

Hepatitis A_{rev Jan 2018}

BASIC EPIDEMIOLOGY

Infectious Agent

Hepatitis A virus (HAV), a picornavirus

Transmission

Hepatitis A virus is transmitted from person to person through the fecal-oral route. Common source outbreaks are rare but have been linked to contaminated water, food contaminated by infected persons where the food was not properly cooked or handled after cooking, raw or undercooked mollusks harvested from contaminated waters, and contaminated produce.

Incubation Period

Average of 28-30 days (range 15-50 days)

Communicability

Persons with HAV shed the most virus during the 1-2 weeks prior to symptom onset. In most cases, persons are no longer infectious after the first week of jaundice, although not all patients experience jaundice.

Clinical Illness

The clinical course of illness is indistinguishable from the other types of acute viral hepatitis. The illness typically has an abrupt onset of fever, malaise, anorexia, nausea, abdominal discomfort, jaundice and dark urine. Clinical illness does not usually last longer than two months.

Up to 70% of illness in children younger than 6 years old is likely to be asymptomatic. In older children and adults, infection is usually symptomatic, with up to 70% having jaundice.

Unlike some of the other viral hepatitis infections, hepatitis A does not create a chronic carrier state. Some patients, however, may have prolonged symptoms or relapse up to six months, during which the virus may be shed.

DEFINITIONS

Clinical Case Definition

An acute illness with a discrete onset of any sign or symptom consistent with acute viral hepatitis (e.g., fever, headache, malaise, anorexia, nausea, vomiting, diarrhea, and abdominal pain), **AND**

- Jaundice, **OR**
- Elevated serum alanine aminotransferase (ALT) or aspartate aminotransferase (AST) 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 epidemiological 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).
- **Probable:** No probable case definition for Hepatitis A

SURVEILLANCE AND CASE INVESTIGATION

Case Investigation

Local and regional health departments should promptly investigate all reports of acute Hepatitis A. Investigations should include an interview of the case or a surrogate to get a detailed exposure history. Please use DSHS Viral Hepatitis Case Track form available on the DSHS website: <http://www.dshs.state.tx.us/idcu/investigation/>

Case Investigation Checklist

- Confirm laboratory results meet the case definition.
- Review medical records or speak to an infection preventionist or physician to verify demographics, symptoms, underlying health conditions, and course of illness.
- Complete the Viral Hepatitis Case Track form by interviewing the case (or surrogate) to identify close contacts, risk factors and other pertinent information.
 - During the interview provide education on control measure including proper hand hygiene.
- Ensure appropriate control measures are implemented (see Control Measures below).
- Exclude children and cases that are food-handlers from work, if within 7 days of symptom onset.
- Refer household and sexual contacts who are still within 2 weeks of exposure to their healthcare providers for appropriate chemoprophylaxis.
 - See Prophylaxis Guidance.
- Send the completed Viral Hepatitis Case Track form to DSHS.
- All confirmed acute HAV case investigations must be entered and submitted for notification in the NEDSS Base System (NBS). Please refer to the *NBS Data Entry Guidelines* for disease specific entry rules.
- In the event of a death, copies of the hospital discharge summary, death certificate, and autopsy report should also be faxed to DSHS EAIDB.

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.

Managing Close Contacts

- 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 1-40 years of age, offer vaccine within 2 weeks of exposure.
 - For persons <1 or >40, immunocompromised, diagnosed with liver disease, or cannot receive vaccine, provide IG within 2 weeks of exposure.
 - The updated recommended dosage of IG is 0.1 mL/kg and there is no maximum dosage for hepatitis A prophylaxis.
 - Contact DSHS EAIDB if vaccine or IG is needed.
 - IG and the Hepatitis A vaccine can be given concomitantly regardless of manufacturer.
- Contacts who have received one dose of hepatitis A vaccine at least one month prior to exposure do not need post-exposure prophylaxis.
- The patient should be educated on enteric precautions, which should be undertaken the first two weeks of symptoms and up to 1 week after the onset of jaundice.
- 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. 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.

Treatment

There is no specific treatment available for hepatitis A infection.

Exclusion

Food-handlers and school children should be kept out of work or school for 7 days after the onset of symptoms.

MANAGING SPECIAL SITUATIONS

Daycare exposures

- Vaccinate or provide IG to unvaccinated staff and attendees if
 - One or more cases of hepatitis A is diagnosed in the attendees or staff, **OR**
 - Two or more households of attendees have cases diagnosed in them.
- If the daycare does not provide care to children in diapers, then vaccine/IG only needs to be given to classroom contacts of an index-case patient.
- Post-exposure prophylaxis should also be considered for household contacts of daycare attendees that have children in diapers.

Food handler exposures

- If a food-handler is diagnosed with hepatitis A, the other food handlers should be offered IG and/or vaccine. 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.

Common source exposures

- Common source outbreaks are generally identified too late for PEP to be effective, but it should be considered if still within the 2 week PEP window.
- The common source should be removed from circulation.

The Hepatitis A Communication Toolkit can be found at

http://www.dshs.state.tx.us/idcu/disease/hepatitis/hepatitis_a/links/ and can be used if health alerts, press releases, exposure notifications, etc. are needed to manage Hepatitis A outbreaks/exposures.

Outbreaks

If an outbreak of hepatitis A is suspected, notify EAIDB at **(800) 252-8239** or **(512) 776-7676**.

REPORTING AND DATA ENTRY REQUIREMENTS

Provider, School & Child-Care Facilities, and General Public Reporting Requirements

Confirmed and clinically suspected cases are required to be reported **within 1 work day** to the local or regional health department or to DSHS EAIDB at **(800) 252-8239** or **(512) 776-7676**.

Local and Regional Reporting and Follow-up Responsibilities

Local and regional health departments should:

- Enter the case into NBS and submit an NBS notification on all **confirmed** cases to DSHS within 30 days of receiving a report of confirmed case.
 - Please refer to the *NBS Data Entry Guidelines* for disease-specific entry rules.
 - A notification can be sent as soon as the case criteria have been met. Additional information from the investigation may be entered upon completing the investigation.
- Fax, send a secure email, or email a completed investigation form within 30 days of completing the investigation.
 - **In the event of a death, copies of the hospital discharge summary, death certificate, and autopsy report should also be sent to DSHS EAIDB.**
 - Investigation forms may be faxed to **512-776-7616**, securely emailed to VPDTexas@dshs.texas.gov or mailed to:

Infectious Disease Control Unit
Texas Department of State Health Services
Mail Code: 1960
PO Box 149347
Austin, TX 78714-9347

When an outbreak is investigated, local and regional health departments should:

- Report outbreaks within 24 hours of identification to the regional DSHS office or to EAIDB at 512-776-7676.

LABORATORY PROCEDURES

Testing for hepatitis A is widely available from most hospital or commercial laboratories. If hepatitis A testing is needed through the DSHS State Laboratory, please contact the EAIDB VPD team at **(800) 252-8239** or **(512) 776-7676**.

UPDATES

January 2018

- The clinical case definition has been updated to require both the discrete onset of symptoms and either jaundice or elevated liver enzymes to reflect the current change in case definition from the Council of State and Territorial Epidemiologists.
- Parenthetical note added about epi linkage, discussing sexual and household contacts.
- Updated IG dosage for prophylaxis to 0.1 mL/kg.
- Email address added as method of sending case investigation forms.

FLOW CHART rev Apr 2017

**Hepatitis A (HAV):
Case Status Classification**

