



District Health Department #10



REPORT TO THE BOARDS OF HEALTH

Jennifer Morse, M.D., Medical Director

Mid-Michigan District Health Department, Wednesday, April 27, 2016
Central Michigan District Health Department, Wednesday, April 27, 2016
District Health Department #10, Friday, April 29, 2016

Hepatitis C Screening, Treatment and Prevention

Hepatitis is a general term meaning inflammation of the liver. It can be caused by many things, but is often associated with viruses. There are several different viruses that can cause hepatitis. Currently, one of the most common is Hepatitis C virus (HCV). Today, most people become infected with the Hepatitis C virus by sharing needles or other equipment to inject drugs. It can also be spread by needle stick injuries in health care settings or to an infant born to a mother who has Hepatitis C. Less common ways to get Hepatitis C is through sharing personal items that may have had contact with an infected person's blood, such as razors or toothbrushes, or through sexual contact with an infected person.

Hepatitis C infection can either be acute or chronic. An acute infection of HCV is a short-term illness that occurs within the first 6 months after exposure to the virus. Up to 70% to 80% of people with acute Hepatitis C won't have any symptoms. For those that do have symptoms, they may range from mild to severe and may include: fever; fatigue; loss of appetite; nausea; vomiting; abdominal pain; dark urine; clay-colored bowel movements; joint pain, and; jaundice (yellow color in the skin or eyes). Symptoms typical occur within 2 weeks to 6 months of infection.

The acute infection will lead to chronic Hepatitis C in many cases. Typically, there are no symptoms associated with chronic HCV infection. It is often detected when routine lab work finds abnormalities in the function of the liver. However, liver enzyme tests can be normal and the infection can be missed until failure of the liver and cirrhosis occurs. Chronic Hepatitis C is a serious disease that can result in long-term health problems, including liver damage, liver failure, liver cancer, and even death. It is the leading cause of cirrhosis and liver cancer and the most common reason for liver transplantation in the United States. Approximately 15,000 people die every year from Hepatitis C related liver disease.

Testing for Hepatitis C is recommended for anyone that: was born from 1945 through 1965; is a current or former injection drug user, even if he/she injected only one time or many years ago; was treated for a blood clotting problem before 1987; received a blood transfusion or organ transplant before July 1992; is on long-term hemodialysis treatment; has abnormal liver tests or liver disease; works in health care or public safety and was exposed to blood through a needle stick or other sharp object injury, and/or; is infected with HIV.

There is no vaccine to prevent Hepatitis C. Fortunately, acute and chronic Hepatitis C can now be better treated. Treatment of acute Hepatitis C will reduce the chance that the infection will become chronic and is treated with the same medications used to treat chronic Hepatitis C. Newer treatments have been able to cure certain types of Hepatitis C infection. Unfortunately, these newer treatments can cost \$80,000-\$100,000 for the recommended 12 week course. However, treating people early would avoid the costs of treating the damage from long-term infection, such as cancer, need for transplant, and the complicated care of cirrhosis. A cost-effectiveness study found that, at current drug prices, treating half of those who are currently infected and are aware of their infection but have not yet been treated would cost about \$53 billion over five years at current prices. The estimated lifetime health care savings from treating these Hepatitis C cases is \$3.3 billion. Despite this study and others similar to it, great challenges still exist getting medication for patients, even those with prescription coverage by insurance.

Preventing Hepatitis C infection is the ideal. Currently, the most important risk for HCV infection is injection and intranasal drug use, accounting for at least 60% of acute HCV infections in the United States. Conversely, it is estimated that 67% of the global population of persons who inject drugs (PWID) are infected with Hepatitis C. In young adults age 18 to 24 diagnosed with Hepatitis C, close to 90% reported prior heroin use. A continued effort

on decreasing intravenous drug abuse is essential. However, providing current PWID access to sterile needles, syringes and other drug preparation equipment is a core component of harm reduction programs for individuals that are unwilling or unable to stop using drugs. Syringe exchange programs also provides a unique opportunity to provide other care to PWID such as testing for hepatitis, HIV, sexually transmitted diseases and tuberculosis as well as education and counseling regarding other ways to prevent diseases. Studies of needle exchange programs have demonstrated that contact with a high proportion of local PWID is necessary to have an impact on HCV incidence and prevalence.

Needle exchange programs in the United States is among the lowest in the world, felt in part to be due to the previous ban on federal funding for such services. In December, 2015, President Obama signed the Consolidated Appropriations Act, 2016 (Pub. L. 114-113). This modifies the restriction on the use of federal funds for programs distributing sterile needles or syringes for HHS programs. Michigan Public Health Code, Act 368 of 1978, 333.7453 prohibits the sale or dispensing of drug paraphernalia, however an addition in 2007 (333.7457 Applicability of MCL 333.7451 to 333.7455) states that the prohibition does not apply to any of the following: an object sold, offered for sale, or given away by a state or local governmental agency or by a person specifically authorized by a state or local governmental agency to prevent the transmission of infectious agents.

MDHHS offers free Hepatitis C testing through their laboratory for its public health partners. We currently do provide screening, primarily through STD clinic and Family Planning. We continue to work on ways to increase screening opportunities.

Suggested Recommendations of the Boards of Health

1. Encourage Hepatitis C screening for those groups listed in paragraph four above, which follows the recommendations put forth by the CDC (<http://www.cdc.gov/hepatitis/hcv/guidelinesc.htm>.)
2. Continue efforts to increase Hepatitis C screening availability through the health department.
3. If deemed necessary to help stop the spread of Hepatitis C and/or other blood borne pathogens, support authorization of needle exchange programs.

References

Michigan Viral Hepatitis Resource and Services Directory, continually updated, Accessed online at: http://www.michigan.gov/documents/mdhhs/MI_Resource_Guide_Final_Draft_10_12_503360_7.pdf

Michigan Department of Health and Human Services 2014 Hepatitis B and C Surveillance Report, Accessed online at http://www.michigan.gov/documents/mdch/2014_Hepatitis_B_and_C_Annual_Report_499557_7.pdf

Chahal, Harinder S., et al. "Cost-effectiveness of early treatment of hepatitis C virus genotype 1 by stage of liver fibrosis in a US treatment-naïve population." *JAMA internal medicine* 176.1 (2016): 65-73.

Canary, Lauren A, Klevens, R, Holmberg, S. "Limited access to new hepatitis C virus treatment under state Medicaid programs." *Annals of internal medicine* 163.3 (2015): 226-228

Shalmani HM, Ranjbar M, Alizadeh AHM (2013) Recommendations for Prevention and Control of Hepatitis C Virus (HCV) Infection and HCV-Related Chronic Disease. *J Liver* 3:147. doi: 10.4172/2167-0889.1000147

Centers for Disease Control and Prevention (CDC). "Notes from the field: risk factors for hepatitis C virus infections among young adults--Massachusetts, 2010." *MMWR. Morbidity and mortality weekly report* 60.42 (2011): 1457.

Joseph, R., et al. "Hepatitis C Prevention and Needle Exchange Programs in Rhode Island: ENCORE." *Rhode Island medical journal* (2013) 97.7 (2014): 31-34.

Rates of Acute and Chronic HCV, 2013 and 2014 (per 100,000 population)

	USA	Michigan	DHD#10*	CMDHD*	MMDHD*
Acute HCV	0.7	0.75	1.53	0	0.55
Chronic HCV	65.2	67.98	79.89	66.04	46.91

*2014 data

