



To: CAHAN San Diego Participants  
Date: May 31, 2017  
From: Public Health Services, Epidemiology and Immunizations Services Branch

### **Update #3: 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.

#### **Situation**

As of May 30, 2017, 133 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 May 26, 2017. One hundred and six (80%) of the cases have been hospitalized and three patients (2%) have died. The cases range in age from 21 to 82 years (median = 42 years), and 85 (64%) are male, with one (1%) self-identifying as a man who has sex with men. Eighty-four (63%) of the cases are homeless, and 85 (64%) reported injection or non-injection illicit drug use; some cases have both risk factors. Of the cases with test results available for review, 28 of 106 (26%) have evidence of hepatitis C infection, and 7 of 107 (7%) have hepatitis B infection.

The Centers for Disease Control and Prevention (CDC) has confirmed HAV RNA in serum samples of 86 outbreak cases. Viral sequencing indicates that two unique, closely related strains of HAV genotype 1B are involved. These strains are different than those associated with the ongoing HAV [outbreak in Southeastern Michigan](#) and the outbreaks linked to [frozen strawberries in 2016](#) and [pomegranate arils in 2013](#).

There are several clusters of epidemiologically associated cases, although no specific common food, beverage, or drug sources have yet been identified.

- Twenty-seven cases reported receiving client services from a single homeless provider in downtown San Diego.
- Four cases (three clients, one volunteer) are associated with a homeless services provider in El Cajon.
- Six cases are residents of a board and care facility in El Cajon.
- Six cases are individuals who became symptomatic while incarcerated in a jail facility, but they were most likely exposed to the virus while homeless in the community. Two secondary cases in jails have occurred, though each declined post-exposure prophylaxis during their exposure periods.

Although most cases have been from the El Cajon/La Mesa area and downtown San Diego, cases have also been confirmed in individuals who were only in North County during their exposure periods. Recent HAV cases include a healthcare worker at a facility where many HAV cases were treated, and an employee of an agency that provides services to the homeless. These individuals have no identified risk factors for HAV other than their employment. The likelihood that these cases are occupationally related is a strong reminder of the importance of standard precautions in healthcare and the need to vaccinate individuals who work closely with the at-risk populations.

Investigations of the confirmed and probable cases, as well as two dozen suspect cases, are ongoing.

## Background

Person-to-person transmission through the fecal-oral route is the primary means of HAV transmission in the U.S. 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.

## 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 or 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 combined HAV/HBV (Twinrix®) vaccine may be used in these groups if the individuals are not already immune to HBV. 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, homeless shelters, and homeless and behavioral service provider agencies.
  
6. **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.
  
7. **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.

## 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.

### CAHAN San Diego

County of San Diego Health & Human Services Agency  
Epidemiology and Immunization Services Branch

Phone: (619) 692-8499

Fax: (858) 715-6458

Urgent Phone for pm/weekends/holidays: (858) 565-5255

E-mail: [cahan@sdcounty.ca.gov](mailto:cahan@sdcounty.ca.gov)

Secure Website: <http://cahan.ca.gov>

Public-Access Website: <http://www.cahansandiego.com>