



Hepatitis A (HAV)

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1. CASE DEFINITION

Confirmed Case

- Detection of immunoglobulin M antibody to hepatitis A virus (anti-HAV IgM) in the absence of recent immunization* with hepatitis A vaccine **AND** Acute clinical illness** **OR**
- Detection of anti-HAV IgM, in the absence of recent immunization with hepatitis A vaccine* **AND** An epidemiological link to a confirmed case **OR**
- Acute clinical illness** **AND** HAV Polymerase Chain Reaction (PCR) positive result

Probable Case

- Acute clinical illness** in a person without laboratory confirmation of infection which is epidemiologically linked to a confirmed case **OR**
- Detection of anti-HAV IgM in the absence of clinical illness** or recent immunization* with Hepatitis A vaccine **OR**
- Acute clinical illness** in a person with a low positive anti-HAV IgM*** and PCR negative

* Anti-HAV IgM has been detected up to 2-3 weeks after one dose of hepatitis A vaccine.

** Acute clinical illness is characterized by the discrete onset of symptoms usually including fever, malaise, anorexia, nausea and abdominal pain followed by jaundice. Elevated serum aminotransferase levels (ALT) accompanied by any of these symptoms is indicative of disease.

*** Low positive anti-HAV IgM results may be confirmed by PCR at [Provincial Laboratory for Public Health \(ProvLab\)](#) by special request. PCR is not done routinely on initial screening. Rarely, HAV IgM can remain detectable years after an acute infection. False positive anti-HAV IgM results can occur, especially in an older person without consistent symptoms, Acute/recent infection should be confirmed with clinical history, symptoms and/or by repeat titre after 7-10 days (if indicated) or by PCR (if required) after consultation with virologist-on-call.

2. DIAGNOSIS

- Diagnosis is established by demonstration of IgM antibodies against Hepatitis A virus (IgM anti-HAV) in the serum of acutely or recently ill patients
- Anti-HAV IgM becomes detectable 5-10 days before onset of symptoms and may remain detectable for up to 6 months
- Anti-HAV IgM may be negative if tested in the first 3-5 days after onset; consider re-testing 7-10 days later if Hepatitis A is suspected
- HAV IgG appears in the convalescent phase of infection and persists for life, conferring lifelong immunity
- Hepatitis A is not clinically distinguishable from other viral hepatitis
- For more information, refer to the [Alberta Provincial Laboratory Guide to Services](#)

3. REPORTING

As set out in the [NWT Public Health Act, Reportable Disease Control Regulations \(Section 4\) and Disease Surveillance Regulations \(Sections 6-10 and Schedule 3\)](#) health care professionals and laboratories are legally required to report a diagnosis or formed opinion of a reportable disease to the Chief Public Health Officer (CPHO) or designate **within the timeframe identified in the regulations**.

Health Care Professionals

- Confirmed or probable cases are to be reported to the Office of the Chief Public Health Officer (OCPHO) by telephone (867) 920-8646 **immediately** after diagnosis is made or opinion is formed, **AND**
- Complete and fax (867) 873-0442 the [Food and Waterborne Illness Investigation Form](#) to the OCPHO within **24 hours**
- **Immediately** report all outbreaks or suspect outbreaks by telephone to the OCPHO

Laboratories

- Report all positive results to the OCPHO by fax (867) 873-0442 **immediately**

4. OVERVIEW

For more information about hepatitis A:

- The Government of Canada: [Canada/hepatitis A](#)
- Centers for Disease Control and Prevention: [CDC/hepatitis A](#)
- World Health Organization: [WHO/hepatitis A](#)

Causative Agent

- Hepatitis A Virus (HAV)

Clinical Presentation

- Usually a mild, acute self-limited viral infection of the liver lasting 1-2 weeks
- 15% of cases can lead to prolonged disease with relapses lasting up to 12 months
- Children less than 5 years of age rarely show clinical signs of the illness especially jaundice

- The severity of the disease increases with age
- Symptomatic cases may have abrupt onset of fever, malaise, anorexia, nausea and vomiting, abdominal discomfort, dark urine and pale stools followed by jaundice within 10 days after onset

Major Complications

- Patients with chronic liver disease may be at an increased risk for fulminant hepatitis or death
- In rare cases, the disease can be severely debilitating, lasting several months

Transmission

- Primarily spread by the fecal-oral route either directly through person-to-person contact or indirectly by ingestion of contaminated food or water
- The contagious period is from 14 days before onset of symptoms to one week after onset of jaundice
- A person is most infectious just before the onset of symptoms
- Prolonged viral excretion (up to 6 months) has been documented in infants and children
- Common source outbreaks have been linked to the consumption of the following:
 - Contaminated ice/water
 - Food contaminated by infected food handlers
 - Raw or undercooked shellfish harvested from infected waters
 - Contaminated fruit or vegetables
- HAV has been transmitted through sexual contact (anal-oral) and sharing of injection drug needles

Incubation Period

- The usual incubation period from the time of exposure to onset of symptoms is 15-50 days, with an average of 28-30 days

Clinical Guidance

- For patient-specific clinical management consult your local healthcare professional, paediatrician or infectious disease specialist

5. PUBLIC HEALTH MEASURES

Management of Cases

- Determine the date of onset of illness, which is the first day of symptoms **OR** the 7th day before the onset of jaundice
- **Determine the dates of communicability: 14 days before the onset of symptoms to one week after onset of jaundice**
- Investigation of the case should include identification of possible risk of continued exposure and determination of the source of the infection including:
 - Occupation, especially if the case is a food handler, childcare worker or healthcare worker
 - History of travel or recent immigration
 - Detailed food history (i.e., possible of consumption of contaminated ice/water or food)
 - Living conditions (i.e., water quality/facilities)
 - Lifestyle risks (i.e., anal-oral sex, intravenous drug use)
 - Attendance at childcare facility or school
 - Living in an institutional or correctional setting
 - Blood or blood product transfusion or organ transplantation
 - Evidence of contact with a confirmed case of hepatitis A or contact with an ill person who had symptoms that were clinically compatible with hepatitis A infection
- Notify OCPHO for further direction
- Ensure the environmental health officer is notified if a local food source is suspected
- Caution case to stay home while acutely ill
- Caution case to avoid preparing food for others while infectious

- Upon direction from the OCPHO, exclude the following cases from work, daycare or school for 14 days from onset or at least seven days from onset of jaundice:
 - Food Handlers
 - Day-care workers
 - Day-care children
 - Health care workers
 - School children
 - Anyone who is unable to implement good standards of personal hygiene
- Hospitalized cases should be on routine and contact precautions for at least one week after onset of symptoms
- If the case is hospitalized follow, guidance in the [NWT Infection Prevention and Control Manual](#), and immediately notify the Infection Prevention & Control practitioner

Management of Contacts

- Identify all contacts, including visitors to the household, for potential exposure during the period of communicability of the case including:
 - Close personal contacts (including sexual contacts)
 - Persons who have spent 24 hours or more in the household
 - Persons who have eaten food prepared or handled by the case during the infectious period
 - Persons who have had or may have had indirect contact through sharing potentially contaminated items with the case
 - Childcare facility contacts including staff
 - Persons who have shared illicit drugs with the case
- Contacts who are considered to be immune to HAV with the following:
 - History of lab-confirmed hepatitis A disease
 - Complete, appropriately spaced series of hepatitis A-containing vaccine

- At least one dose of hepatitis A-containing vaccine between one and 6 months before exposure, **OR**
- Received one dose of immune globulin (Ig) 1-2 months before exposure (dose specific)
- Symptomatic contacts should have serology for anti-HAV IgG and anti-HAV IgM
- The CPHO or designate may recommend that symptomatic and/or asymptomatic contacts be excluded from work depending on the type of work
- Symptomatic contacts should be assessed by their medical practitioner
- Asymptomatic contacts should be advised to monitor for symptoms and if they become symptomatic self-isolate and immediately notify their health care provider or public health office
- Contact the OCPHO for recommendations on the use of hepatitis A-containing vaccine and/or use of Immune globulin (Ig) for contacts post-exposure
- Provide contacts with information about HAV disease and appropriate infection prevention and control measures

Outbreak Management

- Immediately report to the OCPHO (867) 920-8646 any outbreak of ILI or influenza in a hospital, residential institution (i.e., prisons/correctional facilities) or LTCF as defined as:
 - Two or more cases of ILI (including staff or residents) within a 7 day period, including at least one laboratory confirmed case
- The CPHO will determine the need for outbreak control measures
- The CPHO will determine if an outbreak is occurring and declare when an outbreak is over
- Immediately report any increased ILI activity to the hospital or LTCF infection prevention and control practitioner

- Follow recommendations in the most current [NWT Influenza Program Guidelines](#) found on the Department of Health and Social Services Health Professional website

Prevention

- Hepatitis A is a vaccine-preventable disease; see the [NWT Immunization Schedule](#)
- Vaccine for hepatitis A is licensed in Canada, but not publicly funded in the NWT
- Follow the [Canadian Immunization Guide Chapter on Hepatitis A Vaccine](#) for recommendations for pre-exposure vaccination with hepatitis A vaccine in certain circumstances such as pre-travel to endemic areas, certain employment, men who have sex with men, illicit drug users, etc.
- For more information on hepatitis A vaccine, refer to the [Canadian Immunization Guide: Part 4 - Hepatitis A](#)

6. PUBLIC & HEALTH PROFESSIONAL EDUCATION

- Government of Canada: [Hepatitis A](#)

7. EPIDEMIOLOGY

- For more information on the epidemiology of Hepatitis A in the NWT see: [Epidemiological Summary of Communicable Diseases](#)

8. REFERENCES

1. Alberta Health and Wellness Public Health Notifiable Disease Management Guidelines: <https://www.alberta.ca/notifiable-disease-guidelines.aspx>
2. Alberta Health Services The Provincial Laboratory for Public Health (ProvLab): <http://www.provlab.ab.ca/guide-to-services.pdf>
3. Centres for Disease Control and Prevention: <https://www.cdc.gov/hepatitis/hav/>

4. Canadian Immunization Guide: Part 4:
<https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines.html?page=6>
5. The government of Canada website
- Hepatitis A: https://travel.gc.ca/travelling/health-safety/diseases/hepatitis-a?_ga=1.245109253.1273750938.1457124912
6. NWT Epidemiology of hepatitis A:
<https://www.hss.gov.nt.ca/professionals/tools/policies-and-guidelines-standards-and-manuals/epi-summary-communicable-diseases>
7. NWT Immunization Schedule:
<https://www.hss.gov.nt.ca/professionals/content/nwt-immunization-schedule>
8. NWT Infection Prevention and Control Manual: <https://www.hss.gov.nt.ca/professionals/sites/default/files/infection-control-manual.pdf>
9. *NWT Public Health Act 2009*:
<https://www.hss.gov.nt.ca/en/about/legislation-and-policies>
10. NWT Food and Waterborne Illness Investigation Form:
<http://www.professionals.hss.gov.nt.ca/tools/forms/communicable-disease>
11. World Health Organization: <http://www.who.int/news-room/fact-sheets/detail/hepatitis-a>