

# An Overview of HIV/HCV Coinfection

A SERIES OF FACT SHEETS WRITTEN BY EXPERTS IN THE FIELD OF LIVER DISEASE

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## Foreword

When a person is infected with two or more different disease-causing organisms it is called coinfection. Infection with the hepatitis C virus (HCV) is the most common coinfection in people with HIV, and hepatitis C is categorized as an HIV-related opportunistic illness. Complications related to HIV/HCV coinfection are becoming an increasingly important medical issue. As improvements in HIV treatment have reduced the number of deaths due to opportunistic illnesses, liver disease has become a leading cause of hospitalization and death in people with HIV/AIDS. It is estimated that approximately 1.2 million people in the U.S. are infected with HIV and approximately 3.2 million are infected with hepatitis C. As many as 30% of people with HIV may also be coinfecting with hepatitis C.

Recent studies show that combination drug regimens can successfully treat hepatitis C in people with HIV, and that most people with hepatitis C can be successfully treated for HIV. The continual emergence of new data and treatment guidelines will help us to better understand and more effectively treat both diseases.

## • HIV/HCV Coinfection

HIV and HCV share many characteristics. Both are RNA viruses and both have similar blood-to-blood transmission routes. Because both HIV and HCV are transmitted through the sharing of contaminated needles, many injection drug users acquire both viruses. In addition, a significant number of people who received repeated blood transfusions before blood donations were tested for HIV and HCV are coinfecting. Though hepatitis C is less likely than HIV to be transmitted from mother to baby, some

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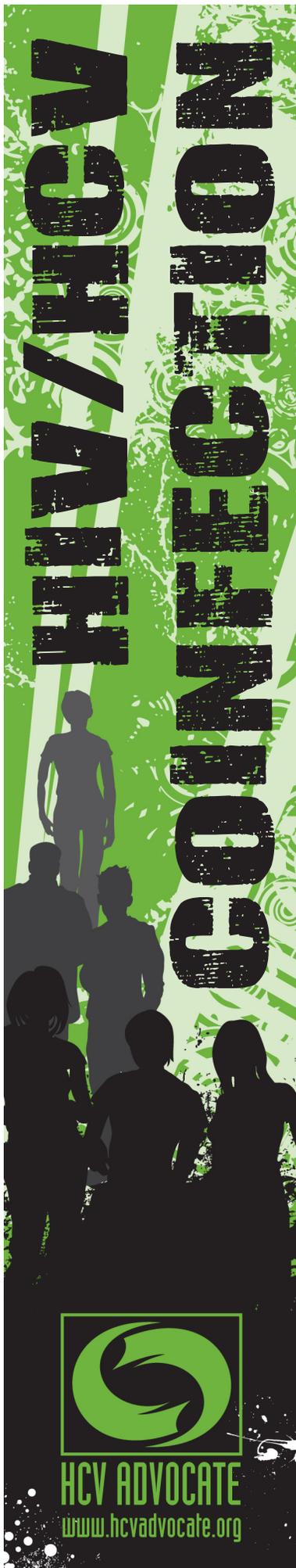
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The information in this fact sheet is designed to help you understand and manage HCV and is not intended as medical advice. All persons with HCV should consult a medical practitioner for diagnosis and treatment of HCV.

This information is provided by the Hepatitis C Support Project a nonprofit organization for HCV education, support and advocacy



studies have shown that the risk of perinatal (mother-to-child) hepatitis C transmission is greater if a woman also has HIV. There have also been reports from Europe, New York City and San Francisco of an increased risk for hepatitis C transmission through sexual activity among HIV-positive gay men and men who have sex with men.

The ways in which coinfection with HIV and HCV affects the body is not completely understood. Most studies indicate that HIV can worsen hepatitis C. HIV/HCV coinfection has been associated with a faster rate of hepatitis C disease progression, higher HCV viral loads, and a greater risk of developing severe liver damage. The impact of hepatitis C on HIV disease is less clear, but a majority of studies suggest that hepatitis C does not accelerate HIV disease progression. Hepatitis C can affect HIV treatment by increasing the frequency of liver toxicity related to HIV drugs although most HIV medications are safe. There is also the potential for interactions between HIV drugs and drugs used to treat hepatitis C. However, with careful medical monitoring, many coinfecting people can be successfully treated for both HIV and hepatitis C.

## • Treating HIV in People with Hepatitis C

HIV can be successfully treated in most people with hepatitis C. Some experts believe it is better to begin HIV treatment first in order to control HIV replication and increase the CD4 count, since hepatitis C treatment works better in people with stronger immune systems. Some research suggests that even after starting HIV treatment, CD4 counts do not increase as rapidly in coinfecting people as in people with HIV alone.

However, in people with early-stage HIV disease and advanced hepatitis C, it may be better to start hepatitis C treatment first, so the liver can

more easily process HIV drugs since many HIV medications are metabolized by the liver and some can cause liver toxicity (hepatotoxicity). Impaired liver function can result in slower processing of drugs in the body. Some HIV drugs—particularly protease inhibitors—can cause elevated liver enzyme levels, especially in people with chronic hepatitis C; however, liver enzyme levels often stabilize over time. Severe liver toxicity related to HIV drugs is seen most often in people who already have liver damage, but even in this group it is uncommon.

Most people with hepatitis C can tolerate HIV medications if they are closely monitored for hepatotoxicity. Though dose reductions and changes in HIV or hepatitis C medications may be necessary, many coinfecting people can be successfully treated. Because hepatitis C appears to be more aggressive in people with HIV, some experts believe that controlling HIV can help slow hepatitis C disease progression. But HIV treatment can sometimes lead to increased liver inflammation (“flares”) as the drugs improve immune system function. If possible, both an HIV specialist and a liver disease specialist should work together as a team to treat coinfecting people.

## • Treating Hepatitis C in People with HIV

Everyone with HIV who has been diagnosed with hepatitis C should be evaluated for hepatitis C treatment. As a rule, the guidelines for treating hepatitis C in HIV negative people can generally be applied to coinfecting people as well. However, in HIV positive individuals with less than 200 CD4 cells treatment should be postponed. HIV medications should be used to increase the CD4 count before such individuals begin hepatitis C treatment.

Special attention should be given to the HCV and HIV antiviral medications for potential drug-drug interactions.

## • HCV Treatment

The treatment cure rates for hepatitis C (HCV) in someone with HIV are similar to someone who is mono-infected with HCV. Listed below is a brief overview of the standard of care for the treatment of hepatitis C. For more detailed information, please see our treatment section of our website.

### Genotype 1

- HARVONI—one pill, taken once-a-day – cure rates are from 90 to 100%
- VIEKIRA PAK—3 pills in one package. The pills are taken twice a day with food. It is taken with and without ribavirin (with food). Cure rates are from 90 to 100%

### Genotype 2:

- Sovaldi—one pill, taken once-a-day—ribavirin taken twice daily. Cure rates from 88% to 100%

### Genotype 3:

- Sovaldi—one pill, taken once a day—ribavirin taken twice daily. Cure rates from 60% to 93%

### Genotype 4:

- Sovaldi—one pill, taken once-a-day—pegylated interferon injected once-daily, ribavirin dosed twice daily. Cure rates 96%

## • New Therapies to Treat HCV

There are many new HCV therapies that are in late-stage clinical development to treat HCV in people coinfecting with HIV. Information about the new studies can be found at the HCV Advocate Dug Pipeline (click on the HIV/HCV Coinfection Studies link) and at [www.clinicaltrials.gov](http://www.clinicaltrials.gov). Talk with your medical provider about standard treatment, the new HCV protease inhibitor combination therapies and clinical studies for treating HCV in people who are also infected with HIV.

## • Conclusion

HIV/HCV coinfection is an increasingly important public health concern in the U.S. More research and education for both doctors and patients is needed before we can fully understand how both these diseases work in the body and how they interact with each other. The good news is that recent research shows that both HIV and hepatitis C can be successfully treated and cured in many people with HIV/HCV coinfection. Probably the best advice for people is to learn as much as possible about HIV, HCV and HIV/HCV coinfection so that they can advocate for themselves to make sure that they are receiving the best possible medical care.

For more information on HIV/HCV check out our coinfection publications at the HCV Advocate: [www.hcvadvocate.org](http://www.hcvadvocate.org). For the latest on drugs in development check out <http://hcvdrugs.com>

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