CAHAN San Diego
California HEALTH ALERT NETWORK

To: CAHAN San Diego Participants
Date: July 13, 2017
From: Public Health Services, Epidemiology and Immunizations Services Branch

Update #4: Hepatitis A Virus Outbreak in San Diego County

This health advisory updates local healthcare providers about recent hepatitis A virus (HAV) infections disproportionately affecting homeless and illicit drug-using individuals in San Diego County. Updated recommendations and resources on HAV are provided.

Key messages:

- 228 cases, including 5 deaths, have been reported since November 2016.
- The outbreak is primarily transmitted person-to-person through close contact or through a fecally-contaminated environment.
- Vaccination and proper hand hygiene are the best prevention against HAV.
- High risk groups that should be vaccinated include: homeless people, illicit drug users, men who have sex with men, people with chronic liver disease, and travelers to countries with increased HAV rates.
- Anyone who works closely with persons who are homeless and/or are using illicit drugs should be vaccinated because of this outbreak.
- Suspect cases should be reported to public health while the patient is still at the treatment facility.
- Appropriate post-exposure prophylaxis should be given to close contacts of known cases.
- Healthcare workers should use standard precautions at all times and should use contact precautions with certain HAV patients.

Situation

As of July 10, 2017, 228 confirmed or probable HAV cases have been reported in an ongoing local outbreak in San Diego County. The cases had symptom onsets between November 24, 2016 and July 6, 2017. One hundred and sixty-one (71%) of the cases have been hospitalized, and five patients (2%) have died. The cases range in age from 20 to 87 years (median = 44 years), and 154 (68%) are male, with two (1%) self-identifying as men who has sex with men.

Ninety-eight (43%) of the HAV cases are homeless and reported injection or non-injection illicit drug use, 35 (15%) were homeless only, 24 (11%) were illicit drug users only, 46 (20%) were neither homeless nor drug users, and 25 (11%) had an unknown status for homelessness and drug use. Of the cases with test results available for review, 40 of 180 (22%) have evidence of hepatitis C infection, and 10 of 178 (6%) have hepatitis B infection.

Despite the fact that the majority of the cases in this outbreak had a known indication for HAV immunization, only one case (a 20-year-old who had routine childhood HAV immunizations) had been vaccinated prior to becoming ill.

Most of the outbreak cases have been from the El Cajon/La Mesa area and downtown San Diego. Some cases have been confirmed in individuals who were only in the southern or northern parts of the county during their exposure periods. There are several clusters of epidemiologically associated cases, although no specific common food, beverage, or drug sources have yet been identified. Case clusters have been reported in individuals who have used the same homeless services providers and in the following types of facilities with shared restrooms: jails, single room occupancy hotels, residential drug treatment facilities, and assisted living facilities.

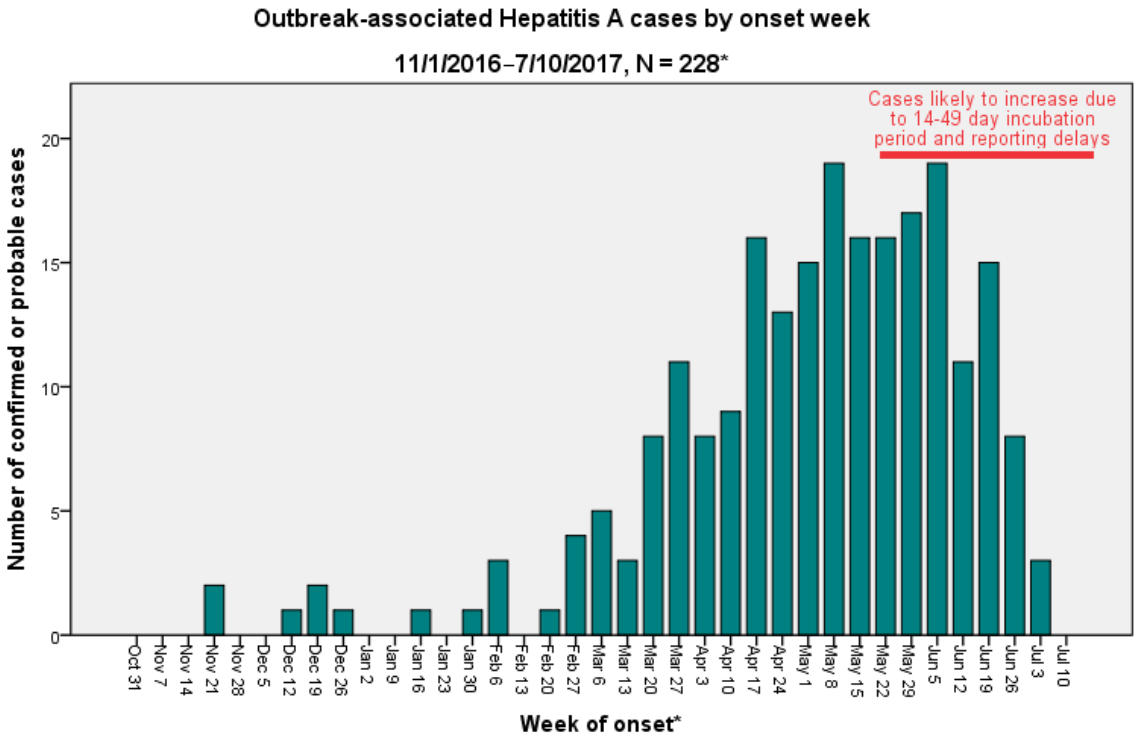
The Centers for Disease Control and Prevention (CDC) has confirmed HAV RNA in serum samples of 153 outbreak cases. Viral sequencing indicates that four unique, closely related strains of HAV genotype 1B are involved. These strains are different than those associated with an ongoing HAV outbreak in Southeastern Michigan and the outbreaks linked to frozen strawberries in 2016 and pomegranate arils in 2013.

Investigations of the confirmed and probable cases, as well as three dozen suspect cases, are ongoing. Fourteen HAV cases have been reported this year that are travel-related and are not part of the local outbreak totals. Of note, one MSM was diagnosed with symptomatic HAV infection four weeks after a trip to Paris, and viral sequence analysis indicated that the HAV strain causing his infection is identical to the one causing an outbreak among MSM in France.

Background

Person-to-person transmission through the fecal-oral route is the primary means of HAV transmission in the United States. Most infections result from close personal contact with an infected household member or sexual partner, or their fecally contaminated environment. Hands may play a significant role in the direct and indirect spread of HAV. Common-source outbreaks and sporadic cases can also occur from exposure to fecally contaminated food or water.

Individuals with increased risk for HAV infection include: travelers to countries with high or intermediate endemicity of HAV, men who have sex with men (MSM), users of injection and non-injection illicit drugs, persons with clotting factor disorders, and persons working with nonhuman primates. HAV outbreaks have been reported among the homeless, who have a higher morbidity and mortality when compared with the general population and an increased risk of infection due to living conditions. Individuals with chronic liver conditions, such as hepatitis B or C, are also recommended to get HAV vaccination because of their increased morbidity and mortality risks should they contract HAV.



*Date of specimen collection or report used if onset date unknown; dates may change as information becomes available

Recommendations for Providers

1. **Consider HAV infection in individuals, especially the homeless and those who use illicit drugs, with discrete symptom onset and jaundice or elevated liver function tests.**
   - Symptoms of concern include nausea, vomiting, diarrhea, anorexia, fever, malaise, dark urine, light-colored stool, and abdominal pain.
   - A complete serology panel with testing for hepatitis A, B, and C is recommended in symptomatic patients. HIV testing is also recommended for those with an undocumented HIV-status.
   - Serologic testing for HAV infection is not recommended in asymptomatic individuals or as screening before vaccination.

2. **Promptly report all confirmed and suspect HAV cases to the Epidemiology Program**.
   - Please fax a Confidential Morbidity Report (CMRa), or call 619-692-8499 (Monday-Friday, 8 AM-5 PM), or 858-565-5255 (after hours, during weekends, and on County-observed holidays).
   - Since this outbreak involves homeless individuals, **providers are urged to contact the Epidemiology Program 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 will facilitate serum specimen submission to the San Diego County Public Health Laboratory for possible genotyping.

3. **Provide post-exposure prophylaxis (PEP) for close contacts of confirmed HAV cases.**
   - Susceptible people exposed to HAV should receive a dose of single-antigen HAV vaccine intramuscular (IM) immune globulin (IG) (0.02 mL/kg), or both, as soon as possible within 2 weeks of last exposure.
   - The efficacy of combined HAV/Hepatitis B virus (HBV) vaccine (Twinrix®) for PEP has not been evaluated, so it is not recommended for PEP.
   - Detailed information on PEP may be found on the CDPH Hepatitis A Postexposure Prophylaxis Guidance Quicksheet (updated August 2016).

4. **Provide HAV vaccine to homeless individuals, illicit drug users, patients with chronic liver diseases, MSM, and other at-risk people who are not already immunized**.
   - The first dose of single-antigen HAV vaccine (Havrix®, Vaqta®) appears to protect more persons than the first dose of the combined HAV/HBV (Twinrix®) vaccine (see table 3 package insert), but efficacy is comparable after completion of the respective series. Providers should consider short-term risks of exposure to HAV, the likelihood of follow-up to complete immunization, and the need for protection from HBV when selecting vaccines for those at risk. Immunization against HAV with existing supplies should not be delayed to obtain a different formulation of vaccine.
   - Providers who do not have available vaccine may direct patients to an immunization clinic at the nearest County Public Health Center.
   - Providers who care for homeless individuals may contact the Immunization Program at 619-692-5607 (Monday-Friday, 8 AM-5 PM) to learn how to obtain 317-funded HAV vaccine for use during this outbreak.
   - Homeless individuals and illicit drug users are also at higher risk for other vaccine preventable diseases and should be brought up-to-date with recommended vaccines per the relevant CDC immunization schedule.
   - Providers should check the San Diego Immunization Registry to see if patients are already vaccinated and note any vaccinations given.

5. **Offer HAV vaccination to individuals who have frequent, ongoing close contact with homeless individuals and illicit drug users in non-healthcare environments.**
   - The County Public Health Officer recommends HAV vaccination for individuals with ongoing, close contact with homeless and illicit drug using individuals in San Diego County.
   - This local recommendation is being made due to the current outbreak and includes persons working in public safety, sanitation, homeless shelters, and homeless and behavioral service provider agencies.

6. **Encourage those who are planning an international trip to check the CDC Travelers' Health website and obtain recommended vaccinations before travel**.
   - High-risk areas for HAV include parts of Africa and Asia, and moderate-risk areas include Central and South America, Eastern Europe, and parts of Asia.
   - There are currently HAV outbreaks associated with MSM occurring in New York City and in Western Europe, notably France, Portugal, and Spain. MSM should be vaccinated against HAV, especially prior to travel, and be instructed on prevention measures for HAV and other sexually transmitted illnesses.

7. **Ensure that all healthcare workers use standard precautions in patient care to protect themselves against HAV**. HAV, like norovirus, is a non-enveloped virus, and it may be similarly difficult to inactivate in the environment. Alcohol-based hand rubs and typically-used surface disinfectants may not be effective. Therefore, additional precautions to take include:
   - Wash hands with soap and running water for at least 20 seconds after providing care for an HAV patient.
   - Use contact precautions, in addition to standard precautions, in the care of diapered or incontinent HAV patients.
   - Wash hands with soap and running water for at least 20 seconds before eating and after using a restroom.
   - Use employee-designated restrooms when available, and do not touch the door handle directly when exiting a restroom.
   - Do not eat in patient care areas and never share food, drink or cigarettes with patients.
   - Do not handle a cell phone just before (or while) eating. Studies have shown that cell phones have high rates of surface contamination with enteric organisms (and for hospital employees, organisms associated with hospital acquired infections).
   - Perform environmental cleaning in areas housing HAV patients with bleach products or other products effective against norovirus.
   - HAV vaccine should be available and encouraged for unvaccinated healthcare workers caring for HAV patients or other unvaccinated healthcare personnel concerned about increased exposure to HAV.

Resources

Centers for Disease Control and Prevention
- Hepatitis A for Health Professionals
- Hepatitis A General Fact Sheet
- Hepatitis A Q&A for the Public
- Hepatitis A Vaccine Information Statement
- Viral Hepatitis Fact Sheet for Gay and Bisexual Men

California Department of Public Health
- Hepatitis A Website
- Quicksheet: Hepatitis A
- Viral Hepatitis Resources

Thank you for your continued participation.

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