

Tenofovir Alafenamide (TAF) as Long-Term Therapy for Chronic Hepatitis B: Is It the Best Choice?

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Chronic hepatitis B is one of the main causes of cirrhosis and hepatocellular carcinoma (HCC) worldwide. Indications of chronic hepatitis B therapy depends on three criteria, including viral load, liver enzymes, and liver biopsy results. Chronic hepatitis B is treated with either drugs from interferon class or nucleotide analogue class, such as tenofovir disoproxil fumarate (TDF), tenofovir alafenamide (TAF), and entecavir.¹ Currently, TDF is one of the most commonly prescribed medication for chronic hepatitis B due to excellent potency.² However, long-term use of TDF has been associated with decreased renal function and bone mineral density.³

Both TAF and TDF are prodrugs of tenofovir containing the same active metabolite tenofovir diphosphate (TFV-DP), which has an inhibitory effect towards DNA polymerase. However, TAF has more stability in plasma which leads to higher concentrations of TFV-DP metabolite in hepatocytes as the target cells. Other than that, TAF has lower circulating levels of tenofovir compared to therapeutic dose of TDF, giving it a better safety profile.⁴ This creates growing interest in using TAF as a more favorable long-term treatment option than TDF.

The study by Hidayat in this edition attempted to evaluate the comparison of efficacy and safety between TAF and TDF in chronic hepatitis B therapy.⁵ However, the number of studies reviewed is still relatively insufficient. It is interesting to expect future studies about this topic to conclude whether TAF can be the first option of long-term treatment for chronic hepatitis B.

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