

Hepatitis A, acute

Organism:	RNA virus
Incubation period:	15-50 days (average 28-30)
Infectious period:	Maximum infectivity during latter half of incubation period (14 days before onset of symptoms), continuing for a few days after onset of jaundice. Most people are non-infectious after first week of jaundice.
Transmission routes:	Fecal-oral by person-to-person, food, or water
Treatment:	None, except symptomatic

Information Needed for the Investigation

Verify the Diagnosis

(Note: Total antibody or IgG antibody to Hepatitis A is often erroneously reported as an acute case. False IgM positives have also been identified among recent patients.)

- Clinical criteria: an acute illness with discrete onset of any sign or symptom consistent with acute viral hepatitis (e.g. fatigue, headache, malaise, anorexia, vomiting, diarrhea, abdominal pain, or dark urine)

And

Jaundice or elevated total bilirubin levels ≥ 3.0 mg/dL, **OR**

Elevated serum alanine aminotransferase (ALT) levels > 200 IU/L

And

The absence of a more likely diagnosis

- Laboratory criteria:
Confirmatory laboratory evidence: Immunoglobulin M (IgM) antibody to hepatitis A virus (anti-HAV) positive, **OR**
Nucleic acid amplification test (NAAT; such as polymerase chain reaction [PCR] or genotyping) for hepatitis A RNA positive

Case Classification

Confirmed

- A case that meets the clinical criteria and is IgM anti-HAV positive, **OR**
- A case that has hepatitis A virus RNA detected by NAAT (PCR or genotype), **OR**
- A case that meets the clinical criteria and occurs in a person who has had contact (household or sexual) with a laboratory-confirmed hepatitis A case 15-50 days prior to onset of symptoms

Determine the Extent of Illness

Interview the case-patient using the patient history section of the [Viral Hepatitis Case Report](#) form to identify possible source of infection and others potentially exposed.

- Was the patient a contact of another person with confirmed or suspected hepatitis A infection

- Patient travel history 2-6 weeks before symptom onset
- Was the patient employed as a food-handler during the two weeks prior to onset of symptoms or while ill
- Persons with close contact to the patient
- Persons with sexual contact to the patient
- Persons who ingested food or water that was handled by the patient

Laboratory Specimens

- Clinical: Obtain serum from 1 red top tube from suspect case(s). Request Hepatitis A IgM and IgG. If contacts ill, obtain 1 red top tube from each. Send to State Virology Lab-Fairbanks using the following lab requisition form:
<https://health.alaska.gov/dph/Labs/Documents/publications/Virologytestreq.pdf>
- Environmental: usually none. In outbreak, may identify food for testing. Send to State Lab – Anchorage for forwarding to CDC using the following requisition form:
<https://health.alaska.gov/dph/Labs/Documents/publications/AncTestReq.pdf>

Contact and Control Measures

- Routine hand washing with soap and warm water especially:
 - Before preparing, handling or eating any food
 - After going to the bathroom
 - After changing a diaper
 - After caring for someone with diarrhea
- Get the Hepatitis A vaccine as recommended.
- Post-exposure prophylaxis is recommended for at risk close contacts. See Prophylaxis Guidance.
- Patients infected with hepatitis A should adhere to strict hand hygiene for the first two weeks of symptoms and up to 1 week after the onset of jaundice and should not handle food for other people for 1 week after onset of jaundice.

Prophylaxis Guidance

- Household and sexual contacts should be identified immediately and those that are unvaccinated should be offered post-exposure prophylaxis with immune globulin (IG) or vaccine as follows:
 - Persons who have recently been exposed to HAV and who have not received HepA vaccine previously should receive PEP as soon as possible, within 2 weeks of exposure
 - Persons aged ≥ 12 months who have been exposed to HAV within the past 14 days and have not previously completed the 2-dose HepA vaccine series should receive a single dose of HepA vaccine (Table 2) as soon as possible. In addition to HepA vaccine, IG (0.1 mL/kg) may be administered to persons aged >40 years depending on the providers' risk assessment
 - For persons <12 months or >40 years of age, immunocompromised, diagnosed with liver disease, or cannot receive vaccine, provide IG (0.1 mL/kg) as soon as possible, within 2 weeks of exposure. Vaccine can be used in persons over 40 years of age if IG cannot be obtained.

- Persons who have received one dose of hepatitis A vaccine at least one month prior to exposure do not need any post-exposure prophylaxis.
- For person given vaccine, a second dose should be given at appropriate schedule.
- Generally, IG and vaccine are not recommended for school or work contacts with the following exceptions:
 - At day care centers, IG and/or vaccine should be offered if a day care attendee or employee is IgM-positive or if two household contacts of an employee or attendee are IgM-positive.
 - If a food-handler is diagnosed with hepatitis A, the other food handlers should be offered IG and/or vaccine following the prophylaxis guidance above.
 - Patrons generally do not need prophylaxis although it may be considered if the food-handler prepared food that was not heated, had diarrhea, and IG and vaccine can be provided within 2 weeks of exposure. The decision to notify restaurant patrons should be discussed with epi-team members.
 - The greatest risk for transmission to patrons exists if patient had diarrhea while working, has poor hygiene, handles food without gloves and the food is subsequently not cooked (sandwiches, salads) or if there has been illness in co-workers.
 - Food handlers with confirmed hepatitis A should be excluded from work until their diarrhea and/or jaundice symptoms have resolved for one week.

Indication/Age group	Risk category/Health Status	Hepatitis A vaccine	Immune globulin
< 12 months	Healthy	No	0.1 mL/kg*
12 months-40 years	Healthy	1 dose†	None
>40 years	Healthy	1 dose†	0.1 mL/kg§
≥12 months	Immunocompromised or chronic liver disease	1 dose†	0.1 mL/kg¶
>12 months	Vaccine contraindicated**	No	0.1 mL/kg

* Measles, mumps, and rubella vaccine should not be administered for at least 3 months after receipt of IG.

† A second dose is not required for postexposure prophylaxis; however, for long-term immunity, the hepatitis A vaccination series should be completed with a second dose at least 6 months after the first dose.

§ The provider's risk assessment should determine the need for immune globulin administration. If the provider's risk assessment determines that both vaccine and immune globulin are warranted, HepA vaccine and immune globulin should be administered simultaneously at different anatomic sites.

¶ Vaccine and immune globulin should be administered simultaneously at different anatomic sites.

** Life-threatening allergic reaction to a previous dose of hepatitis A vaccine, or allergy to any vaccine component.

Exclusion

Food-handlers and children who attend daycare or school should be excluded from work/daycare/school for at least 1-2 weeks days after the onset of jaundice or until symptoms resolve.

Hospital Considerations

- Use Standard precautions.
- For diapered or incontinent patients use Contact Precautions.
- Maintain Contact Precautions for the duration of hospitalization in infants and children less than 3 years of age.

- Maintain Contact Precautions for 2 weeks after onset of symptoms in children aged 3 to 14 years, and 1 week after onset of symptoms in those over 14 years of age.

Reporting Requirements

- FTR: write up all *confirmed* outbreaks of hepatitis A.
- NBS: enter all *confirmed* cases.
- CDC Case Definition is used to define *confirmed* cases

Section of Epidemiology Hepatitis A webpage

- <https://health.alaska.gov/dph/Epi/id/Pages/hepatitis/a.aspx>

References

- Update: Recommendations of the Advisory Committee on Immunization Practices for Use of Hepatitis A Vaccine for Post-exposure Prophylaxis and for Pre-exposure Prophylaxis for International Travel. *MMWR* 2018;67(43);1216-1220.
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<http://www.cdc.gov/hepatitis/HA V/HA Vfaq.htm#general>
- CSTE Position Statement 11-ID-02, Hepatitis A acute, 2019 Case Definition
<https://ndc.services.cdc.gov/case-definitions/hepatitis-a-acute-2019/>
- CDC. Updated Dosing Instructions for Immune Globulin (Human) GamaSTAN S/D for Hepatitis A Virus Prophylaxis. *MMWR* 2017;66(36);959–960.
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- CDC. Update: Prevention of Hepatitis A After Exposure to Hepatitis A Virus and in International Travelers. Updated Recommendations of the Advisory Committee on Immunization Practices. *MMWR* 2007;56(41);1080-1084.
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