Ongoing Hepatitis A Outbreak among Persons Experiencing Homelessness and Substance Use Disorder

Highlights:

- There have been 22 cases of Hepatitis A virus infection in persons experiencing homelessness and/or substance use disorder in Massachusetts.
- Pre-existing liver damage, such as occurs with chronic Hepatitis B and C infection or chronic alcohol use, contributes to more severe disease and even death in persons with Hepatitis A infection.
- Vaccination of high-risk groups should be prioritized even in facilities and areas that have not had a case of Hepatitis A.
- Early recognition of Hepatitis A infection is critical to successful prevention efforts.

Following the release of the joint Hepatitis A virus (HAV) advisory with Boston Public Health Commission earlier this month (https://www.mass.gov/lists/massachusetts-department-of-public-health-immunization-program-advisories-and-alerts), there have been an additional twelve cases of acute HAV infection in Massachusetts residents. This brings the total number of cases identified since early April to twenty-two, most of whom are experiencing homelessness and/or substance use disorder. Illness among this group has frequently been severe, with over 85% of cases requiring hospitalization and, to date, one fatality.

Hepatitis A is a highly contagious liver infection caused by the Hepatitis A virus. The disease ranges in severity from mild, lasting a few weeks, to severe disease lasting several months. Persons with preexisting liver damage, such as those with chronic hepatitis B or C infection or chronic alcohol use, are at particular risk for severe disease and death. HAV is primarily spread person-to-person through the fecal-oral route and contact with a feces-contaminated environment.

Given the continued increase in significant HAV activity in Massachusetts and the outbreaks seen in other states involving similar populations, there is likely to be additional transmission and morbidity in the Commonwealth. Effective prevention and response measures include:

- early identification of cases;
- vaccination of high-risk populations and persons recently exposed to HAV;
- enhanced sanitation processes; and
- education of vulnerable populations.

For more information about the national outbreaks please see the recent advisory from the Centers for Disease Control and Prevention at: https://www.cdc.gov/hepatitis/outbreaks/2017March-HepatitisA.htm.
**Vaccination and Reporting**

At the current time, vaccination of high-risk persons should be considered the priority for prevention.

1. Vaccinate **all persons at high risk** including persons experiencing homelessness, persons who use injection or non-injection drugs and/or have chronic liver disease (including chronic hepatitis B or C infection or chronic alcohol use), persons in contact with the correctional system, and men who have sex with men.

2. Vaccine options include single antigen hepatitis A vaccine (HAVRIX® or VAQTA®) and the combination hepatitis A and B vaccine (Twinrix®). Single antigen hepatitis A vaccine is recommended for those in outbreak settings; one dose can provide high rates of seroprotection and it can be used for postexposure prophylaxis. Twinrix® requires 3 doses for maximum protection against both hepatitis A and B and is not recommended for postexposure prophylaxis. For more information see: https://www.cdc.gov/hepatitis/HAV/HAVfaq.htm#genera and https://www.cdc.gov/hepatitis/outbreaks/InterimOutbreakGuidance-HAV-VaccineAdmin.htm.

3. Vaccines should be offered at any point of engagement including Emergency Department or Urgent Care encounters, inpatient admissions, observation stays, outpatient clinic visits, homeless shelters, jails, syringe services programs, and substance use treatment centers. Vaccination information must be reported to the Massachusetts Immunization Information System (MIIS). In most facilities this can be accomplished by entering the information into the facility’s electronic medical record.

4. Targeted street-based outreach workers and mobile van units serving high-risk populations are encouraged to provide HAV and other vaccines to unsheltered individuals and persons living in encampments or otherwise not utilizing services within the shelters.

5. HAV vaccine should be offered to all potentially exposed staff, who are under- or un-immunized, at facilities serving these high-risk populations.

6. Immunize all close contacts of persons diagnosed with acute HAV with single antigen hepatitis A vaccine (and/or immune globulin, if indicated and available).

7. Persons presenting with signs/symptoms consistent with acute HAV infection, should be evaluated immediately at the nearest healthcare facility.

8. Cases should be reported to the local board of health where the patient lives or to the MDPH Epi Line (Phone: 617-983-6800, available 24/7). Infections diagnosed in Boston residents should be reported to the Boston Public Health Commission (Phone: 617-534-5611, available 24/7).

**Hygiene and Sanitation**

1. Facilities serving high-risk populations should increase opportunities for hand hygiene at entrances/exits and encourage frequent handwashing. Hand washing with antimicrobial soap and hot water should be encouraged. Portable hand hygiene stations utilizing hot water are suitable.  
   a. Alcohol-based hand sanitizers (ABHS) may not be effective against HAV and are not recommended.

2. Implement enhanced hygiene and sanitation control measures, including cleaning of all high-touch surfaces and bathroom facilities at least twice daily (and as needed) with a disinfectant labeled by EPA as active against norovirus or hepatitis A virus. Dilute bleach solution (1:100) is also effective.

**Education**

Education should be provided to all high-risk populations and agencies serving these populations about signs/symptoms of HAV, need for vaccination, and hygiene measures to reduce transmission.

1. Hospitals, clinics, and other agencies serving these populations should educate residents, nurses, community health workers, intake staff, etc. about the risks associated with HAV infection and its prevention.

2. Strengthen education and outreach efforts to sheltered and unsheltered homeless, with a focus on necessary enhanced hygiene practices, referral for vaccination, and connecting potentially exposed and ill persons to care.

**Questions about Hepatitis A disease and prevention can be addressed to the Massachusetts Department of Public Health, Division of Epidemiology and Immunization Epi Line at 617-983-6800 (available 24/7).**