



High-Impact HIV Prevention
Capacity Building Assistance
for Healthcare Organizations

HIV/HEPATITIS C VIRUS CO-INFECTION INFOBRIEF

Human Immunodeficiency Virus (HIV)/ Hepatitis C Virus (HCV) co-infection is a growing epidemic^[1-4]. Understanding prevention and treatment options has become even more essential as HIV care transitions to a chronic disease management model.

The standard of care states that all HIV-positive individuals be screened for HCV at the onset of their HIV diagnosis^[13-14]. Organizations must know their patients' HIV and HCV statuses in order for these patients to receive regular care and treatment.

Annual screenings are recommended for HIV-positive patients who test negative for HCV but are at high-risk for co-infection^[13-14]. Primary health-care providers and other clinicians should have knowledge of the most up-to-date guidelines for HCV screening and testing in HIV positive patients. These can be found at www.aidsinfo.nih.gov/guidelines^[13-14].

This infobrief is designed to help increase health care organization staffs' knowledge on the important issues involving HCV, including the science, screening recommendations, and treatment options. If your organization requires additional training or TA to help make sure all staff is up-to-date on this topic please visit our website at HIVCBACenter.org

The training staff at CAI can work with providers to make sure they ask the appropriate questions to

- 1) determine symptoms, and
- 2) evaluate behavior and lifestyle choices that can place an individual at high-risk for co-infection^[5, 7-8].

The best prevention methods for HCV/HIV co-infection include education and early screening^[1, 7, 13, 21]. CAI can help organizations achieve both.

For more resources and tools to increase your organization's knowledge on HIV/HCV Co-infection detection, management and treatment, contact us at info@caiglobal.org.

Health care organizations can also request free trainings to help staff take accurate sexual histories and conduct comprehensive risk screenings.

Visit HIVCBACenter.org to request trainings.

What is HIV/Hepatitis C Virus Co-infection?

Human Immunodeficiency Virus (HIV)/ Hepatitis C Virus (HCV) co-infection is a growing epidemic^[1-4].

Both HIV and HCV are transmitted through direct contact of bodily fluids from an infected individual, often through unprotected sexual contact or the sharing of injection drug needles^[5,6].

Although transmission of both viruses is similar, HIV attacks the immune system, while HCV attacks the liver,^[5].

Together, the infections can lead to serious health complications with significant morbidity and mortality rates^[6].

In fact, HCV is the leading cause of non-AIDS related deaths in HIV-infected individuals in regions with access to combination antiretroviral therapy (cART)^[1].

HIV can more than triple the rate of liver-related diseases and deaths in individuals with HCV^[5].

When compared to mono-HCV infected individuals, HCV/HIV co-infected individuals have shown increased liver toxicity, an increase in HCV viral load, and increased liver fibrosis progression leading to cirrhosis^[2, 7, 8-9].

Specifically, a cohort study from 1997-2010 found that HIV/HCV co-infected patients had an 80% higher rate of liver cirrhosis than mono-HCV infected individuals^[10].

In collaboration with





MAGNITUDE OF HIV/HCV CO-INFECTION

In the past decade, the number of HIV/HCV co-infected individuals increased ^[7]. Of the estimated 35 million HIV-positive individuals worldwide, approximately 7-million (20%) are co-infected with HCV ^[1-5]. In the United States alone, an estimated 240,000 (30%) of the 800,000 HIV-positive individuals are co-infected with HCV^[1-5].

Co-infection is more common in men than women. Specifically, the rising co-infection rates are greatly seen in populations of middle-aged, white, non-Hispanic men who have sex with men ^[7]. Another population of concern is injection drug users (IDU). About 80% of HIV positive IDUs are co-infected with HCV ^[5].

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BEST PRACTICES FOR HIV/HCV CO-INFECTION DETECTION

Primary health-care providers (PCPs) should screen patients for HCV at the onset of HIV diagnosis ^[13-14].

In addition, PCPs should provide annual screenings for patients who test negative for HCV at the onset of HIV diagnosis since they are at high-risk of co-infection ^[13-14]. PCPs and other clinicians should review the most up-to-date guidelines for HCV screening and testing in HIV-positive patients. These can be found at www.aidsinfo.nih.gov/guidelines ^[13, 14].

Providers should ask appropriate questions to 1) determine symptoms, and 2) evaluate behavior and lifestyle choices that can place an individual at high-risk of co-infection ^[6,13-14]. Although less than 20% of co-infected individuals show physical symptoms, clinicians should ask about any symptoms within the last 30 days ^[5, 14].

These may include low-grade fever, nausea, jaundice, dark urine, and/or vomiting ^[14]. Clinicians should also ask about high-risk behaviors and lifestyle practices, such as the sharing of injectable or non-injectable drugs, unprotected sex, anal sex, and/or use of sex toys ^[5, 7, 13-14].

The Center for Disease Control and Prevention (CDC) recommends a sensitive enzyme immunoassay (EIA) test to detect HCV antibodies ^[13-16]. After a positive EIA test, providers should perform an HCV RNA qualitative test, such as a nucleic acid HIV test, to confirm the diagnosis ^[13-16].

Because acute HCV infection (the first three months of infection) can cause false-negatives, the CDC recommends a liver function test to assess any elevation of alanine aminotransferase or aspartate aminotransferase, both of which indicate liver damage ^[7, 14-16].



BEST PRACTICES IN HIV/HCV CO-INFECTION MANAGEMENT AND TREATMENT MEASURES

Quality standards for managing and monitoring HIV/HCV co-infection have emerged throughout primary care settings, including controlling infection rates by clearing the virus in many individuals ^[5-7, 14-16]. Findings suggest that liver fibrosis progresses rapidly among those with low CD4 counts, so treatment is often more vital to pursue after confirmation of dual diagnosis ^[6, 17].

The National Institute of Health recommends anti-retroviral therapy (ART) for co-infected individuals to reduce liver damage, enhance immune function and minimize HIV-induced inflammation ^[14]. A 2014 study found an 80% increase in the rate of liver cirrhosis amongst HIV/HCV co-infected patients not on ART compared to 60% in patients on ART ^[10].

Although some studies show positive outcomes, optimal treatment outcomes remain complex due to adherence and tolerability ^[3, 4]. Patients often find it challenging to adhere to the frequent medical regime and to attend appointments due to personal and structural barriers ^[6, 17].

Recently, the FDA approved a new drug combination (Sofosbuvir/Ledipasvir) with promising results for co-infected individuals. A small trial from the Gilead Sciences says that [this combination pill] is poised to boast a 100 percent success rate in curing [HCV] among those co-infected with HIV ^[1]. Patients treated with this pill in combination with different types of ART show no serious adverse side effects ^[1]. While ongoing clinical trials and drug research are necessary, future treatment for co-infected individuals looks promising.

BENEFITS OF HIV/HCV CO-INFECTION EARLY IDENTIFICATION AND TREATMENT

The best prevention methods for HCV/HIV co-infection include education and early screening ^[1, 7, 13, 21-22]. Controlling infections and improve outcomes add years to HIV-positive individuals' lives ^[1, 8, 21, 23]. In fact, a 2006 study found that the rate of death was higher in HIV patients that were not screened for HCV (52.4/1000 patient-years) than in those who were (22.9/1000 patient-years) ^[22].

The CDC and NIH recommend that co-infected individuals should consult a health provider with expertise in managing treatments for co-infections ^[5-6, 14]. Proper management should explore the most feasible options given past medical history and stage of disease progression.

Gaining strides towards optimal prevention and treatment requires continuing education for clinicians on co-infection screening and treatment guidelines ^[7, 13, 22].



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