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Hepatitis Awareness Month: Hepatitis C

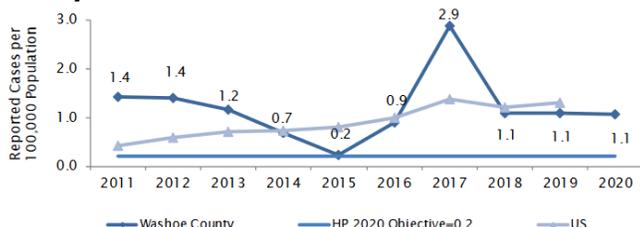
Introduction

Hepatitis C (HepC) is a liver infection caused by the hepatitis C virus (HCV). HCV is spread when blood from a person infected with the virus enters the body of someone who is not infected. Today, most people become infected with the hepatitis C virus by sharing needles or other equipment used to prepare and inject drugs. For some persons HepC is an acute, short-term illness. However, more than half of people infected with HCV develop chronic illness that can lead to serious adverse health outcomes, including cirrhosis, liver cancer, and death.¹

Epidemiology

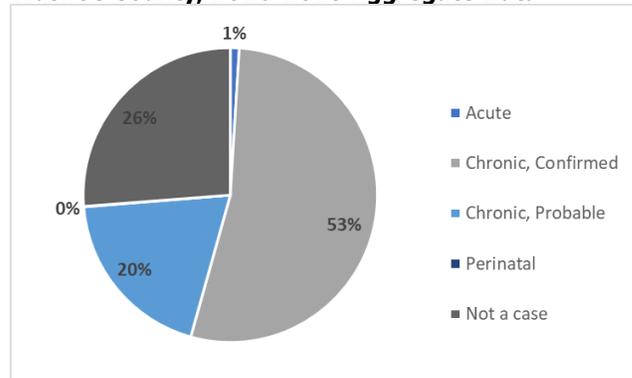
Nationally the rate of acute HepC has been increasing over the past decade. In 2019 the national rate of acute HepC was 1.3 cases per 100,000.² In Washoe County (WC) rates of acute HepC have varied from a low of 0.2 cases per 100,000 in 2015 to a high of 2.9 cases per 100,000 in 2017. Since 2018, rates have remained stable at 1.1 cases per 100,000 [Fig 1.]

Figure 1: Rates of Reported Cases of Acute HepC, Washoe County 2011-2020



Acute HepC cases represent a small fraction of the HepC burden in WC. Between 2016 and 2020, 3,173 cases of HepC were reported among WC residents. Only 31 (1%) were acute while the majority (n=1693, 53%) were confirmed chronic and 615 (19%) were probable chronic. Only two were perinatal cases in children under three years of age [Fig 2.] Importantly, **almost one in four reported cases (n=832, 26%) were ruled out as not a case by confirmatory RNA (PCR) testing.** This highlights the necessity of adhering to CDC's recommended testing algorithm, whereby a positive HCV antibody result should be followed up with a confirmatory test for HCV RNA.³ A patient with a positive antibody and non-detectable RNA is generally not considered to be currently infected.

Figure 2: Case Status Among Reported HepC Cases in Washoe County, 2016-2020 Aggregate Data



A total of 4,136 acute HepC cases were reported nationally in 2019. Similar to WC, the highest number of infections (n=1,347) was reported in persons aged 30-39 years [Table 1]. Males accounted for a greater percentage of cases both nationally (60%) and in WC (65%). In addition, white, non-Hispanic persons accounted for most cases nationally (65%) and in WC (55%). Data on risk factors are frequently missing. However, the most commonly identified risk factor was injection drug use (67% of the 1,952 cases for which injection drug use information was available).

A total of 123,312 new chronic HepC cases were reported nationally in 2019. Males accounted for a greater percentage of chronic HepC cases with known gender both nationally (64%) and in WC (65%) [Table 1]. Race/ethnicity information was missing for 47% of national cases and 44% of WC cases; however, white, non-Hispanic persons accounted for the majority of cases with known race/ethnicity (76% nationally and 79% in WC) [Table 1]. Among those with reported age a bimodal age distribution was observed. Nationally chronic HepC infections were highest among persons aged 20-39 years with a second apex around 55-70 years. In WC a bimodal distribution was also observed with age; however, the distribution was reversed with chronic infections highest among persons 50-65 years and a second apex around 30 years.

Table 1. Comparison of Acute and Chronic HepC Cases in Washoe County, 2016-2020 Aggregate Data

| | Acute Cases (N=31) | | Chronic Cases (N=2308) | |
|--------------------------------|-----------------------|-----|---------------------------|-----|
| | n | % | n | % |
| Age | | | | |
| <20 years | 0 | 0% | 19 | 1% |
| 20-29 years | 7 | 23% | 246 | 11% |
| 30-39 years | 14 | 45% | 374 | 16% |
| 40-49 years | 5 | 16% | 320 | 14% |
| 50-59 years | 3 | 10% | 668 | 29% |
| 60-69 years | 2 | 6% | 569 | 25% |
| 70-79 years | 0 | 0% | 98 | 4% |
| 80+ years | 0 | 0% | 14 | 1% |
| Sex | | | | |
| Male | 20 | 65% | 1503 | 65% |
| Female | 11 | 35% | 784 | 34% |
| Unknown | 0 | 0% | 21 | 1% |
| Race | | | | |
| Asian/Pacific Islander | 0 | 0% | 11 | 0% |
| Black | 1 | 3% | 87 | 4% |
| Hispanic | 3 | 10% | 97 | 4% |
| Native American/Alaskan Native | 2 | 6% | 33 | 1% |
| White, non-Hispanic | 17 | 55% | 1030 | 45% |
| Other | 1 | 3% | 43 | 2% |
| Unknown | 7 | 23% | 1007 | 44% |

Prevention

There is no vaccine for HepC. Therefore, prevention activities include the identification, counseling, and testing of persons at risk, including those who use illegal drugs (injecting and noninjecting) or have evidence of high-risk sexual practices (e.g., multiple sex partners or a history of STDs). Furthermore, persons who test positive should be referred to a provider for appropriate follow up and medical management.⁴

Signs & Symptoms

Signs and symptoms of acute HepC infection can include fever, fatigue, loss of appetite, nausea, vomiting, abdominal pain, dark urine, clay-colored stool, joint pain, and jaundice. Many people with HepC are asymptomatic. Of every 100 people infected with HCV, approximately 5–25 will develop cirrhosis within 10–20 years. Males, adults >50 years, having nonalcoholic fatty liver disease, hepatitis B, or HIV coinfection, immunosuppressive therapy, and alcohol consumption can increase the risk for cirrhosis.¹

Diagnosis & Testing

CDC recommends one-time HepC testing of all adults ≥18 years and all pregnant women during every pregnancy. Persons with risk factors, including people who inject drugs, should be tested regularly.¹ CDC's recommended testing algorithm begins with an initial antibody test. Reactive antibody

results should be followed up with a confirmatory nucleic acid test to detect HCV RNA.³ See https://www.cdc.gov/hepatitis/HCV/PDFs/hcv_flow.pdf for a flow chart of the testing process and https://www.cdc.gov/hepatitis/HCV/PDFs/hcv_graph.pdf for a table on the interpretation of HCV test results and further actions.

Treatment

Over 90% of people infected with HCV can be cured of their infection with 8–12 weeks of oral therapy. Many types of providers can effectively manage HCV-infected patients, including internal medicine and family practice physicians, nurse practitioners, physician assistants, and pharmacists, although specialists may be more appropriate for children and persons with advanced disease.¹ Treatment guidance is available at <https://www.hcvguidelines.org/>.

Reporting

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

<http://tinyurl.com/WashoeDiseaseReporting>

Report all HepC infections (acute, chronic, and perinatal) to the Washoe County Health District. To report, please call 775-328-2447 or fax your report to the WCHD at 775-328-3764.

Acknowledgement

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