

Tenofovir Linked to Mild Decrease in Kidney Function, but Not Kidney Disease

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People taking a regimen that contains tenofovir (found in [Viread](#), [Truvada](#) and [Atripla](#)) were more likely to experience mild decreases in [kidney function](#) over 144 weeks of treatment than people taking other antiretrovirals (ARVs), but they were no more likely to have serious kidney problems, according to a [study published](#) in the October 18 issue of *AIDS*.

Although clinical trials have not found higher rates of kidney disease among patients using tenofovir, several large cohort studies have found higher rates of mild reductions in a measure of kidney function called the glomerular filtration rate (GFR)—a sign of possible kidney problems—in tenofovir-treated patients compared with those using other nucleoside/nucleotide reverse transcriptase inhibitors.

To better determine tenofovir's impact on kidney function, Joel Gallant, MD, from the Johns Hopkins University School of Medicine in Baltimore, and his colleagues combined and reanalyzed data from two Gilead Sciences-sponsored clinical trials, called 903 and 934. The analysis included 1,111 patients; 556 received an ARV regimen containing tenofovir, and 555 patients received a regimen containing either [Zerit](#) (stavudine) or [Retrovir](#) (zidovudine).

Dr. Gallant's team found that the patients taking tenofovir were more likely to have small decreases in GFR, while those taking either Zerit or Retrovir were more likely to experience small increases. Generally, the decreases in GFR in patients taking tenofovir occurred within the first 96 weeks of treatment and did not progress to serious kidney disease. The difference in GFR between those on tenofovir versus other treatments was statistically significant, meaning that the difference was too large to have occurred by chance. The decrease in GFR in those on tenofovir, however, was so small that it is unlikely to cause symptoms or progress to kidney disease, and people on tenofovir were no more likely to experience serious kidney toxicity or to stop treatment due to kidney troubles than people taking Zerit or Retrovir.
