



Infectious Disease Epidemiology Report



Hepatitis A in Maine, 2016

Background

Hepatitis A is a liver disease caused by hepatitis A virus (HAV). HAV is spread from person-to-person by the fecal-oral route, by either person-to-person contact, consumption of contaminated food or water or through fecal-oral sexual contact. Poor hand washing by infected persons increases the risk of transmission. The virus spreads more easily in areas where sanitary conditions and personal hygiene practices are poor. Most infections result from exposure during international travel or contact with a household member or sex partner who has hepatitis A. Casual contact, as in the office or school setting, does not typically spread the virus.

Signs and symptoms of hepatitis A include tiredness, loss of appetite, nausea, abdominal discomfort, dark urine, clay-colored stool, jaundice and elevated liver function tests. Hepatitis A is classified by a discrete onset of symptoms, elevated liver enzymes or jaundice, and positive serology. Symptoms appear within 15 to 50 days of infection with the virus, although children are less likely to have symptoms. There is no chronic form of hepatitis A and infection provides lifelong immunity. There is a vaccine for hepatitis A.

Methods

Hepatitis A is reportable in Maine immediately upon recognition or strong suspicion of disease. Reported cases are investigated by Maine CDC to determine the exposure, identify close contacts, and make recommendations for post-exposure prophylaxis and prevention.

Results

In 2016, eight cases of hepatitis A were reported in Maine, compared to eight cases in the previous year. The rate of hepatitis A in Maine was 0.6 cases per 100,000 persons in 2016. The US rate for 2016 was not available, however, the US rate for 2015 was 0.5 cases per 100,000 persons (Figure 1).

The median age of cases was 36.5 years with a range from 17 to 96 years. The majority of cases (75%) were female (Figure 2).

Figure 1. Rate of Hepatitis A, Maine and U.S., 2012-2016

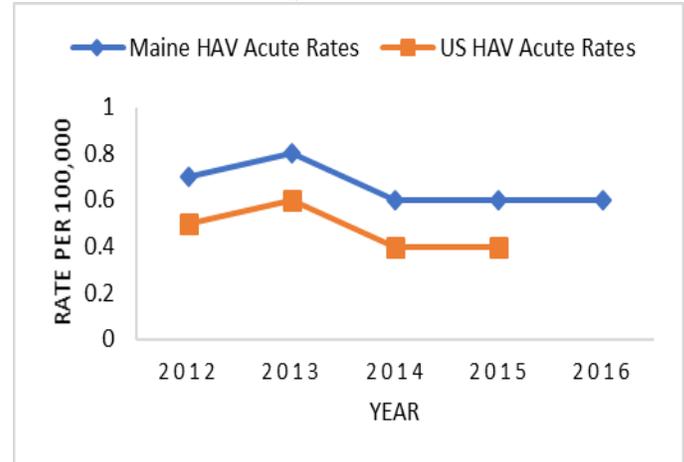
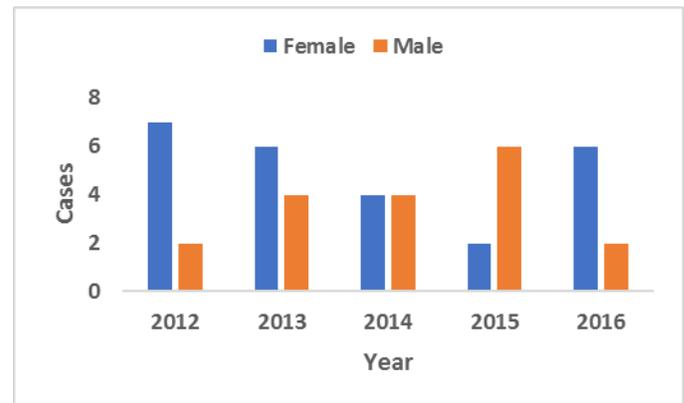


Figure 2. Count of Hepatitis A, Maine and U.S., 2012-2016 N=43



All of the cases reported in 2016 were symptomatic and all but one had elevated liver enzyme levels. All cases had positive serology for HAV (IgM anti-HAV positive). Three (37.5%) cases had jaundice, and two cases were hospitalized. None of the cases had been previously vaccinated for hepatitis A virus.

Risk factor information was collected for all eight cases for the 15-50 days prior to symptom onset. One case reported international travel, one case was currently incarcerated and one case was a person who injects drugs. No other common risk factors were identified. None of the cases reported being a food handler in the two weeks prior to symptom onset.

Hepatitis A in Maine, 2016

In 2016, hepatitis A cases were reported from six Maine counties. Two cases each were from Cumberland and Kennebec Counties, and one case each was from Waldo, Penobscot, Hancock and York Counties.

Discussion

Hepatitis A is among the most common vaccine-preventable infections acquired during travel. In the United States the most frequently identified risk factor for hepatitis A is international travel. The highest risk is for those who live in or visit rural areas, trek in backcountry areas, or frequently eat or drink in settings of poor sanitation.

Hepatitis A is vaccine-preventable in persons aged one year and older. The vaccine is administered in a 2-dose schedule, six months apart. A combined hepatitis A and hepatitis B vaccine (Twinrix) is also available for adults age 18 and older. Hepatitis A vaccine is recommended routinely for children and for household members and other close personal contacts of adopted children newly arriving from countries where hepatitis A is endemic.

Prevention measures for hepatitis A include:

- Consider vaccination for all children and persons at increased risk for hepatitis A, including travelers, men who have sex with men (MSM), people who use drugs, persons with occupational risk for infection, persons experiencing homelessness and persons with clotting factor disorders.
- Practice good hand washing, especially before handling or eating food, after toilet use and after changing diapers.
- Dispose of feces in a sanitary manner in daycare or residential settings.
- Avoid sexual practices that may allow fecal-oral transmission.
- When traveling, do not drink tap water or use ice, and avoid eating uncooked foods in developing countries where the water may not be safe and sanitation is poor.

Infection with HAV can be avoided after exposure to a confirmed case with timely administration of hepatitis A vaccine or immune globulin (IG). This is

called post-exposure prophylaxis and is effective if given within two weeks of exposure.

- For healthy persons aged 12 months to 40 years, single-antigen hepatitis A vaccine at the age-appropriate dose is preferred.
- For persons aged >40 years, IG is preferred; vaccine can be used if IG cannot be obtained.
- IG should be used for children aged <12 months, immunocompromised persons, persons who have had diagnosed chronic liver disease, and persons for whom vaccine is contraindicated.

To be fully vaccinated, a second dose of Hepatitis A vaccine should be given at least 6 months after the first dose.

Due to the likelihood of false positive results when diagnostic testing for HAV is performed on asymptomatic persons, CDC recommends that healthcare providers limit use of IgM anti-HAV testing to persons with evidence of clinical hepatitis or to those who have had recent exposure to a person with hepatitis A. Providers should also not use IgM anti-HAV as a screening tool for asymptomatic persons or as part of testing panels for the workup of non-acute liver function abnormalities.

Acute hepatitis A cases are required to be reported immediately to Maine CDC at 1-800-821-5821. Information about hepatitis A is available online at www.maine.gov/idepi and www.cdc.gov.