

Hepatitis E

Revision History				
Version	Date	Revised by	Changes	Approval
1.1	01 Jul 2015	CDWG	Case definition	CDNA

Public health priority:

High

PHU response time:

Respond to confirmed cases on day of notification, enter confirmed cases on NCIMS within 1 working day

Case management:

Identify likely source and advise on prevention of further spread

Contact management:

Advise about risk of infection

1. Reason for surveillance

- To identify source of the infection and so prevent further cases
- To monitor the epidemiology and so inform the development of better prevention strategies.

2. Case definition

Reporting

Only confirmed cases should be notified

Confirmed case

A confirmed case requires laboratory definitive evidence , OR
Laboratory suggestive evidence AND clinical evidence

Laboratory definitive evidence

Detection of hepatitis E virus in faeces by electron microscopy, **or**

IgG seroconversion or a significant increase in antibody level or a fourfold or greater rise in titre to hepatitis E virus.

Laboratory suggestive evidence

Detection of IgM or IgG to hepatitis E virus.

Clinical evidence

A clinically compatible illness without other apparent cause.

3. Notification criteria and procedure

Hepatitis E is to be notified by:

- Medical practitioners and hospital CEOs on provisional clinical diagnosis of acute viral hepatitis (ideal reporting by telephone on same day of diagnosis)

- Laboratories on confirmation (ideal reporting by telephone on same day of diagnosis).

Only confirmed cases should be entered onto NCIMS.

4. The disease

Infectious agents

The hepatitis E virus (HEV), an RNA virus.

Mode of transmission

Hepatitis E is mainly transmitted by the faecal-oral route. Faecally contaminated drinking water is the most commonly documented vehicle of transmission.

Timeline

The incubation period ranges from 15 to 64 days with a mean of 26 to 42 days reported in various epidemics.

The period of communicability is not known, but HEV has been detected in the stool 14 days after the onset of jaundice.

Clinical presentation

The usual clinical presentation is very similar to that of hepatitis A. There is no evidence of a chronic form. The case-fatality rate is similar to that of hepatitis A, except for women in the third trimester of pregnancy where it is about 20 percent.

5. Managing single notifications

Response times

Investigation

Within 1 working day of notification of a confirmed case begin follow-up investigation.

Data entry

Within 1 working day of notification enter confirmed cases 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 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, ensuring that relevant exclusions have been made
- Ensure proper control measures are taken to prevent further spread.

Case management

Investigation and treatment

Treatment is supportive only.

Education

The case or relevant care-giver should be informed about the nature of the infection and the mode of transmission. Education should include information about hygienic practices, particularly hand-washing before preparing food, eating and after going to the toilet.

Adult cases should also be advised, during the infectious period:

- Not to donate blood
- Not to prepare or handle food to be consumed by other people

- Not to practise oral or anal sex
- Not to share drug paraphernalia
- To advise health care workers of infection.

Exposure investigation

Information regarding exposures during the period 2 to 9 weeks before onset of jaundice should be sought. This should include information about travel.

If the patient has not travelled to an endemic area, then it is very important to confirm that the diagnosis is correct and if so, identify the likely source of infection. Ask about:

- Household and sexual contacts who have had an illness consistent with hepatitis
- Restaurants where the case has eaten
- Social gatherings where the case has eaten
- All sources of drinking water
- Consumption of raw or partially cooked shellfish
- Attendance or employment at child care centres by case or household contacts
- Illicit drug use
- Travel by household contacts to countries with endemic hepatitis E
- Recreational water exposure.
- Exposure to sewage.

Isolation and restriction

Confirmed and probable cases should not attend child care facilities during the infectious period (i.e., for 14 days after onset of symptoms). Cases must not provide personal care to individuals in child care or health care settings or handle food for others during the infectious period and for 14 days after the onset of symptoms.

Environmental evaluation

Water supply

Drinking water systems are potential sources of HEV infection if there is opportunity for faecal contamination. Where an unexpected cluster is reported, an evaluation may include review of water treatment procedures and bacteriological quality.

Sewage disposal

Determine if the case has been exposed to a failed sewage disposal system.

Food service facility

Where contaminated food is a suspected source, PHU staff should seek assistance from the NSW Food Authority to ensure that the premises where food was prepared is evaluated to determine the likelihood of disease transmission.

Child care facility

PHU staff should review the facility's infection control procedures to determine the likelihood of disease transmission, and establish if carers of children <2 years old have changed nappies and prepared food in the same shift.

Contact management

Identification of contacts

Immediate family, household members and sexual partners should be considered at risk.

Investigation and treatment

Passive immunisation

None

Active immunisation

None

Antibiotic prophylaxis

None

Education

Provide contacts (or parents/guardians) with advice about the risk of infection; counsel them to watch for signs or symptoms of hepatitis occurring within 9 weeks of exposure and seek medical attention early if symptoms develop. Advice about careful hygiene should be given, particularly about hand washing after going to the toilet.

It is especially important that any food handlers monitor their own development of hepatitis symptoms after contact with the disease and seek medical attention promptly if symptoms are detected.

Isolation and restriction

Contacts are not normally excluded from child-care, school or work.