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Hepatitis C Education and Screening in a Rural Northern Vermont MAT Clinic

Jack Fitzsimons

Swanton, VT

December 2019 - January 2020

Mentor: Michael Corrigan, M.D.

Problem Identification and Description of Need

- ▶ Acute hepatitis C infection is on the rise in the United States. Acute HCV infection increased more than 2-fold (0.3 to 0.7 cases/100 000) from 2004 to 2014 (1)
- ▶ National increase in hepatitis C infection has mirrored increases in injection drug use
 - ▶ The largest increases in acute HCV infections were among persons aged 18 to 29 and 30 to 39 years, 400% and 325% respectively. In person aged 18 to 29 there was an 817% increase in admissions for injection of prescription opioids; and 600% increase in admissions for heroin injection. In persons age 30 to 39 year there was a 169% increase in admissions for injection of prescription opioids; and 77% increase in admissions for heroin injection (1)
 - ▶ New HCV infections have disproportionately effected younger populations who are more likely to suffer from opioid use disorder.
- ▶ One meta analysis estimated that in developed nations the prevalence rate of HCV in individuals with one year of injection drug use is 32% and 53% at five years (2)
- ▶ Newly reported HCV cases in Vermont is on the rise. 541 new infections reported in 2010 and 907 in 2014. The newly reported HCV case rate per 1,000 individuals increased from .69 to 1.42 in Franklin County (3)

Public Health Cost

- ▶ The rate of death related to HCV per 100,000 population was 4.13 in 2017 (4)
- ▶ Healthcare costs attributed to HCV infection per year have been estimated to range from \$10,561 for noncirrhotic disabled adults to \$46,263 for nondisabled adults with end-stage liver disease (5)
- ▶ The first full year (2014) following the approval of interferon-free treatment, an estimated 12,175 adults with HCV were cured in Medicaid nationwide. Each avoided an estimated \$15,907/year in healthcare costs associated with HCV (5)
- ▶ Getting high risk patients screened and treated for HCV reduces health care costs. By 2022, the recurrent annual avoidance of healthcare costs related to HCV treatment is estimated at \$12 billion in total cumulative savings to Medicaid (5)

Community Perspective

▶ Barbara Wynes, MAT RN Care Coordinator

“It is important for patients starting MAT for opioid use disorder to be screened for HCV because many of the MAT patients are former intravenous drug users. Screening can be challenging because some patients do not want to give blood samples for screening because they are needle phobic or find needles triggering.”

▶ Stefanie Comstock, MAT Care Coordinator

“I think that some patients have not been screened because of fear and shame related to their addiction... I am not sure if people are aware of the new hepatitis C medications that have fewer side effects compared to the older hepatitis C medications.”

Summary of interviews:

Patients in MAT clinic are at high risk for previous HCV infection

It has been challenging to get patients screened for HCV

Some patients have poor knowledge surrounding HCV

Many patients are unaware of new treatments that are available

Intervention and Methodology

- ▶ As patients were seen in the clinic for medication-assisted treatment of opioid use disorder their charts were reviewed to determine if they had been screened for HCV. Their screening status was recorded
- ▶ Patients in the MAT clinic who did not have documented HCV status were asked if they were interested in receiving information regarding HCV. If a patient expressed interest, information from the handout on the following slide was presented to them
- ▶ Patients who did not have a documented HCV status were encouraged and offered HCV screening

Hepatitis C. Get tested, get treated

What is hepatitis C?

It is a virus that is found in the blood and can cause liver damage

What are the symptoms of hepatitis C?

Usually there are no symptoms early in the disease. When a patient does experience symptoms, they can experience fatigue, decreased appetite, nausea, muscle or joint aches and weight loss.

How is hepatitis C spread?

Sharing drug needles or sharing instruments to snort drugs

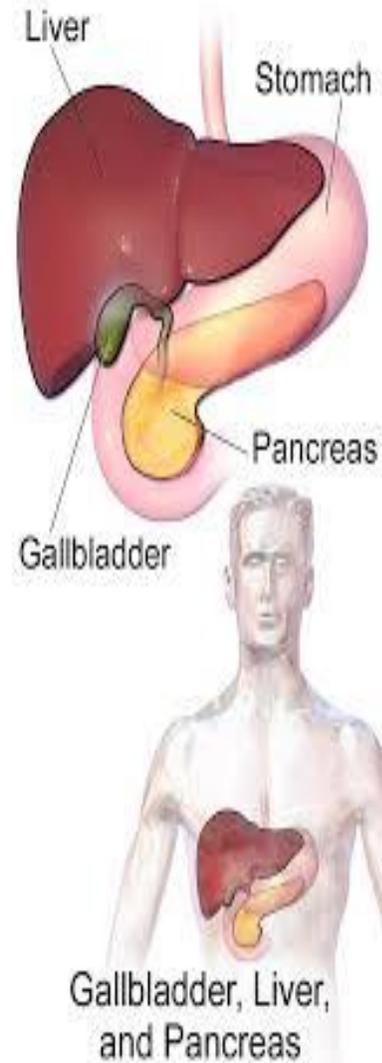
Unsterile tattooing, acupuncture, or piercings

Sharing toothbrushes, razors, or other things that could have blood on them

Blood transfusion in the United States before 1992

Rarely through sexual contact

It is **NOT** spread by shaking hands, touching, kissing, sharing food or drinks, using the bathroom, mosquitos, sneezing or coughing



Images from:
commons.wikimedia.org/wiki/File:Blausen_0428_Gallbladder-Liver-Pancreas_Location.png

Is there a test for hepatitis C?

Yes! A simple blood test can be performed to check if you have been exposed to the virus.

Can it be treated?

Yes! Most of the time Hepatitis C can be cured. Usually the virus is treated for 12 weeks with a medication that comes in pill form.

What if hepatitis C is not treated?

If a person is infected for years and they do not receive treatment they can develop liver failure or liver cancer which can result in death

After treatment can I get hepatitis C again?

Yes, unfortunately even after being cured of hepatitis C you can be transmitted hepatitis C again.

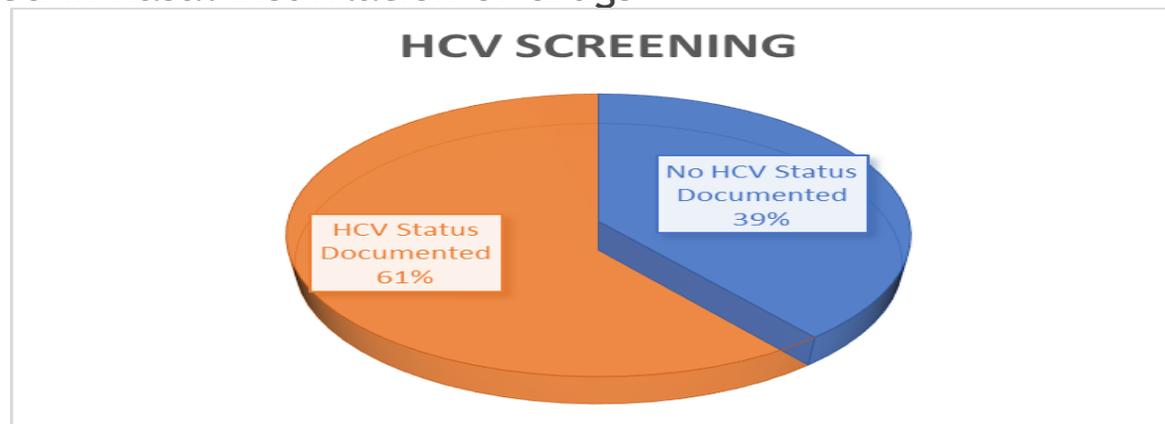
How can hepatitis C infection be prevented?

Never share needles or instruments to snort drugs. Never share things that could have blood on them. Avoid unsterile tattooing, acupuncture or piercings. Avoid unprotected sex with a partner who is hepatitis C positive

Information adapted from uptodate.com:
Patient education: Hepatitis C (The Basics)

Results

- ▶ Over the course of 8 days in clinic 36 patients' charts were reviewed for HCV status
- ▶ 22 patients were identified who had been screened for HCV. 19 of these patients had negative tests. 2 had spontaneously cleared infections. 1 had active infection.
- ▶ 14 patients were identified who did not have documented HCV status. Education regarding HCV was provided to these patients. These patients were encouraged to have HCV testing and offered HCV testing.
- ▶ Many patients who did not have HCV status documented reported that they thought that they had previously been tested by a former PCP or as part of a drug rehab program and did not think that HCV testing was necessary. A smaller number of patients reported that they were needle phobic and did not want to give blood for the test. One patient reported that screening had been attempted but venipuncture was unsuccessful previously in clinic.
- ▶ Patients were surprised by some of the information about HCV that was presented to them. Many were surprised that HCV infection often does not have any symptoms. Others expressed surprise that HCV can be transmitted by routes other than IVDU, particularly that it can be transmitted by sharing instruments used in nasal insufflation of drugs



Effectiveness and Limitations

- ▶ Effectiveness
 - ▶ This project was effective at recording screening rates of HCV in a MAT clinic in northern Vermont
 - ▶ Helped to identify an area for improvement in the MAT clinic. In the clinic HCV testing is typically done at the time of physical exam. Many MAT patients are resistant to having a physical exam done which means that some patients have not received HCV screening
 - ▶ Provided education about HCV to patients at high risk for infection
- ▶ Limitations
 - ▶ The run time of this project was short. Not every MAT patient's chart in the clinic was reviewed for prior HCV screen and not every patient in the clinic was offered HCV education
 - ▶ Some patients were not interested in receiving information/education regarding HCV
 - ▶ It is unclear if the information found during this project is generalizable to other MAT clinics around the state or nation

Future Interventions

- ▶ Possible future work in this area could include:
 - ▶ Ensuring that patients in MAT clinic have also been screened for other transmittable diseases such as HIV and hepatitis B that this patient population is at high risk for
 - ▶ Follow up with patients who did not have a documented HCV screen and ensure that they receive appropriate screening
 - ▶ Determining if HCV education has any impact on screening rates, rate of HCV infection or other patient behavior
 - ▶ Continue to identify and address barriers related to HCV screening
 - ▶ Explore the feasibility of HCV treatment in the primary care clinic to help reduce barriers to HCV treatment

References

- ▶ (1) Zibbell J, Asher A, Patel R, Kupronis B, et al. “Increases in Acute Hepatitis C Virus Infection Related to a Growing Opioid Epidemic and Associated Injection Drug Use, United States, 2004 to 2014.” *American Journal of Public Health* 108, no. 2 (February 1, 2018): pp. 175-181.
- ▶ (2) Hagan H, Pouget E, Des Jarlais D, Lelutiu-Weinberger C. “Meta-Regression of Hepatitis C Virus Infection in Relation to Time Since Onset of Illicit Drug Injection: The Influence of Time and Place.” *American Journal of Epidemiology*, Volume 168, Issue 10, (November 15, 2008) :pp 1099-1109.
- ▶ (3) “HCV Surveillance.” Vermont Department of Health, 18 July 2019, <https://www.healthvermont.gov/immunizations-infectious-disease/hepatitis-c/surveillance>.
- ▶ (4) “National Progress Report 2020 Goal: Reduce the Rate of Hepatitis C-Related Deaths to 4.17 per 100,000 Population.” Centers for Disease Control and Prevention, Centers for Disease Control and Prevention, 12 Sept. 2019, <https://www.cdc.gov/hepatitis/policy/NationalProgressReport-HepC-ReduceDeaths.htm>.
- ▶ (5) Roebuck C, Liberman J. “Assessing the Burden of Illness of Chronic Hepatitis C and the Impact of Direct-Acting Antiviral Use on Healthcare Costs in Medicaid.” *The American Journal of Managed Care*. 2019;25:-S0.

Informed Consent

Thank you for agreeing to be interviewed. This project is a requirement for the Family Medicine clerkship. It will be stored on the Dana Library ScholarWorks website. Your name will be attached to your interview and you may be cited directly or indirectly in subsequent unpublished or published work. The interviewer affirms that he/she has explained the nature and purpose of this project. The interviewee affirms that he/she has consented to this interview.

Yes: X