



HEPATITIS, TYPE A (HAV, Infectious Hepatitis)

1. **Agent:** Hepatitis A virus (HAV).
2. **Identification:**
 - a. **Symptoms:** Onset is usually abrupt, with fever, headache, malaise, anorexia, nausea, vomiting, diarrhea and abdominal discomfort, which may be followed by jaundice. Recovery is usually complete, without sequelae. Many cases, especially in children, are mild or asymptomatic.
 - b. **Differential Diagnosis:** Other causes of viral and non-viral hepatitis.
 - c. **Diagnosis:** Based on positive IgM specific hepatitis A virus antibody test (anti-HAV IgM) and the presence of a discrete onset of clinical symptoms and jaundice and/or elevated liver enzymes.
3. **Incubation:** 15 to 50 days; commonly about 28-30 days.
4. **Reservoir:** Human.
5. **Source:** Feces, rarely blood.
6. **Transmission:** Fecal-oral; person to person or through vehicles such as food. Drug sharing partners, sexual and household contacts are at increased risk. Transfusion-associated cases have occurred but are extremely rare.
7. **Communicability:** Peak infectivity occurs during the 2-week period before onset of jaundice or elevated liver enzymes. It is considered non-infectious 7-10 days after onset of jaundice. There is no carrier state.
8. **Specific Treatment:** None.
9. **Immunity:** Lifelong.

REPORTING PROCEDURES

1. Reportable, *California Code of Regulations*, Section 2500 and 2505.
2. **Report Form:**
VIRAL HEPATITIS A or E CASE REORT

If a prepared commercial food item is the likely source of the infection, a [Foodborne Disease Outbreak Report \(CDPH 8567\)](#) should be filed. For likelihood determination and filing procedures, see [Section 16-22; Reporting of a Case or Cluster of Cases Associated with a Commercial Food: Filing of Foodborne Incident Reports](#).
3. **Epidemiologic/Laboratory Data:**
 - a. Appropriate laboratory tests to confirm the diagnosis of acute hepatitis A.
 - b. Contact with a laboratory diagnosed or suspect case of hepatitis A.
 - c. Daycare center association (including nursery school or baby-sitting group), either as attendee, employee or household contact to attendee or employee.
 - d. Travel history during incubation period (including dates and places) to areas where sanitation may have been a problem (e.g., camping, travel outside of the U.S.).
 - e. Travel of close contacts to areas where sanitation may have been a problem.
 - f. Occupational history, especially individuals in sensitive occupations or situations. Dates of working and job description.



Call ACDC ASAP if case is SOS (sensitive occupation and/or situation).

- g. Ingestion of raw shellfish (clams, oysters, and mussels), and untreated water during 7 weeks prior to onset.
- h. Hepatitis A vaccine history.
- i. Number of male and female sexual partners
- j. Street drug use, injection or otherwise.
- k. New food items/products connected with multi-state outbreaks

CONTROL OF CASE, CONTACTS & CARRIERS

Contact within 24 hours to determine if sensitive occupation or situation involved and need for hepatitis A vaccine or immune globulin (IG) for post-exposure prophylaxis (PEP) for contacts; otherwise, investigate within 3 days.

CASE

Sensitive Occupation or Situation:

Remove from sensitive occupation or situation for 14 days after the onset of clinical symptoms of hepatitis A. If jaundiced, patient should not return to work for 7 days after onset of jaundice.

CONTACTS:

Household Members or Others Who Have Intimate Contact (sexual contacts, sharing of illicit drugs, regular babysitters or caretakers):

- 1. No restrictions.
- 2. Emphasize education on hand washing and potential for shedding of virus prior to onset.
- 3. Advise PEP for contacts who have not already been vaccinated. See below.

Childcare Center Staff, Attendees, and Attendees' Household Members:

In addition to standard infection control education, PEP should be administered to all previously unvaccinated staff and attendees of child care centers or homes if:

- 1) One or more cases of hepatitis A are recognized in children or employees, or
- 2) Cases are recognized in two or more households of center attendees.

In centers that provide care only to older children who no longer wear diapers, PEP need be administered only to classroom contacts of the index case (i.e., not to children or staff in other classrooms).

Infected Food Handler (Call ACDC ASAP)

If a food handler receives a diagnosis of hepatitis A, vaccine or IG should be administered to other food handlers at the same establishment.

Public Notification Food Handler

Because common-source transmission to patrons is unlikely, hepatitis A vaccine or IG administration to patrons typically is not indicated but may be considered if:

- 1) During the time when the food handler was likely to be infectious, the food handler both directly handled uncooked or cooked foods and had diarrhea or poor hygienic practices; and
- 2) Patrons can be identified and treated ≤ 2 weeks after the exposure.

In settings in which repeated exposures to HAV might have occurred (e.g., institutional cafeterias), stronger consideration of hepatitis A vaccine or IG use could be warranted.



Schools, Hospitals, and Work Settings

PEP not routinely indicated when a single case occurs in an elementary or secondary school or an office or other work setting, and the source of infection is outside the school or work setting.

When a person who has hepatitis A is admitted to a hospital, staff should not routinely be administered PEP; instead, careful hygienic practices should be emphasized.

Outbreaks (Consult with ACDC)

If it is determined that hepatitis A has been spreading for example, among students in a school or among patients and staff in a hospital, in addition to standard infection control education, PEP should be administered to unvaccinated persons who have had close contact with an infected person.

If an outbreak occurs in a childcare center (i.e., Hepatitis A cases in three or more families) in addition to standard infection control education PEP should also be considered for members of households that have diaper-wearing children attending the center.

In the event of a common-source outbreak, PEP should not be provided to exposed persons after cases have begun to occur because the 2-week period after exposure during which IG or hepatitis A vaccine is known to be effective will have been exceeded.

The use of hepatitis A vaccine may be helpful in community-wide ongoing outbreaks, or special outbreak situations.

OPTIONS FOR PEP:

Susceptible persons exposed to HAV should receive a dose of single antigen hepatitis A vaccine or immune globulin (IG) (0.02mL/kg) or both as soon as possible within 2 weeks after exposure.

Hepatitis A Postexposure Prophylaxis Guidance

Age/years	<1*	1-40	41-59	60-74*	75+
Healthy	IG	Vaccine Preferred	Vaccine and/or IG	IG: vaccine if IG in short supply	IG
Other†	IG	IG	IG	IG	IG
Consider vaccine + IG for possible longer-term protection					

*When IG is unavailable or in short supply, single-antigen HAV vaccine may be used for PEP in healthy people 60-74 years of age and in infants >6 months.

† People who should receive IG for PEP—See options for PEP.

Vaccine:

- For healthy persons 12 months through 40 years of age, Hepatitis A vaccine is preferred to IG.
- For healthy persons 41-59 years of age, consider HAV vaccine because it confers lifelong immunity. Data on vaccine efficacy is limited at older ages. However, other countries recommend vaccine for PEP in people >40 years of age and there is evidence that HAV vaccine is immunogenic in older people. See California Department of Health-Hepatitis A Postexposure Prophylaxis Guidance at: https://www.cdph.ca.gov/programs/immunize/Documents/CDPH_HAV%20PEP%20Clinical%20Guidance.pdf
- When IG is unavailable or in short supply, single antigen HAV vaccine may be used for PEP in healthy people 60-74 years of age and in infants >6 months of age.

†People who should receive IG for PEP

- CDC recommends for infants <12 months of age.
- The CDC recommends the following people, regardless of age, receive IG because they are at increased risk of severe HAV infection, or may have decreased immune response to vaccine. Clinical guidance should be obtained if patient's immune status is unclear.
 - Persons with chronic liver disease



- Immunocompromised persons, including:
 - HIV/AIDS;
 - Undergoing hemodialysis
 - Received solid organ, bone marrow or stem cell transplant;
 - High dose steroids (>2mg/kg/day);
 - Receiving chemotherapy or biologics;
 - Persons otherwise less capable of normal response to immunization.

- c. Persons administered IG for whom HAV vaccine is also recommended for other reasons should receive a dose of vaccine simultaneously IG.

CARRIERS: Not applicable.

For specific details refer to MMWR October 19, 2007, volume 56. Update: Prevention of Hepatitis A after Exposure to Hepatitis A Virus and in International Travelers. Updated Recommendations of the Advisory Committee on Immunization Practices (ACIP)

<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5641a3.htm>

PREVENTION-EDUCATION

1. Emphasize to the patient the importance of hand washing after using the bathroom and before handling food. Feces are not infectious 1 week after onset of jaundice.
2. Sanitary disposal of fecal matter.
3. Advise patient that persons with a history of viral hepatitis are excluded from blood donor program.

DIAGNOSTIC PROCEDURES

Clinical and epidemiological history required to aid laboratory in test selection.

SEROLOGY:

Container: Serum separator tube (SST, a red-gray top vacutainer tube) and test request form.

Laboratory Form: **TEST REQUISITION FORM (H-3021)**

Examination Requested: Hepatitis A, Anti-HAV IgM.

Material: Whole clotted blood.

Amount: 8-10 ml.

Storage: Refrigerate.

