

Monkeypox – clinical update

25th May 2022

This update is based on current information and the situation may quickly change within New Zealand. Further information and advice will be provided when known.

Current situation

There are no suspected or confirmed cases of monkeypox in New Zealand

- Monkeypox is a zoonotic virus (transmission occurring animal-to-human) which is endemic in parts of Central and West Africa. Outbreaks outside of the African continent occasionally occur but are often small due to low transmissibility of the virus.
- On 17th May 2022 a confirmed case of monkeypox was notified by the United Kingdom. This is now a global outbreak with 131 cases confirmed in 19 countries outside of where monkeypox is endemic. Most infections are among men who have sex with men (MSM).
- Two monkeypox cases have been confirmed cases in Australia.

Risk assessment

- Overall, there is a low to moderate public health risk to New Zealand from monkeypox. The risk of importation of monkeypox is moderate.
- If there are any monkeypox cases in New Zealand:
 - the risk transmission among people with multiple sexual partners is considered high
 - the likelihood of widespread community transmission is very low
 - the risk of sustained transmission if there are any cases is low with adequate contact tracing measures in place.
- The level of risk is being reviewed regularly as new information emerges internationally

Monkeypox transmission and symptoms

Monkeypox is currently not a notifiable disease in New Zealand, however clinicians are asked to report any suspected cases to the local Medical Officer of Health.

Transmission

- Monkeypox transmission typically occurs animal-to-human via rodents. While it is rare, monkeypox virus can be transmitted person-to-person by close contact with skin lesions, body fluids, respiratory droplets and contaminated materials such as bedding.
- An individual is contagious until all the scabs have fallen off and there is intact skin underneath. The scabs may also contain infectious virus material.

Symptoms

- From exposure, incubation is usually six to 13 days but can range from five to 21 days.

- First symptoms (prodrome) of monkeypox include fever, intense fatigue, headache, muscle ache, backache and lymphadenopathy. A person may sometimes be contagious during this period.
- Following the prodrome, which usually has a duration of one to three days, a rash develops. Lesions first begin in the mouth and spread to the face, arms and legs. Lesions start as a macular rash that develops into papules, vesicles, then pustules, which crust and fall off. A person is no longer considered infectious once all scabs have fallen off.
- Most cases are mild with people recovering within two – four weeks.

Monkeypox case definition

An interim case definition for monkeypox has been developed by the Ministry of Health and ESR and will be reviewed as information changes.

Clinical criteria

A clinically compatible illness is characterised by:

- One or more of the following signs or symptoms
 - Headache
 - Acute onset of fever (>38.0C),
 - Chills
 - Lymphadenopathy (swollen lymph nodes)
 - Myalgia (muscle and body aches)
 - Backache
 - Tiredness

AND

- An acute unexplained and compatible rash (typically vesiculopustular, but progresses from macular to papular then pustular then scabbing). Note, recent cases in other jurisdictions have atypically presented with localised rather than widespread lesions e.g. oral or ano-genital.

Epidemiological criteria

At least one of the following:

- Exposure¹ to a confirmed or probable case in the 21 days before symptom onset
- History of travel to an area² where monkeypox is endemic or where there is a current outbreak in the 21 days before symptom onset
- Is a priority group for testing

At this time priority groups for testing include the following:

- Persons who had multiple or anonymous sexual partners in the 21 days before symptom onset
- Gay, bisexual or other men who have sex with men (MSM).

¹ Exposure: direct physical contact with skin or skin lesions, including sexual contact; or contact with contaminated materials such as clothing, bedding or utensils; or face-to-face, including health care workers without appropriate PPE

² Please refer to the last WHO information: <https://www.who.int/emergencies/emergency-events/item/2022-e000121>

Laboratory test for diagnosis

Laboratory confirmation requires the detection of monkeypox virus nucleic acid by PCR from an appropriate clinical sample.

Case classification

- Under investigation: A case that has been informed (notified once the legal process has been worked through), but information is not yet available to classify it as probable or confirmed.
- Probable: A person who meets the clinical AND epidemiological criteria BUT does not have laboratory confirmatory evidence of monkeypox infection.
- Confirmed: A case that is laboratory confirmed.
- Not a case: A case that has been investigated and subsequently found not to meet the case definition.

Close contact

A close contact is defined as a person with one or more of the following exposures to a probable or confirmed monkeypox case:

- face to face exposure (including healthcare workers without appropriate PPE)
- direct physical contact, including sexual contact
- contact with contaminated materials such as clothing or bedding

Managing monkeypox

Prepare by looking out for signs and symptoms consistent with monkeypox particularly in returned travellers or people who have had close contact with recent traveller. Ensure infection prevention controls are on hand including droplet precaution.

Inform your local medical officer of health³ and clinical microbiologist at your local laboratory on suspicion of a monkeypox case, prior to the collection of any samples.

Test cases who meet the clinical AND epidemiological criteria. In addition to Standard Precautions, Contact and Airborne Precautions should be adhered to for clinical assessment and collection sample use:

- eye protection
- P2/N95 mask
- fluid repellent gown
- gloves⁴

Collect 3x viral swabs from vesicle/pustule fluid in UTM – ideally at least 3 separate vesicles/pustules. Lesions may need to be de-roofed in order to collect the vesicle/pustule fluid and the base of the lesion swabbed vigorously.

A dedicated 4ml EDTA blood is also recommended if the patient presents with signs of systemic illness such as fever. Scab lesions or crust material should be sent to the laboratory in a sterile pottle.

³ <https://www.health.govt.nz/new-zealand-health-system/key-health-sector-organisations-and-people/public-health-units/public-health-unit-contacts>

⁴ <https://www.ecdc.europa.eu/sites/default/files/documents/Monkeypox-multi-country-outbreak.pdf>

Samples must be clearly labelled and indicated on the request form as possible monkeypox, including that the Medical Officer of Health and clinical microbiologist have been consulted.

Advise probable cases to isolate, avoid close contact (including kissing or sexual contact) with others while waiting test results. It is important they do not share bedding or clothing with others while symptomatic.

Manage the case with daily check-ins to monitor symptoms. Probable and confirmed cases will need to be isolated until they are no longer infectious (when the scabs have crusted and fallen off). It is recommended that close contacts are monitored daily with twice daily temperature checks. If symptoms develop, they will need to isolate.

Contact tracing of cases and close contacts will be undertaken by the local Medical Officer of Health/Public Health Unit in consultation with the treating physician or sexual health clinic when appropriate. This will include close monitoring of symptoms for close contacts and potentially using isolation and quarantine measures if needed. Options for post exposure vaccine prophylaxis for close contacts are being explored (see Vaccinations section below).

Treatment advice can be provided by your local Infectious Disease Physicians. The Ministry of Health Therapeutic Technical Advisory Group is developing advice around use of vaccines or antivirals for cases and close contacts.

Vaccinations

- There is no vaccine specifically for monkeypox, however some smallpox vaccines can provide some protection against monkeypox for those who have been identified as close contacts.
- Older smallpox vaccines (second generation) that were used as part of the childhood vaccine programme up until 1980 in New Zealand are *not* appropriate or approved for monkeypox.
- Other countries, including Australia, have a newer second-generation smallpox vaccine that is being offered to close contacts at high risk of infection.
- A newer smallpox vaccine (third generation) was approved for use in United States in 2019 for the prevention of monkeypox, however there are limited international supplies. This vaccine is currently being used in the United Kingdom.
- The Ministry of Health is exploring options to secure access newer second generation and third generation smallpox vaccines that have been used for monkeypox prophylaxis in other countries.

Further actions being taken

- The Ministry of Health has established an Incident Management Team and will continue to monitor the situation and establish an outbreak response if one or more cases are identified.
- Risk assessments will be undertaken weekly or as required
- The Ministry of Health is exploring options for access to smallpox vaccines that can be considered for targeted prevention of monkeypox.
- ESR is coordinating testing of monkeypox samples.
- Advice around case definition, testing protocols, and treatment is being refined as more is known internationally and will be shared with the sector.

More information

For more information, including updates on overseas case numbers and investigations, please refer to:

- Ministry of Health: <https://www.health.govt.nz/our-work/diseases-and-conditions/monkeypox>
- Monkeypox photos and dermatologist advice: <https://dermnetnz.org/topics/monkeypox>
- WHO: <https://www.who.int/emergencies/emergency-events/item/2022-e000121>
- UK: <https://www.gov.uk/government/news/monkeypox-cases-confirmed-in-england-latest-updates>
- ECDC: <https://www.ecdc.europa.eu/en/news-events>
- CDC: <https://www.cdc.gov/poxvirus/monkeypox/outbreak/us-outbreaks.html>