

NSW Control guidelines for Public Health Units

High Revision History			
Version	Date	Revised by	Changes
2	Dec 2024	One Health Branch	Include Vibriosis condition Include minimum data

NSW guidance

There are no Series of National Guidelines for cholera. This document provides NSW guidance on the surveillance and management of cholera infections.

1. Summary

Public health priority:	High
PHU response time:	Respond to probable and confirmed cases within one day of notification. Enter confirmed cases on NCIMs within one working day.
Case management:	Treatment is managed by the treating doctor - Case usually needs fluid and electrolyte replacement. Identify likely source of infection. Notify One Health Branch
Contact management:	Education
Roles & Responsibilities:	PHU: Case follow-up, case classification, data quality HPNSW: Notifying the National Incident Room of international exposures.

2. Reason for surveillance

- To identify the source of infection, stop transmission and fulfil international cholera reporting requirements.

3. Case definition

Only confirmed cases should be notified

Confirmed case

A confirmed case requires laboratory definitive evidence only

Laboratory definitive evidence

Isolation of toxigenic *Vibrio cholerae* O1 or O139

Factors to be considered in case identification

Laboratory diagnosis of cholera involves isolation of toxigenic *V. cholerae* serogroups O1 or O139 from a clinical specimen such as stool or vomitus. Special media are required.

4. Notification criteria and procedure

Cholera is to be notified by:

- Hospital CEOs on clinical diagnosis

- Laboratories on microbiological confirmation

All cases of *V. cholerae* should be entered onto NCIMS on the day of notification, toxigenic results are performed at the enteric reference laboratory, with results typically available within 3 working days after specimens are received.

5. The disease

Infectious agent

The toxigenic bacillus *Vibrio cholerae*, serogroups O1 and O139.

Mode of transmission

Cholera is transmitted by ingestion of food, particularly seafood or water contaminated with faeces or vomitus of infected persons.

Most cases reported in NSW are acquired in developing countries. Rarely, infection may be acquired from local sources such as contaminated rivers (especially in northern NSW and Queensland) and imported foods, particularly seafood that is eaten raw.

Timeline

The typical incubation period is from a few hours to 5 days, usually 2 to 3 days.

Cholera is presumed to be infectious while stools are positive for *V. cholerae*, which is usually only a few days after recovery. Occasionally a carrier state may persist for several months.

Clinical presentation

The usual clinical presentation is characterised by a sudden onset of profuse watery diarrhoea, occasional vomiting and dehydration. Asymptomatic and mildly ill cases are common, especially among children.

Laboratory process in NSW

Vibrio species can grow on a wide variety of bacteriological media and specialised selective/differential media for *Vibrio* species. In NSW, laboratories do not routinely use specialised media for *Vibrio* species, unless the *Vibrio* culture is requested by the treating clinician, or by some laboratories if there is suspicion that the patient has cholera or vibriosis. A presumptive identification of the *Vibrio* species can be made from growth on differential media such as TCBS but will require confirmation using additional laboratory tests.

Vibrio bacteria can also be detected using nucleic acid tests (NAT) by laboratories that use gastrointestinal pathogen multiplex assays containing *Vibrio* species as one of the targets. A culture of the isolate from the primary sample will be required to identify the *Vibrio* species detected by the

NAT and to differentiate between vibriosis and cholera. It is important to note that the NAT cannot discriminate between live and dead bacteria present in the sample.

If *V. cholerae* is identified the isolate must be sent to the enteric reference laboratory for further testing to establish if it is an O1 and O139 serogroup.

6. Managing single notifications

Response times

Investigation

Within one day of notification of a possible* or confirmed case begin follow-up. Cases should be entered as a vibriosis case until typing and toxin results are available. It is likely that there will be some delay in toxin results, however case follow up should commence immediately.

*possible = *Vibrio cholerae* case pending toxin results

Data Entry

Required data	Where to enter data in NCIMS
Clinical symptoms and onset date	Clinical package
Place of exposure/acquisition	Both in Clinical and Risk History packages
Seafood and water exposures	Risk History package

Within 1 working day of notification enter possible and confirmed cases on NCIMS. Update NCIMS with serogroup once available and change the condition type to Cholera. Non-toxicogenic cases will remain as Vibriosis on NCIMS.

Response procedure

The response to a notification will normally be carried out in collaboration with the case's health carers. But regardless of who does the follow-up, PHU staff should ensure that action has been taken to:

- confirm the onset date and symptoms of the illness
- confirm results of relevant pathology tests, or recommend the tests be done
- find out if the case or relevant caregiver has been told what the diagnosis is before beginning the interview
- seek the doctor's permission to contact the case or relevant caregiver
- review case and contact management
- determine if case had travelled overseas.
 - Cholera is an event that may require notification under international health regulations.
 - Collect as much information as possible on specific dates and places of travel including resort names, activities and transport details.

- Notify One Health Branch with a summary of travel and an assessment of whether the event is unexpected (e.g., originating from a non-endemic area for cholera) and if it poses a risk for further international spread. The Department of Health and Ageing communicates this information to the relevant international health authorities.
- for cases with no overseas travel, complete a 3-day food history as per the [hypothesis generating questionnaire](#). Collect as much detail as possible in relation to any imported and local seafood products consumed and river and sea exposures. Alert One Health Branch who will share the information with other jurisdictions and may initiate active surveillance.

Case management

Investigation and treatment

Treatment is managed of the diagnosing doctor. Maintaining fluid and electrolyte balance is important.

Ensure that the laboratory sends the *V. cholerae* isolate to ICPMR for typing and toxin testing.

Education

Inform the case or relevant caregiver about the nature of the infection and the mode of transmission. Emphasise the importance of hygienic practices, particularly hand washing before eating, preparing food and after using the toilet. Advise them not to share linen and towels used by the case and to wash these items separately in hot water.

Isolation and restriction

Cases who are food handlers and carers of patients, children and the elderly are required not to attend work until 2 stool specimens 24 hours apart are negative for *V. cholerae*.

Contact management

Identification of contacts

Persons at risk of infection are those who shared food or drink with an infectious case, travelled with the case or those who have eaten from an implicated food source.

Investigation and treatment

Contacts should be advised to seek medical attention and report to the PHU if symptoms develop in the 5 days after last exposure to an infectious case or implicated source.

Passive immunisation: None.

Active immunisation: Active immunisation with cholera vaccine is of little practical value for contacts of cases.

Education

Advise susceptible contacts (or parents/guardians) of the risk of infection; counsel them to watch for signs or symptoms of cholera occurring within 5 days of exposure to an infectious case or contaminated source.

Isolation and restriction

None.