Hepatitis C Basics
WEBINAR
July 24, 2017
1-3pm eastern standard time

Mike Selick, Hepatitis C Training and Policy Manager
Joanna Berton Martinez, Senior Trainer
Harm Reduction Coalition

- Founded in 1993 by needle exchange providers, advocates, and drug users
- Challenge stigma faced by people who use drugs, engage sex work, and marginalized populations
- Advocate for policy and public health reform and access to healthcare
Agenda

1. Webinar Overview
2. Hepatitis & Your Liver
3. Hep C Transmission & Prevention
4. Hep C Testing
5. Hep C Infection
6. Hep C Treatment & Care
7. Q ‘n A
1. Webinar Overview
Who this training is for:
All health and human service providers, non-clinicians, Peer Workers, and anyone with a professional or personal interest in Hepatitis C.

What this training is about:
This 2-hour webinar is an introductory course to provide basic information about Hepatitis C.
Goal of Webinar

To provide basic information for health and human service providers about Hepatitis C.
Objectives

By the end of this webinar you will be able to:

1. Describe the basics of how Hep C can be transmitted.

2. Describe how Hep C progresses and the importance of care and treatment.

3. List the steps to identify Hep C infections.

4. Describe basic tips for taking care of the liver and living healthy while living with Hep C.
# Glossary

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCV</td>
<td>Hepatitis C Virus, Hep C</td>
</tr>
<tr>
<td>PWID</td>
<td>People Who Inject Drugs</td>
</tr>
<tr>
<td>PWUD</td>
<td>People Who Use Drugs</td>
</tr>
<tr>
<td>PLWHA</td>
<td>People Living with HIV/AIDS</td>
</tr>
<tr>
<td>STI</td>
<td>Sexually Transmitted Infection</td>
</tr>
<tr>
<td>SAS</td>
<td>Syringe Access Services</td>
</tr>
<tr>
<td>SSP</td>
<td>Syringe Service Programs</td>
</tr>
<tr>
<td>ESAP</td>
<td>Expanded Syringe Access Program</td>
</tr>
</tbody>
</table>
Sexual Orientation
To whom we are sexually attracted.

Gender Identity
Sense of self as male or female, neither or both.

GP
Gender Pronoun

LGBTQ
Lesbian, Gay, Bisexual, Transgender, Queer/Questioning
2. Hepatitis & Your Liver
Hep C in the United States

- 2.7-3.9 million people in the United States have chronic Hep C\(^1\)
- Hep C-related deaths exceed HIV-related deaths, with approximately 20,000 deaths annually \(^1\)
- More than 200,000 people in New York living with chronic Hep C\(^2\)
- More than 50% are unaware of their infection\(^2\)

\(^1\) Centers for Disease Control and Prevention (2016)

CDC, National Notifiable Diseases Surveillance System (NNDSS)
Hep C in New York State

• More than 200,000 people in New York living with chronic Hep C\(^1\)

• **More than 50% are unaware of their infection**\(^1\)

• Most new HCV infections are among PWID, especially those under the age of 30\(^2\)

• Up to 30% of all persons living with HIV in New York are co-infected with Hepatitis C\(^3\)

• NYC: Increase in Hepatitis C infection among HIV-positive MSM\(^4\)

\(^1\)American Journal of Public Health (2013)  
\(^2\)www.health.ny.gov  \(^3\)Clinical Infectious Diseases (2012)  
\(^4\)HIV/Hepatitis C Coinfection among MSM in New York City, 2000-2010
Hep C Infection Rates

- Most new Hep C infections are among people who inject drugs, especially those under the age of 30\(^1\)
- Up to 30% of all persons living with HIV in New York are co-infected with Hepatitis C\(^2\)
- Increase in Hepatitis C infection among HIV-positive men who have sex with men (MSM) in NYC\(^3\)

\(^1\)www.health.ny.gov
\(^2\)Clinical Infectious Diseases (2012)
\(^3\)HIV/Hepatitis C (HCV) Coinfection among (MSM) in New York City (NYC), 2000-2010
Hepatitis in General

**Hepatitis**

*Means*

**Inflammation**

*Of the Liver*
Why is the Liver So Important?

- Acts as the body’s filter, detoxifier, and battery
- Breaks down substances in the blood: food, water, caffeine, alcohol, drugs, all of it
- Also detoxifies chemicals the body naturally produces
- Performs > 500 functions including blood clotting in order to heal
Filters drugs, chemicals, toxins, caffeine, alcohol from bloodstream

Manufactures proteins and bile

Regulates blood clotting

Stores vitamins, minerals, sugar, and fat

Converts nutrients to energy

Improves immunity against infection

Excretes waste to the small intestine in the form of bile
What is Hepatitis?

- When the liver is inflamed.
- Heavy alcohol use, toxins, some medications, and certain medical conditions can cause hepatitis.
HEPATITIS CAN LEAD TO PROGRESSIVE SCARRING OF LIVER TISSUE, CIRRHOSIS, LIVER FAILURE AND LIVER CANCER
What is **Viral** Hepatitis?

- However, hepatitis is most often caused by a virus.

- In the United States, the most common types of viral hepatitis are
  - Hep A
  - Hep B
  - Hep C
Hep C is a virus that lives in human blood and infects the liver.

Over time, Hep C can cause damage to the liver.
Hep C is a Liver Disease

Hep C is a contagious liver disease that ranges in severity from a mild illness lasting a few weeks to a serious, lifelong illness that attacks the liver.

It results from infection with the Hep C virus which is spread primarily through contact with the blood of an infected person.

Hep C can be either “acute” or “chronic.”

Centers for Disease Control and Prevention
**Acute Hep C virus infection**
Short-term illness that occurs within the first 6 months after someone is exposed.

**Chronic Hep C virus infection**
Long-term illness that occurs when the Hep C virus remains in a person’s body.
3. Hep C Transmission & Prevention
Hep C Transmission

It’s spread BLOOD-to-BLOOD

For HCV transmission to occur, someone with Hep C has to get their blood into another person’s blood stream.
Hep C is Very Easy to Spread

Is very small – a lot of virus in a little blood

- Is highly infectious
- Multiplies rapidly – “a little virus goes a long way”
- Is resilient – can live outside the body and in dried blood, on surfaces, is resistant to heat, etc.
HCV is not spread through casual contact
Prevent Hep C Transmission

- Injection Drug Use
- Other Drug Use
- Sexual Contact
- Nonsexual Contact
Transmission – IDU

Injection drug use is the main risk factor for Hep C. This includes sharing of needles, syringes, and other injection equipment.

- More than 60% of all new infections report IDU.
- Approximately one third of young PWID (aged 18–30 years) are HCV-infected.
- 70-90% of older or former PWIDs are infected with Hep C.

Centers for Disease Control and Prevention
Transmission – IDU
Prevention – IDU

Use sterile injection equipment

Blood may be on cookers, cottons, water, ties and surfaces

Avoid reusing equipment
Prevention – IDU

Use Your Own Gear

➢ Avoid pulling from the same cooker with a used syringe and a sterile one
➢ One cooker per person if possible
➢ Use your own cotton or filters
Prevention – IDU

If syringes must be shared – Bleach/Water rinse

Step 1: Rinse syringe with cold water

Step 2: Rinse syringe with bleach

Step 3: Rinse syringe again but with new water
Prevention – IDU

If equipment must be reused - Mark it

Keep a personal syringe

Mark it so it can be identified

Avoid sharing injection equipment
Transmission – Other Drug Use

➢ **Inhaling/Snorting Drugs**
  - Snorting can irritate the nasal membranes and cause bleeding
  - Hep C can be transferred onto straws or snorting devices during intranasal drug use

➢ **Smoking Drugs (particularly crack)**
  - A hot pipe stem may burn and crack lips which can cause bleeding
Prevention – Other Drug Use

➢ Use your own straw when snorting cocaine or other drugs
➢ Use your own pipe
➢ Cover a shared pipe with your own rubber stem cover
Transmission – Sexual Contact

➢ Not likely, Not impossible
➢ Increased risk when sex involves blood contact
➢ Multiple partners and active STDs or STIs can increase risk
Prevention – Sexual Contact

➢ Use condoms
➢ Use plenty of water-based lubrication
➢ Get tested and treated for STIs and STDs
➢ Encourage partners to get tested and treated

Use Condoms and Lubrication, and Get Tested.
Proper Typical or Male Condom Use

- Use 1 condom at a time – no need to double up
- Gently squeeze the tip of the condom before rolling it down the shaft of a penis
- Pinch the tip to make sure there’s room for semen
- Hold the condom in place after ejaculation, before pulling out
- During sex, check the condom to make sure it’s still on the penis
- Put on a new condom when switching from Vaginal to Anal or vice versa
Female or Insertive Condom Use

**DO** use for vaginal or anal sex
**DO** check the expiration date
**DO** store these condoms in a cool, dry place
**DON’T** use for oral sex
**DON’T** use a female and male condom at the same time, this can cause the condom(s) to tear
**DON’T** reuse a female or insertive condom
**DON’T** flush condoms down the toilet
www.cdc.gov/condomeffectiveness/female-condom-use.html
Transmission – Tattooing & Piercing

➢ Use of contaminated and homemade equipment increases risk
  – tattooing in prisons or in street settings
  – shared ink

No data indicate tattooing or body piercing as independent risk factors for low risk adults, however infection control procedures have to be practiced.
Prevention – Tattooing & Piercing

**Sterile Equipment Per Person**

- Use universal infection control procedures
- Make sure piercing and tattooing equipment are sterile
- Use single-use inkpots
Transmission – Household Contact

➢ Could occur through sharing of used personal items w. blood on them: razors, toothbrushes, nail clippers

➢ Casual contact **does not** transmit Hep C such as: kissing, hugging, sharing food, dancing, or drinking from the same cup
Prevention – Household Contact

Avoid sharing personal care items

- Mark or Identify items that may have blood contact, such as toothbrush, razors, nail clippers
- Seek dental care for bleeding gums, abscesses or other mouth issues
Transmission – Perinatal

➢ Increase in women of childbearing age who have Hep C
➢ Approximately 6% of children born to Hep C-infected women will develop Hep C-infection
➢ Risk doubles if a woman is co-infected with HIV or has high levels of Hep C virus in her body.
➢ No curative treatment has yet been determined safe for use by pregnant women or infants
➢ Breast-feeding is safe for Hep C-infected mothers and their infants

Transmission – Other

- Minimal risk for transmission associated with blood transfusions and organ/tissue transplantation
  - Universal screening of blood and organ donations implemented in 1992
  - New procedures for clotting factor in 1988
- Increased risk for persons receiving dialysis
  - Vigilant adherence to infection control practices
4. Hep C Testing
Recommend Hep C Testing

People Who Inject Drugs (PWID) or have ever injected drugs, even once

People Living with HIV (PLHIV)

One time screening for people born between 1945 and 1965
Know Your Hep C Status!

- If have been incarcerated
- If Hep B+
- If have a DIY tattoo or from unlicensed practitioner
- If with abnormal liver test or liver disease
- If received donated blood or organs before 1992
- If exposed to accidental needlestick
- If on hemodialysis
- If she had Hep C infection when delivered child
Hep C Testing & Diagnosis is a 2-Step Process

1. Antibody test
2. Diagnostic Test

If the Antibody test for Hep C came out “reactive” then take the Hep C RNA (diagnostic) test
Hep C Antibody Test

➢ Detect the presence of anti-HCV antibodies

➢ Antibody tests cannot distinguish between:
  • someone who is chronically infected;
  • someone who has spontaneously cleared the virus; and
  • someone who has been successfully treated.

➢ Immunocompromised (ie. HIV+) may test negative even if infected

A follow-up diagnostic test is needed to determine if a person has chronic Hepatitis C
Hep C Diagnostic Test

➢ Also called: ‘confirmatory test’, ‘RNA test’ PCR, NAT or viral load

➢ Confirms or rules out chronic infection

➢ Detection of HCV–RNA indicates the virus is actively replicating (reproducing and infecting new cells)

➢ Does not indicate disease progression or liver damage

➢ Two types of Hep C Diagnostic tests commonly used:

1. Qualitative PCR
2. Quantitative PCR
Interpretation of Hep C Test Results

**Test Outcome**

- Antibody NON REACTIVE
- Antibody REACTIVE
- Antibody REACTIVE, RNA detected
- Antibody REACTIVE, RNA NOT-detectected

**Interpretation**

- No Hep C antibody detected
- Presumptive Hep C infection
- Current Hep C infection
- No current Hep C infection

www.cdc.gov/hepatitis/hcv/pdfs/hcv_graph.pdf
What to Expect: 1\textsuperscript{st} Antibody Test

- Test may be fingerstick or blood draw
- A typical rapid test can be taking blood from a fingerstick
- Antibody test can be conducted in a:
  - clinical setting
  - nonclinical setting (ex: needle exchange program drop-in, during outreach)
- If test is by fingerstick results can be ready in about 20-min
HCV Test Result
Nonreactive Antibody

This means:

➢ Person is probably not infected with HCV
➢ A non-reactive test result does not protect you from getting HCV in the future.
➢ If risk in the past 6 months, retest in a few months
➢ If ongoing risk, counsel on HCV prevention and risk reduction

— Refer for syringe access services, substance use treatment or management, harm reduction options
HCV Test Result
Reactive Antibody

This means:

- Person has antibodies to HCV in the blood
- Person was exposed to HCV at one time and is likely infected with HCV
- An HCV Diagnostic (RNA) test is required to know if the person has an active HCV infection.
- In the meanwhile, practice safer sex, safer injecting, and keep your blood to yourself
What to Expect: 2nd Diagnostic Test

- The 2nd test should be completed in a clinical setting; however, some CBOs may be able to perform this test.

- The sample will be taken through blood draw.

- Results may take up to a week because the blood has to be sent out to a lab.
HCV Testing: Negative/Undetected Viral Load Test Result

This means:

➢ Person does NOT have a current HCV infection
➢ They have been exposed to the hepatitis C virus at some point
➢ Either their immune system has cleared the virus on its own or they have undergone past treatment for HCV and it was effective
➢ This person will always have HCV antibodies in their blood
This means:

➢ Person has HCV infection and can pass the virus to others
➢ Refer to care for further medical evaluation and ongoing monitoring
➢ Advise on how to avoid passing HCV to others
➢ Discuss ways to protect the liver
5. Hep C Infection
Many people are asymptomatic or, don’t show signs or symptoms.

This is a major reason we tell people to get tested.

If there are symptoms, they vary from person to person.
Symptoms of Hep C

- Abdominal pain
- Swollen abdomen
- Jaundice (yellowing of the eyes)
- Nausea/vomiting
- Joint pain
- Itchy skin
- Loss of appetite / loss of weight
- Fatigue
Liver Damage Over Time with Hep C

Stage 0: No scarring
Stage 1: Mild scarring
Stage 2: Moderate scarring
Stage 3: Significant scarring
Stage 4: Cirrhosis
Progression of Hep C Infection

100%

Acute Infection

Resolved 15 - 25%

Chronic 75 - 85%

Stable 80%

Cirrhosis 20%

Slowly Progressive 75%

Liver failure, cancer, transplant, death 25%

HIV

Hep B

Alcohol

Age >40

15-30+ years
6. Hep C Treatment & Care
Why Treat Hep C?

➢ Successful Hep C treatment lowers the risk for:
  • Liver-related illness or death
  • AIDS-related illness or death for HIV if co-infected
➢ Improves overall health-related quality of life
➢ Lowers healthcare utilization and costs
➢ Reduces the likelihood of spreading Hep C
We Care!

➢ Know your status
➢ Know your genotype
➢ Hep C treatment is successful!
➢ Monitor liver health
➢ Prevent liver disease progression
➢ Avoid passing Hep C to others
If Not Interested in Treatment

If someone is not interested in Hep C treatment at this time they can still take steps to keep themselves and their liver as healthy as possible.

It’s important to be familiar with options to care after getting a reactive Hep C antibody test or detectable Hep C RNA (diagnostic) test.

Know your options now, just in case you want treatment later.
Liver Care Tips

Reduce alcohol

Drinking alcohol increases the risk for developing fibrosis or cirrhosis
 Liver Care Tips

Review medications and supplements

➢ Some medications or supplements may be hard on the liver

➢ Discuss all over-the-counter, prescribed medications and supplements with your provider
Protect Your Liver from Additional Damage

➢ Get vaccinated for Hep A and B
➢ Healthy diet, exercise, and rest
➢ Manage HIV and other co-infections

Get Hepatitis A and B Vaccinations.
Hep C Treatment Today

- Determined based on genotype, prior treatment experience and other co-existing diseases
- Combinations of Direct Acting Antiviral therapies (DAA)
  - Fixed dose combinations
  - Many regimens are one pill a day
- Shorter duration (approx. 12 weeks)
- Fewer side effects
- Very effective
- Is expensive, some insurers are creating barriers to accessing treatment
Hep C Treatment Goals

1. PRIMARY GOAL: *Eradication of the virus*
   - Sustained viral response (SVR):
     Continued absence of detectable HCV RNA at least 12 weeks after completion of therapy
   - Considered a Cure

2. SECONDARY GOAL: *A Healthier Liver*
   - Slow disease progression
   - Improve liver health
   - Reduce risk of cancer
Preparation for Treatment

- Emotional support
- Understanding of the treatment
- Understanding of what a cure means
- Prevention of reinfection
- What if the treatment is not successful?

Get Emotional Support.
Adherence to Hep C Treatment

➢ Belief in Treatment
➢ Building a Relationship with Medical Providers
➢ Social Supports
  ▪ Family and friends
  ▪ Support groups
  ▪ Clinical and non-clinical support staff
➢ Planning ahead for any problems that may come up

“Adherence to HCV Therapy” by Alan Franciscus
www.hcvadvocateg.org
We Can Do It!
7. Q ‘n A

What prevention strategies can an agency or program promote to prevent Hep C?
Hep C Resources

- NYSDOH
  www.health.ny.gov/diseases/communicable/hepatitis/hepatitis_c/
- IDUHA
  www.nycheepbc.org/iduha
- Prep C:
  https://prepc.org/
- HCV Advocate
  www.hcvadvocate.org
- Hepatitis C on-line
  http://www.hepatitisc.uw.edu/
- HCV clinical Guidelines
  http://hcvguidelines.org/
- HRC resources/website
HRC thanks you for participating in this webinar!