



Infectious Disease Epidemiology Report



Hepatitis A in Maine, 2014

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 or consumption of contaminated food or water. 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 acute HAV infection include tiredness, loss of appetite, nausea, abdominal discomfort, dark urine, clay-colored stool, jaundice and elevated liver function tests. Acute HAV infection 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

Acute HAV infections in Maine are reportable 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 2014, eight cases of acute Hepatitis A were reported in Maine compared to ten cases in the previous year. The rate of acute HAV infection in Maine was 0.6 cases per 100,000 persons in 2014, whereas the US rate was 0.4 cases per 100,000 persons (Figure 1).

The median age of cases was 25.5 years with a range from 9 months to 59 years. The cases were evenly divided among males and females in 2014 (Figure 2).

Figure 1. Rate of Hepatitis A, Maine and U.S., 2010-2014

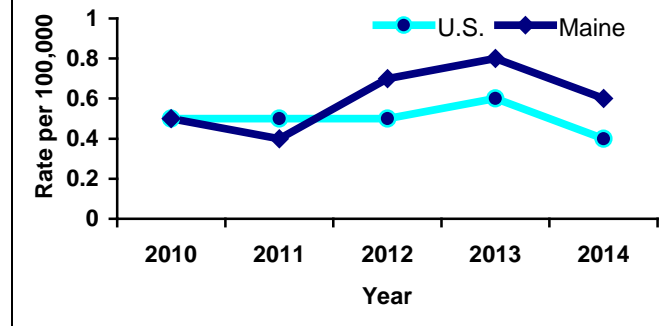
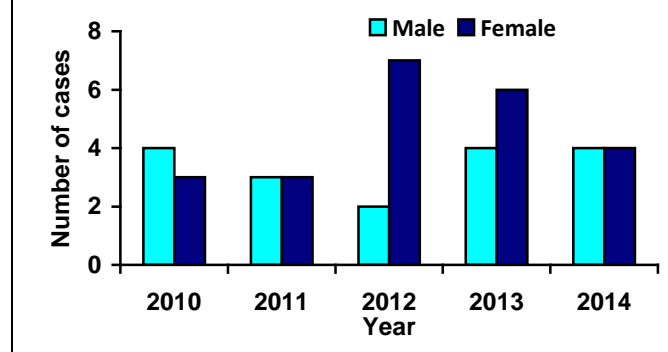


Figure 2. Count of Hepatitis A, Maine 2010-2014 (N=40)

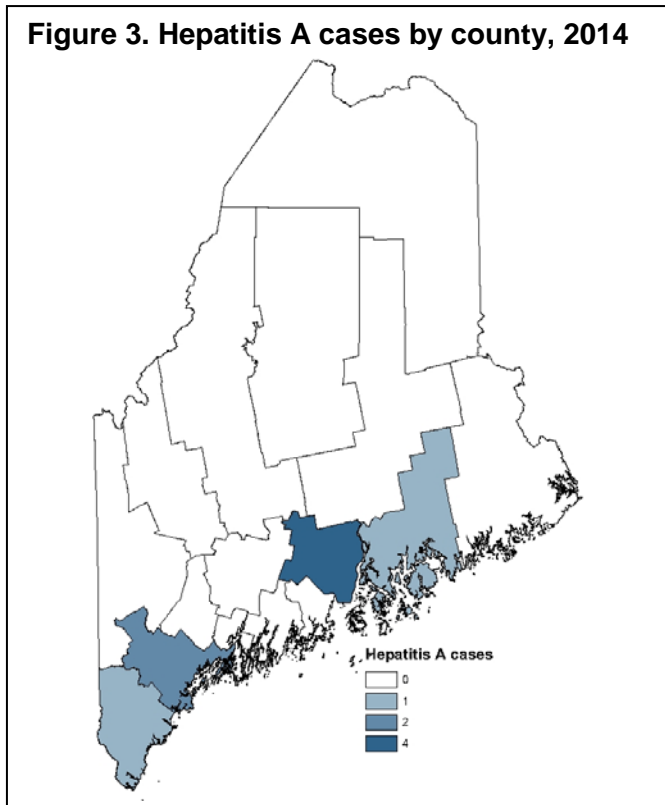


Seven cases (88%) were symptomatic and had elevated liver enzyme levels. The one case who was asymptomatic was a child, and children are less likely to have symptoms. All cases had positive serology for Hepatitis A virus (IgM anti-HAV positive). Half (50%) of the cases had jaundice. One case was hospitalized. No cases were 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 travel to a country where Hepatitis A is endemic, and was the index case for three household members' infections. One case reported injection drug use. One case reported being a food handler in the two weeks prior to symptom onset, but no secondary cases were reported.

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In 2014, Hepatitis A cases were reported from four Maine counties. Four cases (50%) were from Waldo County, two cases were from Cumberland County, and one case each was from Hancock and York counties (Figure 3).



Discussion

Prevention measures for HAV infection include the following:

- Consider vaccination for all children and persons at increased risk for HAV infection, including travelers, men who have sex with men (MSM), drug users, persons with occupational risk for infection, 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.

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 HAV infection is endemic.

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 Hepatitis A virus 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 an acute HAV infection. 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.