

Updated 22 December 2022

Poliomyelitis email update for clinicians

SUBJECT LINE: INCREASED RISK OF POLIO

There is an increased risk of polio entering Aotearoa New Zealand due to an evolving international outbreak situation.

Te Whatu Ora and Manatū Hauora are working with a range of experts in this field together with laboratories on ensuring the national preparedness and response plans are fit for purpose.

Manatū Hauora is working with the Institute of Environmental Science and Research to establish wastewater surveillance for polio.

The international situation will continue to be monitored and updates will be provided when new information becomes available, when guidance documents are finalised and where specific actions are required from the health sector.

This email contains important information and actions for clinicians and healthcare workers

Actions for health professionals

General practitioners and practice nurses

- Review the polio vaccination status of children (first priority those aged <5 years and then those aged <16 years) and strongly recommend vaccination with IPV (and other missed vaccines) where catch-up is needed. See the [Immunisation Handbook](#) or phone the Immunisation Advisory Centre (IMAC) on 0800 466 863 for catch-up schedules.
- Recommend polio vaccination to any unvaccinated or insufficiently vaccinated adults.
- Advise those travelling overseas in the next year to ensure they are fully vaccinated against polio (alongside MMR). Note, those visiting family and friends overseas are less likely to seek specific pre-travel consultation.

Hospital and urgent care clinicians

- Consider poliovirus in any medical presentation with Acute Flaccid Paralysis (AFP).
 - Ensure that two stool samples (at least 24 hours apart) are collected from all patients. Please contact your local clinical microbiologist or virologist for further advice on testing.

AFP case	Action
Aged 15 and over	Notify AFP case directly to a medical officer of health (MOoH) at the local public health service as soon as possible. Do not await laboratory confirmation before notifying.
Aged 14 and under	Notify all cases of AFP in children to the NZ Paediatric Surveillance Unit (NZPSU) by email nzpsu@otago.ac.nz or phone 021 279 1728. Do not await laboratory confirmation before notifying.

- See below for Infection Prevention and Control measures for suspected polio cases

Laboratory staff

- Refer to [Communicable Disease Control Manual](#) for updated testing guidance.
- Continue to notify any positive test results to the local MOoH.

Public Health Services

- For notified AFP cases, please ensure the appropriate testing has been requested.
- Consider whether any public health action is required prior to test results being available. Factors to consider include vaccination status and travel history for 35 days prior of the individual with AFP and any close contacts, and likelihood of alternative diagnoses.
- Where there is a high index of suspicion of polio OR support is required from the national public health physician on call, notify Manatū Hauora /Te Whatu Ora on 0800 GET MOH.
- Where there is a positive polio test result notify Manatū Hauora /Te Whatu Ora on 0800 GET MOH **urgently**.
- If it is a paediatric case aged 14 and under, check that the NZPSU has been informed. *Note: The NZPSU will advise Manatū Hauora/Te Whatu Ora of all AFP notifications received, and the relevant public health service will be informed.*

Infection prevention and control guidance for health services

Poliomyelitis is commonly transmitted via contact (faecal-oral route) or by droplet spread.

- Isolation – patient should be in a single room with own ensuite bathroom or dedicated commode.
- Standard and transmission-based precautions should be adhered to.
- Hand hygiene – use soap and water, dry hands thoroughly then use hand sanitiser.
- Personal Protective Equipment - use gloves and apron for contact protection. Add eye protection (face shield or goggles) for protection against droplets and a well-fitting medical mask when working with patients who have respiratory symptoms and/or when needing to take oropharyngeal swabs. Current guidance recommends use of medical mask as a minimum requirement for healthcare workers in clinical zones, however staff may choose to wear a P2/N95 particulate respirator if that is their preference.
- Source control – offer a medical mask to patient, if patient is able to tolerate and is age appropriate.
- Cleaning/disinfection. Common household bleach (0.5%) sodium hypochlorite solution is effective against polio virus.

Background information

Poliomyelitis

Polio is caused by infection with either wild type poliovirus (type 1) or by vaccine derived polioviruses. It is highly infectious and spreads through faecal-oral (main route) and respiratory droplet transmission. It is estimated that 90-100% of susceptible household contacts will become infected¹.

Most people with polio are asymptomatic or have flu-like symptoms. However, it can cause serious neurological symptoms including meningitis (up to 1 in 25 cases) and permanent paralysis (up to 1 in 200 cases²). There are no effective treatments for polio.

Polio should be excluded in all people presenting with acute flaccid paralysis (AFP).

Acute Flaccid Paralysis (AFP)

AFP is a clinical syndrome defined by acute onset of weakness or paralysis with reduced muscle tone. Polio is one of many causes of AFP. Other causes are Guillain Barre Syndrome (most common cause), transverse myelitis and other viruses such as non-polio enteroviruses.

Source: https://www.nicd.ac.za/wp-content/uploads/2017/03/AFPPolio_FAQ_20180121.pdf

Epidemiology

There has been a recent increase in polio worldwide, including in areas where it had previously been eradicated. This includes New York and Jerusalem, who have had confirmed cases of circulating vaccine derived polio and ongoing wastewater detections, and London who have ongoing wastewater detections but no confirmed cases to date. Most recently a case of polio has been confirmed in Indonesia in a child with AFP. Three additional people with asymptomatic poliovirus infection were subsequently identified from within the same community.

As of 30 November 2022, there were 33 countries on the [WHO list of Polio Outbreak Countries](#).

New Zealand's last case of wild polio infection was in 1976 and the most recent case of vaccine associated polio was in 1999. There have been no cases since the change from using oral polio vaccine to injectable inactivated polio vaccine (IPV) on the immunisation schedule in 2002. **The changing international situation increases the likelihood of polio entering Aotearoa.**

Polio immunisation rates

During the COVID-19 pandemic, childhood immunisation coverage dropped globally, including in Aotearoa. This means that if polio enters Aotearoa, the risk of it spreading and causing paralysis, especially to younger children, is greater than it has been in pre-COVID-19 years.

¹ Centers for Disease Control and Prevention. Epidemiology and Prevention of Vaccine-Preventable Diseases. Washington, D.C: Public Health Foundation; 2021.

² <https://www.cdc.gov/polio/what-is-polio/index.htm>

We aim for 95 percent coverage to give herd immunity for childhood diseases such as polio and unfortunately our current rates fall short of this. Some regions are reporting rates as low as 77 percent coverage for tamariki at 12-months-old and 70 percent for those at five-years-old. There are also some significant gaps in coverage for older children. We know there is a significant equity gap in some parts of the motu and these averages hide some very low coverage suburbs. Previous serosurveys show adults, including young adults, are well protected.

Polio notification and surveillance

Polio is a notifiable disease in Aotearoa and clinicians are required to notify all suspected and confirmed polio cases to their local Medical Officer of Health. A single case of polio would be considered an outbreak and a rapid public health response is required.

In the current context, it is recommended that all cases of Acute Flaccid Paralysis (AFP) be considered suspected polio cases for notification and testing purposes. Testing to confirm or exclude polio should be undertaken urgently.

As part of the WHO initiative to eradicate polio, Aotearoa has a programme of surveillance and investigation of all cases of AFP in children under the age of 15 to confirm that polio was not the cause of their symptoms. This programme is run by the Paediatric Surveillance Unit in Dunedin.

Key contacts:

Te Whatu Ora/ Manatū Hauora: phone 0800 GET MOH or email notifycommndiseases@health.govt.nz

NZ Paediatric Surveillance Unit Contact details: email nzpsu@otago.ac.nz or phone 021 279 1728

Further information

- Polio chapter of the Communicable Disease Control Manual: information on public health management of polio: <https://www.health.govt.nz/our-work/diseases-and-conditions/communicable-disease-control-manual/poliomyelitis>
- Polio chapter of the Immunisation Handbook: information on polio vaccination. <https://www.health.govt.nz/our-work/immunisation-handbook-2020/17-poliomyelitis>
- The Paediatric Surveillance Unit: information on paediatric AFP surveillance and monitoring <https://www.health.govt.nz/our-work/diseases-and-conditions/communicable-disease-control-manual/poliomyelitis><https://www.otago.ac.nz/nzpsu/otago058695.pdf>
- Health Navigator: Polio information for the general public: <https://www.healthnavigator.org.nz/health-a-z/p/polio-post-polio-syndrome/>