

HIV and Hepatitis C Co-Infection

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This educational packet is a curated compilation of resources on HIV and hepatitis co-infection.

The contents of this packet are listed below:

- [HIV and Hepatitis C Coinfection \(Department of Veterans Affairs\)](#)
- [HIV and Hepatitis C \(HIVinfo\)](#)
- [La Infección por el VIH y la Hepatitis C \(HIVinfo\)](#)
- [HIV and Hepatitis B and Hepatitis C Coinfection \(HIV.gov\)](#)
- [Hepatitis C Virus/HIV Coinfection \(Clinicalinfo.hiv.gov\)](#)
- [People Coinfected with HIV and Viral Hepatitis \(CDC\)](#)

You may wish to customize this packet to meet the needs or interests of particular groups, such as event participants, providers, patients, clients, or the general public. So please feel free to distribute all or part of this document as either a printout or PDF.

HIV and Hepatitis C Coinfection

What is HIV?

HIV, or human immunodeficiency virus, is a virus that attacks your immune system. It is the virus that causes AIDS.

What is hepatitis C?

Hepatitis C is an infection that damages your liver. It is caused by a virus called the hepatitis C virus, or HCV for short.

What is HIV/hepatitis C co-infection?

Co-infection is a medical term meaning that you have 2 or more infections in your body at the same time. If you have HIV and hepatitis C co-infection, then you have both the HIV and hepatitis C viruses. These two illnesses are very different, so it is important that you learn about both of them.

What do I need to know about HIV?

HIV is passed from person to person mainly through sex and through contact with infected blood. You can have HIV and have no symptoms for a long time. Over the years, however, the virus wears down your body's immune system, making it hard for your body to fight off dangerous infections and certain cancers. Unfortunately, there is no cure yet for HIV, but there are excellent treatments that can control HIV and help you live a long and healthy life. It is important to learn as much as you can about it, so you can do everything possible to stay healthy, keep your immune system strong, and avoid passing HIV to others.

What do I need to know about hepatitis C?

Hepatitis C is mainly passed from person to person through contact with infected blood. Most people with hepatitis C infection have no symptoms at all, while some experience only mild symptoms such as feeling tired. Most patients are diagnosed because they have a risk factor for hepatitis C, rather than experiencing symptoms.

Even if you do not have any symptoms, hepatitis C is a serious illness. Over time, if untreated, it can cause other health problems, such as cirrhosis (scarring of the liver) and liver cancer. With proper treatment, most people can be cured of hepatitis C.

Can having HIV make hepatitis C worse?

Yes. HIV affects your body's ability to fight off hepatitis C. As a result, liver damage from hepatitis C may happen sooner if you also have HIV. Therefore, both cirrhosis and liver cancer can develop at a younger age if you have both hepatitis C and HIV.

What do I need to know about HIV, hepatitis C, and sex?

Both infections can be passed to another person through sex, though HIV is more easily transmitted this way. For people with HIV, the best ways to keep sex partners from getting HIV are by both taking your medications as prescribed and using condoms correctly and consistently. People with HIV and hepatitis C co-infection should always use condoms or other latex barriers.

What do I need to know about HIV, hepatitis C, and drug use?

Sharing needles, syringes, or any equipment used to inject drugs is one of the easiest ways to spread HIV and hepatitis C. By sharing needles or works, you can even spread both of these viruses at the same time. The best thing to do, especially if you have HIV or hepatitis C, is to not use drugs. If you use drugs, make sure that your needles and injecting equipment are clean (or brand new) every time and never share them with anyone else. Talk to your VA provider about getting help to stop using drugs and about Syringe Services Programs in your area.



**U.S. Department
of Veterans Affairs**

Veterans Health
Administration

Is there a cure for hepatitis C?

Yes, we have very safe and effective treatments that can cure hepatitis C. Older drugs such as interferon and ribavirin are no longer used. Current treatment includes taking pills by mouth only. Having HIV will not decrease your chance of being cured of hepatitis C.

Is there a cure for HIV?

Unfortunately, there is currently no cure for HIV. However, there are very safe and effective medications available that can keep HIV under control and keep your immune system strong.

What can I do to slow down my HIV and hepatitis C infections?

The best way to keep your co-infection from becoming a serious health problem is to keep yourself and your liver healthy by following these guidelines:

- ▶ **Speak with your provider about treatments for both HIV and hepatitis C.**

Controlling HIV and curing hepatitis C are both extremely important, and will help to keep your liver healthy and your immune system strong.

- ▶ **Do not drink alcohol.**

Alcohol weakens your immune system and damages your liver even when you are healthy. When you have HIV and hepatitis C, drinking alcohol, even small amounts, can make the damage to your liver much worse. It doesn't help to switch from "hard" liquor to beer, cider, or wine. If you need help to stop drinking alcohol, talk to your provider.

- ▶ **Get vaccinated against hepatitis A and B and review your vaccination history with your provider.**

Having hepatitis C does not mean that you can't get other kinds of hepatitis. You should be vaccinated against hepatitis A and hepatitis B, unless you already are immune. Review your vaccination history with your provider to make sure you have received and are up to date with all of the recommended vaccines

- ▶ **Avoid taking medicines, supplements, or natural or herbal remedies that might cause more damage to your liver or interact with your HIV medications.**

Even ordinary pain relievers can cause liver problems in some people. Check with your provider before you take any natural or herbal remedy, supplement, prescription, or non-prescription medicine. And, make sure your health care provider knows all the medicines you are taking for HIV and hepatitis C.

Will having hepatitis C prevent me from getting treated for HIV?

No. Both HIV and hepatitis C can be safely treated in co-infected patients. The timing of therapy for both HIV and HCV will be determined by your HIV provider.

Will having HIV prevent me from getting treated for hepatitis C?

No. Hepatitis C can be safely treated in patients who have HIV. Your HIV provider will choose a regimen that is individualized for you because there are important drug interactions with some HIV medications.

Healthy living tips.

Having HIV or hepatitis C alone is difficult enough. Finding out that you have both at the same time might seem overwhelming. Here are some things that can help:

- ▶ **Take care of your body.**

Eat healthy food, drink plenty of water, and get restful sleep. Try to exercise every day.

- ▶ **Don't use drugs, drink alcohol, or have sex without condoms.**

Remember that drugs and alcohol can make your illness worse. If you have sex without condoms you may pass HIV and hepatitis C to others. Talk with your provider if you are having difficulty with this.

- ▶ **Get support.**

If you need mental health support or are interested in a support group, talk to your provider for information on how to access these services locally.

- ▶ **Stay informed.**

HIV and hepatitis C are important medical issues. Try to educate yourself about them. Ask your provider if you need help making sense of anything you hear on the news or read in the newspaper or on the internet.

- ▶ **Follow your provider's advice.**

Follow all instructions you get from your provider. Try to keep all of your appointments. Call your provider immediately if you have any problems.

For more information on HIV and hepatitis C:

Visit: www.hepatitis.va.gov and www.hiv.va.gov

Centers for Disease Control and Prevention (CDC):
www.cdc.gov/hepatitis and www.cdc.gov/hiv

HIV and Hepatitis C

 hivinfo.nih.gov/understanding-hiv/fact-sheets/hiv-and-hepatitis-c

Last Reviewed: August 13, 2021

Key Points

- Hepatitis C is a liver infection caused by the hepatitis C virus (HCV).
- HCV is spread mainly through contact with the blood of a person who has HCV. In the United States, HCV is spread mainly by sharing needles or other injection drug equipment (works) with someone who has HCV.
- According to the Centers for Disease Control and Prevention (CDC), approximately 21% of people with HIV in the United States also have HCV. Infection with both HIV and HCV is called HIV/HCV coinfection.
- People with both HIV and HCV may be treated for both infections. Health care providers prescribe HIV and HCV medicines carefully to avoid drug-drug interactions and closely monitor those taking the medicines for any side effects.

What is hepatitis C?

Hepatitis C is a liver infection caused by the hepatitis C virus (HCV). The abbreviation HCV can stand for either the virus or the infection it causes.

HCV can be either a short-term (acute) or a long-term (chronic) illness:

- Acute HCV occurs within 6 months after exposure. In most people, acute HCV becomes chronic HCV.
- Chronic HCV can last a lifetime. Without treatment, chronic HCV can cause liver cancer or severe liver damage that can lead to liver failure.
- HCV is a contagious infection that can spread from person to person.

How does HCV spread from person to person?

HCV is spread mainly through contact with the blood of a person who has HCV. In the United States, HCV is spread mainly by sharing needles or other injection drug equipment (works) with someone who has HCV. HCV can also be spread through sexual contact. While the risk of transmission through sexual contact is low, the risk is increased in people with HIV.

What is the connection between HIV and HCV?

Because both HIV and HCV can spread in blood, a major risk factor for both HIV and HCV infection is injection drug use. Sharing needles or other drug injection equipment increases the risk of contact with HIV- or HCV-infected blood.

According to the [Centers for Disease Control and Prevention \(CDC\)](#), approximately 21% of people with HIV in the United States also have HCV. Infection with both HIV and HCV is called HIV/HCV coinfection.

In people with HIV/HCV coinfection, HIV may cause chronic HCV to advance faster. Whether HCV causes HIV to advance faster is unclear.

Can HCV infection be prevented?

The best protection against HCV is to never inject drugs. If you do inject drugs, always use new, sterile needles, and do not reuse or share needles, syringes, or other injection drug equipment.

People, including people with HIV, can also take the following steps to reduce their risk of HCV infection:

- Do not share toothbrushes, razors, or other personal items that may come in contact with another person's blood.
- If you get a tattoo or body piercing, make sure the instruments used are sterile.
- Use [condoms](#) during sex. The risk of HCV infection through sexual contact is low, but the risk increases in people with HIV. Condoms also reduce the risk of HIV [transmission](#) and infection with other [sexually transmitted diseases](#), such as [gonorrhea](#) and [syphilis](#).

Should people with HIV get tested for HCV?

Every person who has HIV should get tested for HCV. Usually, a person will first get an HCV antibody test. This test checks for HCV antibodies in the blood. HCV antibodies are disease-fighting proteins that the body produces in response to HCV infection.

A positive result on an HCV antibody test means that the person has been exposed to HCV at some point in their life. However, a positive antibody test does not necessarily mean the person has HCV. For this reason, a positive result on an HCV antibody test must be confirmed by a second test. This follow-up test checks to see if HCV is present in the person's blood. A positive result on this test confirms that a person has HCV.

What are the symptoms of HCV infection?

Most people with acute HCV do not have symptoms. But some people can show signs of HCV soon after becoming infected. Symptoms of acute HCV can include the following:

- Fever
- Tiredness
- Loss of appetite
- Nausea
- Vomiting
- Abdominal pain
- Dark-colored urine
- Clay-colored bowel movements
- Joint pain
- Jaundice (yellowing of the skin or the whites of the eyes)

Most people with chronic HCV do not have any symptoms. Chronic HCV is often discovered based on results from routine liver function tests.

What is the treatment for HCV?

HCV is treated with antiviral medicines. Many newer HCV medicines are more effective and have fewer side effects than older medicines. The newer medicines can cure HCV in most people.

People with HIV/HCV coinfection may be treated for both infections. However, when to start each treatment and what medicines to take depends on the person. For example, some HIV and HCV medicines cannot be safely used together because of drug-drug interactions.

Health care providers prescribe HIV and HCV medicines carefully to avoid drug-drug interactions and closely monitor those taking the medicines for any side effects.

If you have HIV/HCV coinfection, talk to your health care provider about the best medicines for you.

This fact sheet is based on information from the following sources:

Provided in collaboration with NIH's Office of AIDS Research.

La infección por el VIH y la hepatitis C

 hivinfo.nih.gov/es/understanding-hiv/fact-sheets/la-infeccion-por-el-vih-y-la-hepatitis-c

Última revisión: Agosto 13, 2021

Puntos importantes

- La hepatitis C es una infección del hígado causada por el virus del mismo nombre (VHC).
- La infección por el VHC se propaga principalmente por medio del contacto con la sangre de una persona que tiene ese virus. En los Estados Unidos, el VHC se propaga principalmente al compartir agujas u otro equipo para inyección de drogas con alguien que tiene el virus.
- Según los Centros para el Control y la Prevención de Enfermedades (Centers for Disease Control and Prevention, CDC), aproximadamente 21% de las personas con el VIH en los Estados Unidos también tienen el VHC. La infección por ambos virus se llama infección simultánea (o coinfección) por el VIH y el VHC.
- Las personas con infección simultánea por el VIH y el VHC pueden recibir tratamiento para ambas infecciones. Los proveedores de atención de salud recetan medicamentos contra el VIH y el VHC cuidadosamente para evitar interacción de un medicamento con otro y observan de cerca a las personas que toman medicamentos para determinar si hay algún efecto secundario.

¿Qué es la hepatitis C?

La infección por el VHC puede ser una enfermedad aguda (de corta duración) o crónica (de larga duración):

- La enfermedad aguda por el VHC ocurre en los 6 meses siguientes a la exposición de una persona a ese virus. En la mayoría de las personas, la fase aguda se convierte en fase crónica.
- La enfermedad crónica por el VHC puede durar toda la vida. Sin tratamiento, puede causar cáncer o lesión grave del hígado conducente a insuficiencia hepática.

La infección por el VHC es una infección contagiosa que puede propagarse de una persona a otra

¿Cómo se propaga el VHC de una persona a otra?

El VHC se propaga principalmente por medio del contacto con la sangre de una persona que tiene ese virus. En los Estados Unidos, el VHC se propaga principalmente al compartir agujas u otro equipo de inyección de drogas con alguien que tiene el VHC. El VHC también se puede propagar a través del contacto sexual. Si bien el riesgo de transmisión a través del contacto sexual es bajo, el riesgo aumenta en las personas con el VIH.

¿Qué conexión existe entre el VIH y el VHC?

Puesto que tanto el VIH como el VHC se pueden propagar por medio de la sangre, uno de los principales factores de riesgo de infección por ambos virus es el uso de drogas inyectables. Por eso, compartir agujas u otro equipo de inyección de drogas aumenta el riesgo de contacto con sangre infectada por el VIH o el VHC.

Según los Centros para el Control y la Prevención de Enfermedades (Centers for Disease Control and Prevention, CDC), aproximadamente 21% de las personas con el VIH en los Estados Unidos también tienen el VHC. La infección por ambos virus se llama infección simultánea (o coinfección) por el VIH y el VHC.

En las personas con infección simultánea por el VIH y el VHC, el VIH puede hacer que la infección crónica por el VHC progrese más rápido. No está claro si el VHC tiene un efecto igual en la infección por el VIH.

¿Se puede prevenir la infección por el VHC?

La mejor forma de protección contra el VHC es nunca inyectarse drogas. Si se las inyecta, use siempre agujas nuevas esterilizadas y no reutilice ni comparta agujas, jeringas ni ningún otro equipo de inyección.

Todas las personas, incluso las VIH-positivas, pueden tomar medidas para reducir su riesgo de infección por el VHC:

- No compartir cepillos de dientes, cuchillas ni otros artículos de uso personal que puedan entrar en contacto con la sangre de otra persona.
- Si se hacen un tatuaje o una perforación en alguna parte del cuerpo, asegurarse que los instrumentos empleados estén esterilizados.
- Usar condones durante las relaciones sexuales. El riesgo de infección por el VHC por medio del contacto sexual es poco, pero aumenta en personas con el VIH. Los condones también reducen el riesgo de transmisión del VIH y de otras enfermedades de transmisión sexual como la gonorrea y la sífilis.

¿Las personas con el VIH deben hacerse la prueba de detección del VHC?

Todas las personas que tienen el VIH deben hacerse la prueba de detección del VHC. Por lo general, una persona se hará primero una prueba de anticuerpos contra el VHC, en la cual se determina la presencia de ese virus en la sangre. Los anticuerpos contra el VHC son proteínas que combaten la enfermedad y que el cuerpo produce en respuesta a la infección causada por el virus.

Un resultado positivo en una prueba de anticuerpos contra el VHC significa que la persona ha estado expuesta a ese virus en algún momento de su vida. Sin embargo, ese resultado positivo no significa necesariamente que la persona tenga la infección por el VHC. Por esa razón, un resultado positivo en una prueba de anticuerpos contra el VHC debe confirmarse con una segunda prueba. Esta prueba de seguimiento permite determinar si la persona tiene VHC en la sangre. Un resultado positivo en esta prueba confirma que una persona tiene el VHC.

¿Cuáles son los síntomas de la infección por el VHC?

La mayoría de las personas con la infección aguda por el VHC no tienen síntomas. Sin embargo, algunas pueden tener señales de esa infección poco después de contraerla. Los síntomas de infección aguda por el VHC pueden incluir los siguientes:

- Fiebre
- Cansancio
- Pérdida del apetito
- Náuseas
- Vómito
- Dolor abdominal
- Orina de color oscuro
- Heces de color arcilla
- Dolor de las articulaciones
- Ictericia (amarillamiento de la piel o la parte blanca de los ojos)

La mayoría de las personas con la infección crónica por el VHC no tienen ningún síntoma. A menudo, la infección crónica por ese virus se descubre por medio de los resultados de las pruebas de la función hepática realizadas como parte de la atención regular.

¿Cuál es el tratamiento para la infección por el VHC?

La infección por el VHC se trata con medicamentos antivirales. Muchos de los medicamentos de fabricación más reciente contra ese virus son más eficaces y tienen menos efectos secundarios que los más antiguos. Los medicamentos de fabricación más reciente pueden curar la infección por el VHC en la mayoría de las personas.

Las personas con infección simultánea por el VIH y el VHC pueden recibir tratamiento para ambas enfermedades. Sin embargo, la fecha de iniciación de cada tratamiento y los medicamentos que se deben tomar dependen de la persona. Por ejemplo, algunos medicamentos contra el VIH y el VHC no se pueden usar juntos sin riesgo. Los proveedores de atención de salud recetan medicamentos contra el VIH y el VHC cuidadosamente para evitar interacción de un medicamento con otro y observan de cerca a las personas que toman medicamentos para determinar si hay algún efecto secundario por las interacciones medicamentosas.

Si usted tiene la infección simultánea por ambos virus, comuníquese con su proveedor de atención de salud para saber cuáles son los mejores medicamentos para usted.

La hoja informativa precedente se basa en la correspondiente en inglés.

Véase también una colección de enlaces y recursos sobre el VIH en HIV Source.

Proporcionado en colaboración con la Oficina de Investigación del SIDA de los NIH

Hepatitis B & C

 hiv.gov/hiv-basics/staying-in-hiv-care/other-related-health-issues/hepatitis-b-and-c

HIV and Hepatitis B and Hepatitis C Coinfection

Hepatitis B and hepatitis C are liver infections caused by a virus. Because these infections can be spread in the same ways as HIV, people with HIV in the United States are often also affected by chronic viral hepatitis.

Viral hepatitis progresses faster and causes more liver-related health problems among people with HIV than among those who do not have HIV. Liver disease, much of which is related to HBV or HCV, is a major cause of non-AIDS-related deaths among people with HIV.

Given the risks of hepatitis B or hepatitis C coinfection to the health of people with HIV, it is important to understand these risks, take steps to prevent infection, know your status, and, if necessary, get medical care from a health care provider who is experienced in treating people who are coinfecting with HIV and HBV, or HIV and HCV.

How Are Hepatitis B and Hepatitis C Spread from Person to Person?

Like HIV, the hepatitis B and hepatitis C viruses spread:

- By sharing needles, syringes, and other injection equipment.
- Perinatally: Pregnant people can pass these infections to their infants. HIV-HCV coinfection increases the risk of passing on hepatitis C to the baby.
- Sexually: Both viruses can also be transmitted sexually, but HBV is much more likely than HCV to be transmitted sexually. Sexual transmission of HCV is most likely to happen among gay and bisexual men who have HIV.

Is Hepatitis Testing Recommended for People with HIV?

Yes. Everyone with HIV should be tested for HBV and HCV when they are first diagnosed with HIV and begin treatment. People with HIV who have ongoing risk factors for getting hepatitis B or hepatitis C should be tested annually.

In addition, HCV [screening recommendations](#) from the Centers for Disease Control and Prevention (CDC) call for:

- One-time screening for **all** adults 18 years and older
- Screening of all pregnant women during every pregnancy
- Testing for all persons with risk factors, with testing continued periodic testing those with ongoing risk.

How Can You Prevent Hepatitis B and Hepatitis C?

Hepatitis B: Vaccination is the best way to prevent all the ways that hepatitis B is transmitted. People with HIV who do not have active HBV infection should be vaccinated against it. The hepatitis B vaccine is now recommended for all infants, children and adults ages 19-59, as well as adults ages 60+ at high risk for infection. There is a 3-dose series of hepatitis B vaccine given over 6 months, and a 2-dose series given over 1 month. Additionally, there is a 2-dose combination vaccine that protects against both hepatitis A and hepatitis B. ([Find a vaccine near you.](#))

Hepatitis C: No vaccine exists for HCV and no effective pre- or post-exposure prophylaxis is available. Injection drug use is one of the risk factors for hepatitis C. For people who inject drugs, the best way to prevent hepatitis C infection is to always use new, sterile needles or syringes, and never reuse or share needles or syringes, water, or other drug preparation equipment. Community-based prevention programs, such as medication-assisted treatment (MAT) and syringe services programs (SSPs) provide support and services aimed at preventing and reducing the transmission of HCV. Although the risk of sexual transmission of HCV is considered to be low, avoiding unprotected sexual exposure by using condoms has been shown to reduce the chance of sexually transmitted infections.

Treatment for HIV-Hepatitis Coinfections

HIV-HBV and HIV-HCV coinfections can be effectively treated in most people. But medical treatment can be complex, and people with coinfection should look for health care providers with expertise in the management of both HIV infection and viral hepatitis.

Hepatitis B: For hepatitis B, treatment can delay or limit liver damage by suppressing the virus. Like treatment for HIV, hepatitis B treatment may need to be taken for the rest of your life. Some HIV medications can also treat hepatitis B. If you are diagnosed with hepatitis B, your health care provider will go over which treatment regimen is best for you.

Hepatitis C: Hepatitis C is a curable disease. Left untreated, it can cause severe liver damage, liver cancer, or death. However, new treatments for hepatitis C have been approved in recent years. These direct-acting antiviral treatments are much better than the previously available treatment because they have few side effects and do not need to be injected. These treatments for HCV infection cure about 97% of people, including those living with HIV, with just 8-12 weeks of oral therapy (pills).

Hepatitis C Virus/HIV Coinfection

clinicalinfo.hiv.gov/en/guidelines/hiv-clinical-guidelines-adult-and-adolescent-arv/hepatitis-c-virus-hiv-coinfection

Considerations for Antiretroviral Use in Patients with Coinfections

Updated Sep. 21, 2022

Panel's Recommendations

- All people with HIV should be screened for hepatitis C virus (HCV) infection **(AIII)**. Patients at high risk of HCV infection should be screened annually and whenever incident HCV infection is suspected **(AIII)**.
- Antiretroviral therapy (ART) may slow the progression of liver disease by preserving or restoring immune function and reducing HIV-related immune activation and inflammation. For most patients with HCV/HIV coinfection, including those with cirrhosis, the benefits of ART outweigh concerns regarding drug-induced liver injury. Therefore, ART should be initiated in all patients with HCV/HIV coinfection, regardless of CD4 T lymphocyte cell count **(AI)**.
- Initial antiretroviral (ARV) regimens that are recommended for most patients with HCV/HIV coinfection are the same as those recommended for people with HIV who do not have HCV infection. However, when treatment for both HIV and HCV is indicated, the ARV and HCV treatment regimens should be selected with special consideration for potential drug–drug interactions and overlapping toxicities **(AIII)** (see discussion in the text below and in Table 18).
- All patients with HCV/HIV coinfection should be evaluated for HCV therapy, which includes assessing their liver fibrosis stage to guide the duration of therapy and to predict subsequent risk of hepatocellular carcinoma and liver disease complications **(AIII)**.
- Patients with chronic HCV/HIV coinfection should be screened for active and prior hepatitis B virus (HBV) infection by testing for the presence of hepatitis B surface antigen (HBsAg) and antibodies to hepatitis B surface (HBsAb) and hepatitis B core (HBcAb; total or Immunoglobulin G). Persons who are not immune to HBV infection (HBsAb negative) should receive anti-HBV vaccination **(AIII)**.
- HBV reactivation has been observed in people with HBV infection during HCV treatment with direct-acting antivirals. Accordingly, before initiating HCV therapy, patients with HCV/HIV coinfection and active HBV infection (HBsAg positive) should receive ART that includes two agents with anti-HBV activity **(AIII)**.

Panel's Recommendations Regarding Hepatitis C Virus/HIV Coinfection

The treatment of hepatitis C virus (HCV) infection is rapidly evolving. Patients with HCV/HIV coinfection treated with all-oral, direct-acting antiviral (DAA) HCV regimens can achieve sustained virologic response (HCV cure) at rates comparable to those in patients with HCV mono-infection.¹⁻³ This section of the guidelines focuses on hepatic safety and

drug–drug interaction issues related to HCV/HIV coinfection and the concomitant use of antiretroviral (ARV) agents and HCV drugs. For specific guidance on HCV treatment, clinicians should refer to the [HCV Guidance](#) from the American Association for the Study of Liver Diseases and the Infectious Diseases Society of America.

Approximately one-third of patients with chronic HCV infection progress to cirrhosis at a median time of <20 years.^{4,5} The rate of progression increases with older age, alcoholism, male sex, and HIV infection.^{6–9} A meta-analysis found that patients with HCV/HIV coinfection had a threefold greater risk of progression to cirrhosis or decompensated liver disease than patients with HCV mono-infection.⁸ The risk of progression is even greater in patients with HCV/HIV coinfection who have low CD4 T lymphocyte cell counts. Although antiretroviral therapy (ART) appears to slow the rate of HCV disease progression in patients with HCV/HIV coinfection, several studies have demonstrated that the rate of disease progression continues to exceed that observed in patients without HIV.^{10,11} Whether HCV infection accelerates HIV progression, as measured by the occurrence of AIDS-related opportunistic infections (OIs) or death,¹² is unclear. With older ARV drugs, people with HIV and HCV coinfection experienced higher rates of hepatotoxicity than those seen in people with HIV but not HCV.^{13,14} These higher rates have not been observed with the newer ARV agents that are currently in use.

Assessment of HCV/HIV Coinfection

All people with HIV should be screened for HCV infection using sensitive immunoassays licensed for the detection of antibodies to HCV in blood.¹⁵ Patients who are HCV-seronegative but at risk for HCV infection should undergo repeat testing annually or as clinically indicated. Patients who are HCV-seropositive should be tested for HCV RNA using a sensitive quantitative assay to confirm the presence of active infection. Patients who test HCV RNA positive should undergo HCV genotyping and liver disease staging as recommended by the [HCV Guidance](#).

- Patients with HCV/HIV coinfection should be counseled to avoid consuming alcohol.
- Patients with HCV/HIV coinfection also should be counseled about appropriate precautions to prevent transmission of HIV and/or HCV to others.
- Patients with chronic HCV/HIV coinfection should be screened for active and prior hepatitis B virus (HBV) infection by testing for the presence of hepatitis B surface antigen (HBsAg) and antibodies to hepatitis B surface (HBsAb) and hepatitis B core (HBcAb; total or Immunoglobulin G).
 - Patients with evidence of active HBV infection (HBsAg positive) should be further evaluated and treated with ART that includes agents with anti-HIV and anti-HBV activities **(AIII)**.
 - Those who are not immune to HBV infection (HBsAb negative) should receive anti-HBV vaccination.

- Patients with HCV/HIV coinfection who are susceptible to hepatitis A virus (HAV) should be vaccinated against HAV.
- All patients with HCV/HIV coinfection are candidates for curative HCV treatment.

Antiretroviral Therapy in HCV/HIV Coinfection

When to Start Antiretroviral Therapy

Initiation of ART for patients with HCV/HIV coinfection should follow the recommendations for all persons with HIV infection, considering the need for concurrent HCV treatment with oral DAA regimens, the potential for drug–drug interactions, and the individual’s HBV status.

Considerations When Starting Antiretroviral Therapy

The same regimens that are recommended for initial treatment of HIV in most ART-naïve persons also are recommended for patients with HCV/HIV coinfection. Special considerations for ARV selection in patients with HCV/HIV coinfection include the following:

- When both HIV and HCV treatments are indicated, the ARV regimen should be selected with careful consideration of potential drug–drug interactions with the HCV treatment regimen (see Table 18 below).
- In patients with HCV/HBV coinfection, HBV reactivation has been observed during HCV treatment with DAAs.^{16,17} Therefore, before initiating HCV therapy, patients with HCV/HIV coinfection and active HBV infection (HBsAg positive) should receive ART that includes agents with anti-HBV activity (such as tenofovir disoproxil fumarate [TDF] or tenofovir alafenamide plus emtricitabine or lamivudine) **(AIII)**.
- Patients with cirrhosis should be evaluated for signs of liver decompensation according to the Child-Turcotte-Pugh classification system. All patients with Child-Pugh class B or C disease should be evaluated by an expert in advanced liver disease and considered for liver transplantation. Furthermore, hepatically metabolized ARV and HCV DAA drugs may be contraindicated or require dose modification in patients with Child-Pugh class B and C disease (see [Appendix B, Table 11](#)).

Hepatotoxicity

Drug-induced liver injury (DILI) following the initiation of ART is more common in patients with HCV/HIV coinfection than in those with HIV mono-infection. Individuals with HCV/HIV coinfection who have advanced liver disease (e.g., cirrhosis, end-stage liver disease) are at greatest risk for DILI.¹⁸ Eradicating HCV infection with treatment may decrease the likelihood of ARV-associated DILI.¹⁹ Alanine aminotransferase (ALT) and aspartate aminotransferase (AST) levels should be monitored 4 to 8 weeks after initiation of ART and at least every 6 to 12 months thereafter, and more often if clinically indicated. Mild to moderate fluctuations in ALT and/or AST levels (<5 times upper limit of normal [ULN]) are typical in individuals with chronic HCV infection. In the absence of signs or symptoms

of liver disease or increases in bilirubin, these fluctuations do not warrant interruption of ART, but they do warrant monitoring to ensure a return to baseline. Patients with significant elevations in ALT or AST levels (>5 times ULN), concomitant increase in total bilirubin, or concomitant symptoms (weakness, nausea, vomiting) should be evaluated carefully for signs and symptoms of liver insufficiency and for alternative causes of liver injury (e.g., acute HAV or HBV infection, hepatobiliary disease, alcoholic hepatitis). If these signs and symptoms do not resolve, ART should be discontinued.

Concurrent Treatment of HIV and HCV Infections

Guidance on the treatment and management of HCV in adults with and without HIV can be found in the [HCV Guidance](#). Several ARV drugs and HCV DAAs have the potential for clinically significant pharmacokinetic drug–drug interactions when used in combination. Before starting HCV therapy, the ART regimen may need to be modified to reduce the drug–drug interaction potential. Table 18 below provides recommendations on the concomitant use of selected drugs for the treatment of HCV and HIV infection. In patients receiving ART that has been modified to accommodate HCV treatment, HIV RNA should be measured within 2 to 8 weeks after changing HIV therapy to confirm the effectiveness of the new regimen. After ART modification, initiation of an HCV DAA regimen should be delayed for ≥ 2 weeks. Resumption of the original ARV regimen also should be delayed until ≥ 2 weeks after the HCV DAA regimen is completed. The prolonged half-life of some HIV and HCV drugs poses a potential risk of drug–drug interactions if a regimen is resumed soon after ART modification or HCV treatment completion.

People Coinfected with HIV and Viral Hepatitis

[CDC cdc.gov/hepatitis/populations/hiv.htm](https://www.cdc.gov/hepatitis/populations/hiv.htm)

People with HIV/AIDS should be vaccinated against hepatitis A and B and tested for hepatitis B and hepatitis C.

Beginning in 2020, CDC and the Advisory Committee on Immunization Practices (ACIP) began recommending that all people with HIV who are ≥ 1 year of age be vaccinated against hepatitis A and receive postvaccination serologic testing ≥ 1 month after completing the hepatitis A vaccine series.

Further, CDC and ACIP recommend that unvaccinated people with HIV receive hepatitis B vaccination. Vaccination should be followed by serologic testing to confirm adequate immune response. CDC recommends that people with HIV be tested for hepatitis B.

CDC now also recommends one-time hepatitis C testing of all adults (18 years and older), including those with HIV. CDC continues to recommend people with risk factors, like people who inject drugs, be tested regularly.



People with HIV and Hepatitis A

People with HIV who have underlying liver disease are at risk for severe disease from hepatitis A infection, and widespread hepatitis A outbreaks associated with person-to-person transmission have been occurring in the United States since 2016. Therefore, CDC and ACIP recommend hepatitis A vaccination for this population. Because the response to the vaccine might be reduced in people with HIV infection who are immunosuppressed, postvaccination serologic testing should be performed for all people with HIV infection ≥ 1 month after completing the hepatitis A vaccine series. All people with HIV infection who receive hepatitis A vaccine, regardless of postvaccination serologic testing results, should be counseled that the vaccine might not provide long-term protection against hepatitis A. Therefore, they might need to receive immune globulin (IG) after a high-risk exposure (e.g., a sexual or household contact).

People with HIV and Hepatitis B

Hepatitis B virus (HBV) and HIV are bloodborne viruses transmitted primarily through sexual contact and injection-drug use. Because of these shared modes of transmission, a high proportion of adults at risk for HIV infection are also at risk for HBV infection. People

with HIV who become infected with HBV are at increased risk for liver-related morbidity and mortality [1-4]. To prevent HBV infection in people with HIV, ACIP recommends universal hepatitis B vaccination for all susceptible people infected with HIV [5]. The first vaccine dose can be administered immediately after collection of blood for prevaccination serologic testing [5] and regardless of CD4+ lymphocyte cell count [6]. To confirm adequate immune response, post-vaccination serologic testing for protective concentrations of antibodies to hepatitis B surface antigen should be conducted 1–2 months after completion of the hepatitis B vaccine series [5]. People with HIV who test positive for HBV should receive HIV antiviral medication with activity against HBV (e.g., tenofovir and entecavir).

People with HIV and Hepatitis C

In 2009, approximately 21% of adults with HIV who were tested for past or present hepatitis C virus (HCV) infection tested positive, although coinfection prevalence varies substantially according to risk group (e.g., men who have sex with men [MSM], high-risk heterosexuals, and people who inject drugs) [7-9]. As HCV is a bloodborne virus transmitted through direct contact with the blood of an infected person, coinfection with HIV and HCV is common (62%–80%) among injection-drug users who have HIV [8-10]. Although transmission via injection-drug use remains the most common mode of HCV acquisition in the United States [10], sexual transmission is an important mode of acquisition among MSM with HIV who also have risk factors, including those who participate in unprotected anal intercourse, use sex toys, and use non-injection drugs [6]. HCV is one of the primary causes of chronic liver disease in the United States, and HCV-related liver injury progresses more rapidly among people coinfecting with HIV [11-15]. HCV infection may also affect the management of HIV infection [6, 15, 16]. CDC now recommends one-time hepatitis C testing of all adults (≥ 18 years of age), including those with HIV. CDC continues to recommend people with risk factors, like people who inject drugs, be tested regularly. The American Association for the Study of Liver Disease (AASLD) and the Infectious Diseases Society of America (IDSA) also recommend that people who are coinfecting with HIV and HCV be provided with curative, direct-acting antiviral medications to treat their HCV infection.