

HIV CareLink

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Primary Care Providers

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Hepatitis C and HIV Co-Infection

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Hepatitis and HAART-induced hepatotoxicity are common issues that require thoughtful monitoring and intervention during the care of the HIV-infected patient. Elevated transaminases can be commonly seen with use of PIs, NNRTIs, other drugs used in the care of HIV patients as well as with immune reconstitution. Hepatic disease has become a major contributor of mortality in HIV. Approximately 30% of HIV-infected individuals are co-infected with HCV. While HCV does not appear to accelerate HIV-related mortality or progression, HIV clearly accelerates the progression of HCV-related fibrosis and cirrhosis¹.

Diagnosis and Assessment of Activity

- HCV ELISA antibody screening should be done in all HIV-infected patients
- + HCV Ab means that individual was infected at some point, but does not say anything about active or chronic infection
- False negative HCV Ab can very rarely occur in very advanced HIV² or in those just recently infected before antibody levels are detectable
- There is no correlation between transaminase levels and disease severity
- HCV RNA quantitative PCR should be done in all who are HCV Ab+ and in those with a suspected false negative HCV Ab (it may take more than 3-6 months to seroconvert³)
- A detectable HCV RNA PCR means there is active hepatitis
- Genotype of HCV can assist in predicting treatment outcome

Counseling Those with HIV/HCV Co-Infection

- Stop all alcohol ingestion
- Rule out other potential causes of liver disease
- Discuss how HCV course is worse in HIV/HCV co-infected, HCV treatment possibilities, and potential drug toxicities
- Vaccinate all co-infected against HAV and HBV if seronegative
- Discuss modes of transmission of HCV to prevent further transmission

Assessment for Chronic HCV Complications

- Sonography can assess for fatty liver, cirrhotic changes, and screen for hepatocellular carcinoma
- Alpha-fetoprotein (AFP) alone has a relatively low sensitivity for detection of hepatocellular carcinoma, but can be more useful if combined with sonography⁴
- It is advocated, by some, that patients are screened by AFP measurements and sonography every 6 to 12 months. The cost-effectiveness of this strategy needs to be analyzed further⁵.
- Liver biopsy is the gold standard in evaluating fibrosis and cirrhosis, though decision to undergo liver biopsy is individualized

Goals of Treatment of Chronic HCV in the HIV-infected Patient

- Sustained virologic response (SVR)
 - No detectable HCV RNA PCR 6 months after completion of interferon-based therapy
 - Associated with reduced progression to end stage liver disease and hepatocellular cancer
- Improved tolerance and effectiveness of HAART

PEG IFN + ribavirin Treatment Outcomes

- ~30-70% SVR in genotype 1 & 4 (~75% of population)
- >80% SVR in genotype 2 & 3 (~25% of population)

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ABOUT US

The Florida/Caribbean AIDS Education and Training Center provides HIV education, consultation, and resource materials to health care providers in Florida, Puerto Rico and the US Virgin Islands.

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Prioritizing Treatment of HIV and HCV in Co-infected

- Can be very complex and must involve screening for contraindications, degree of liver fibrosis, immune status (ie CD₄), and adherence issues
- If CD₄ < 350 (especially if HIV RNA PCR >100,000), most would treat HIV first
- If CD₄ > 350 (especially if fibrosis is advanced), most would treat HCV first as it may respond better to treatment and would avoid potential drug interactions
- If treating both at the same time, must be aware of interactions with HAART:
 - ddI levels are markedly increased with ribavirin⁶
 - Bone marrow suppression a common effect with ribavirin and ZDV⁷
 - No concern with NNRTIs and Hepatitis C treatment

Contraindications to HCV treatment

- Major
 - Pregnancy, current or expectant
 - Severe depression or psychiatric disease
 - Decompensated cirrhosis prior to or during treatment
 - Significant ischemic cardiovascular disease
 - Malignancy
 - Hemoglobinopathies / refractory anemia
 - Significant asthma or lung disease
 - End stage renal disease
- Relative
 - Untreated depression or psychiatric disease
 - Alcohol or recreational drug abuse
 - Uncontrolled diabetes mellitus or thyroid disease
 - Seizure disorder
 - Concomitant active infections
 - Poor adherence

Prescreening Tests before Treatment

- Pregnancy test
- HAV and HBV serology
- TSH
- ANA
- Ferritin, iron, transferrin saturation
- CBC, basic metabolic panel, hepatic function panel
- Consider sonography and liver biopsy

Treatment of HCV in HIV

- PEG IFN alpha-2a (Pegasys[®], fixed 180 mcg) or 2b (Pet-Intron[®], 1.5 mcg/kg) subcutaneously every week + ribavirin 400 mg po bid (up to 1200 mg per day in divided doses in genotype 1 & 4) for 48 weeks
- If HCV RNA PCR at 12 weeks is undetectable, then continue full therapy for 48 weeks
- If undetectable HCV RNA PCR at 12 weeks is not achieved, then treatment should be discontinued especially if side effects are significant (can continue IFN alone for anti-fibrotic effect only)
- At 48 weeks, if HCV RNA PCR is undetectable, repeat it at 72 weeks to see if SVR is achieved

Monitoring of Therapy

- CBC at 2 weeks, then every 4 weeks
- Basic metabolic panel and hepatic function panel every 4 weeks
- TSH every 12 weeks
- HCV RNA PCR at 12, 48, and 72 weeks

- Need vigilance with mental health as there may be a need to stop therapy if patient decompensates or becomes suicidal
- G-CSF should be used to maintain ANC > 750 cells/mm³ prior to considering reduction in IFN dose
- Epoetin alfa should be used to maintain Hb of 10-12 g/dL, per FDA Safety Alert (AETC HIV CareLink Vol.7 - Issue 17), and would only reduce the dose of ribavirin if this is not effective and Hb declining < 10 g/dL

Treatment Failures

- Defined as HCV RNA PCR detectable at 12 weeks of therapy or redetection of HCV RNA PCR at any point thereafter
- Can treat with interferon monotherapy to complete 48 weeks if goal is to reduce fibrosis only
- Recurrence of HCV RNA PCR at the end or after 48 week therapy can be treated with a second 48 week course to reattempt eradication
- Certain liver transplant centers are developing experience in transplantation of HCV/HIV patients, though experience is very limited. The University of Miami/Jackson Memorial Medical Center (UM/JMMC) is home to one of the leading liver transplant programs in the southeastern United States, and serves as a referral center for patients from the U.S., Latin America, the Caribbean, and Canada. For information about the University of Miami Liver Transplant Program, call 305-355-5160.
- Optimal management of treatment failures still being investigated
- Other targets to HCV in development include HCV protease inhibitors, helicase and polymerase inhibitors, and drugs targeting the internal ribosomal entry site and small interfering RNAs

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FLORIDA DEPARTMENT OF HEALTH (DOH) ISSUES NOTICE OF CHANGE IN TREATMENT OF GONORRHEA

Due to fluoroquinolone-resistance (11-fold increase since 2001) identified by the CDC Gonococcal Isolate Surveillance Project in the US, use of fluoroquinolones for treatment of gonorrhea (GC) is not advised. The recommended treatment is:

- Ceftriaxone 125 mg IM in a single dose or cefixime 400 mg orally in a single dose PLUS Chlamydia treatment if Chlamydia not ruled out.
- Ceftriaxone 125 mg IM single dose is treatment of choice for pharyngeal GC and 1 gm IM or IV every 24 hours for disseminated gonococcal infection.
- For more information, refer to the Bureau of STD Prevention and Control of the Florida Department of Health
http://www.doh.state.fl.us/Disease_ctrl/std/index.html

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