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Hepatitis A Infection

Introduction

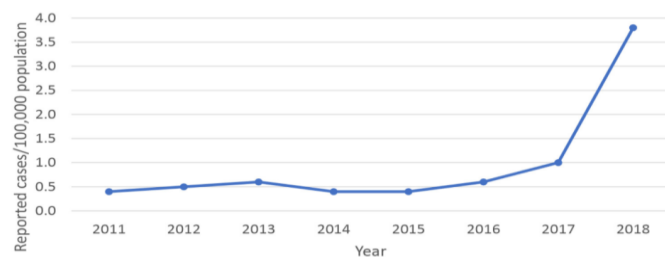
May is national Hepatitis Awareness Month and the Washoe County Health District would like to take this opportunity to bring awareness of hepatitis A viral (HAV) infections to providers and public health partners.

Hepatitis A is a vaccine-preventable acute, self-limited disease of the liver caused by the hepatitis A virus. The mode of transmission is fecal-oral usually by ingesting contaminated food or water,⁴ although this method of transmission is less common in developed countries such as the United States. HAV can also be transmitted through person-to-person contact with someone who is infectious. Severity of HAV disease increases with age, however, acute infection does not result in a chronic condition. Once a person recovers from infection, the antibodies can provide life-long protection.^{1,2}

Epidemiology

In the US, from 1995-2011, HAV incidences decreased by 95%.³ However starting in 2016, HAV incidence has increased. In 2017, males had a higher rate of infection (1.38 per 100,000) compared to females (0.7 per 100,000).⁴ The dramatic increase of HAV in 2018 was primarily due to unprecedented outbreaks in 24 states among persons who use intravenous drugs and homeless populations [Fig 1].⁴

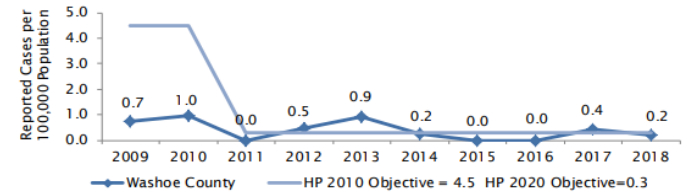
Figure 1: Incidence of Hepatitis A in the United States, 2011 – 2018



Source: <https://www.cdc.gov/hepatitis/hav/havfaq.htm#general>

From 2010 through 2020, the Washoe County Health District received a total of 15 reports of acute HAV infection. The reported cases of HAV were 60% female and 40% male.

Figure 2: Rate of Reported Acute HAV Cases, Washoe County 2009-2018



Source: https://www.washoecounty.us/health/files/ephp/communicable-diseases/annual-summary/CD_Annual_2018_Final.pdf

Signs & Symptoms

The average incubation period for HAV is 28 days, ranging from 15 to 50 days. Infection is typically symptomatic in cases of older children and adults. Among infected children younger than 6 years old, 70% of the cases are asymptomatic.⁵ Symptom onset typically occurs 2-7 weeks after infection and last up to two months. For a small percentage of the population, the symptoms of HAV can last up to six months. Symptom onset is sudden and can include¹:

- Nausea
- Vomiting
- Clay-colored stool
- Fever
- Fatigue
- Jaundice
- Loss of appetite
- Joint pain
- Dark urine
- Abdominal pain

Infected persons are most contagious soon after infection, when virus is at its highest concentration in stool, 1-2 weeks before symptom onset. Viral shedding may persist for 1-3 weeks after onset of symptoms.

Those at increased risk of exposure include adults in the following groups⁴:

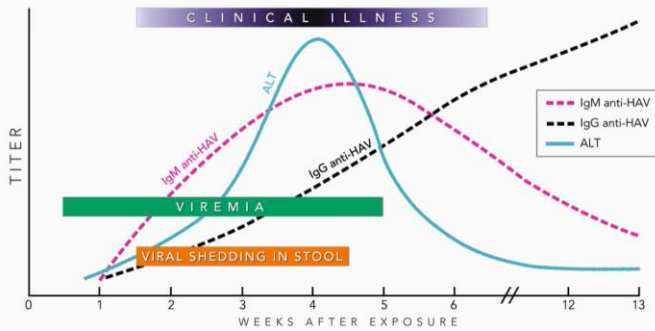
- International travelers
- Men who have sex with men
- Persons who use injection or non-injection drugs
- Persons with occupational exposures
- Persons experiencing homelessness
- Persons with HIV infection
- Persons with chronic liver disease
- Persons >40 years old

- Persons who anticipate close contact with an adoptee

Diagnosis & Testing

Serologic testing is recommended to identify acute infection and can be confirmed during the early stage of HAV infection by the presence of IgM anti-HAV which is usually detectable 5-10 days before the onset of symptoms.⁶

Figure 3: Events in Hepatitis A Infection, Serologic Course



Source: Division of Viral Hepatitis, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention

The Division of Viral Hepatitis at the CDC offers viral hepatitis serology training for HAV, HBV, HCV, HDV and HEV. They are available on the CDC website at: <https://www.cdc.gov/hepatitis/resources/professionals/training/serology/training.htm>

Vaccination

Exact duration of protection against HAV infection post vaccination is unknown. However, HAV antibodies have persisted for at least 20 years in most people receiving the full vaccine series.^{7,8}

The Advisory Committee on Immunization Practices (ACIP) updated recommendations in July 2020.⁴ For details access the full MMWR publication: <https://www.cdc.gov/mmwr/volumes/69/rr/pdfs/rr6905a1-H.pdf>.

- ACIP **recommends** HAV vaccination for children 12-23 months old (2-dose series, minimum interval: 6 months beginning at 12 months)
- ACIP **no longer recommends** the HAV vaccine for people who receive blood products for clotting disorders
- **NEW** - all children and adolescents aged 2–18 years who have not previously received HAV vaccine should be vaccinated (i.e., children and adolescents are recommended for catch-up vaccination)

Pre-vaccination serologic testing for immunity is not recommended. Vaccination should not be postponed if vaccination history is unavailable.³

Current guidelines for administration of postexposure prophylaxis recommend the HAV vaccine be administered to anyone over the age of 12 months within two weeks of exposure.³ Co-administration of GamaSTAN S/D immune globulin (0.1 mL/kg) is recommended under ACIP guidance.⁴ For further details access:

https://www.cdc.gov/mmwr/volumes/69/rr/rr6905a1.htm?s_cid=rr6905a1_w

Reporting

The list of reportable communicable diseases and reporting forms can be found at:

<http://tinyurl.com/WashoeDiseaseReporting>

Report communicable diseases to the Washoe County Health District. To report a communicable disease, please call 775-328-2447 or fax your report to the WCHD at 775-328-3764.

Acknowledgement

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References

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