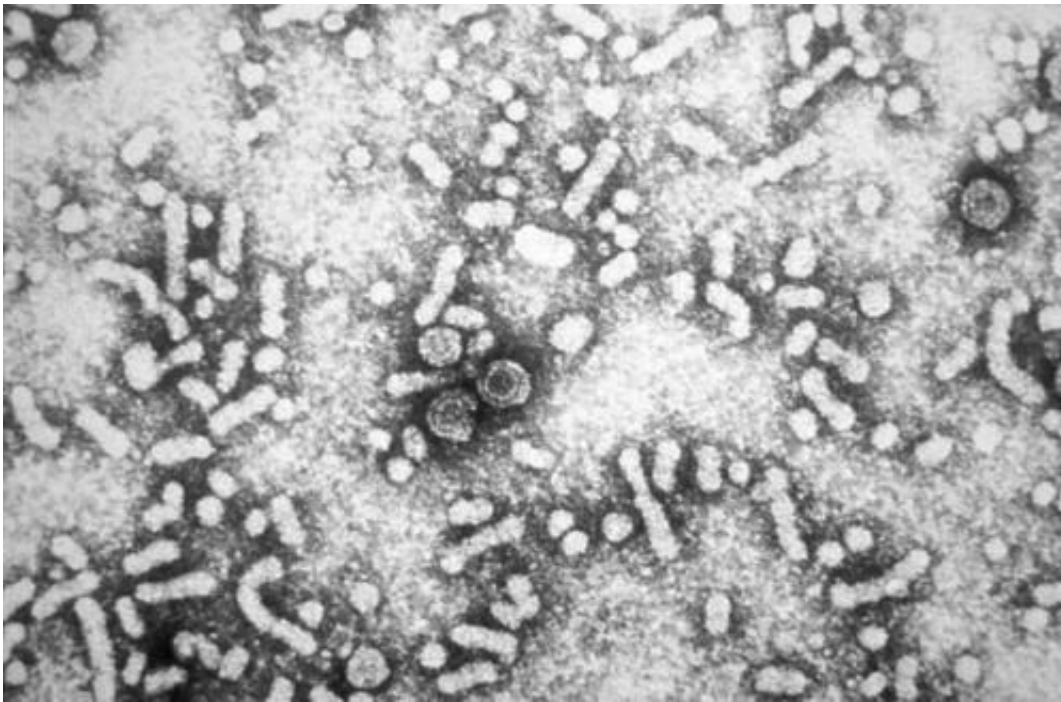


HIV drugs provide added benefit of protecting against hepatitis B virus

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Electron micrograph of hepatitis B virus. Credit: Centers for Disease Control and Prevention

In a study involving 2,400 men who have sex with men who were also enrolled in the Multicenter AIDS Cohort Study, researchers report that men with HIV who were treated effectively with HIV therapy were the least likely (80 percent less likely) to get infected with HBV over a median follow-up of approximately 9.5 years.

Previous studies of individuals with HIV have suggested that HIV drug regimens that included drugs active against hepatitis B virus (HBV) can decrease the risk of infection with the liver-damaging HBV. Now, in a study involving 2,400 [men](#) who have sex with men who were also enrolled in the Multicenter AIDS Cohort Study, researchers report that men with HIV who were treated effectively with HIV therapy—defined as no detectable HIV virus in the blood—were the least likely (80 percent less likely) to get infected with HBV over a median follow-up of approximately 9.5 years, compared with men with HIV who were not on HIV therapy or men who had detectable HIV virus while on HIV therapy. In fact, the men on effective HIV therapy had the same risk of HBV infection as the men who did not have HIV.

A report of the finding, published in the October issue of *Annals of Internal Medicine*, is based on analysis of information on men who have sex with men who were not infected with HBV when they first enrolled in the Multicenter AIDS Cohort Study, which began in 1984 in four U.S. cities, 12 years before effective HIV therapy became available.

"What this means to us is that effective HIV therapy appears to restore an impairment in the immune response that protects someone with HIV from acquiring hepatitis B infection," says senior author Chloe Thio, M.D., professor of medicine at the Johns Hopkins University School of Medicine.

This study also confirmed what researchers have known for some time: that vaccination against HBV protects individuals from acquiring a new HBV infection regardless of HIV infection status, Thio says.

"We found a 70 percent reduction in new HBV infections in the men who reported receiving at least one dose of HBV vaccine," says lead author Oluwaseun Falade-Nwulia, M.D., M.P.H., an assistant professor of medicine at the Johns Hopkins University School of Medicine. Sadly,

she reports, "vaccination rates, even in high-risk individuals, such as men who have sex with men, remain low, and we need to do a better job of encouraging vaccination."

At the start of the study in 1984, 41 percent of men with HIV had been vaccinated against HBV, compared with 28 percent of men without HIV. The proportion of men who received more than one dose of HBV vaccine increased to 60 percent by the end of the study period in 2013—67 percent versus 58 percent among men with and without HIV, respectively. According to the Centers for Disease Control and Prevention, adults getting the HBV vaccine should get three doses, all within six months.

While the findings highlight the benefits of effective HIV therapy in those with HIV that go beyond suppressing the virus, the researchers say, without increased HBV prevention in men who have sex with men, control of the epidemic in this population cannot be achieved. Approximately 15 to 25 percent of new HBV infections in the United States occur in men who have sex with men.

Thio and Falade-Nwulia say they plan to study next whether effective HIV therapy also reduces the risk of developing a chronic hepatitis B [infection](#) and to learn which parts of the immune system are being restored by effective HIV [therapy](#) to protect against HBV.

Provided by Johns Hopkins University School of Medicine

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