

HBV 101 MEDICATIONS FOR TREATMENT OF CHRONIC HEPATITIS B

| Drug | Dose | FDA approved to treat CHB/HIV coinfection | Active Against HIV | Comments |
|---------------------|---|--|---------------------------|--|
| IFN-alpha | 5 MU daily or 10 MU 3X/wk | No | No | Few studies show success. Perhaps better with high ALT levels and CD4 lymphocyte count >350 cell/mm ³ . |
| Pegylated IFN-alpha | 180 ug/wk by injection for 6-12 mo. | No | Yes* | Better than lamivudine in one study of HBV HBeAg-negative patients w/ CHB. ** |
| Lamivudine (3TC) | 300 mg daily in HIV-infected patients minimum treatment duration of 12 mo. | No | Yes | Resistance rate of 20-25%/yr among HBV isolates from HIV-infected patients. Do not include in HAARRT as the only HBV active agent. |
| Emtricitabine (FTC) | 200 mg daily, optimal duration unknown. | No | Yes | Similar in structure to lamivudine, so expected have same rates of resistance. |
| Adefovir | 10 mg daily, optimal duration unknown | No | No | Concerns about HIV resistance emerging to tenofovir may limit use. |
| Tenofovir (TDF) | 300 mg daily, optimal duration unknown | No | Yes | Recommended use as part of a HIV-replication-suppression regime. |
| Entecavir | 0.5 mg daily in lamivudine-naïve patients. 1.0 mg in lamivudine-experienced; optimal duration unknown | Yes | No | No resistance during first 48 wks in treatment naïve patients. Resistance at 48 wks in HBV isolates from 7% of patients with lamivudine-resistant HBV. |

Modified from: Thio CL, Sulkowski MS, Thomas D. Treatment of Chronic Hepatitis B in HIV-Infected Persons: Thinking Outside of the Black Box. *Clin Infect Dis*. 2005;41:1035-40.

* Anti-HIV activity was noted in an HIV-hepatitis C virus coinfection trial - Torriani FJ, Rodriguez-Torres M, Rockstroh JK, et al. Peginterferon alfa-2a plus ribavirin for chronic hepatitis C virus infection in HIV-infected patients. *N Engl J Med*. 2004;351:438-50.

** Marcellin P, Lau GKK, Bonino F, et al. Peg-interferon alfa-2a (40KDa) (Pegasys) monotherapy is more effective than lamivudine monotherapy in the treatment of HBeAg negative chronic hepatitis B: 72 week results from a phase III, partially double-blind study of Pegasys alone vs. Pegasys plus lamivudine vs. lamivudine [abstract 95]. In: Program and abstracts of the 39th Meeting of the European Assoc. of the Study of Liver Disease (Berlin). Geneva, Switzerland: Keyes International, 2004.