



Viral Hepatitis and Co-infection with HIV

What is viral hepatitis?

Hepatitis is characterized as irritation and swelling of the liver, most commonly caused by a viral infection.¹ Hepatitis can interfere with the liver’s many essential life functions, including processing nutrients, filtering the blood of toxins and waste, and supporting immunity.² The 3 most prevalent types of viral hepatitis are Hepatitis A, B, and C.³

What are symptoms of viral hepatitis and how is it diagnosed?

Many people living with viral hepatitis do not exhibit symptoms. When symptoms are experienced they may appear flu-like, including fever, nausea, fatigue, vomiting, loss of appetite, and joint pain. Other possible symptoms include dark-colored urine, grey-colored stool, and jaundice.⁴ Because many of these symptoms overlap with other diseases and health conditions, all viral hepatitis types must be diagnosed using a blood test.² If HBV or HCV become chronic, they can sometimes lead to cirrhosis (scarring of the liver), end-stage liver disease, and/or liver cancer.²

Are men who have sex with men (MSM) at greater risk for viral hepatitis?

Gay men and other men who have sex with men (MSM) are at risk for contracting and transmitting Hepatitis A, B, and C. The opposite table outlines the potential modes of transmission for MSM:

Virus type	Potential modes of transmission
Hepatitis A (HAV)	<ul style="list-style-type: none"> • Modes relevant to MSM: Transmission via fecal matter through anal-oral sexual transmission (eg, “rimming”) or contact with fingers and objects that have been near the anus of the infected person.²⁻⁴ • Other modes: Contaminated food and/or water.²⁻⁴
Hepatitis B (HBV)	<ul style="list-style-type: none"> • Modes relevant to MSM: Transmission through semen or blood via unprotected anal sex. Hepatitis B is much more infectious than HIV and more easily transmitted through sexual activity.²⁻⁴ Although there is no scientific proof that hepatitis B can be transmitted through oral sex, oral transmission is believed to be possible because the virus is so infectious. • Other modes: Unsafe medical injections and drug injection; from mother to child (perinatal).²⁻⁴
Hepatitis (HCV)	<ul style="list-style-type: none"> • Modes relevant to MSM: Transmission through blood-blood contact. Although HCV is believed to be spread through sexual contact, we do not know how frequently this occurs.² Additional factors believed to increase risk of sexual transmission include unprotected anal sex, group sex, fisting, and cocaine/methamphetamine use.²⁻⁴ • Other modes: Most transmission occurs from injection drug use. Other possible modes include blood transfusion, unsafe medical injections, from mother to child (perinatal), and cocaine use with shared, non-sterile equipment.^{2,6}

How common is infection worldwide?

It is estimated that 1.4 million people globally are infected with HAV every year; however, it is likely that this number is only a fraction of the true burden of infection, given that HAV often goes unreported or remains asymptomatic. In most healthy adults, the body rids itself of HAV without medical treatment and the virus does not cause serious illness.⁶ Once the body eliminates HAV—with or without treatment—a person cannot get re-infected. HAV-related deaths are rare.⁴

HBV and HCV are associated with more serious illness. Approximately 2 billion people have been infected by HBV and over 400 million are chronically infected. Similar to those with HAV, most healthy adults can clear HBV from their bodies without medication.⁷ However, about 6%–10% of adults develop chronic infections, which can lead to serious liver problems and death if left untreated.⁸ The burden of disease for HCV is also high, with infection rates estimated at about 180 million worldwide. Unlike those infected with HBV, a larger proportion of people infected with HCV progress to chronic infection. HCV is often labeled a “silent killer,” as severe complications (eg, cirrhosis) can take 20–30 years to surface and may be severe by the time HCV is diagnosed.⁴

How are MSM affected by viral hepatitis?

Gay men and other MSM are disproportionately affected by HAV, HBV, and HCV. In the United States, MSM account for an estimated 10% of new HAV infections and 20% of new HBV infections.⁹ Research highlights that MSM who engage in unprotected anal sex while experiencing skin tearing and/or genital ulcer disease (eg, herpes lesions) are at greater risk for HCV.¹⁰

What treatments are available for viral hepatitis?

The following table summarizes the available treatments and preventative vaccines available for viral hepatitis. Vaccines—available for both HAV and HBV—serve as the best possible method for prevention.²

What is viral hepatitis and HIV co-infection?

People living with HIV (PLHIV) who also have HAV, HBV, or HCV may suffer from complications due to co-infection. People co-infected with HIV and HAV may experience more severe symptoms of HAV and longer recovery times.¹³ Similarly, PLHIV who have chronic HBV tend to have higher levels of HBV in their blood and are at increased risk for cirrhosis and other late-stage liver disease. HBV co-infection is common among PLHIV, with 70%–90% of PLHIV in the United States showing evidence of past or active HBV infection.¹⁴ Worldwide, it is estimated that approximately 5%–20% of PLHIV are also living with HBV or HCV.¹⁵

HCV co-infection affects about 25% of PLHIV in the United States. Negative health impacts of HIV/HCV co-infection are similar to those of HIV/HBV co-infection.² Previously, sexual transmission of HCV was thought to be rare; however, new research shows that HIV co-infection may increase the risk of HCV transmission among MSM. Because HIV/HCV co-infection leads to higher HCV levels in blood, it may increase risk of HCV transmission to sexual partners.¹⁶ Moreover, immune system complications related to HIV make it more difficult

Virus Type	Vaccine Available	Treatment available
Hepatitis A (HAV)	Yes	<ul style="list-style-type: none">• No specific treatment exists for HAV.¹¹• Recovery requires rest, abstaining from alcohol, and coping with nausea until the body eliminates the virus.
Hepatitis B (HBV)	Yes	<ul style="list-style-type: none">• Standard of care is treatment using antiviral medications.⁴• HBV can require lifelong management if it becomes chronic.⁴
Hepatitis C (HCV)	No	<ul style="list-style-type: none">• Medications are available and can cure those living with HCV (lack of detectable viral levels); although relapse and re-infection is possible.⁴• Many HCV medications are prohibitively expensive; one of the newer medications on the market costs ~\$50,000 USD for a 12-week treatment.

for individuals with viral hepatitis to clear it from their bodies. Hence, viral hepatitis (B and C) in people co-infected with HIV is more likely to become chronic and progress more quickly into serious liver conditions.⁶

What are the recommendations for MSM regarding hepatitis and hepatitis co-infection?

In the United States, it is recommended that all MSM be vaccinated for HAV and HBV.² Furthermore, it is recommended that MSM be screened and tested for chronic HBV on an annual basis. Testing for HCV is recommended only for MSM who engage in high-risk sex (eg, unprotected anal sex with multiple partners) and/or MSM who are living with HIV.²

On a global level, guidelines for viral hepatitis and MSM are not widely available, as few studies outside the Global North have been conducted on this issue. However, general viral hepatitis programs vary greatly from country to country depending on resources available for addressing the disease.¹

What is needed to address hepatitis co-infection on a population level among MSM?

Given that MSM are disproportionately affected by viral hepatitis and that the long-term health effects of HBV and HCV contribute to high morbidity and mortality among MSM, more efforts are needed to address hepatitis among MSM. Global advocates, donors, program managers, and policymakers can mobilize to support the following activities:

- Provide vaccination for HAV and HBV as part of a minimum HIV prevention and treatment service package for MSM: As comprehensive HIV prevention approaches and treatment are rolled out and targeted to MSM, HAV and HBV vaccinations should be integrated as part of a minimum service package.¹⁷

¹For more information on viral hepatitis and global policy, please see the report developed by the World Hepatitis Alliance at: http://worldhepatitisalliance.org/Libraries/Campaign_Materials/Viral_Hepatitis_Global_Policy.sflb.ashx. Accessed September 14, 2012.

- Authorize and support better coordination of medical treatment and counseling to improve access to HBV and HCV testing and treatment for MSM: HBV and HCV screening and treatment should be included as part of the minimum MSM service package. This may entail a stronger referral network across health facilities as well as a push for stronger screening and testing policies worldwide.¹⁸
- Improve education, training, and skills of health professionals in the detection and control of viral hepatitis: Health professionals working with MSM need to be provided training and education around viral hepatitis and co-morbidity of HIV. This is especially important given recent research highlighting the emerging new mode of sexual transmission of HCV.¹⁹
- Mobilize MSM communities to raise awareness about viral hepatitis and HIV co-infection: MSM communities will require resources and capacity building to develop and mobilize new and innovative public health prevention models to educate their own communities about viral hepatitis and HIV co-infection.²⁰
- Advocate for affordable HCV medications: Current costs for lifesaving medications to treat HCV are prohibitive and create extreme barriers to access, especially in low- and middle-income countries. Both MSM and non-MSM communities, as well as national governments and multilateral agencies such as the World Health Organization, must push pharmaceutical companies to reduce their prices to an affordable level.²¹

Conclusion

This brief serves as a starting point to ensure that hepatitis/HIV co-infection is part of the global conversation about the wellness of gay men and other MSM. Despite the disproportionate burden of disease on MSM and the deleterious health consequences of viral hepatitis, there is still relatively low awareness and understanding of the disease among MSM communities and global health donors. In light of new funding streams to support comprehensive HIV prevention and treatment targeting gay men and other MSM, greater efforts are needed to support and integrate viral hepatitis into global HIV programming and policy efforts.

REFERENCES

- 1 PubMed Health. <http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0002139>. Published November 2011. Accessed September 11, 2012.
- 2 US Centers for Disease Control and Prevention. Viral hepatitis: information for gay/bisexual men. <http://www.cdc.gov/hepatitis/Populations/PDFs/HepGay-FactSheet-BW.pdf>. Published June 2010. Accessed September 11, 2012.
- 3 World Health Organization. Health Topics: Hepatitis. <http://www.who.int/topics/hepatitis/en/>. Accessed September 11, 2012.
- 4 Healthcare Siemens. An overview of viral hepatitis. http://healthcare.siemens.com/siemens_hwem-hwem_sxa_websites-context-root/wcm/idc/groups/public/@global/@lab/documents/download/mdaw/mtu5/~edisp/an_overview_of_viral_hepatitis-00046379.pdf. Accessed September 12, 2012.
- 5 AVERT. Oral sex. <http://www.avert.org/oral-sex.htm>. Accessed September 12, 2012.
- 6 San Francisco City Clinic. Hepatitis. <http://www.sfcityclinic.org/stdbasics/hepatitis.asp>. Accessed September 12, 2012.
- 7 Hepatitis B Foundation. General Information: FAQ. http://www.hepb.org/patients/general_information.htm. Accessed September 12, 2012.
- 8 US Centers for Disease Control and Prevention. Hepatitis B information for the public. <http://www.cdc.gov/hepatitis/b/bfaq.htm>. Accessed September 12, 2012.
- 9 US Centers for Disease Control and Prevention. Viral hepatitis and men who have sex with men. <http://www.cdc.gov/hepatitis/Populations/msm.htm>. Accessed September 12, 2012.
- 10 The Body. Ask the experts about hepatitis and HIV coinfection. <http://www.thebody.com/Forums/AIDS/Hepatitis/Q179078.html?ic=2003>. Accessed September 12, 2012.
- 11 Mayo Clinic. Hepatitis A. <http://www.mayoclinic.com/health/hepatitis-a/DS00397/DSECTION=treatments-and-drugs>. Accessed September 13, 2012.
- 12 Hepatitis Central. New hepatitis C drug has steep price tag. http://www.hepatitis-central.com/mt/archives/2011/05/new_hepatitis_c_7.html. Published May 27, 2011. Accessed September 13, 2012.
- 13 Project Inform. Hepatitis A and HIV. <http://www.projectinform.org/publications/hepatitisa>. Published February 17, 2011. Accessed September 13, 2012.
- 14 University of California – San Francisco, HIV Insite. HIV and hepatitis B co-infection. <http://hivinsite.ucsf.edu/InSite?page=kb-05-03-04>. Published October 2010. Accessed September 13, 2012.
- 15 Alter MJ. Epidemiology of viral hepatitis and HIV co-infection. *J Hepatol*. 2006;44(suppl 1):S6–S9.
- 16 US Centers for Disease Control and Prevention, MMWR. Sexual transmission of hepatitis C virus among HIV-infected men who have sex with men, New York City, 2005–2010. *Jul 22, 2011*;60(28):945–950. (at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6028a2.htm>). Accessed September 13, 2012.
- 17 amFAR. MSM and the global epidemic: assessing PEPFAR and looking forward. [http://www.amfar.org/uploadedFiles/_amfarorg/Around_the_World/IBPepfar\(1\).pdf](http://www.amfar.org/uploadedFiles/_amfarorg/Around_the_World/IBPepfar(1).pdf). Accessed on September 14, 2012.
- 18 USAID. Interventions with most at risk populations in PEPFAR countries: lessons learned and challenges ahead. *Aidstar-One*, http://www.aidstar-one.com/sites/default/files/AIDSTAR-One_MARPS_Report_final_0.pdf. Published January 2010. Accessed September 14, 2012.
- 19 Metheny, N. Silent transmission of a hidden epidemic: sexual transmission of HCV in HIV+ MSM. December 13, 2011.
- 20 Office of Representative Cassidy. Press Release. <http://cassidy.house.gov/press-release/representatives-cassidy-and-honda-introduce-the-viral-hepatitis-testing-act-of-2011>. Accessed on September 14, 2012.
- 21 Open Society Foundations. Hepatitis C: a viral time bomb. <http://www.soros.org/voices/hepatitis-c-viral-time-bomb>. Published July 2011. (Accessed September 18, 2012).