Hepatitis C (HCV) is the most common blood-borne infection in the United States, with at least 3.5 million people living with it. Of this group, about 25% are co-infected with HIV and HCV. In recent years there’s been increased attention to HCV as new medications have been developed and cure rates have improved for nearly all people living with the disease. With the fast pace of drug development and the blur with which treatment guidelines change, it can be hard for medical providers and people living with HCV to keep up.

Using information from current research and “Recommendations for the Testing, Managing and Treating of Hepatitis C,” put out by the American Association for the Study of Liver Diseases (AASLD) and Infectious Diseases Society of America (IDSA), this article will provide a basic overview of HCV testing, prevention, and treatment overall, with information that is specific for gay men.

Hepatitis C testing
There is nothing specific or unique about HCV risk for gay men. That is to say, gay men aren’t at any greater risk for HCV than anyone else. With HCV, it’s the risk factors that matter: It’s the things we do regardless of sexual orientation or gender that determine if one should be tested for it.

Historically we’ve not done a very good job of

HIV-positive gay men are at higher risk of sexually acquired HCV than other groups. That said, it can still be complicated when you start to break it down. We know that HCV is transmitted from blood-to-blood contact, but what about sexual fluids? There are some small studies that have found HCV in semen and non-bloody rectal fluids, while others have not. Whether or not it’s in semen or other fluids, we know it’s in blood, and sexual practices that can lead to blood carry risk for HCV transmission.
testing for HCV. We’re getting better, and we have clear recommendations for who should be screened and how frequently that screening should occur (see the box). If you are at ongoing risk through injection drug use and/or are living with HIV and sexually active, you should test for HCV at least once per year.

Hepatitis C is not routinely screened for during annual physicals or other medical provider visits. In fact, while many people just assume that HCV gets screened during STD exams, it rarely does. If you think you need a test, you should ask for it. Your medical provider may ask you some questions and do a risk assessment so they can justify the ordering of the test and provide you with proper care and health education.

**How do they do HCV testing?**

**Hepatitis C testing can be pretty complicated.** It’s a two-step process: First, you take an HCV antibody test; and second, if the antibody test is positive, you take an HCV viral load test (also called HCV RNA or HCV PCR) to confirm that you are chronically infected with HCV.

The most important thing to remember here is this: If you test positive on the HCV antibody test, you have to confirm it with that viral load test.

If you’re told “you are positive for hepatitis C because you tested positive for the antibody test,” then you should follow up with the question “Are you sure? Did you confirm that antibody result with an HCV viral load?” If they didn’t do a viral load test, ask for one. Seriously: You’d be surprised how frequently this gets missed by medical providers.

**Why the two types of tests?**

As with HIV, if you get infected with HCV, your body will respond by making antibodies (protein from your immune system). You’ll have these antibodies for the rest of your life. The thing that’s important to remember: Some people clear the virus within six months of infection, that is, there is no more virus in your body doing damage to your liver. This happens about 25% of the time (1 out of 4 people).

When you clear the virus, you will test positive for the antibodies, but not have the virus in you. Therefore, to know if you’re chronically infected or not, you need to confirm that positive antibody test with a viral load test.

**Hepatitis C prevention**

Hepatitis C (HCV) is mainly transmitted from blood to blood contact when someone shares a syringe or other injecting equipment with someone infected with the virus. The gold standard of HCV prevention is using a new syringe and unused injection equipment each and every time you inject, and you never have to share anything. This is easier said than done: Sometimes you have no other option but to re-use a syringe. When faced with this situation, there are things you can do to help prevent infection.

The primary way in which HCV infection occurs is through the sharing of syringes: That’s where the most blood is and that is the most direct way for HCV to get into a person. That said, the sharing of other injecting equipment—cookers, cotton, water—can lead to HCV infection, too.

The best way to prevent HCV infection while injecting drugs is to use a new syringe and unused injecting equipment each time you inject. If you have to re-use a syringe, try to mark it as your own so as to avoid accidentally using someone else’s syringe.

If sharing a syringe is the only option available, rinse the syringe with bleach to try to disinfect it and kill off any HCV that may be in there. (Remember to rinse it well afterwards.) A recent study has found that bleach was highly effective in killing HCV, but it’s important to note that it’s not a guarantee to prevent infection. From a harm reduction perspective, it’s better than nothing, but again, the gold standard for preventing HCV is to use a new syringe for each injection you do.

**Sexual transmission of HCV**

Sexual transmission of HCV is a complicated topic. HIV status appears to be the single greatest risk factor for gay men (see page 29). Rates of HCV in HIV-negative gay men are much lower than in HIV-positive gay men. Research has shown that HIV-negative gay men are at low risk of HCV, and,
as with non-injection drug using, HIV-negative heterosexuals, routine screening for HCV is not warranted. This research flies in the face of what many people assume: Gay men have anal sex and anal sex can lead to bleeding. Since blood can transmit HCV, many assume that anal sex will transmit the virus. While the data suggests little risk, the concerns and anxiety about the risk remain high.

HIV-positive gay men are at higher risk of sexually acquired HCV than are other groups. That said, it can still be a little complicated when you start to break it down. For example, we know that HCV is transmitted from blood-to-blood contact, but what about sexual fluids? There are some small studies that have found HCV in semen and non-bloody rectal fluids, while others have not. Whether it’s in semen or not, we know it’s in blood, and sexual practices that can lead to blood carry risk for HCV transmission.

In studies that have looked at possible risk factors associated with sexual transmission of HCV, several behaviors have been identified: condomless anal sex, group sex, fisting, and so on. So, what accounts for the higher rates in this population? One possible explanation is sero-sorting, or the practice of only having sex with men who have the same positive HIV status. Many positive gay men have taken to this practice to prevent transmission to HIV-negative sex partners. Gay men may be aware of their partner’s HIV status, but not necessarily of their HCV status.

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HOW TO REDUCE YOUR RISK FOR HEPATITIS C

These tips are geared toward HIV-positive gay men, but the risk reduction tips and activities are applicable to anyone concerned about sexual transmission of HCV

1. Test for HCV routinely. Testing for HCV alone is not prevention, but knowing your status so you can seek treatment and prevent transmitting it to others is very important. You should test at least once per year, but might consider more frequent testing depending upon your level of risk.

2. Talk to your partner(s) about hepatitis C. If he is HCV-positive, or does not know his HCV status, you might consider doing things that are less risky such as oral sex, masturbation, or wearing a condom for anal sex. Communication and awareness of your sex partner’s status is especially important if you are sero-sorting and only having sex with other HIV-positive men.

3. Wear a condom for anal sex. Both tops and bottoms are at an increased risk for sexual transmission of HCV. Condoms can provide an effective barrier to prevent blood contact during anal sex. Use water-based lube to make sex smoother and minimize the chance for micro tears and bleeding.

4. Practice safer fisting. As with anal sex, both tops and bottoms are at increased risk for sexual transmission of HCV. Check your hands for any cuts or bleeding cuticles. Wear latex gloves and change into new, unused ones for each new partner. HCV is a tough virus and can live in water for up to 21 days, so although we may not know how long it can live in lube, it’s a good practice to not share lube between partners, either.

5. Sequence your sex play. Avoid receptive anal sex after fisting or vigorous sex toy play that may have caused tearing and bleeding in the rectum, or you could be the top for anal sex.

6. Keep your sex toys clean. Cover your dildos and vibrators with condoms and change them for new ones with each partner. Do not use toys with more than one person before fully washing them.

7. Take a break from anal play. If you recently had anal warts removed, or had a case of hemorrhoids, take a break from bottoming to give yourself a chance to heal. The same is true following any type of receptive anal sex, especially if you see any blood or feel any discomfort or pain.

8. If you use drugs during sex, don’t share anything. Whether you use injectable or non-injectable drugs, don’t share anything. HCV can live for a very long time in syringes, on surfaces, and in drug-using equipment, and anything with HCV-infected blood on it can transmit the virus.

9. Screen for STDs regularly. Routine screenings for STDs that can cause sores—primary syphilis, herpes, anal warts, etc.—are an important part of your sexual health. If you are sexually active, aim for STD testing every 3–6 months. Give yourself self-exams, too, and check for any sores (especially if you have a history of herpes or anal warts). If you see something, check with your medical provider or go to an STD clinic to get it checked out. If you feel any rectal discomfort or see any rectal bleeding or other discharge, do the same.

10. Stay HIV-negative. Screen routinely for HIV and know your status. If you test positive, get into care, screen for HCV, and talk about HIV care and treatment. If you test HIV negative, continue to practice safer sex and safer drug use, screen for STDs regularly, and talk to your medical provider about PrEP.

11. Stay HCV-negative. If you clear HCV—either naturally or through treatment—remember that you can get re-infected with the virus if you get exposed to it again. Continue to use the practices above to stay negative, and remember: If you cleared the virus, you will always test HCV antibody positive, so your follow-up testing going forward must be viral loads to look for the virus directly.

WHILE MANY PEOPLE JUST ASSUME that HCV gets screened during STD exams, it rarely does. If you think you need a test, ask for it.
**Understanding Your Test Results**

<table>
<thead>
<tr>
<th>HCV antibody result</th>
<th>HCV viral load result</th>
<th>What it means...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative</td>
<td>Negative</td>
<td>You don’t have HCV.</td>
</tr>
<tr>
<td>Positive</td>
<td>Negative</td>
<td>You do not have HCV: You have cleared the virus, through treatment and cure, or as one who naturally cleared the virus.</td>
</tr>
<tr>
<td>Negative</td>
<td>Positive</td>
<td>You have early HCV infection and haven’t had time to make antibodies, or your immune system cannot produce enough HCV antibodies. More follow-up tests should occur.</td>
</tr>
<tr>
<td>Positive</td>
<td>Positive</td>
<td>You have chronic hepatitis C.</td>
</tr>
</tbody>
</table>

If you’re testing within the window period for developing chronic infection, work with your medical provider or testing site to re-test later.

their HCV one, and if they practice condomless anal sex (or fisting) their risk for HCV is higher.

What is the role of HIV itself and the risk of HCV acquisition from sex? It certainly makes sense that a weaker immune system can make one more vulnerable to HCV infection. Research is limited, but there may be a relationship between lower CD4 counts and increased risk of HCV acquisition. Additionally, rates of HCV were higher in HIV-positive gay men with lower CD4 counts even when they had fewer risk factors for HCV. We do not yet know what the protective factor of taking anti-HIV medications might provide against sexual transmission of HCV, but we do know all of the health benefits it provides otherwise. Regardless of CD4 count, you want to minimize your risk of blood contact to minimize the risk of HCV transmission. The following section reviews the risk factors for sexual transmission of HCV that have been identified in a variety of studies looking at HIV-positive gay men.

**Hepatitis C re-infection**

You can get hepatitis C more than once. This is weird and can be a little confusing, and there is a lot of misinformation out there among both patients and medical providers about this.

With many viruses (like the herpes virus that causes chicken pox) or even other types of hepatitis viruses (like hep A and hep B), you can get it and your body makes antibodies and immunity to fight off any future infection. In other words, if you get it once, you’re not going to get it again.

When you get infected with HCV, your body produces antibodies in an effort to fight the infection. As stated above, it’s the antibody test that used to detect a possible infection. If this test is positive, then we follow it up with a viral load test to look for the actual virus.

About 1 in 4 (25%) people clear HCV in the first six months of infection on their own. A person who clears it will always have HCV antibodies but no more virus to do any damage to their liver. These antibodies don’t protect them from a future infection, and they can still get re-infected and get HCV again. Again, the person can get HCV and clear the virus again (or even multiple times), but there’s always a risk that the next time will lead to chronic infection.

Hepatitis C re-infection occurs when a person has detectable HCV virus in their blood after he or she has either been cured through treatment or after they have spontaneously cleared the virus on their own.

If you are one of those 25% of people who cleared it naturally, or you were treated and cured, you’re going to have HCV antibodies. You’ll still want to do all you can to stay HCV negative and avoid re-infection. Additionally, if you’re one of these people and you have ongoing risk for re-infection, you want to test regularly—at least annually—by doing a HCV viral load test as the antibody test won’t tell you anything about a new infection.

**Hepatitis C treatment**

If you talked to someone who was treated for HCV as little five years ago, you would likely hear horror stories of a year of treatment, complete with weekly injections of a medication that would make a person feel as though they had the worst flu of their life. For all of the misery, only about 50% of people would be cured. The treatments were so bad and the options so poor that many people chose not to test at all as they didn’t want to know if they had it since they would never take (or, in the case of some medical providers, would never prescribe) the medications available.

Today, hepatitis C can be cured in just about everybody with 12 (in some cases 24) weeks of pills (no injections!) and very tolerable side effects.

Let that sink in for a moment.

With the effectiveness and relative ease of treating and curing all people with HCV, the AASLD/IDSA HCV Guidance Panel recommends HCV treatment for all people living with the virus, except in the few circumstances where a person has a very low life expectancy where said treatment won’t make a difference.
It gets better. We can treat people with very advanced liver disease—cirrhosis—and we can treat people who are both on the liver transplant list or who have received a liver transplant. It’s complicated, but with a liver specialist to manage care and treatment, successful cures are possible for even the most advanced of cases.

**Hepatitis C treatment in HIV/HCV co-infected persons**

HIV/HCV co-infection is a serious medical issue. As discussed above, there is increased risk of sexual transmission of HCV in this population, but HIV also appears to speed up HCV-related liver disease. For these reasons and more, the AASLD/IDSA HCV Treatment Guidance recommends treatment for all HIV/HCV co-infected persons, just as they recommend it for all HCV mono-infected persons. Similarly, all co-infected persons can be treated with almost all of the available regimens that a person without HIV can take. It can get complicated, and you want to make sure that your HIV provider and HCV provider (if they are not one and the same) are in regular communication with one another and each knows what the other is prescribing to avoid any drug-drug interactions. See the PA Annual Hepatitis C Drug Guide (July + August 2016).

**Conclusions**

We are in a remarkable time for the care and treatment of hepatitis C. In theory, we can treat and cure everyone and eradicate the virus from the planet. We have a long way to go, but increasing education and awareness, testing for the virus as needed, preventing primary infection and re-infection, and engaging in medical care will get us there. 

**Andrew Reynolds** is the Hepatitis C Education Manager at Project Inform, and facilitates several support groups in the San Francisco Bay Area. He's also a counselor on the HELP-4-HEP phoneline.

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**PrEP AND HEP C**

**Does taking PrEP place one at greater risk for sexual transmission of HCV?** The CDC recommends that everyone gets tested for HCV before starting PrEP, but there are no recommendations for ongoing screening.

There has been little research on this, so we can’t say for sure. We know that HCV rates are low in non-injecting, HIV-negative gay men. There is one brief published report from Kaiser San Francisco, where two HIV-negative men on PrEP got infected with HCV. Neither man reported any injection drug use or other potential HCV risks like unsterile tattoos or other blood exposures.

There were, however, other potential risk factors: One of the men had rectal gonorrhea and chlamydia plus two cases of syphilis while on PrEP, and reported condomless receptive anal sex with a partner who had a penile piercing, as well as condomless receptive anal sex with multiple partners in a group setting. The second man also had syphilis (once) and multiple rectal STDs: three cases of chlamydia and two of gonorrhea while on PrEP. His sexual history was not described in the Kaiser letter.

Is this definitive proof that these two men became infected through condomless sex? Not necessarily, but it’s still considering. As we know, in studies of HIV-positive men who have been diagnosed with HCV through sexual transmission, several risk factors have been identified (see chart at right). At least a couple of these factors were present for these two men, and although more research is warranted to determine the HCV risks for gay men on PrEP, it certainly is good practice to educate them about these potential risk factors while we wait.

Some may conclude from this report that PrEP has increased the risk of HCV transmission. In fact, it’s too early to tell and it would be wise to not jump to conclusions. We don’t know what rates of HCV would be found in HIV-negative gay men who were not taking PrEP, but were getting routinely screened in sexual health settings. Perhaps it would be the same. The key is we don’t yet know, so it would be incorrect to assume that taking PrEP leads to higher rates of sexually acquired HCV than we would find in men who are not taking PrEP, but engaging in the same risk behaviors.

Finally, it’s worth noting that none of the 485 men taking PrEP tested positive for HIV, and ultimately, that is what PrEP is: an HIV prevention intervention. In this respect, it is a remarkable success. Routine prevention counseling, screening, and treatment of STDs are important components of PrEP service delivery. This Kaiser report, although small in numbers, suggests that we should do the same for HCV.

—Andrew Reynolds

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**What is the role of HIV itself and the risk of HCV acquisition from sex?** It certainly makes sense that a weaker immune system can make you more vulnerable to HCV.

**For more information** about hepatitis C and one-on-one support, call the HELP-4-HEP phoneline at (877) 435-7443.

**See** “Can Hepatitis C Be Sexually Transmitted?” in the November + December 2014 issue of PA.

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**In studies of HIV-positive men who have been diagnosed with HCV through sexual transmission, several risk factors have been identified:**

- condomless receptive anal sex
- group sex
- fisting
- non-injection drug use during sex
- presence of an STD
- limited awareness of your partner’s HCV status