March 20, 2018

Hepatitis A Outbreak Impacting Illicit Drug Users and Homeless in Kentucky

The following public health advisory has been issued to inform healthcare providers of the recent outbreak of acute hepatitis A virus (HAV) infections affecting illicit drug-using and/or homeless individuals throughout Kentucky. Recommendations and resources for the prevention and control of acute hepatitis A are attached.

Situation

In November 2017, the Kentucky Department for Public Health (DPH) identified an outbreak of acute hepatitis A. The increase of Kentucky’s hepatitis A cases has exceeded the 10-year average of reported cases of about 20 per year. To date, more than 193 Kentuckians statewide have been identified as being infected with hepatitis A since August 1, 2017. Of those, 41 cases were infected with a strain of the hepatitis A virus (HAV) genetically linked to outbreaks in both California and Utah: over 50 additional specimens are awaiting genetic sequencing at CDC. Of the outbreak-associated cases, 148 (76%) were reported in Jefferson County. Kentucky counties that have reported outbreak-associated cases include Anderson, Boyd, Bullitt, Carter, Greenup, Hopkins, Kenton, Leslie, Marion, McCracken, Russell, Spencer, Taylor and Warren counties.

Similar to hepatitis A outbreaks in other states, the primary risk factors have been illicit drug use and homelessness. A common source of infection has not been identified, and HAV transmission is believed to occur through person-to-person contact. Kentucky is experiencing a 70% hospitalization rate and one death as a result of the hepatitis A outbreak. However, it is important to note that the individual who died had other health issues that contributed to their death.

Several food service workers across the state have also been infected, potentially exposing co-workers and patrons of their grocery and restaurant establishments, though the CDC considers the risk to patrons to be extremely low. No outbreak cases have been linked to exposure to a food service establishment to date.

Background

The Centers for Disease Control and Prevention (CDC) notes that HAV infection rates in the United States have declined by 95% since the hepatitis A vaccine became available in 1995. The most recent national data
indicated that in 2014 1,239 cases were reported from the 50 states to CDC. Historically, Kentucky has averaged 20 cases of hepatitis A per year.

In the U.S., person-to-person transmission through the fecal-oral route is the primary means of HAV transmission. Most infections result from close personal contact with an infected household member or sexual partner. Common-source outbreaks and sporadic cases may also occur from exposure to fecally-contaminated food or water.

Individuals at increased risk for HAV infection include: travelers to countries with high or intermediate endemicity of HAV infection (countries outside the US such as Canada, Australia, New Zealand, Japan, and Western Europe should be considered to have high or intermediate endemicity for HAV transmission); men who have sex with men; users of injection and non-injection illegal drugs, persons with clotting factor disorders; persons who have contact with newly arrived international adoptees within the first 60 days of their US arrival; and persons working with nonhuman primates.

HAV outbreaks have been reported among the homeless, who have an increased risk of infection due to living conditions when compared with the general population. The increased risk due to homelessness has been demonstrated to be independent of other known risk factors, such as injection of illicit drugs and sexual practices. Morbidity and mortality have been reported to be higher in HAV outbreaks involving the homeless and illicit drug users.

**Recommendations for Providers**

1. **Consider HAV infection** in individuals, especially homeless and those who use illicit drugs, with discrete onset of symptoms consistent with acute hepatitis A (e.g., nausea, vomiting, diarrhea, anorexia, fever, malaise, dark urine, light-colored stool, or abdominal pain), jaundice or elevated liver function tests.

2. **Promptly report all confirmed and suspected HAV cases** to the local or state public health department within 24 hours of the probably diagnosis of acute hepatitis A, in accordance with 902 KAR 2:020 (http://www.lrc.ky.gov/kar/902/002/020.htm).

   Providers are urged to contact the local health department while suspected cases are still at the healthcare facility. This action will ensure that a public health investigator can interview the patient by phone for a risk history and facilitate serum specimen submission to the Kentucky Department of Laboratory Services for potential genotyping. If the local health department is not available, providers can contact Kentucky Department for Public Health’s Division of Epidemiology at (502) 564-3261.

3. **Obtain proper specimens** for initial hepatitis A testing (IgM anti-HAV). Positive total anti-HAV antibody results are not sufficient evidence of acute hepatitis A infection. Specimens for molecular testing are also recommended to be forwarded to the Division of Laboratory Services. Further information on public health investigations relating to the Health Insurance Portability and Accountability act (HIPAA) and laboratory testing guidance are enclosed.

4. **Provide post-exposure prophylaxis (PEP) for close contacts of confirmed acute hepatitis A cases.** Persons who have recently been exposed to HAV and who previously have not received hepatitis A vaccine should be administered a single dose of single-antigen vaccine or IG (0.1 mL/kg) as soon as possible. Note that the recommended dose of IG for hepatitis A PEP was increased in 2017 (https://www.cdc.gov/mmwr/volumes/66/wr/mm6636a5.htm).
For susceptible healthy persons aged 12 months through 40 years, single-antigen hepatitis A vaccine at the age-appropriate dose is preferred to immune globulin (IG) because of vaccine advantages that include long-term protection and ease of administration.

For persons aged >40 years, IG is preferred because of the absence of information regarding vaccine performance and the more severe manifestations of hepatitis A in this age group; vaccine can be used if IG cannot be obtained.

The magnitude of the risk for HAV transmission from the exposure should be considered in decisions to use IG or vaccine. IG should be used for children aged <12 months, immunocompromised persons, persons who have had chronic liver disease diagnosed, and persons for whom vaccine is contraindicated.

Persons administered IG for whom hepatitis A vaccine also is recommended for other reasons should receive a dose of vaccine simultaneously with IG. For persons who receive vaccine, the second dose should be administered according to the licensed schedule to complete the series. The efficacy of IG or vaccine when administered >2 weeks after exposure has not been established.

The efficacy of the combined Hepatitis A/Hepatitis B virus (HBV) vaccine for PEP has not been evaluated, so it is not recommended for PEP for adults in place of the single-antigen hepatitis A vaccine.

5. **Provide HAV vaccine to at-risk persons who are not already immunized.** Vaccination of at-risk individuals remains the best means to control the spread of HAV infection. Administer hepatitis A vaccine in accordance with ACIP recommendations. CDC recommendations for hepatitis A vaccine are included in the enclosed CDC HAV Fact Sheet. Due to Kentucky’s current outbreak, DPH recommends that persons who have frequent work or volunteer contact with at-risk populations become vaccinated against hepatitis A.

6. **Implement disinfection procedures that are effective against hepatitis A.** DPH recommends that facilities review disinfection procedures to ensure products are both effective against hepatitis A virus and used in accordance with the manufacturer’s label. Guidance on disinfection is enclosed.

7. **Consider further testing and vaccination.** It is believed that the current hepatitis A outbreaks in California and Utah are causing high rates of morbidity and mortality due, in part, to co-infections with hepatitis B and/or hepatitis C. DPH requests that healthcare providers also give hepatitis B vaccination as appropriate and consider hepatitis C screening and confirmatory testing for at-risk patients. Hepatitis C testing algorithms are enclosed.

**Resources**
- [http://chfs.ky.gov/dph/hepatitis.htm](http://chfs.ky.gov/dph/hepatitis.htm)
- [https://www.cdc.gov/hepatitis/hav/havfaq.htm](https://www.cdc.gov/hepatitis/hav/havfaq.htm)
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