

# Hepatitis A, acute

<b>Organism:</b>	RNA virus
<b>Incubation period:</b>	15-50 days (average 28-30)
<b>Infectious period:</b>	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.
<b>Transmission routes:</b>	Fecal-oral by person-to-person, food, or water
<b>Treatment:</b>	None, except symptomatic

## Information Needed for the Investigation

### Verify the Diagnosis

**(Beware: 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 symptoms (e.g. fatigue, abdominal pain, loss of appetite, intermittent nausea, vomiting), **and** jaundice or elevated serum aminotransferase levels.
- Laboratory Criteria for Diagnosis: Immunoglobulin M (IgM) antibody to hepatitis A virus (anti-HAV-IgM) positive.

### Case Classification

#### **Confirmed**

- A case that meets the clinical case definition and is laboratory confirmed, **OR**
- A case that meets the clinical case definition and occurs in a person who has an epidemiologic link with a person who has laboratory-confirmed hepatitis A (i.e., household or sexual contact with an infected person during the 15-50 days before the 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 try to identify the source of infection and other potentially exposed persons.

- Determine if household or other close contacts are, or have been ill by contacting the PHNs, health care providers, etc.
- Identify individuals who may have shared food, drink, or utensils with the infected person during their period of infectivity.

### **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. Use Fairbanks lab form.

<http://dhss.alaska.gov/dph/Labs/Documents/publications/FbxSupplyReq.pdf>

- Environmental: usually none. In outbreak, may identify food for testing. Send to State Lab – Anchorage for forwarding to CDC. Use Anchorage lab form:  
<http://dhss.alaska.gov/dph/Labs/Documents/publications/AncSupplyReq.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 available 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:
  - For persons 12 months to 40 years of age, offer vaccine within 2 weeks of exposure.
  - 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
<b>Postexposure prophylaxis</b>			
< 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 school children should be kept out of work for 7 days after the onset of symptoms.

## 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

- <http://dhss.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. [https://www.cdc.gov/mmwr/volumes/67/wr/mm6743a5.htm?s\\_cid=mm6743a5\\_e](https://www.cdc.gov/mmwr/volumes/67/wr/mm6743a5.htm?s_cid=mm6743a5_e)
- Centers for Disease Control and Prevention, Hepatitis A FAQs <http://www.cdc.gov/hepatitis/HAV/HAVfaq.htm#general>

- CSTE Position Statement 11-ID-02, Hepatitis A acute, 2012 Case Definition <https://wwwn.cdc.gov/nndss/conditions/hepatitis-a-acute/case-definition/2012/>
- CDC. Updated Dosing Instructions for Immune Globulin (Human) GamaSTAN S/D for Hepatitis A Virus Prophylaxis. *MMWR* 2017;66(36);959–960. [https://www.cdc.gov/mmwr/volumes/66/wr/mm6636a5.htm?s\\_cid=mm6636a5\\_e](https://www.cdc.gov/mmwr/volumes/66/wr/mm6636a5.htm?s_cid=mm6636a5_e)
- 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. <https://www.cdc.gov/mmwr/PDF/wk/mm5641.pdf>
- Siegel JD, Rhinehart E, Jackson M, Chiarello L, and the Healthcare Infection Control Practices Advisory Committee. 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings. Available at <http://www.cdc.gov/hicpac/pdf/isolation/isolation2007.pdf>