

IN THIS ISSUE: Hepatitis Awareness Month – Hepatitis C

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Introduction

May is Hepatitis Awareness Month and the Washoe County Health District's (WCHD) Communicable Disease Program would like to highlight the importance of patient testing for the hepatitis C virus (HCV). This edition of Epi News will provide an overview of HCV disease burden, transmission, symptoms, and updated screenings for HCV recommended by the Centers for Disease Control and Prevention (CDC).

HCV Background

Hepatitis C is a bloodborne disease that infects the liver. HCV can cause an acute, short-term illness that will eventually resolve; however, over 50% of individuals infected will develop a chronic infection of hepatitis. Serious long-term complications can occur such as liver cancer and cirrhosis.¹

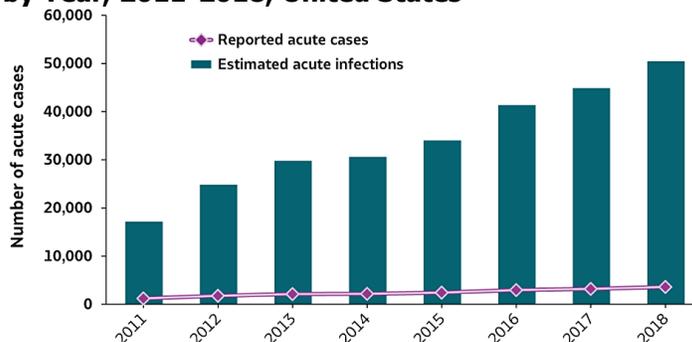
Once exposed to HCV, it may take 2 weeks to 6 months for signs and symptoms to develop.² Both acute and chronic cases can experience mild or even no symptoms. Symptoms include jaundice, dark urine, clay-colored stool, nausea, vomiting, fatigue, fever, joint pain, abdominal pain, and loss of appetite.²

HCV is most commonly spread through percutaneous exposure to an infected person's blood.^{1,3} Common modes of HCV transmission include injection drug use (IDU) and from an infected mother to her baby during childbirth (perinatal transmissions).^{1,2} Sharing items contaminated with blood (i.e. razors), sex with an infected person, blood transfusions, and accidental needle injuries are less frequent types of exposure.¹

Epidemiology of HCV

The United States (U.S.) has seen an increase in acute HCV cases reported every year from 2009 to 2018. In 2018, 3,621 acute HCV cases (1.2 cases per 100,000 population) were reported. This value is underestimated due to a lack of reporting of HCV. The CDC estimates the true number of 2018 HCV cases to be 50,300.⁴

Figure 1: Number of Acute HCV Cases Reported by Year, 2011-2018, United States

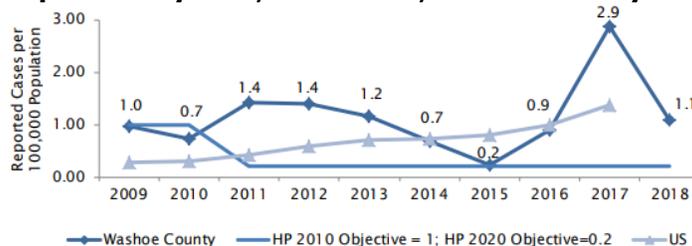


Source: <https://www.cdc.gov/hepatitis/statistics/2018surveillance/HepC.htm#Figure3.1>

In 2018, the age groups with the highest reported rates of acute HCV were those aged 20-29 years (3.1 per 100,000 population), 30-39 years (2.6 per 100,000), and 40-49 (1.3 per 100,000 population). Higher incidence occurred among males (1.3 cases per 100,000 population) and American Indian/Alaskan Natives (3.6 per 100,000 population). Among the 1,535 reported HCV cases with IDU information available, 72% reported IDU.⁴

Unlike the U.S., in Washoe County the rate of reported acute Hepatitis C cases decreased between 2011 and 2015 (1.4 to 0.2 per 100,000 population). However, the reported rate of acute HCV increased from 2015 and 2017 (0.2 to 2.9 per 100,000) and declined again in 2018 (1.1 per 100,000).⁵

Figure 2: Rate of Reported Cases of Acute Hepatitis C by Year, 2009-2018, Washoe County



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

There were 5 acute cases of Hepatitis C reported in WC in 2018. The demographic of the cases are as

follows: 2 male, 3 female, 3 white, non-Hispanic, one Native American/Alaskan Native, and one Hispanic case.⁵

Detecting HCV

There are two serological tests used to diagnose an HCV infection, immunoassays to detect HCV antibodies (AB) and nucleic acid amplification test (NAAT) to detect HCV RNA.⁶ A single positive AB test alone is considered a presumptive infection and should be followed up with repeat AB or HCV RNA test.^{6,7} A positive HCV RNA result is enough to diagnose a current infection of HCV.⁷ A case with a positive NAAT for HCV RNA with no prior documentation of HCV within 12 months is considered an acute hepatitis C infection.⁸ When NAAT for HCV RNA is positive for one year or longer, the individual is considered to have chronic hepatitis C.⁸

Figure 3: Interpretation of Results for HCV

TEST OUTCOME	INTERPRETATION
HCV antibody nonreactive	No HCV antibody detected
HCV antibody reactive	Presumptive HCV infection
HCV antibody reactive, HCV RNA detected	Current HCV infection
HCV antibody reactive, HCV RNA not detected	No current HCV infection

Source: https://www.cdc.gov/hepatitis/HCV/PDFs/hcv_graph.pdf

Screening for HCV

In April of 2020, CDC released additional guidance on screening for HCV infections. The CDC now recommends universal HCV screenings for all adults and all pregnant women in the U.S., except in locations where the prevalence is less than 0.1%.^{1,4} These HCV screenings should continue to be followed:

- Risk factor or exposure to⁴
 - Persons who engage in IDU
 - Individuals with HIV
 - Individuals receiving hemodialysis
 - Individuals with abnormal ALT levels
 - Blood transfusion or organ transplant recipients
 - Needle sticks, sharps, or mucosal exposures
 - Any person requesting testing

HCV Prevention

Currently there is no vaccine or postexposure prophylaxis available to protect against HCV.^{1,2} The best way to prevent HCV infection is to reduce risk factors. The World Health Organization and the CDC recommends considering the following interventions to reduce the likelihood of developing hepatitis C:^{2,9}

- Proper handling of sharps and any biowaste
- Behavioral services to those who engage in IDU
- Screening donated blood
- Proper training staff in health care settings
- Medical management and monitoring of infected person
- Testing and education of persons at risk

Communicable Disease Reporting

Both acute and chronic HCV are reportable conditions in WCHD. All suspect cases must be reported within 24 hours or less. The full list of reportable communicable diseases and reporting forms can be found at <http://tinyurl.com/WashoeDiseaseReporting> or call 775-328-2447. To report a communicable disease, please fax your report to the WCHD at 775-328-3764.

References

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