Switch From Viread to Vemlidy Tied to Better Bone, Kidney Safety After 1 Year

Among those who switched their hep B treatment, Vemlidy may also be tied to a higher chance of ALT liver enzyme normalization.

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For those with hepatitis B virus (HBV), taking Gilead Sciences' Viread (tenofovir disoproxil fumarate, or TDF) for two years and then switching to Vemlidy (tenofovir alafenamide, or TAF) was associated with improvements in measures of kidney and bone health one year after the switch.

Presenting their findings at the Annual Meeting of the American Association for the Study of Liver Diseases in San Francisco (The Liver Meeting), researchers conducted two identically designed studies that enrolled a cumulative 1,298 people with HBV, including those who were HBeAg negative and HBeAg positive.

The study members were randomized on a double-blinded basis (meaning neither the investigators nor the participants knew who fell into which treatment group) to start taking Vemlidy (873 people) or Viread (425 people). After 96 weeks of treatment, the study's protocol was amended to extend the double-blind treatment for an additional year.

At The Liver Meeting, researchers presented 96- to 144-week findings of the 211 people who remained on Viread on a double-blinded basis and the 180 participants who were switched from double-blinded Viread to open-label (meaning they knew which drug they were receiving) Vemlidy.

For a marker of kidney health, the study looked at changes between week 96 and 144 in creatinine clearance by Cockcroft-Gault ($eGFR_{CG}$). Those in the double-blinded Viread group experienced a median decline of 0.9 milliliters per minute in their $eGFR_{CG}$, compared with a 4.2 ml/min $eGRF_{CG}$increase among those who switched to open-label Vemlidy.

Of 186 members of the Viread group for whom data were available, participants experienced an average decline of 0.02 percent in their bone mineral density at the hip, compared with an average increase of 0.98 percent among the 155 members of the Vemlidy group for whom data were available. Forty-seven percent (87) of those in the Viread group experienced no change or an increase in bone mineral density at the hip, compared with 73 percent (113) of those in the Vemlidy group.

Of 189 members of the Viread group for whom data were available, participants experienced an average increase of 0.26 percent in bone mineral density at the spine, compared with an average increase of 2.04 percent among the 155 members of the Vemlidy group for whom data were available. Fifty-seven percent (107) of those in the Viread group experienced no change or an increase in spine bone mineral density, compared with 76 percent (118) of those in the Vemlidy group.

Eighty-four percent of those in the Vemlidy group and 88 percent of those in the Viread group had a fully suppressed hep B viral load at week 144.

Forty-five percent of those in the Vemlidy group saw their ALT liver enzymes normalize by week 144, compared with 29 percent of those in the Viread group. This difference was not quite statistically significant, however, meaning it may have been driven by chance.

To read the conference abstract, click here.
