

Hepatitis A

Traveler Summary

General Information

Introduction

Hepatitis A is a viral infection of the liver. While the disease usually lasts less than 2 months, approximately 10-15% of persons are ill for up to 6 months. Hepatitis A infection is rarely fatal, and, unlike hepatitis B infection, does not cause chronic disease. Only humans harbor the hepatitis A virus.

Transmission

Transmission occurs through direct person-to-person contact via the fecal-oral route. Poor personal hygiene, poor sanitation, and intimate contact are all factors that allow for transmission of the virus, which is shed in the feces of infected persons.

Persons can shed the virus in stool several weeks before onset of symptoms and continue for at least 1 week afterwards. The virus survives well in the environment outside the human host; it can persist on hands for several hours and in room-temperature food for considerably longer. It is relatively resistant to heat and freezing.

Most people acquire the disease by ingesting contaminated water, ice, or food (e.g., uncooked fruits and vegetables, undercooked shellfish).

Transmission during oral-anal sexual acts also occurs. Blood-borne transmission, while uncommon, is possible via contaminated blood products.

Epidemiology

Hepatitis A virus (HAV) infection is common in developing countries with poor sanitation, limited access to clean water, and poor hygienic conditions; rates are intermediate in developing countries with transitional economies and in some regions of industrialized countries where sanitary conditions are variable. Most developed countries with good sanitary and hygienic conditions have lower rates of hepatitis A, but transmission can occur, especially among travelers ingesting undercooked shellfish.

Risk

The risk of acquiring hepatitis A while traveling depends upon the areas visited, living conditions, and length of stay.

Travelers to industrialized countries with low rates of transmission are generally at little to no risk of infection.

For travelers to countries with high or medium levels of transmission, risk is highest for:

- Long-stay travelers
- Persons who live in or visit rural areas, eat or drink frequently in high-risk situations, or have close physical contact with local persons (especially young children) in settings with poor sanitary conditions
- Those who travel outside pre-arranged, fixed itineraries (including common tourist packages).
 - However, cases can occur, even with "standard" tourist itineraries, accommodations, and food- and beverage-consumption behaviors.

Infants aged less than 12 months rarely have significant illness.

- Infants traveling or residing in settings with good hygiene (i.e., babies who are breastfed or bottle fed using safe water for formula reconstitution and babies eating commercial baby food with no exposure to locally prepared foods that adults would eat) have low risk of infection.

- Asymptomatic or minimally symptomatic infants with acute infection can infect unvaccinated caregivers or close contacts.

Symptoms

Infection can occur with no symptoms or it can range from mild illness lasting 1-2 weeks to severe disease lasting several months. In young children, hepatitis A virus (HAV) usually causes either asymptomatic infection or very mild illness without jaundice; adults are more likely to have symptomatic infection.

Symptoms appear following an incubation period of 15-50 days. Symptoms can include nausea, loss of appetite, abdominal pain, malaise, fever, dark urine, and jaundice (yellowing of the skin and eyes).

Need for Medical Assistance

Persons with symptoms of hepatitis A infection or who have been exposed to HAV should seek medical attention.

Prevention

Non-vaccine: Travelers should observe food and beverage precautions, regardless of immunization status. Good hygiene is vital, especially handwashing or use of hand sanitizer after using the bathroom, changing diapers, and before preparing or eating food.

- See *Food and Beverage Precautions*.

Vaccine: Hepatitis A vaccines are safe and very effective. A single dose given any time before travel will provide complete protection during travel for healthy persons; following 2 doses, most persons will be protected for at least 40 years.

- Hepatitis A vaccine is available for persons aged 1 year and older.
- A combined hepatitis A/B vaccine is available persons aged 18 years and older in the U.S. In Canada and Europe it is available in a pediatric formulation, as well.

Immune globulin (IG), a human blood-derived product, is given for temporary protection against hepatitis A if vaccine cannot be used. It is considered very safe and can be used for all ages.

Who Should Receive Vaccine

Routine

Hepatitis A vaccine is routinely recommended for:

- All children in the U.S. at age 1 year (i.e., 12-23 months)
 - Children aged 2 years and older who were not vaccinated at the recommended time
- Men who have sex with men
- Persons who use injection drugs
- Persons working with HAV-infected primates or with HAV in a research laboratory setting
- Persons with chronic liver disease (including persons waiting for or who have received liver transplants) and persons who receive clotting factor concentrates
- Unvaccinated persons who anticipate close personal contact (household or regular babysitting) with an international adoptee from a country with high or intermediate endemicity during the first 60 days after arrival of adoptee in the U.S. (The first dose should be administered as soon as adoption is planned, ideally at least 2 weeks before arrival of the adoptee. The second dose should be given at least 6 months later to provide long-term immunity.)
- Any person seeking protection from HAV infection

Travel

Hepatitis A vaccine is recommended for:

- Susceptible travelers aged 1 year and older traveling to or living in developing countries and areas of intermediate or high risk for hepatitis A transmission, especially persons who plan frequent trips or prolonged stays. This recommendation does not include travelers to North America (except Mexico), Australia (except some remote regions), New Zealand, or Western Europe.
- Susceptible travelers to some non-developing countries who engage in risk behaviors (see "Risk," below)
- Risk-averse travelers desiring maximum pre-travel protection
- For at-risk travelers planning to depart in less than 2 weeks, see "Immune Globulin," below.

Who Should Receive Immune Globulin

Immune Globulin (IG) should be considered for:

- At-risk travelers who did not receive hepatitis A vaccine (e.g., those who are allergic to the vaccine)
- Pregnant women or nursing mothers if clearly needed and vaccine was not given
- Rarely, IG might be given to infants younger than age 12 months who are staying in situations where there is significant exposure to local foods that adults would eat, but only if there is a concern about transmission of hepatitis A to unvaccinated household contacts. Risk of mild clinical illness is low for these infants.

Who Should Receive Vaccine and Immune Globulin

Vaccine and IG should be used for travelers leaving in 2 weeks or less if they are:

- Older adults
- Immunocompromised persons
- Persons with chronic liver disease or other chronic medical conditions

Who Should Receive Combination HepA-HepB Vaccine

Combination hepA/B vaccine is recommended for:

- Persons aged 18 years or older who are at risk for both forms of hepatitis

Who Should Not Receive Hepatitis A Vaccine

- Persons with severe hypersensitivity reaction to a previous dose of this vaccine or to any of the vaccine components
 - Persons who are allergic to the vaccine or to a vaccine component or who choose not to receive the vaccine should receive a single dose of IG. (See Immune Globulin for more information.)
- Children younger than age 12 months

Persons who are moderately or severely ill usually should wait until they recover before getting this vaccine.

Persons with a bleeding disorder should discuss with their health care providers options for receiving this vaccine, because it is given intramuscularly (IM).

Who Should Not Use IG

Persons who should not receive IG include:

- Those with isolated immunoglobulin A (IgA) deficiency
- Those with a severe allergy to IG or any of its components

Persons with any bleeding disorder should discuss their options for receiving IG, which is given intramuscularly, with their health providers.

Risks and Side Effects

Hepatitis A vaccine: The most common side effects of hepatitis A vaccination are pain and redness at the injection site. Sometimes headache and fatigue may occur, and some children may have temporary loss of appetite. Serious side effects are rare.

Immune globulin: Serious side effects from IG are rare. However, some people may experience soreness and swelling at the injection site and, in some cases, hives.

There is a rare chance that serious problems or even death could occur after receiving any medicine or vaccine. If a significant or unusual problem occurs after receiving the vaccine, the patient should call or visit the health care provider.

Timing

Hepatitis A Vaccine

Two doses of hepatitis A vaccine are given, with the second dose given 6 to 18 months after the first dose.

- For routine vaccination, children receive their first dose of hepatitis A vaccine at age 1 year (12-23 months), and the second dose is given at least 6 months later.
 - Children who did not receive hepatitis A vaccine at age 12-23 months can be given the first dose of vaccine at a subsequent visit, with a second dose given at least 6 months later.
- For travelers, the first dose of hepatitis A vaccine should be administered as soon as travel is considered. Most healthy travelers will be adequately protected after a single dose. (A second dose will still be needed 6-18 months later.)
 - Travelers who are older adults, immune compromised, have chronic liver disease, or other chronic medical conditions who are planning to depart in 2 weeks or less should receive both the initial dose of hepatitis A vaccine and IG.

The combined hepatitis A/hepatitis B vaccine is given in a series of 3 shots; the second shot is given 1 month after the first and the third shot is given 6 months after the first.

- An accelerated schedule is available and can be considered for travelers who are departing in less than 6 months. It consists of 4 doses of the combined hepatitis A/B vaccine. The second dose is given 7 days after the first dose, and the third dose is given 21-30 days after the first dose (at least 14 days after the second dose); a fourth dose is given 12 months after the first dose.

Immune Globulin

IG is administered in a single dose, and protection lasts approximately 3-5 months.

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