positive case, OR
  - is asymptomatic (in phase 3 only); OR

Both confirmed and probable cases are treated as cases and are managed in the same way.

Historical case:

- A confirmed case that is deemed to have recovered (no longer considered infectious) at the time of testing or a person with a positive NAAT(PCR) result with a high CT value, which is followed by a negative rapid antigen test (RAT).

Under investigation case

- A case that has been notified where information is not yet available to classify it as confirmed, probable, or not a case.

Not a case:

- An "under investigation" case who has a negative test and has been assessed as not a case;
- A person where SARS-CoV-2 has been detected where the detection is determined to be due to a previous COVID-19 infection which has already been recorded either in New Zealand or overseas within the previous 28 days from release;
- A person who has detection of SARS-CoV-2 from a clinical specimen but, following further investigations such as serology, repeat testing, history and symptoms, they are deemed to not be a case (e.g. a likely false positive).

6. Testing

People who have **symptoms** that meet the clinical criteria for COVID-19 should be tested.

People may also be tested when they are **asymptomatic** and:

- they are required to undertake mandatory routine testing at specified intervals (e.g., border and MIQ workers), or
- they are household contacts of confirmed (or probable) cases.

A PCR test, involving a **swab from the nasopharynx,** is the most effective way of detecting the presence of SARS-CoV-2 and should be taken wherever possible. While nasopharyngeal swabbing is the "gold standard", an **oropharyngeal with bilateral anterior nares** swab is acceptable for both surveillance and diagnostic testing for those who cannot tolerate nasopharyngeal swabbing.

Saliva PCR testing is being used for asymptomatic surveillance testing in some workers. Any positive test needs follow up confirmation with nasopharyngeal PCR (or oropharyngeal and bilateral anterior nasal if unable to tolerate nasopharyngeal).

Serology may be useful in determining historical cases, but interpretation can be difficult in vaccinated individuals and should be discussed with a microbiologist.

Rapid antigen tests, often abbreviated 'RATs', are generally taken with a front of nose swab and detect the presence of specific proteins on the outer portion of the virus, such as the spike protein. RATs require a higher quantity of the virus to be present in the sample than other COVID-19 testing methods. As a result, RATs are **less sensitive** at detecting cases, especially in asymptomatic people or people who are early in their infectious period.

The advantage of RATs is that they give a result quickly (often in less than 15 minutes), which assists with rapid risk assessment and reduces the amount of time a positive individual is active in the community. RATs can be conducted in a laboratory, a health setting, or in the community e.g., at home. Detailed information on RATs is available on the Ministry website.

LAMP (loop-mediated isothermal amplification) tests can be self-administered like a rapid antigen test but with greater accuracy, and are currently being trialled in Auckland.

Whole genome sequencing is undertaken by ESR. Urgent WGS can be requested via covid.urgentwgs@esr.cri.nz.

Guidance on testing is available on the Ministry of Health website's Case definition and clinical testing guidelines page. Guidance on border worker testing is available here. Information on ESR's wastewater testing programme is available here.

See Recovered cases for advice on further testing of people who have had COVID-19.

7. Cultural and social context

Cultural, social, work and home environments affect any person's risk of contracting a communicable disease, the likely impact of that disease on them, and their likelihood of passing the infection on others. Keep these factors in mind at every point of your investigation and follow-up.

See Home | Unite against COVID-19 for information on government support available and how to access it.

- Request an **interpreter** if needed.
- **Consider** the potential impact of cultural, social, work or home factors on a person or family's ability or willingness to provide information and/or follow public health advice.
- **Tailor your advice** to the situation.
- **Seek advice yourself** if unsure. Talk to:
  - CPH's Māori Relationships Manager for advice on community and primary care support people or agencies.
  - Ngā Ratonga Hauora Māori for Maori patients at Christchurch Hospital or Christchurch Women's hospital.
- If appropriate, and with the case and/or contact's permission, seek the **assistance** of family or other community members, community leaders, and/or support agencies if required.
- CPH has worked with Māori and Pasifika partner agencies to facilitate support for Māori and Pasifika cases and contacts.

8. Information systems

Currently:

- When a person returns a positive laboratory test for COVID-19, case records are created in EpiSurv, NCTS (the National Contact Tracing Solution), and CCCM ("COVID Clinical Care Management", formerly BCMS),
- RATs self-reported by cases via their My COVID Record or 0800 222 478 also create NCTS case records.
- The case is sent a text message advising them that they have tested positive and asking them to complete an online questionnaire in the self-service tool, and
- there is an automatic referral to Care in the Community ("the Hub").
- If the case completes the online questionnaire they are given public health advice via the online tool.
- Care in the Community ("the Hub") currently reviews new CCCM records and either advises their GP that clinical care is required or arranges clinical care if the case does not have a GP. GPs can also access the CCCM records of their own patients directly.
- if the case does not complete the online form within 12 hours (Māori and Pacific) or 24 hours (other ethnicities) they are telephoned by the Reach team.
- welfare needs may be escalated to the Ministry of Social Development (MSD) via their website, their 0800 line, or a GP referral. Automatic referrals to MSD from the NCTS record have been discontinued.
- exposure events identified via the self-service tool or during Reach case interviews will be triaged by Reach, with high-risk events allocated to CPH, and low/medium risk events managed by Reach.

Also see Appendix 4: End to end process for case investigation.

The **Border Clinical Management System** records clinical information about travellers in MIQFs (and uploads information already entered in the National Border Solution).

HealthScape should continue to be used to record non-COVID traveller illness incidents, airport incidents and breaches, and agency interactions.

Manual entry into Episurv is no longer required for PHUs.

The MOH should be advised of the **death** of a person with COVID-19. MOsH also receive hospital death notification emails directly. The Case Investigation Team Lead will ensure the Ministry protocol for reporting deaths and the corresponding records process are completed. The CPH procedure is here.

WHO will be notified of probable and confirmed cases through the National Focal Point for International Health Regulations (ie, the Office of the Director of Public Health, Ministry of Health).

9. Management of case

Actions for cases and contacts are summarized in Appendix 1: key details for case investigators, Appendix 2: Ministry of Health contact categories, and Appendix 4: End to end process for case investigation.

Negative test results

General practitioners and testing centres have been asked to communicate negative PCR test results to their patients, and to advise them they **must nevertheless complete their self-isolation period** if they are being followed up as a probable case or household contacts of a confirmed (or probable) case.

Confirmed and probable cases

In Phase 3 most reported cases have self-tested with a RAT and self-notified. Community cases who are tested with PCR are notified by text. Investigation and management are either "self-service" or undertaken by Reach call centre staff. Phone interviews may be required for priority populations, incomplete online forms, and for those unable to complete the online case investigation form.

Public health units are expected to continue to manage **high-risk exposure events**. Guidance for specific settings and institutions is saved in the CPH COVID-19 Document Directory.

Most cases will **self-isolate at home** avoiding contact with other household members to the greatest extent possible. Community isolation facilities may be considered for cases and/or their household members in exceptional circumstances and are co-ordinated by the "Hub".

- For detailed information on investigation and management of cases by CPH refer to the CPH COVID-19 Document Directory.
- Discuss **requests for sharing information** with a Medical Officer of Health.

Infectious period and isolation

"**Day zero**" is the date of the onset of symptoms or the date of a positive COVID-19 test (if the person remains asymptomatic), whichever is the earliest.

Cases are considered **infectious** for the **two days preceding** their "day zero". However, if a case has had a negative swab within the 48hrs preceding their "day zero" they may be considered not infectious until the time of that swab.

Cases are advised to self-isolate for **7 full days** after their "day zero", and may return to their normal activities on day 8.[ii] Cases with **new or unresolved symptoms at day 7 or day 8** are advised to stay at home until 24 hours after symptoms resolve. An isolation dates calculator for cases is available on the Unite against COVID-19 website.

Cases may not have **visitors** except in specific circumstances.

Cases **may leave their place of isolation**, wearing a mask and travelling by private transport or walking alone[iii]:

a. to report for, and undergo, medical examination and testing required; or
b. to do any outdoor exercise (a mask is not required when exercising) in the neighbourhood of their place of self-isolation (but not at any shared exercise facility, such as a swimming pool); or
c. to access an essential health service for treatment that cannot be deferred until after their period of self-isolation; or
d. to attend any hearing of a court, a tribunal, the New Zealand Parole Board, or another judicial institution that they are required to attend by that institution; or
e. to move to another place of self-isolation in order to preserve the relevant person's own or another person's life, health, or safety; or
f. to visit a dying relative who is not expected to live beyond the relevant person's period of self-isolation; or
g. to visit the body of a relative before a funeral or tangihanga (but not to attend the funeral or tangihanga), if the relevant person will not be able to visit the body after their period of self-isolation.

Part 2 of the Order allows for cases who are **critical workers** to return to work in specific circumstances. The Director-General's 4th March Clause 30 Notice provides for cases who are critical health workers to return to work.

Advice for people with COVID-19 is available on the Ministry of Health website.

[ii] Confirmed and probable cases are required by the COVID-19 Public Health Response (Self-isolation Requirements and Permitted Work) Order 2022 to remain isolated for **7 days** from the time they developed COVID-19 symptoms or the time they returned a positive COVID-19 test result, whichever is the earliest. The Order specifies that isolation ends **at the same time of day as, but on the 7th day** after their start time/date. The Ministry of Health is aware of the discrepancy between its public advice and the legal requirement under the Order.

[iii] The Director-General's 2nd March Clause 30 Notice permits use of public transport for essential permitted movement in some circumstances.

Clinical care

GPs are responsible for clinical care of any COVID-19 patients in the community, and guidance is available on Community HealthPathways. The local COVID-19 Hub clinical lead will notify the case's GP and/or arrange for care by the Hub clinical team.

Hospitalised cases

Advice for clinical management of hospitalised COVID-19 cases is available on the Ministry website. The current Ministry of Health advice for clearance from isolation is:

- *Release from isolation after discharge should align with the current Public Health Policy for community isolation: this is now taken as **7 days from date of onset of symptoms or date of positive test** (whichever is earlier, starting from day zero).*
- *Exceptions to this duration may include severe immunocompromise and severe/critical COVID-19. It is advisable to seek the advice of an infectious disease specialist or microbiologist for severely immunocompromised individuals. Additional testing may be useful, such as serial NAAT/PCR testing suggestive of low viral load (i.e. negative or with high cycle threshold), high or increasing antibody levels or repeatedly negative RAT tests.*

In Christchurch Hospital, based on recent clinical experience of prolonged infectious periods in older COVID-19 patients, patients aged >65 years are assumed to be infectious until day 10, with exit testing to confirm.

Recovered cases

Further COVID-19 testing of cases is **not recommended for 28 days following onset** of infection. Regular surveillance testing should be suspended for 28 days from onset. All cases should be advised to seek a supervised RAT if new symptoms develop at any stage after 28 days following onset of infection. Detailed advice is available in the Ministry of Health's Interim clinical guidance on testing for possible COVID-19 reinfection within 90 days.

The Ministry of Health Vaccine Advice webpage states:

- *Even if you've had COVID-19 you should still get any COVID-19 vaccinations you're eligible for. It's recommended you wait 3 months after testing positive before getting any COVID-19 vaccination.*
- *However, if you are at high risk of severe disease if you do catch COVID-19 again, it's recommended that you talk to your GP or other specialist for advice on timing of your next dose. It might be appropriate for you to receive your COVID-19 vaccine sooner than 3 months.*

10. Management of contacts

Actions for cases and contacts are summarised in Appendix 1: key details for case investigators *and* Appendix 3: Ministry of Health case and contact actions ("rainbow diagram"). Specific advice must be referred to for **healthcare** worker exposures, other **workplace** exposures, and **education settings**.

Contact risk categorisation is summarized in Appendix 2: Ministry of Health contact categories. In Phase 3 only household contacts are required to self-isolate. Other close contacts are asked to self-monitor for symptoms for 10 days and if they develop get a test immediately and stay home until a negative test result is received and symptoms have resolved for 24 hours. Casual contacts are not followed up.

A household contact is defined in the Order as a person who is a fellow resident of a COVID-19 case, provided that they are not themselves a COVID-19 case, and have not themselves been a COVID-19 case within the last 90 days and have already completed a period of self-isolation. The Ministry has subsequently defined a "household contact" as situations where:

- The case normally shares a residence with the contacts (permanent or part time e.g. shared custody), AND
- The contact has spent at least one night or day (>8hr) in that residence while the case was infectious.

This includes:,

- people who live in shared houses and flats.
- people don't normally share a residence with the case but have spent a night together in the same room

For people who are travelling or holidaying around New Zealand, this would also include sharing non-communal holiday accommodation such as a hotel room, tent, campervan, or temporary holiday home (such as a bach, crib, Airbnb or similar).

People who live in the same group accommodation as the case (for instance, halls of residences, boarding houses, hostels, backpackers, transitional housing etc) are not considered Household Contacts, but may be Close Contacts (unless a Medical Officer of Health deems it appropriate to apply the Household Contact definition).

Household contacts are required by the COVID-19 Public Health Response (Self-isolation Requirements and Permitted Work) Order 2022[iv] to remain isolated until the first case in their household is released from isolation and must test on days 3 and 7. Contacts **self-release** at the end of their self-isolation period.

If a **new case** develops in a household **within 10 days** of the initial case (and other household members) being released from isolation, then other household members do not need to re-isolate. If a new case develops **more than 10 days** after the initial case in the household was released, then household members (other than those who had become cases) would need to **re-isolate for a period of 7 days**.

Household contacts are advised to get an additional test if symptoms develop. If the test is negative but symptoms persist or worsen they should test again after 48 hours. If RAT is negative on day 7 but new symptoms have developed, a further RAT should be taken 48 hours later (on day 9), and the contact should stay home until 24 hours after symptoms have resolved.

Contacts may not have **visitors** except in specific circumstances.

Contacts **may leave their place of isolation**, wearing a mask and travelling by private transport or walking alone[v]:

a. to report for, and undergo, medical examination and testing required; or
b. to do any outdoor exercise (a mask is not required when exercising) in the neighbourhood of their place of self-isolation (but not at any shared exercise facility, such as a swimming pool); or
c. to access an essential health service for treatment that cannot be deferred until after their period of self-isolation; or
d. to attend any hearing of a court, a tribunal, the New Zealand Parole Board, or another judicial institution that they are required to attend by that institution; or
e. to move to another place of self-isolation in order to preserve the relevant person's own or another person's life, health, or safety; or
f. to visit a dying relative who is not expected to live beyond the relevant person's period of self-isolation; or
g. to visit the body of a relative before a funeral or tangihanga (but not to attend the funeral or tangihanga), if the relevant person will not be able to visit the body after their period of self-isolation.

Part 2 of the Order permits contacts who are **critical workers** to return to work under the Close Contact Exemption Scheme.

Advice for people who are contacts is available on the Ministry of Health website.

11. Exposure events

In Phase 3 public health units are expected to focus on management of high-risk exposure events and outbreaks. Detailed guidance on exposure event assessment and management in specific settings is available in the CPH Document Directory. The following settings have been prioritised for public health unit response:

- Transitional housing (transitional, emergency, social and community housing, boarding houses, youth justice, soup kitchens, homeless shelter, hospices, residential disability services, mental health)
- Aged residential care
- Tangihanga
- Marae

[iv] (check the Order for specific wording)
[v] The Director-General's 2nd March Clause 30 Notice permits use of public transport for essential permitted movement in some circumstances.

12. Cluster and outbreak management

Cluster and outbreak management is based on the same advice and SOPs as individual case and contact management but requires additional layers of co-ordination and communication. Guidance for specific institutions and settings is available in the Document Directory.

In Phase 3, most local clusters or outbreaks are managed by the setting they occur in. If further public health support is required consider the following:

- assess the priority of the setting and CPH's capacity to support an outbreak response.
- establish a **cluster co-ordinator and a lead medical officer of** health as soon as the outbreak is identified.
- consider forming an **immediate response team**, including Infection Prevention & Control staff and management from the affected facility, if the cluster is in a vulnerable setting (aged residential or disability care or Corrections facility).
- identify a **"point of contact"** and **clear communication lines** for the affected household, institution, business or community.
- support development of an **outbreak response plan** for the setting, including accessing appropriate **welfare and manaakitanga** support.
- **liaise** with the affected institution, infection prevention and control staff, primary care, and the Ministry of Health.

13. Other control measures

Disinfection

Clean and disinfect surfaces and articles soiled with respiratory secretions or faeces, using a product with antiviral activity. For further details, see Ministry of Health cleaning and disinfection advice.

Border restrictions

CPH responsibilities at the border continue to evolve. Key reference documents are in the CPH COVID19/Border folder, and on the Ministry of Health COVID-19 Border controls and COVID-19 Resources for air crew and the border sector webpages. CPH responsibilities at the border are captured in separate procedures available in the CPH COVID-19 document library.

Urgent international medical evacuation applications ("Medevac exemptions") are managed by the Ministry of Health, and should be emailed to medevacs@health.govt.nz on the relevant DHB application form.

Shipping enquiries to Customs should be addressed to christchurchshipping@customs.govt.nz, (Christchurch) or Timaru_Users@customs.govt.nz and russell.cummings@customs.govt.nz (Timaru), and chch.cog@customs.govt.nz.

Management of travellers

Health responsibilities at the air border in Canterbury are managed by CDHB. Health Manager is Megan Gibbs, 027 212 7361, megan.gibbs@cdhb.health.nz. Border cases are no longer investigated by CPH.

14. Legislation and enforcement

Legislative framework

Relevant legislation that pre-dated COVID-19 includes:

- Health Act 1956, which sets out the roles and responsibilities of individuals to safeguard public health. Part 3 of the Act grants powers to medical officers of health while an Epidemic Notice remains in force. These powers are available for the management of all scheduled infectious diseases, including COVID-19 where appropriate.
- New Zealand Bill of Rights Act 1990 that protects the rights of people.
- Health and Safety at Work Act 2015 that imposes obligations to secure the health and safety of workers and workplaces.
- Privacy Act 2020, which outlines the protection of an individual's right to privacy of personal information, including the right of an individual to access their personal information, while recognising that other rights and interests may at times also need to be taken into account.

The COVID-19 Public Health Response Act 2020 was passed as stand-alone legislation to provide a different legal framework for responding to COVID-19. A series of Border Orders have been issued under the Act. Detailed information on the Act, Epidemic Notice, and Orders are available on the Ministry website. National, regional, or district-level measures or measures applying to a specified class of people (such as people arriving at the border) are being made under section 11 of the COVID-19 Public Health Response Act 2020, rather than the Health Act 1956. Some relevant section 11 orders are:

- COVID-19 Public Health Response (Air Border) Order (No 2) 2020 (27/02/22)
- COVID-19 Public Health Response (Isolation and Quarantine) Order 2020 (02/05/22)
- COVID-19 Public Health Response (Maritime Border) Order (No 2) 2020 (02/05/22)
- COVID-19 Public Health Response (Required Testing) Order 2020 (27/02/22)
- COVID-19 Public Health Response (Vaccinations) Order 2021 (02/05/22)

The COVID-19 Public Health Response (Self-isolation Requirements and Permitted Work) Order 2022[vi] has replaced class section 70 notices, and contains the key requirements for COVID-19 cases and contacts. Clause 9 requires a person to remain at their place of self-isolation except when undertaking permitted activities. Breach of clause 9 is a high risk infringement offence, with a $4,000 fee. Director-General Clause 30 notices may amend the requirements of the Order, and are saved on the enforcement page of the CPH Document Directory as they are issued. Current notices provide exemptions from self-isolation in some circumstances for critical health care workers, and allow use of public transport by cases or contacts in some circumstances.

For non-compliance, the Ministry recommends using powers available in the Order rather than a section 70 direction. Medical officers of health are enforcement officers as defined in section 5 of the Act[vii]. In practice, enforcement is operationally led by police, who are also enforcement officers under the Act. Medical officers of health may be asked to support police by providing clinical public health advice, or by exercising some of the powers in Subpart 3 of the Act. Where requests for assistance involve the exercise of a power under the Act or its associated Orders, the MOH **must seek advice and approval from the Ministry**. Current Ministry advice is that **in most situations enforcing non-compliance is no longer proportionate to the public health risk** arising from breaches.

15. Staff wellbeing and support

Investigation and management of COVID-19 cases and contacts can be challenging for staff in many ways. All staff are encouraged to prioritise their own wellbeing and the wellbeing of their colleagues, and to seek support when they need it and encourage others to do the same. CPH's Staff Wellbeing Plan includes information on where to access assistance/support where necessary, covering both practical resources and psychosocial support such as the Employee Assistance Programme.

16. References and further information

1. Ministry of Health. Novel coronavirus COVID-19. 2020; Available from: https://www.health.govt.nz/our-work/diseases-and-conditions/novel-coronavirus-COVID-19.

2. World Health Organisation. *Coronavirus*. 2020; Available from: https://www.who.int/health-topics/coronavirus.

3. Australian Government Department of Health. *Coronavirus Disease 2019 (COVID-19) CDNA National guidelines for public health units*; Available from: https://www1.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-novel-coronavirus.htm

[vi] The Order was amended by the COVID-19 Public Health Response (Self-isolation Requirements and Permitted Work) Amendment Order (No 2) 2022 to reflect the 11th March changes in isolation periods and duration of immunity after infection.
[vii] Other staff may also be authorised by the Director-General under section 18 of the Act to carry out enforcement functions and powers.

Appendix 1: key details for case investigators

Cases

"**Day zero**" is the date of the onset of symptoms or the date of a positive COVID-19 test (if the person remains asymptomatic), whichever is the earliest.

Cases are considered **infectious** for the **two days preceding** their "day zero". However, if case has had a negative swab within the 48hrs preceding their "day zero" they may be considered not infectious until the time of that swab.

Cases are advised to self-isolate **for 7 full days** after their "day zero" and may return to their normal activities on day 8.

Cases with **new or unresolved symptoms** at day 7 or day 8 are advised to stay at home until 24 hours after symptoms resolve.

The Director-General's 4th March 2022 Order provides for cases who are critical health workers to return to work.

Advice for people with COVID-19 is available on the Ministry of Health website.

Contacts

Contact risk categorisation is summarised in Appendix 2: Ministry of Health contact categories. In Phase 3 only household contacts are required to self-isolate. Other close contacts are asked to self-monitor for symptoms for 10 days and if they develop get a test immediately and stay home until a negative test result is received and symptoms have resolved for 24 hours. Casual contacts are not followed up.

A household contact is defined in the Order as a person who is a fellow resident of a COVID-19 case, provided that they are not themselves a COVID-19 case, and have not themselves been a COVID-19 case within the last 90 days and have already completed a period of self-isolation. The Ministry has subsequently defined a "household contact" as situations where:

- The case normally shares a residence with the contacts (permanent or part time e.g. shared custody), AND
- The contact has spent at least one night or day (>8hr) in that residence while the case was infectious.

This includes:,

- people who live in shared houses and flats.
- people don't normally share a residence with the case but have spent a night together in the same room

For people who are travelling or holidaying around New Zealand, this would also include sharing non-communal holiday accommodation such as a hotel room, tent, campervan, or temporary holiday home (such as a bach, Airbnb or similar).

People who live in the same group accommodation as the case (for instance, halls of residences, boarding houses, hostels, backpackers, transitional housing etc) are not considered Household Contacts, but may be Close Contacts (unless a Medical Officer of Health deems it appropriate to apply the Household Contact definition).

Household contacts are required by the COVID-19 Public Health Response (Self-isolation Requirements and Permitted Work) Order 2022[viii] to remain isolated until the first case in their household is released from isolation and must test on days 3 and 7. Contacts **self-release** at the end of their self-isolation period.

If a **new case** develops in a household **within 10 days** of the initial case (and other household members) being released from isolation, then other household members do not need to re-isolate. If a new case develops **more than 10 days** after the initial case in the household was released, then household members (other than those who had become cases) would need to **re-isolate for a period of 7 days**.

Household contacts are advised to get an additional test if symptoms develop. If the test is negative but symptoms persist or worsen they should test again after 48 hours. If RAT is negative on day 7 but new symptoms have developed, a further RAT should be taken 48 hours later (on day 9), and the contact should stay home until 24 hours after symptoms have resolved.

Part 2 of the Order permits contacts who are **critical workers** to return to work under the Close Contact Exemption Scheme.

Advice for people who are contacts is available on the Ministry of Health website.

[viii] (check the Order for specific wording)

Appendix 2: Ministry of Health contact categories

Guidance on community cases and contacts: categories and actions – effective from 16 May 2022 (version 8.4)

New Zealand Government
Te Kāwanatanga o Aotearoa

Contact risk assessment

The following table should be used to guide assessment and management of contacts exposed during a case's infectious period.
The following table is **NOT** for:

- Household contacts - they are managed as a 7-day bubble with the case
- contacts in healthcare - refer to **Guidance for return to work for healthcare workers**

NOTE: An individual public health risk assessment should be carried out for contacts in residential facilities including aged care, correctional centres or other settings where cases and contacts interact frequently with people at high risk of severe illness.

	Type of interaction	Examples	Face covering worn by case[1]	
			Yes[2]	No or unknown
Close range contact within 1.5m of case	Direct contact with respiratory secretions or saliva (indoors or outdoors) **OR** Face to face contact with a case who is forcefully expelling air/secretions **FOR ANY DURATION OF TIME REGARDLESS OF FACE COVERING USE**	Singing, shouting, coughing, sneezing Active play in close proximity (heavy breathing related to exertion) Kissing, spitting, hongi, sharing cigarettes or vapes	**Close**	**Close**
	Indoor face to face contact for more than **15 minutes**	Having a conversation, sitting across a table from someone, eating together, playing together	Not a contact	**Close**
	Non-face to face contact for more than **1 hour** in an indoor space	Sitting or playing near someone	Not a contact	**Close**
Higher risk indoor contact more than 1.5m away from case and no close-range contact	Indoor contact in a small space without good airflow/ventilation* for more than **15 minutes**	Small offices, toilet blocks Close contact businesses such as hairdressers Buses, trains, taxis School classrooms, restaurants, cafes, bars	Not a contact	**Close**
	Indoor contact in a moderate sized space without good airflow/ventilation for more than **1 hour**	Bars and pubs, Social gatherings, church sessions Indoor, high intensity sports, Gyms and indoor recreation settings	Not a contact	**Close**
Low risk contact (no close-range contact or higher risk indoor contact)	Large indoor settings (bigger than 300m^2) if none of the criteria above are present	School and community halls, exhibition centres, hardware stores, supermarkets	Not a contact	Not a contact
	Smaller indoor venues (less than 300m^2) with good air flow-ventilation for up to 2 hours	Well ventilated rooms/offices (e.g., windows open)		
	Brief indoor contact regardless of distance from case	Conversations <15 mins Passing each other in the corridor, sharing an elevator Collecting takeaways, click & collect services	Not a contact	Not a contact
	Contact in outdoor spaces **FOR ANY DURATION OF TIME**	Most outdoor recreation activities, including outdoor dining Non-contact outdoor sports, petrol station forecourts		
*Good air flow and ventilation is required to prevent virus particles accumulating in an indoor space. Good ventilation/airflow can be achieved by keeping windows open.				

[1] For masks to be effective, it is important they are of sufficient quality (medical or multilayer cloth masks) are worn. Mask breaks are recommended to improve compliance over a workday. Masks should be changed if they become wet or dirty.

[2] Consistent use of a mask by a case will minimise the likelihood that other people are close contacts. Short time periods without wearing a mask (less than 15 minutes) will not change the categorisation of other contacts in the same space, unless the case was coughing, sneezing or shouting at the time.

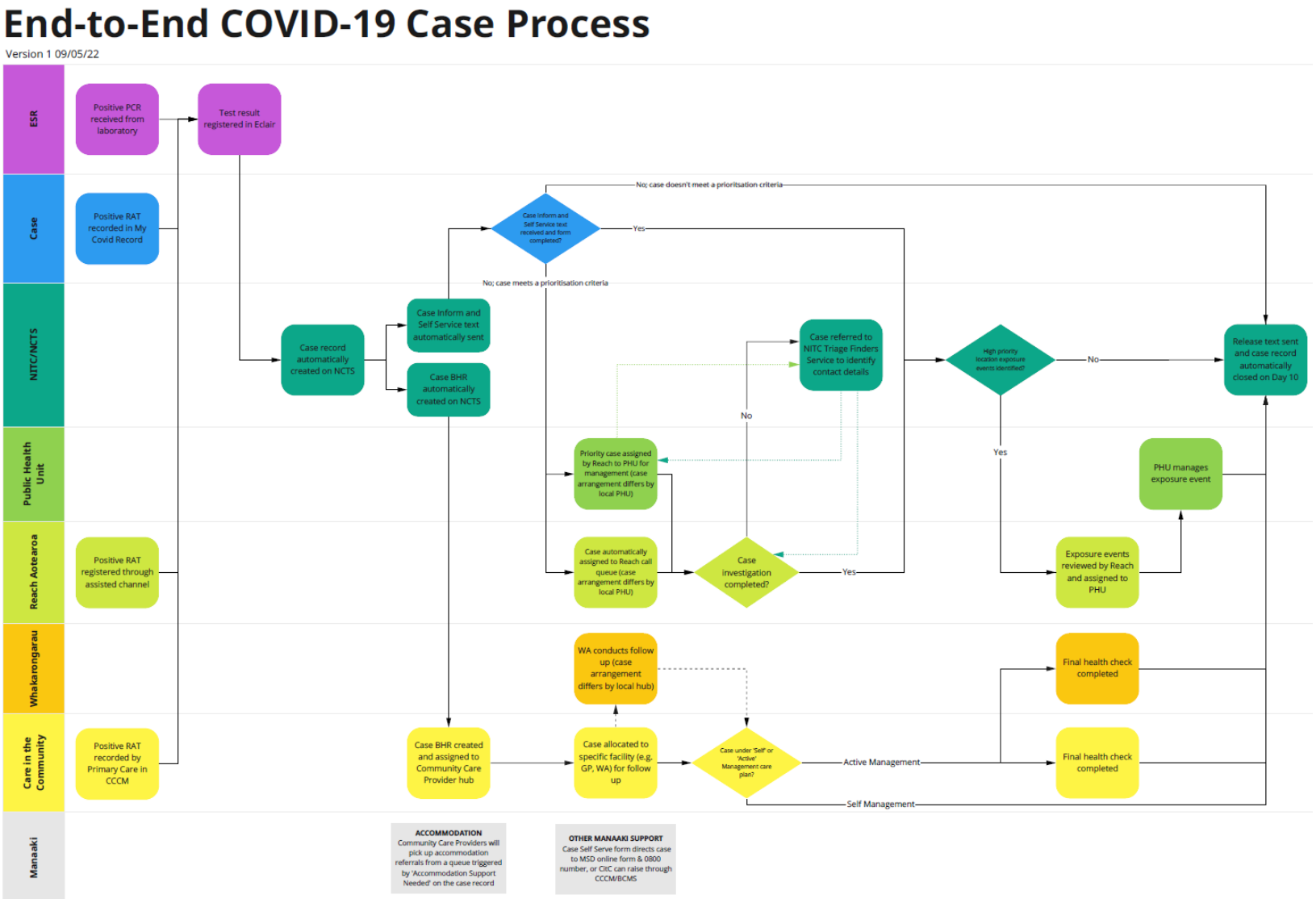
Appendix 3: Ministry of Health case and contact actions ("rainbow diagram")

Guidance on community cases and contacts: categories and actions – effective from 16 May 2022 (version 8.4)

New Zealand Government
Te Kāwanatanga o Aotearoa

Category	Description	Actions for the Case or Contact	Actions/Advice for Public Health/National Investigation and Tracing Centre (NITC)/District Health Boards (DHBs)
Healthcare workers who are cases or contacts should follow instructions from their employer and/or refer to Guidance for return to work for healthcare workers.			
Not a contact	General public and surveillance testing	• Asymptomatic: self-monitor for symptoms • Symptomatic: undertake a rapid antigen test (RAT) if symptomatic. If the RAT is negative, and symptoms persist/worsen, then test again 48 hours after the negative test. If symptoms resolve, there is no need for a further test	• None
Close contact	Household members of a case	• **Whole household has the same day 0** as the initial case - household members only commence their isolation once the case has received a positive test result; self-release on the same day as the case, provided they have no new or worsening symptoms, and a negative day 7 test ➢ If a positive case enters a household partway through their isolation period (e.g., student returning from hostel to home, or shared care situations), the new household is required to isolate for 7 days **from the date of entry** of the case (7 days from exposure). • Avoid or minimise contact with case to the greatest extent possible during the isolation period • On **day 3 and day 7** of isolation, the household members get a RAT • If symptoms develop at any stage, get an additional RAT. If RAT is negative, and symptoms persist/worsen, get another RAT 48 hours later. If second RAT is negative, they are not a case; no need for a further test, until RAT to release on day 7 • If symptoms resolve, no need for a further test, until RAT to release on day 7 • If negative RAT on day 7 but newly symptomatic, recommend a further RAT is done 48 hours later (day 9). If that second RAT is negative, they are not a case. If still has symptoms, advise to stay at home until 24 hours after symptoms resolve • If RAT results are positive at any stage, commence 7 days self-isolation as a case • Self-isolation does not restart if additional members of the household are identified as cases within the initial case's 7 days isolation period • If a new case develops in the household: ➢ within 10 days of the initial case being released from isolation then other household members **do not** need to re-isolate ➢ more than 10 days after the initial case was released then household members (other than those who became cases) **do** need to re-isolate for 7 days • Avoid attending high risk settings (as a visitor) (e.g., aged care facilities, prisons, hospitals (unless requiring care)) until 10 days have passed since exposure to COVID-19	• Support critical infrastructure/health workforce to work using the Close Contact Exemption Scheme if required
	Cases with an onset of COVID-19 infection within the last 90 days, are not considered a household close contact and not required to re-isolate during this time.		
	All other close contacts	• Known contacts notified directly by the case, their workplace or education settings; unknown contacts may be notified by Bluetooth • No legal requirement to self-isolate • Self-monitor for symptoms for 10 days • If symptoms develop at any time during the 10 days, test immediately and stay at home until negative test result received AND until 24 hours after symptoms resolve	
Case	Confirmed case if a PCR or Probable case if a RAT	• PCR or RAT positive • Upload RAT result to My Covid Record (both positive and negative results must be recorded) • Notified by text message • Complete online contact tracing form if possible • **Day 0** is when symptoms developed or date of test if asymptomatic, whichever comes first • Self-isolate at home for 7 days. Avoid contact with other household members to the greatest extent possible during the isolation period • Wear mask and physical distance in shared spaces • Self-release after completion of 7 days of isolation; do not re-test prior to release • If a person is isolating and still has symptoms after 7 days, advise to stay at home until 24 hours after symptoms resolve • Avoid attending high risk settings (as a visitor) (e.g., aged care facilities, prisons, hospitals (unless requiring care)) until 10 days have passed since considered a positive case	• Phone interviews for priority populations/incomplete forms/those who are unable to complete online contact tracing form • Manage complex case investigations and high-risk exposure events • Consider a managed isolation facility (MIF) in exceptional circumstances, for case and/or household members
Reinfection with COVID-19 within 90 days is unlikely. For 90 days following onset of infection, no further self-testing for COVID-19 is recommended. Regular surveillance testing is not recommended. Cases with an onset of COVID-19 infection within the last 90 days who are unwell with new COVID-19 like symptoms, should seek a further advice from their GP or health provider regarding reinfection vs. other illness. Those that choose to self-test and are positive but asymptomatic, will not be considered a new case without further health provider consultation.			

Appendix 4: End to end COVID-19 case process (MoH 09/05/22)



Document Control

Protocol review task	Responsibility	Date completed
Advise team of review (and planned timeframes)	PHS	24/01/20
Document owner to commence a new draft directly into a new EDMS version	PHS	24/01/20
Review Ministry of Health (MoH) advice, literature, other protocols, and write draft update	PHS	25/01/20
Update Fact Sheet (or source link from MoH website)	PHS	n/a
Send drafts to MOsH, CD, Team Leader, and HPO for feedback	PHS	25/01/20
Update drafts further as required.	PHS	n/a
Send final drafts to Com Dis MOH	PHS	n/a
Com Dis MOH sign-off	Com Dis MOH	25/01/20
Send final drafts to Clinical Director for approval	Com Dis MOH	25/01/20
Clinical Director approval (via EDMS authorisation workflow task)	CD	(V1) 25/01/20
Complete **electronic** document control tasks incl. header; footer; eMDS metadata. Check CPH P&P site page links work. Create .pdfs (for external links), and save to: • Protocols – Y:\CFS\Quality\ApprovedDocuments\ProtectionTeam\IntranetPROTOCOLS • Fact Sheets – Y:\CFS\Quality\ApprovedDocuments\ProtectionTeam\FactSheets Above folders are checked once a week and new documents are uploaded to: • Protocols – Surveillance (PHU server) website and Dropbox • Fact Sheets – CPH website or links are checked to MoH website	QC	V41, 26/05/22
Update **paper** copies (on-call folder/ vehicle)	HPO	n/a
Advise operational/ regional staff of update, summarising any substantial changes (text highlighted in **blue** in document)	QC	V41, 26/05/22
When new information is required to be added, the document owner opens the current EDMS version and commences editing. A review workflow may be used for major updates.	PHS	ongoing
A variety of updates reflecting latest Ministry advice.	PHS/ CD	V1 06/04/20 – V28 27/08/21
Minor update v 29. Added information about Delta variant. Removed previous Appendix 5 with now outdated "weak positive" scenarios. Added links to Auckland outbreak documentation.	PHS/CD	16/09/21
Major update v 30. New information from CDNA guidelines. Extensive new advice on case and contact management from Ministry in response to Auckland-centred outbreak. Added section on outbreak/cluster management. Removed some detailed advice no longer considered relevant.	PHS/CD	V30, 16/11/21
Minor update v 31. Further updates to Ministry Rainbow chart. Added Ministry advice re hospitalised patients and persistent symptoms. Reorganised Case Management section. Included ARPHS advice on recovered cases. New appendix with key details summary. Further reduction in other detail.	PHS/CD	V31, 22/11/21
Major update v 32. Extensive changes to MoH advice, plus Omicron information.	PHS/CD	V32, 24/12/21
Minor update v 33. Corrected error in p25 version of Table 1. No change to "blue" colouring.	PHS/CD	V33, 10/01/22
Minor update v34: Wide-ranging updates for Omicron.	PHS/CD	V34 26/01/22
Major update v35: Wide-ranging updates for Omicron Phase 2	PHS	V35 21/02/22
Major update v36: Wide-ranging updates for Omicron Phase 3	PHS	V36, 24/02/22
Major update v37: Wide-ranging updates for Omicron Phase 3	PHS	V37, 10/03/22
Minor update v38: amended Order, changes in isolation period, discrepancy between legal and website isolation requirements noted	PHS	V38, 14/03/22
Minor update v39: updated Ministry POL-002 tables, Ministry clarification re post-COVID vaccination and post-COVID testing, re-isolation of household members after further household cases, information about long COVID.	PHS	V39, 18/03/22
Minor update v40: updated advice about post-COVID-19 booster vaccination delay, updated MoH deaths reporting protocol, removed advice for cases and contacts to avoid high-risk settings until Day 10, new Appendix 4 with MoH end-to-end process, MoH reinfection guidance added, updated advice for clearance from isolation of hospitalised cases,	PHS	V40, 13/05/22
Minor update v41: updated "rainbow diagram", links to new CPH and MoH deaths reporting procedures, rearranged case classification and removed reference to Higher Index of Suspicion cases (finally), as per MoH website changes; MoH clarification about close contact definition for internal travellers.	PHS	V41, 26/05/22