



# HEPATITIS, TYPE A (HAV, Infectious Hepatitis)

1. **Agent:** Hepatitis A virus (HAV).
2. **Identification:**
  - a. **Symptoms:** Onset is usually abrupt, with fever, malaise, anorexia, nausea, and abdominal discomfort, followed by jaundice. Recovery is usually complete, without sequelae. Many cases, especially in children, are mild or asymptomatic and diagnosed only by serological tests.
  - 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 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 at increased risk. Transfusion-associated cases have occurred but are extremely rare.
7. **Communicability:** Maximum infectivity occurs during the latter half of incubation period, particularly during the week prior to the onset of jaundice. Considered non-infectious 1 week 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.
2. **Report Form:**

**VIRAL HEPATITIS CASE REPORT (acd-hep, 7/07) available at:**

<http://lapublichealth.org/acd/EpiForms/Hepatitis%20ABCDE-acd%20hep.pdf>

**TRANSFUSION-ASSOCIATED HEPATITIS CASE RECORD (DHS 8376) available at: [Public Health Registrar]**

Use for the rare case associated with administration of blood or blood products during the 6-month period prior to onset, use Supplemental Data Sheet.

If a prepared commercial food item is the likely source of this infection, a **FOODBORNE INCIDENT REPORT** should be filed. For likelihood determination and filing procedures, see Part 1, Section 7 – Reporting of a Case or Cluster of Cases Associated with a commercial Food: Filing of Foodborne Incident Reports.

## 3. Epidemiologic Data:

- a. Anti-HAV IgM to confirm the diagnosis of hepatitis A.
- b. Contact with diagnosed or suspect case of hepatitis or jaundice within the incubation period.
- c. Day-care 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. Occupational history, especially individuals in sensitive occupations or situations. Dates of working and job description.
- f. Ingestion of raw shellfish (clams, oysters, and mussels), and untreated water during 6 weeks prior to onset.
- g. Hepatitis A vaccine history.



- h. Sexual orientation.
- i. Methamphetamine or injection drug use

### 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 postexposure prophylaxis (PEP) for contacts; otherwise, investigate within 3 days. District should confirm by laboratory testing which type of hepatitis exists in cases where no laboratory work was done.

#### CASE:

Patient should not engage in a sensitive occupation or situation during illness and for 7 days following onset of jaundice.

#### CONTACTS:

Household members or others who have intimate contact.

1. No restrictions.
2. Emphasize education on hand washing and potential for shedding of virus prior to onset.
3. Advise the administration of PEP for contacts at risk, including household and/or sexual contacts. In addition, persons who have shared illicit drugs with a person who has serologically confirmed hepatitis A should receive hepatitis A vaccine, or IG and hepatitis A vaccine simultaneously. Consideration also should be given to providing IG or hepatitis A vaccine to persons with other types of ongoing, close personal contact (e.g., regular babysitting) with a person with hepatitis A. Asymptomatic infection with viral shedding may still occur despite receipt of vaccine or IG in contacts with incubating infection. Individuals who have received 1 dose of hepatitis A vaccine at least 1 month before exposure to HAV do not need IG.

#### Options for PEP:

- a. Hepatitis A vaccine is preferred to IG, for healthy person 12 months through 40 years of age.
- b. IG is preferred to vaccine, for persons older than 40 years of age because of the

absence of information regarding vaccine performance and the more severe manifestations of hepatitis A in this age group; vaccine can be used if IG cannot be obtained. The magnitude of the risk for HAV transmission from the exposure should be considered in decisions to use IG or vaccine.

- c. IG should be used for children aged < 12 months, immunocompromised persons, persons who have had chronic liver disease diagnosed, and persons for whom hepatitis A vaccine is contraindicated.
- d. Person administered IG for whom hepatitis A vaccine also is recommended for other reasons should receive a dose of vaccine simultaneously with IG. For persons who receive vaccine, the second dose should be administered according to the licensed schedule to complete the series. The efficacy of IG or vaccine when administered >2 weeks after exposure has not been established.

For specific details refer to MMWR, October 19, 2007, vol 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>

4. Routine prophylactic administration of vaccine or IG for usual office, factory, school and hospital contacts is not indicated. Administration of vaccine or IG to contacts in institutions such as daycare centers, prisons, or facilities for the developmentally disabled may be useful. If a food handler receives a diagnosis of hepatitis A, vaccine or IG should be administered to other food handlers at the same establishment. 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. In the event of a common-source outbreak, postexposure prophylaxis 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.

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

**CARRIERS:** Not applicable.

### PREVENTION-EDUCATION

1. Emphasize to the contacts 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) available at:

<http://lapublichealth.org/lab/docs/H-3021%20Test%20Request%20Form.pdf>

**Examination Requested:** Hepatitis A, Anti-HAV IgM.

**Material:** Whole clotted blood.

**Amount:** 8-10 ml.

**Storage:** Refrigerate.

**VIRAL HEPATITIS CASE REPORT**



Acute Communicable Disease Control  
313 N. Figueroa St., Rm. 212, Los Angeles, CA 90012  
213-240-7941 (phone) 213-482-4856 (facsimile)  
www.lapublichealth.org/acd

Census tract: \_\_\_\_\_ VCMR ID: \_\_\_\_\_

Patient name-last	first	middle initial	Date of Birth	Age	Sex
Address- number, street		City	State	ZIP Code	
Telephone number Home ( )		Work ( )	Cell ( )		
Race (check one) <input type="checkbox"/> African-American/Black <input type="checkbox"/> Asian/Pacific Islander <input type="checkbox"/> Native American <input type="checkbox"/> White <input type="checkbox"/> Other: _____			Ethnicity (check one) <input type="checkbox"/> Hispanic/Latino <input type="checkbox"/> Non-Hispanic/Non-Latino		
If Asian/Pacific Islander, please check one: <input type="checkbox"/> Asian Indian <input type="checkbox"/> Cambodian <input type="checkbox"/> Chinese <input type="checkbox"/> Filipino <input type="checkbox"/> Guamanian <input type="checkbox"/> Hawaiian <input type="checkbox"/> Japanese <input type="checkbox"/> Korean <input type="checkbox"/> Laotian <input type="checkbox"/> Samoan <input type="checkbox"/> Vietnamese <input type="checkbox"/> Other: _____					
Occupation or school (give city/zip code)		Homeless? Yes <input type="checkbox"/> No <input type="checkbox"/>	Sensitive Occupation/Situation(S.O.S)? Yes <input type="checkbox"/> No <input type="checkbox"/>		

**PRESENT ILLNESS**

Diagnosis date: ___/___/___ Was patient jaundiced? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, start date: ___/___/___ Did patient have symptoms other than jaundice? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, onset date: ___/___/___ What symptoms? _____	Was the patient hospitalized for hepatitis? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, admit date: ___/___/___ Facility/Hospital Name: _____ If female: Pregnant? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, due date: ___/___/___ Did patient die from hepatitis? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, date of death: ___/___/___	Medical Record No. _____
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**VACCINE HISTORY**

	Yes	No	Unk	If Yes, Date dose given. 1 <sup>st</sup> Dose	2 <sup>nd</sup> Dose	3 <sup>rd</sup> Dose
hepatitis A vaccine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___/___/___	___/___/___	___/___/___
hepatitis B vaccine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___/___/___	___/___/___	___/___/___

**DIAGNOSTIC TESTS (Check all tests performed and attach laboratory results.)**

Reason for testing: (Check all that apply)	Laboratory results:	Pos	Neg	No Test/Unk
<input type="checkbox"/> Symptoms of acute hepatitis	Total antibody to hepatitis A virus (total anti-HAV) .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Evaluation of elevated liver enzymes	IgM antibody to hepatitis A virus (IgM anti-HAV) .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Follow-up testing for previous marker of viral hepatitis	Hepatitis B surface antigen (HBsAg) .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Screening of asymptomatic patient with risk factors	Total antibody to hepatitis B core antigen (total anti-HBc) .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Screening of asymptomatic patient with no risk factors	IgM antibody to hepatitis B core antigen (IgM anti-HBc) .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Blood/organ donor screening	Antibody to hepatitis C virus (anti-HCV) .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Prenatal screening	- anti-HCV signal to cut-off ratio _____			
<input type="checkbox"/> Unknown	Supplemental anti-HCV assay (e.g., RIBA) .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Other	HCV RNA (e.g., PCR) .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Specify: _____	Antibody to hepatitis D virus (anti-HDV) .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Antibody to hepatitis E virus (IgM anti-HEV) .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Liver enzyme results at time of diagnosis:  
 Test Result Date: \_\_\_/\_\_\_/\_\_\_ ALT (SGPT) \_\_\_\_\_ AST (SGOT) \_\_\_\_\_ Bilirubin \_\_\_\_\_

**PUBLIC HEALTH NURSING INITIAL ASSESSMENT AND EVALUATION**

If acute hepatitis (check here ), please complete the appropriate acute hepatitis A or acute hepatitis B and C sections.  
 If you marked any of the boxes below, please go to **Final Diagnosis** section and complete. Do **NOT** complete the acute hepatitis sections.  
 Past Infection  Chronic hepatitis B  Chronic hepatitis C  Unable to locate (UTL)  Could not be confirmed

Patient name (last, first) \_\_\_\_\_ Date of Birth \_\_\_\_\_ VCMR ID: \_\_\_\_\_

**HOUSEHOLD/CLOSE CONTACTS**

Name Relationship to case	Age	Occupation	S.O.S.			Onset date	Comments (include Prophylaxis and Vaccine)
			Yes	No	Unk		
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___/___/___	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___/___/___	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___/___/___	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	___/___/___	

**REMARKS**

Educated patient according to B-73 on the following:

Mode of Transmission:

- Fecal-Oral
- Blood to Blood
- Sexual
- Maternal Infant Transmission

Prevention:

- Household Contacts
- Vaccine
- Personal Hygiene
- Immunoglobulin (IG)

Other:

**FINAL DIAGNOSIS**

- Acute Hepatitis A     Chronic Hepatitis B     Unable to locate (UTL)
- Acute Hepatitis B     Chronic Hepatitis C     Could not confirm:
- Acute Hepatitis C     False Hepatitis A            Explain why? \_\_\_\_\_
- Acute Hepatitis D     False Hepatitis B            \_\_\_\_\_
- Acute Hepatitis E     False Hepatitis C

**Acute Hepatitis Case Definition:**

An acute illness with: discrete onset of symptoms and jaundice or abnormal serum aminotransferase levels

Hepatitis A: IgM anti-HAV positive

Hepatitis B: IgM anti-HBc positive or HBsAg positive and IgM anti-HAV negative if done.

Hepatitis C: Serum aminotransferase (ALT) levels greater than 400 U/L and IgM anti HAV negative, and IgM anti-HBc negative or if not done HBsAg negative, and RIBA positive or PCR for HCV RNA positive or anti-HCV positive with a signal to cut-off ratio >3.8 for the EIA

Investigator's name (print)	Investigator's signature	Date	Telephone number (    )
Health District	Supervisor signature	Area Medical Director's signature	



**TO BE COMPLETED FOR ACUTE HEPATITIS B AND C**

**EPIDEMIOLOGIC RISK FACTORS**

	Yes	No	Unk
During the 6 months prior to onset of symptoms, was the patient a contact of a person with confirmed or suspected acute or chronic hepatitis B or C virus infection? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If Yes, type of contact: <input type="checkbox"/> Sexual <input type="checkbox"/> Household (Non-sexual) <input type="checkbox"/> Other: _____			
Was the patient EVER treated for a sexually transmitted disease? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
During the 6 months prior to onset of symptoms: If YES, ask patient when and where and record in exposure details			
Did the patient undergo hemodialysis? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was the patient a resident of a long term facility (e.g. nursing home)? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did the patient receive fingersticks? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did the patient have an accidental stick or puncture with a needle or other object contaminated with blood? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did the patient receive blood or blood products (transfusion)? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did the patient receive any IV infusions and/or injections in the outpatient setting? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did the patient have dental work or oral surgery? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did the patient have any diagnostic medical procedure or surgery?.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did the patient have other exposure to someone else's blood? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was the patient employed in a medical or dental field involving direct contact with human blood? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If Yes, frequency of direct blood contact? <input type="checkbox"/> Frequent (several times weekly) <input type="checkbox"/> Infrequent			
Was the patient employed as a public safety worker (fire fighter, law enforcement/correctional officer) having direct contact with human blood? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If Yes, frequency of direct blood contact? <input type="checkbox"/> Frequent (several times weekly) <input type="checkbox"/> Infrequent			
Did the patient undergo acupuncture? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did the patient receive a tattoo? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If Yes, where was the tattooing performed? <input type="checkbox"/> Commercial parlor/shop <input type="checkbox"/> Correctional facility			
Did the patient have any part of their body pierced (other than ear)? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If Yes, where was the piercing performed? <input type="checkbox"/> Commercial parlor/shop <input type="checkbox"/> Correctional facility <input type="checkbox"/> Other _____			
Did the patient inject drugs not prescribed by a doctor? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did the patient use street drugs but not inject? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If Yes, when? _____   What kind of drugs? _____			
How many sex partners did the patient have? (Ask both questions regardless of the patient's gender.)			
Number of male sex partners <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2-5 <input type="checkbox"/> >5 <input type="checkbox"/> Unk			
Number of female sex partners <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2-5 <input type="checkbox"/> >5 <input type="checkbox"/> Unk			
Was the patient incarcerated for longer than 24 hours? .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If Yes, what type of facility (Check all that apply) <input type="checkbox"/> Prison <input type="checkbox"/> Jail <input type="checkbox"/> Juvenile facility			

**EXPOSURE DETAILS** Please explain any YES answers in the above section. Please sign your notes.

Suspected Source
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