Communicable Diseases Protocol

Cholera

Last updated: 1 July 2012

Public health priority:
High
PHU response time:
Respond to probable and confirmed cases within day of notification
Enter confirmed cases on NCIMS within 1 working day
Case management:
Case usually needs fluid and electrolyte replacement
Identify likely source of infection
Notify Communicable Diseases Branch
Contact management:
Contacts who were exposed to the same source of infection should be advised of the risk

1. Reason for surveillance

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

2. Case definitions

A confirmed case of cholera requires laboratory definitive evidence.

Laboratory evidence
Isolation of toxigenic *Vibrio cholerae* O1 or 0139.

Clinical evidence
Not applicable.

Epidemiological evidence
Not applicable.

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, the laboratory should be notified if a patient with diarrhoea has recently returned from overseas.

3. Notification criteria and procedure

Cholera is to be notified by:

- Hospital CEOs on clinical diagnosis (ideal reporting by telephone on same day of diagnosis)
- Laboratories on microbiological confirmation (ideal reporting by telephone on same day of diagnosis).

All cases of *V. cholerae* should be entered onto NCIMS on the day of notification.

Note that cholera is subject to the Commonwealth Quarantine Act (1908).

4. The diseases

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..

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.

5. Managing single notifications

Response times

Investigation
On same day of notification of a possible or confirmed case begin follow-up and notify CDB. Cases should be entered as a possible 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. CDB will forward data on confirmed cases onto the Commonwealth.

Data entry
Within 1 working day of notification enter possible and confirmed cases on NCIMS. Update NCIMS with serogroup once available. Non-toxigenic cases will be excluded automatically on NCIMS once serogroup is entered.

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 care-giver has been told what the diagnosis is before beginning the interview
- Seek the doctor's permission to contact the case or relevant care-giver
- Review case and contact management
- Determine if case had travelled to cholera endemic area (refer to http://www.who.int/topics/cholera/en/). Collect as much information as possible on specific dates and places of travel including resort names and activities. If case acquired infection while travelling overseas in an area not known to be endemic the Department of Health and Ageing will communicate this information to the relevant 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 swimming.

Case management

Investigation and treatment
Maintaining fluid and electrolyte balance is important.
Ensure that the laboratory sends the *V. cholerae* isolate to ICPMR for typing.

Education
The case or relevant care-giver should be informed about the nature of the infection and the mode of transmission. Emphasise the importance of hygienic practices, particularly hand washing before eating and preparing food and after going to the toilet. Linen and towels used by the case should not be shared, and should be washed separately in hot water.

Isolation and restriction
Strict isolation of cases is not necessary, provided good hygiene is observed.

Cases who are food handlers are required not to attend work until 2 stool specimens 24 hours apart are negative for *V. cholerae*.

Environmental evaluation
If a food source is suspected, contact the NSW Food Authority. If available, samples of any residual food or water suspected from the epidemiological investigation should be collected for laboratory analysis. If a septic tank has become contaminated, disinfection may be required.

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
Investigation
Stool culture from contacts is recommended. 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.