October 19, 2017 - Updated Clinical Advisory  
(supersedes July 13, 2017 Clinical Advisory)  

Hepatitis A Outbreak in California - Limited Adult Vaccine Supply Forecast for Fall, 2017

An outbreak of hepatitis A virus (HAV) disease is ongoing in California among persons experiencing homelessness or using illicit drugs in settings of limited sanitation. In San Diego County, at least 507 HAV cases and 19 deaths have been reported since November 2016. In Santa Cruz County, at least 73 cases have been reported since April 2017. Cases due to the same strain of HAV have been identified in these and other counties as well as in several other states.

HAV is being spread person-to-person in this outbreak. As the use of adult hepatitis A vaccine has increased to help control this outbreak and outbreaks in other states, the supplies for adult immunization for the last quarter of 2017 have become constrained.

In California, hepatitis A transmission and risk vary by county and can vary within counties. CDPH therefore recommends the following:

1) Vaccines should be prioritized for areas with ongoing transmission of hepatitis A and for groups at increased risk of infection in those areas. Please contact your local health department regarding local immunization recommendations, including recommendations regarding occupational groups.

2) Depending on vaccine availability, clinicians seeing patients in primary care settings should consider vaccination of persons routinely recommended to receive hepatitis A vaccine. Based on your local health department recommendations, priority should be given to those the individual patients who have the highest immediate risk of acquiring hepatitis A infection or becoming severely ill if infected. Groups that are routinely recommended to receive hepatitis A vaccine include:
   a. Persons exposed to a case of hepatitis A  
   b. Persons with chronic liver disease  
   c. Men who have sex with men  
   d. Persons using illicit drugs, other than marijuana  
   e. Persons experiencing homelessness  
   f. Travelers to countries where hepatitis A is common
3) If adult single antigen hepatitis A vaccine is not available, providers could consider using the combined hepatitis A and hepatitis B vaccine (Twinrix®) for pre-exposure prophylaxis (Twinrix® not recommended for post-exposure prophylaxis) or deferring immunization until additional vaccine becomes available. Vaccine may also be available in pharmacies, and is covered as a pharmacy benefit for several insurance sources, including Medi-Cal fee for service and managed care, as well as several qualified health plans through Covered California.

4) All children in the United States are recommended to receive hepatitis A vaccine. At this time pediatric vaccine supplies are not constrained, and recommendations for routine childhood immunization are unchanged.

5) To assist with outbreak control, CDPH requests that health care providers contact the local health department immediately during business hours (or 24/7 in San Diego) to report a suspected hepatitis A infection in patients experiencing homelessness and/or using injection or non-injection illicit drugs. Please notify the local health department while the patient is still in the facility, as this may be the only opportunity for public health officials to interview the patient.

6) To date, there is no increased risk of hepatitis A infection for the general population.

For more information, go to the CDPH hepatitis A website: https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/Hepatitis-A.aspx
Hepatitis A Outbreak in California

CDPH Weekly Update as of October 13, 2017

A large hepatitis A outbreak is ongoing in California. The majority of patients in this outbreak report experiencing homelessness and/or using illicit drugs in settings of limited sanitation. The outbreak is being spread person-to-person and through contact with a fecally contaminated environment. The Centers for Disease Control and Prevention (CDC) notes that person-to-person transmission through close contact is the primary way people get hepatitis A in the United States.

San Diego, Santa Cruz, and Los Angeles Counties have declared local outbreak status. Outbreak associated cases have been confirmed in other California jurisdictions.

Table. Outbreak Associated Hepatitis A infections by California Jurisdiction

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Cases</th>
<th>Hospitalizations</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Diego</td>
<td>507</td>
<td>351</td>
<td>19</td>
</tr>
<tr>
<td>Santa Cruz</td>
<td>73</td>
<td>33</td>
<td>0</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>9</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>11</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>600</td>
<td>395</td>
<td>19</td>
</tr>
</tbody>
</table>

For more information about preventing Hepatitis A, visit the [CDC website](https://www.cdc.gov) or visit our [Hepatitis A disease page](https://www.cdph.ca.gov).

**Situation**

California is currently experiencing the largest person-to-person (not related to a common source or contaminated food product) hepatitis A outbreak in the United States since the hepatitis A vaccine became available in 1996.

The current outbreak involves cases in multiple California counties and several other states, resulting in hepatitis A-associated deaths.

Cases have been linked using laboratory evidence as well as epidemiologic evidence. The outbreak is caused by related strains of the same hepatitis A virus genotype (IB), which is not commonly seen in the United States, but is common in the Mediterranean region, South Africa, and Turkey. The investigation is ongoing.
Hepatitis A Outbreak

The majority of people infected in this outbreak are homeless, use illicit drugs (injected or noninjected), or both.

Overview

"Hepatitis" means inflammation of the liver.

Hepatitis A, B, and C infections can cause similar symptoms and all affect the liver, but they are caused by different viruses, which infect people in different ways, and can affect the liver differently.

Hepatitis A virus is spread when virus is ingested by mouth from contact with hands, objects, food, or drinks that are contaminated by the feces of an infected person.

Hepatitis A infection typically causes fever, a general ill feeling, yellowness of the skin, lack of appetite, and nausea. Severe hepatitis A infection is rare but is more common in people with underlying liver disease, and can cause the liver to fail, which can lead to death.

Infected people are most contagious during the two weeks before developing yellowness of the skin. The usual time period from exposure to showing symptoms is 15-50 days.

Hepatitis A virus is very hardy in the environment and can live for months outside the human body. It is very hard to kill, and most common cleaning fluids are not effective. Handwashing with water and soap is needed, since waterless hand sanitizers are also not effective.

Common risk factors for hepatitis A include: traveling to a country where hepatitis A is common, being in the same household as or having sexual contact with a person with hepatitis A, being a man who has sex with men, and using illicit drugs (whether injected or not).

Hepatitis A outbreaks can be the result of people passing the virus from person-to-person when an infected person starts a chain of transmission in a population or from a group of people being exposed to a common source such as contaminated food.

Outbreak challenges

As hepatitis A is transmitted by contamination by feces and homeless people do not typically have easy access to clean toilets and handwashing facilities, there is a lot of opportunity for person-to-person transmission in this outbreak.

Hepatitis A vaccination is the main outbreak control and prevention measure. However, people who are homeless are often more difficult to physically reach to offer vaccination. In addition, there is often distrust of public health authorities, lack of concern about the disease, mental illness, and other factors that prevent people from accepting vaccination.

It is also more difficult to identify and locate contacts of infected homeless and/or drug-using people to offer them vaccine, which can prevent disease if given soon after exposure.

The hepatitis A strain in this outbreak is not thought to be a more virulent strain. Rather it is most likely that the affected population has more underlying conditions causing chronic liver disease, which can result in more severe disease when hepatitis A infection occurs. Homeless people and illicit drug users often have underlying liver damage due to alcoholic cirrhosis, or hepatitis B or C infection.
Hepatitis A vaccine is extremely effective: more than 95% of adults are protected after one of the two recommended doses (nearly 100% of adults are protected after two doses). Hepatitis A vaccination has been recommended for all children in California since 1999, therefore, most adults in California have not been routinely vaccinated against hepatitis A.

**What public health is doing to reduce the impact of the outbreak**

When hepatitis A cases are reported, local health departments try to identify all contacts the cases may have had during their infectious period and provide them with postexposure prophylaxis (PEP), to prevent them from becoming infected.

PEP is typically hepatitis A vaccine, although some high-risk contacts are also given injections of immune globulin, which helps block the hepatitis A virus.

Provision of handwashing stations and access to toilets are two additional prevention and control measures, in addition to other methods being employed by local health departments, that are being used to help reduce the risk of transmission from infected people to susceptible people in the population.

CDPH is actively supporting local health jurisdictions with and without outbreak-associated cases to control the outbreak in several ways, including: communicating with local, state, and federal (CDC) partners; conducting enhanced surveillance for additional cases; providing federally funded hepatitis A vaccine for outbreak control; facilitating (and soon to be providing) laboratory testing for cases; compiling and disseminating hepatitis A toolkit materials; providing technical consultation, and sending staff on-site to assist.

**Expected course for the outbreak**

It is difficult to estimate the total number of cases that will occur as a result of this outbreak. The number of cases that continue to occur will be related to the number of susceptible people that remain in the main at-risk population (homeless people/illicit drug users) and potentially other population or transmission factors.

Eventually, sufficient herd immunity will be developed through infection and immunization or other factors interrupting transmission will occur to stop the outbreak, but this is not likely to occur for some time.

### Cleaning and Sanitation

- Protecting Workers from Hep A (CalOSHA)
- Environmental Sanitation (PDF)
- CalRecycle Homeless Encampment Guide
- Recs for Prevention and Control of Viral Gastroenteritis Outbreaks in Long-Term Care Facilities (PDF)

### Communication

- Hepatitis A Outbreak: Updated Clinical Guidance (October 19, 2017)
- All Facilities Letter (October 17, 2017)
- Proclamation State of Emergency (October 13, 2017)
- Press Release (October 13, 2017)
Hepatitis A Outbreak

- Hep A Control with Sodium Hypochlorite (Dept. of Pesticide Regulation)(PDF)

Local Health Department Hep A Information

- San Diego
- Santa Cruz
- Los Angeles
- Other Local Health Departments

Page Last Updated: October 24, 2017

Frequently Asked Questions

- Hepatitis A FAQs