SCREENING AND TREATMENT OF VIRAL HEPATITIS IN PEOPLE WITH SUBSTANCE USE DISORDERS

Viral hepatitis refers to inflammation of the liver, which can lead to scarring, cirrhosis, and liver failure. There are at least five known virus types that cause hepatitis: A, B, C, D, and E (National Institute of Allergy and Infectious Diseases, 2019). People who engage in substance use, particularly injection drug use (IDU), and those with human immunodeficiency virus (HIV) are at increased risk for contracting or transmitting viral hepatitis infections (Centers for Disease Control and Prevention, 2020a).

This Advisory is based on the Substance Abuse and Mental Health Services Administration’s (SAMHSA) Treatment Improvement Protocol (TIP) 53, Screening and Treatment of Viral Hepatitis in People With Substance Use Disorders. It offers guidance to providers and administrators in substance use disorder (SUD) treatment programs on screening clients for hepatitis A, hepatitis B, and hepatitis C infections and educating clients about their risks. It summarizes key messages and considerations regarding screening, as well as action steps for the treatment and support of clients with a viral hepatitis infection and a SUD.

Disease Burden

In the United States, there are approximately 24,900 new hepatitis A, 22,600 new hepatitis B, and 50,300 new hepatitis C infections each year. An estimated 862,000 people are living with hepatitis B, and about 2.4 million people are living with hepatitis C (Centers for Disease Control and Prevention, 2020b).

More than half of those who have hepatitis are unaware they have the virus and, therefore, do not receive treatment (Department of Health and Human Services, 2016). As a result, they are at risk for life threatening liver disease and cancer and may unknowingly transmit the virus to others. Vaccines are available for hepatitis A and B, and the Centers for Disease Control and Prevention (CDC) advises that anyone who uses or injects drugs receive these vaccines (Centers for Disease Control and Prevention, 2020b).

Increases in the rate of hepatitis B and C infections in the United States are believed to be related to the opioid and heroin epidemics many communities face (Centers for Disease Control and Prevention, 2019).
Key Messages

- Hepatitis refers to inflammation of the liver. There are at least five known, distinct virus types that cause hepatitis: A, B, C, D, and E. While each type of hepatitis has similar symptoms, they have different modes of transmission and can affect the liver differently (Centers for Disease Control and Prevention, 2020b). This Advisory focuses on screening and treatment of hepatitis A, hepatitis B, and hepatitis C.

- People with HIV should be vaccinated against hepatitis A and B and tested for hepatitis B and hepatitis C (Centers for Disease Control and Prevention, 2020b).

- People who use or inject drugs should be tested regularly for, and vaccinated against, hepatitis A and hepatitis B (Centers for Disease Control and Prevention, 2020b).

- Clients should be counseled on the benefits of screening for viral hepatitis as part of the intake physical examination in SUD treatment programs.

- Practitioners should clearly explain test results and educate clients about liver health. They should also discuss the client’s fears and concerns. In addition, clients should receive counseling on limiting the spread of infection to others.

- Clients with a SUD should receive support in making decisions about starting treatment. SUD treatment providers can help clients understand their treatment options, the recovery process, and possible support systems.

- Clients can be supported during treatment through targeted case management.

- SUD providers can improve services by adding hepatitis screening, prevention, and treatment activities and performing outreach to at-risk groups.

- Buy-in should be obtained from the SUD treatment team before implementing new hepatitis services.

- Staff should be trained on issues of privacy, informed consent, and regulations regarding potential hepatitis exposure.

Additionally, individuals at high risk for HIV are also at high risk for hepatitis B and C due to similar modes of transmission (National Institutes of Health, 2020). Recent estimates suggest that over 20 percent of people with HIV in the United States also have hepatitis C. HIV may increase a person’s risk of contracting hepatitis C through sexual contact. If untreated, hepatitis C infection progresses more quickly in people who have co-occurring HIV when compared to those who are infected with hepatitis C alone (Centers for Disease Control and Prevention, 2020a).

Viral hepatitis is a leading cause of liver cancer. For those infected with hepatitis B or C, drug and alcohol use increases the risk for chronic liver disease and cancer (World Health Organization, 2017).
Risk Factors for the Transmission of Viral Hepatitis

There are at least five known types of viral hepatitis (A, B, C, D, and E). The three most common types are hepatitis A, hepatitis B, and hepatitis C. Hepatitis D only occurs in people who are also infected with the hepatitis B virus. Hepatitis E is not common in the United States (Centers for Disease Control and Prevention, 2020a). Each type of hepatitis has its own way of spreading to other people and needs its own treatment (National Institute on Drug Abuse, 2020). Hepatitis A is an acute infection (does not last longer than six months) and people usually improve without treatment. Hepatitis B and hepatitis C can cause a persistent infection, which can result in chronic liver disease.

Symptoms of hepatitis include the following:

- Fatigue (tiredness)
- General feeling of being unwell (malaise)
- Flu-like symptoms (e.g., headaches, muscle aches, low-grade fever)
- Lack of appetite, weight loss
- Nausea and vomiting, abdominal pain
- Jaundice (new or uncharacteristic yellow tinge to skin and mucus membranes)
- Diarrhea
- Itching of the skin
- Tea- or dark-colored urine
- Pale bowel movements

Overview of the Most Common Types of Viral Hepatitis

<table>
<thead>
<tr>
<th></th>
<th>Hepatitis A</th>
<th>Hepatitis B</th>
<th>Hepatitis C</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Modes of transmission</strong></td>
<td>Oral transfer of fecal matter</td>
<td>Infected blood and other bodily fluids</td>
<td>Sharing IDU equipment</td>
</tr>
<tr>
<td></td>
<td>Can live in water</td>
<td>Condomless sex</td>
<td>Accidental needle sticks</td>
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<td></td>
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<td></td>
<td>Perinatal transmission</td>
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<td></td>
<td></td>
<td></td>
<td>Blood transfusion (rare)</td>
</tr>
<tr>
<td><strong>Incubation period</strong></td>
<td>15–50 days (average: 28 days)</td>
<td>60–150 days (average: 90 days)</td>
<td>14–182 days (average range: 14–84 days)</td>
</tr>
<tr>
<td><strong>Percent of adults who develop chronic infection</strong></td>
<td>0%</td>
<td>2–6%</td>
<td>75%–85%</td>
</tr>
<tr>
<td><strong>Immunity after infection</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td><strong>Vaccine available</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td><strong>Treatment</strong></td>
<td>Supportive care</td>
<td>Yes, not curative</td>
<td>Yes, curative</td>
</tr>
</tbody>
</table>

Adapted from: Centers for Disease Control and Prevention (2020c), *Viral Hepatitis Surveillance Report, 2018.*
Providing Hepatitis Services to Clients with SUDs

Screening for Viral Hepatitis in SUD Treatment Programs

Medical staff members at SUD treatment programs have a primary role for screening individuals for hepatitis and explaining the screening process and test results. Opioid treatment programs with medical staff members should screen for hepatitis B and C at intake and periodically thereafter, as indicated. The Institute of Medicine (2010) states that the inability of a facility to provide evaluation and diagnosis services should not be an impediment to its providing hepatitis screening services. Therefore, programs without onsite medical staff may refer clients elsewhere for screening (SAMHSA, 2013).

Many clients entering SUD treatment programs do not know their hepatitis status. Discussion with a SUD treatment provider may be the first conversation they have about hepatitis. Thus, it is critical providers use a nonjudgmental and compassionate tone and clearly state to the client that screening is voluntary, but immensely important for the client’s health.

With regard to screening for hepatitis, all providers should be able to:

- Understand the relationship between hepatitis and SUDs
- Have a basic understanding of the importance of screening
- Identify barriers to screening
- Describe the screening procedure and what it entails
- Interpret results

Clients might feel anxious about being diagnosed with hepatitis, and may want to delay or avoid getting screened. Providers should reassure clients that testing is a simple procedure and encourage clients to follow through and complete the screening and evaluation processes. Using motivational strategies, providers can assess a client’s willingness to discuss hepatitis based on their degree of openness in the session. By doing so, providers improve the client’s likelihood of engaging in a discussion.

For more information on the use of motivational strategies when working with clients with SUDs, please refer to SAMHSA’s TIP 35, Enhancing Motivation for Change in Substance Use Disorder Treatment.

Next, providers should discuss the benefits of screening, including the possibility for early diagnosis and treatment, and prevention of virus transmission to others. Once clients are comfortable talking about viral hepatitis, they may be more willing to undergo screening.

Medical Evaluation and Diagnosis

Clients diagnosed with chronic viral hepatitis require a full medical evaluation to gather information about the nature of their infection, the severity of the disease, and factors that might affect the course of the disease and its treatment. Treatment settings that provide screening for common co-occurring illnesses, such as HIV, often include testing for viral hepatitis to address both hepatitis prevention and potentially serious co-occurring HIV and viral hepatitis infections.

For example, rapid testing for HIV is available and oral fluid testing may give behavioral health providers a means to perform point-of-care (POC) testing without a blood sample. Qualified and experienced medical providers at SUD treatment programs can order the appropriate tests,
evaluate the results, provide an accurate diagnosis, and make treatment recommendations, or the client may need to be referred to a specialist for evaluation and care (Centers for Disease Control and Prevention, 2020a). Specific evaluative services are needed after a positive test result for hepatitis B and C, including:

- Liver panel—measures the extent of liver injury via a series of blood tests
- Complete blood count (CBC)—assesses platelet and hemoglobin levels
- Viral load tests—the best and most specific tests to show the presence of viral hepatitis B or C; can indicate the quantity of each virus present in the bloodstream
- Genotype test—identifies the type or strain of the hepatitis C virus
- Liver imaging—liver ultrasound can be requested prior to referral to a hepatologist who will perform the liver biopsy
- Oral fluid testing—self-administered test for HIV that provides results within 20 minutes
- Liver biopsy—involves removing a small number of liver cells, typically performed by a specialist physician; best way to evaluate the health of the liver and only way to reveal the extent of scarring, if any

Not all SUD treatment providers will have the resources to provide the services described above. In such instances, it is important for SUD treatment providers to refer clients to medical providers who can provide evaluative services. For more information on evaluation and diagnosis, please refer to SAMHSA’s TIP 53, Addressing Viral Hepatitis in People With Substance Use Disorders and CDC’s Division of Viral Hepatitis.

SUD treatment providers can help clients cope with the prospect of a chronic hepatitis evaluation by:

- Helping identify and weigh the risks and benefits of evaluation
- Exploring the client’s feelings
- Helping plan how they will cope with waiting for and receiving evaluation results
- Providing information about prevention and limiting spread of infection to others (e.g., using condoms, not sharing needles, etc.)

**Treatment for Clients with SUDs and Chronic Hepatitis**

The SUD treatment clinician has a crucial role in helping clients manage the treatment of hepatitis. Hepatitis B and C are chronic illnesses, and while there is treatment for both hepatitis B and C, the antiviral treatment for hepatitis C is curative and has seen significant advances over the last decade (National Institute of Diabetes and Digestive and Kidney Diseases, 2020).

Clients essentially face three choices for hepatitis treatment:

1. They can be treated with potent antiviral medications.
2. They can defer antiviral treatment.
3. They can decide not to be treated.
Clinicians can assist clients in making choices by considering the following:

- How advanced is disease of the liver?
- What, if any, contraindications exist for treatment?
- Is the client facing other urgent problems, like active skin infections from injection use or HIV?
- Is it likely the client has the resources to adhere to treatment?
- Is the treatment likely to be successful?

Individuals with a SUD can be successfully treated for hepatitis, though some clients might need additional education and/or advocacy. In some communities, clients may face difficulty accessing hepatitis treatment services. If a client is thinking about starting antiviral treatment, the clinician can provide referrals and warm handoffs to hepatitis treatment providers in the community and work with the client to consider the following:

- Does the client understand the meaning of the screening and evaluation results?
- What, if any, SUD and/or mental health symptoms require immediate treatment?
- What is the status of the client’s support systems and life circumstances?
- What treatment choices does the client have?
- How can clients reframe goals of recovery to include a meaningful, healthy life?

Individual sessions with counselors or other treatment staff members should allow clients the opportunity to ask questions, review information, and learn how their SUD and hepatitis infection impacts their overall health. It is important to remember that a shared decision to start antiviral treatment should be made by the client and the medical treatment team based on the client’s characteristics and circumstances and an overall assessment of the treatment risks and benefits.

**Support Services**

Clinicians can support individuals with hepatitis and SUDs through effective and competent counseling. When providing counseling, clinicians should:

- Ensure their own safety by using protective equipment and documenting their hepatitis vaccination status.
- Provide reliable information to clients and, with consent, their families and advocates.
- Build the therapeutic relationship with clients by helping them understand their diagnoses and offering messages of hope about living with hepatitis.
- Incorporate client needs in SUD treatment planning.
- Confront the potential social consequences of hepatitis by helping the client process feelings of shame, low self-worth, and the fear of social rejection related to the stigma of hepatitis.
- Help the client identify ways to disclose their diagnosis and identify who in their support network should be aware.
- Address relapse issues.
- Provide case management.
- Help the client develop support systems by referring them to support groups or peer counseling, and, with client permission, helping the client’s family members understand the diagnosis and ways they can be supportive.
Develop a plan to limit the spread of viral hepatitis from the client to others.

Use motivational interviewing by identifying client strengths and any motivation they have to engage in treatment. [To learn more about motivational interviewing, see Appendix G in TIP 53, *Addressing Viral Hepatitis in People With Substance Use Disorders* or TIP 35, *Enhancing Motivation for Change in Substance Use Disorder Treatment*]

**Prevention and Vaccination**

Clinicians can help clients learn the best ways to prevent hepatitis. These may include:

- Practicing safe injection methods
- Working toward the goal of terminating their IDU activity
- Engaging in lower-risk sexual behaviors

Discussions about modifying behavior to reduce the risk of hepatitis transmission can be built into the initial screening process. Clinicians can ask their clients if they have been vaccinated for hepatitis A and B, both of which are preventable by vaccine. While there is no vaccine for hepatitis C, the risk can be greatly reduced by engaging in safe injection practices and lower-risk sexual behavior.

**Client Education**

Effective counseling includes components of client education. General education about hepatitis can be incorporated into the SUD treatment program, with one or more sessions devoted to learning about hepatitis and risk factors, as well as strategies to cope with the disease burden for individuals living with both a SUD and hepatitis.

Program budget and target audiences often determine the format and delivery of hepatitis education and materials, which can range from printed materials to educational sessions to larger program-wide public health campaigns.

**Outreach**

SUD treatment programs that implement hepatitis services can direct outreach and educational activities toward populations at risk for SUDs and viral hepatitis (i.e., people who inject drugs) to raise awareness regarding risky behaviors, promote screening and early treatment, and encourage vaccination against hepatitis A and B.

Outreach activities and advocacy include:

- Joining community leaders, client representatives, and public health officials in providing information about viral hepatitis and substance use
- Participating in health fairs and taking advantage of other outreach opportunities
- Building ties to outreach agencies (e.g., HIV counseling and testing centers, community outreach agencies, public health departments, correctional facilities, local hospitals)
Considerations for Program Administrators When Adding or Improving Hepatitis Services

SUD treatment program administrators can support the provision of hepatitis services by allocating a budget for implementation and training or hiring appropriate staff members to implement any new services. To determine the types of services to implement (or enhancing existing hepatitis treatment services), administrators must consider the client population, staffing patterns and issues, availability of local resources, potential partners, and sources of funding.

Administrators will also need to establish an overall policy regarding the program’s approach to providing services to clients who need screening or treatment for hepatitis. Developing and implementing new policies and procedures often involves adapting existing ones. For example, most SUD treatment programs have existing policies regarding what actions to take when a client has an infectious disease, who will work with the client, or where the client can be referred for additional medical treatment.

SUD treatment program administrators need current knowledge of the legal and ethical issues around providing hepatitis care and, in particular, about providing medical care to clients in their programs. Programs must adhere to privacy requirements, such as those pertaining to the Health Insurance Portability and Accountability Act (HIPAA), concerning clients’ medical information. However, information must be shared with program staff members to the extent necessary to support clients’ needs.

A first step in adding or implementing new hepatitis services is to assess the services currently offered by the SUD treatment program and identify components that can be implemented or expanded. This assessment can be performed by a workgroup or task force consisting of staff members interested in these issues. Staff members from different disciplines can provide diverse information and viewpoints.

The next step is to consider staff training needs. All staff members should be provided with developmental and educational opportunities related to hepatitis services. When implementing or enhancing these services, program administrators should also consider the treatment needs of the client population and how it may affect the provision of services. For example, administrators may need to assign staff members as case managers to provide additional assistance to clients in accessing hepatitis services (e.g., navigating insurance coverage and cost of treatment, locating a medical provider, adhering to hepatitis treatment, keeping appointments).

Program administrators should also identify possible funding sources and local agencies the SUD treatment program could partner with to provide hepatitis services. Potential partners might include public health departments, nearby teaching hospitals and medical schools, nonprofit hepatitis organizations, and HIV treatment providers. Local public health departments might be able to provide some hepatitis care for clients, offer assistance in identifying and contacting medical providers, and assist with transportation needs.

Once hepatitis services have been implemented, staff should establish a system to monitor and evaluate hepatitis policies and procedures and revise them, as needed. After the treatment program implements its hepatitis services program, it should incorporate quality improvements identified through regular evaluation of the new program components and processes. The program can use its existing quality assurance functions to develop a hepatitis services tracking system, which should, at minimum, measure the number of clients with hepatitis A, B, and C and hepatitis-related treatment outcomes.
Resources

- **Substance Abuse and Mental Health Services Administration**
  - HCV Snapshot: An Introduction to Hepatitis C for Health Care Professionals (Addiction Technology Transfer Center Network)
  - Hepatitis C/HIV in Native American Populations
  - Increasing Hepatitis C Knowledge for Behavioral Health and Medical Providers (Addiction Technology Transfer Center Network)
  - Prevention and Treatment of HIV Among People Living with Substance Use and/or Mental Disorders
  - Take Action Against Hepatitis C: Education Session Guide
  - TIP 35, Enhancing Motivation for Change in Substance Use Disorder Treatment
  - TIP 37, Substance Abuse Treatment for Persons with HIV/AIDS
  - TIP 53, Addressing Viral Hepatitis in People With Substance Use Disorders
    - Quick Guide for Clinicians and Administrators Based on TIP 53

- **Centers for Disease Control and Prevention**
  - Health Insurance Portability and Accountability Act of 1996 (HIPAA)
  - HIV and Injection Drug Use
  - The ABCs of Hepatitis – for Health Professionals

- **Department of Veterans Affairs**
  - Viral Hepatitis and Liver Disease

- **Department of Health and Human Services**
  - Viral Hepatitis in the United States: Data and Trends

- **National Academies of Sciences, Engineering, and Medicine**
  - New Report Lays Plan to Eliminate 90,000 Hepatitis B and C Deaths by 2030

- **National Institute of Allergy and Infectious Diseases**
  - Hepatitis

- **National Institute of Diabetes and Digestive and Kidney Diseases**
  - Hepatitis C

- **National Institute on Drug Abuse**
  - Drug Use and Viral Infections (HIV, Hepatitis) DrugFacts

- **World Health Organization**
  - Global Hepatitis Report, 2017
Bibliography


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