Infectious Disease Epidemiology Report

Hepatitis C in Maine, 2016

Background

Hepatitis C is a liver infection caused by a virus. Hepatitis C virus (HCV) infection is the leading cause of liver transplant in the United States and is the most common chronic blood borne infection; an estimated 2.7-3.9 million people are chronically infected.

HCV can cause a chronic, lifelong infection, cirrhosis (scarring) of the liver, liver cancer, liver failure, and death. Transmission of HCV occurs through contact with blood of an infected person primarily through sharing of contaminated needles, syringes, or other injection drug equipment, and less commonly through sexual contact with an infected person, birth to an infected mother, and needle stick or other contaminated sharp instrument injuries.

Symptoms of acute hepatitis C include tiredness, loss of appetite, nausea, abdominal discomfort, dark urine, clay-colored stool, jaundice, and elevated liver enzyme levels. Acute hepatitis C is confirmed by blood tests. Approximately 20%–30% of those newly infected with hepatitis C experience symptoms, which usually appear six weeks to six months after exposure. There is no vaccine for hepatitis C, but new treatments are available that can treat and cure infection.

Methods

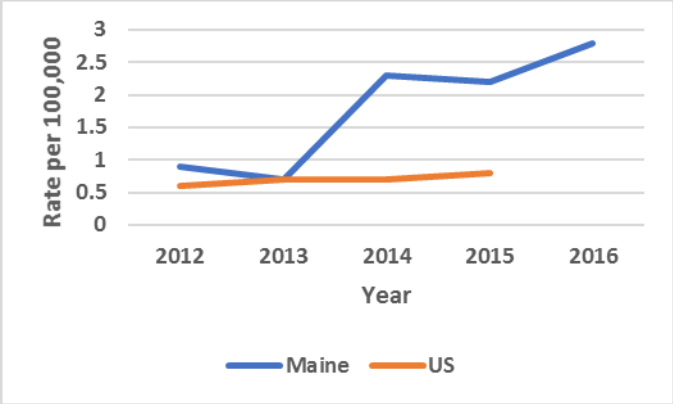
Acute hepatitis C in Maine is reportable immediately and chronic HCV is reportable within 48 hours upon recognition or strong suspicion of disease. Acute hepatitis C cases are investigated by Maine CDC epidemiologists to determine the exposure, identify close contacts, provide education, and make recommendations for prevention and follow up testing.

Results

Acute hepatitis C

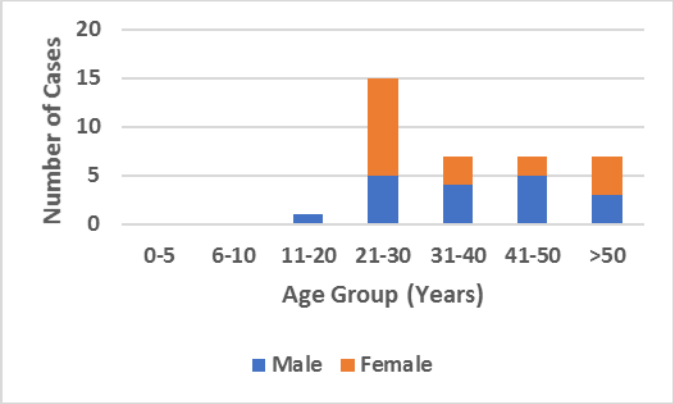
In 2016, there were 37 cases of acute hepatitis C, compared to 29 cases in 2015. The rate of acute hepatitis C in Maine was 2.8 cases per 100,000 persons in 2016, whereas the US rate was 0.8 cases per 100,000 persons in 2015 (most recent data available) (Figure 1).

Figure 1. Rate of acute hepatitis C, Maine and U.S., 2012-2016



The median age of acute cases was 36 years with a range from 19 to 68 years. About half (49%) of acute cases in 2016 were male (Figure 2).

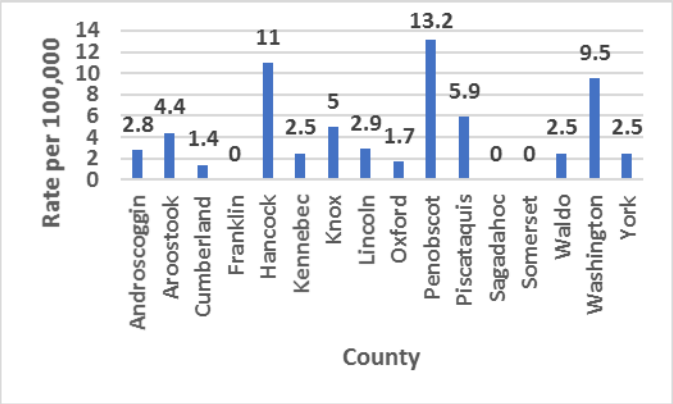
Figure 2. Acute hepatitis C cases by sex and age group, Maine, 2016



Acute cases were reported from 11 Maine counties (Figure 3). Thirty-five (95%) cases were symptomatic, all cases had liver enzyme levels elevated over 200 IU/mL, and all had positive serology (anti-HCV and/or HCV RNA). Four cases had seroconversion (negative anti-HCV followed by a positive anti-HCV within 12 months). Fourteen cases (38%) were jaundiced. The major risk factor for acute cases in Maine was injection drug use. Twelve cases (32%)

responded that they had injected drugs within six months prior to symptom onset.

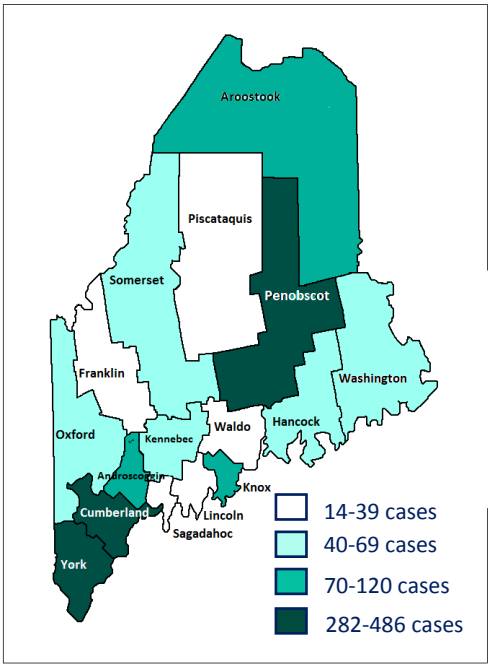
Figure 3. Rate of acute hepatitis C by county, Maine, 2016



Chronic hepatitis C

In 2016, there were 1,584 cases of newly reported chronic hepatitis C in Maine, compared to 1,442 cases in 2015. The rate of chronic hepatitis C in Maine was 119 cases per 100,000 persons in 2016, and the U.S. rate is unavailable. The median age of chronic cases was 34 years with a range from 1 to 85 years. The majority (58%) of chronic cases in 2016 were male. Chronic cases were reported from all 16 counties in Maine (Figure 4). Risk factor data is not collected for chronic cases.

Figure 4. Rate of chronic hepatitis C, Maine, 2016



Discussion

The rate of acute hepatitis C increased 27% from 2015-2016 after remaining steady from 2014-2015 and having a sharp 228% increase from 2013-2014. Maine CDC requests that laboratories report liver enzyme results, when available, in addition to positive hepatitis results.

Epidemiologists investigate acute cases of hepatitis C to learn the route of transmission in order to design public health interventions that halt further spread. As has been the case in the past few years, the main risk factor for hepatitis C was injection drug use.

There is no vaccine for hepatitis C. Cases should receive the hepatitis A and B vaccine, if susceptible, and should take steps to protect their liver. The best way to prevent infection with HCV is by avoiding behaviors that can spread the disease, especially injection drug use, or by taking precautions to minimize transmission, such as using clean needles and works.

People born from 1945–1965 (baby boomers), are 5 times more likely to have hepatitis C than other adults. In addition, people who inject drugs are at an increased risk of becoming infected with hepatitis C. Maine CDC requests that medical providers test people in these groups in order to increase awareness and linkage to care.

Acute hepatitis C must be reported immediately to Maine CDC by calling 1-800-821-5821. Chronic hepatitis C must be reported by telephone, fax or mail within 48 hours of recognition or strong suspicion of disease.

More information about hepatitis C is available online at:

- www.maine.gov/idepi
- www.cdc.gov/hepatitis

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