Hepatitis A
Overview
Hepatitis A

CAUSES

SYMPTOMS

TREATMENT
Hepatitis A

Contagious liver infection caused by the hepatitis A virus; a RNA virus classified as a picornavirus.

First descriptions of hepatitis are generally attributed to Hippocrates
- Outbreaks of jaundice were reported in the 17th and 18th centuries, particularly in association with military campaigns.

In the pre-vaccine era, primary methods used for preventing hepatitis A were hygienic measures and passive protection with immune globulin (IG).

First isolated in 1979, where the development of serologic tests helped differentiate hepatitis A from other types of non-B hepatitis.

Single-antigen HepA vaccine was licensed for use in the United States in 1995 (Havrix) and 1996 (Vaqta). In 2001, a combination HepA-HepB vaccine (Twinrix) was licensed.
Causes

Humans are the only natural host.

Through person-to-person contact.
- Hepatitis A can be spread from close, personal contact with an infected person
  - Sex
  - Caring for someone who is ill
  - Drug use

Eating contaminated food or drink
- Contamination of food with the Hepatitis A virus can happen at any point:
  - Growing, harvesting, processing, handling, and after cooking.
  - Happens more often in countries where Hepatitis A is common.
Transmission - Highly Contagious… and Rogue!

Viral shedding persists for 1 to 3 weeks, and infected persons are likely to transmit HAV 1 to 2 weeks before the onset of illness
- When HAV concentration in stool is the highest

Risk then decreases and is minimal the week after onset of symptoms
Pathogenesis

Fecal-oral transmission.
Viral replication in the liver.
Virus present in blood and feces 10 to 12 days after infection.
Virus excretion may continue for up to 3 weeks after onset of symptoms.
Clinical Features

Incubation Period 28 (ranges from 15 to 50 days).

Symptoms
- Abrupt onset of fever, malaise, anorexia, nausea, abdominal discomfort, diarrhea, fatigue, dark urine, and jaundice.

Clinical illness usually does not last longer than 2 months.
- Though 10% to 15% of persons have prolonged or relapsing signs/symptoms for up to 6 months.

Likelihood of symptomatic illness is directly related to age.
- 6 years or less, most (70%) infections are asymptomatic.
- Older children or adults – Usually symptomatic, with jaundice occurring in more than 70% of patients.
Risk Factors/Groups

- Children living in high endemicity areas.
- Children and adults living in intermediate endemicity areas.
- Susceptible persons traveling to, or working in, HAV-endemic countries.
- Injection drug users.
- Close contacts (e.g., household, sexual) of hepatitis A patients. Cases have resulted from contact with newly adopted children from HAV-endemic countries.
- Those working with infected primates or with HAV in research laboratories.
- Persons with chronic liver disease who have an elevated risk of death from fulminant hepatitis A.
### Complications

More Common in older children, adolescents, and adults

**Relapsing Hepatitis**
- Total blockage/suppression of bile
- High bilirubin levels

**Cholestatic Hepatitis A**
- Total blockage/suppression of bile
- High bilirubin levels

**Fulminant Hepatitis**
- Most severe rare complication
- Severe liver function impairment that can result in hepatic coma and a decrease in synthesizing capacity of the liver
- Mortality rates up to 80%
Treatment/Prevention

Treatment
- Doctors usually recommend rest, adequate nutrition, and fluids.
- Hospitalization can occur for more severe cases.

Prevention
- Education on proper sanitation, hand hygiene, and fecal disposal.
- Proper water treatment and distribution systems, and sewage disposal.
- PrEP – Hepatitis A vaccination
- PEP – Hepatitis A should be given as soon as possible, but no later than 2 weeks after exposure
Hepatitis A Vaccines

HepA (Havrix, Vaqta)
- Pediatric formulations of Havrix and Vaqta are approved for persons 12 months through 18 years
- Adult formulations are approved for persons 19 years and older
- 2-dose series (2nd dose given: 6-12 mo after [Havrix] 6-18 mo after [Vaqta])

HepA-HepB Combo (Twinrix)
- Licensed for persons 18 years and older
- 3 dose series at 0, 1, and 6 mos

Hepatitis A Vaccination Schedule
- All children age 12 through 23 months and all children and adolescents age 2 through 18 years who have not previously received HepA vaccine
  - 2-dose series at 0, 6-18 months (Vaqta)
  - 2-dose series at 0, 6-12 months (Havrix)
- Adults age 19 years or older with risk factors
  - 2-dose series at 0, 6-18 months (Vaqta)
  - 2-dose series at 0, 6-12 months (Havrix)
  - 3-dose series at 0, 1, 6 months (Twinrix)
  - 3-dose series with doses at 0, 7, 21-30 days, and booster 12 months after dose 1 (Twinrix, accelerated)

Reporting
- IMMEDIATELY notify LHD regarding evaluation and treatment of close contacts; encourage good hand hygiene
- Contact LHD for a “letter to parents”

Exclusion
- Exclude until 7 days after jaundice onset and medically cleared
- Exclude from food handling for 14 days

Source: MDHHS - Managing Communicable Diseases in Schools
CDC Pink Book - Hepatitis A

CDC - Viral Hepatitis - Hepatitis A


MDHHS - Managing Communicable Diseases in Schools