Generic Name: Tenofovir Alafenamide

Applicable Drugs: Vemlidy®

Preferred: Entecavir (generic), Tenofovir Disoproxil Fumarate (generic)

Non-preferred: Vemlidy®

Date of Origin: 7/31/2018

Date Last Reviewed / Revised: 12/8/2023

PRIOR AUTHORIZATION CRITERIA

(May be considered medically necessary when criteria I through VI are met)

I. Documented diagnosis of one of the following conditions (A through F) and must meet ALL applicable criteria:

   A. Treatment of chronic hepatitis B (CHB) (refer to Appendix Table 1 for criteria by population)

   B. Treatment of Hepatitis B during pregnancy (not meeting criteria A) to prevent mother-to-child transmission with documentation of i and ii.

      i. HBsAg positive.

      ii. HBV-DNA level > 200,000 IU/mL.

   C. Post-liver transplantation and documentation of i or ii.

      i. HBsAg-negative liver transplant recipient who received a HBsAg-negative, antibody to hepatitis B core antigen (anti-HBc) positive graft.

      ii. HBsAg-positive liver transplant recipient with documented chronic hepatitis B infection prior to transplant.

   D. Treatment of patient with prior history of hepatitis B infection who is undergoing immunosuppression related to non-liver solid organ transplantation.

   E. Prophylactic HBV treatment in patients with a prior history of Hepatitis B receiving immunosuppressive or cytotoxic therapy within the past 12 months with documentation of i or ii:

      i. HBsAg-positive and anti-HBc-positive.

      ii. HBsAg-negative and anti-HBc-positive (receiving anti-CD20 antibody therapy [eg. rituximab] or undergoing stem cell transplantation only).

II. Age: ≥ 12 years old.

III. Documentation of treatment failure or contraindication to entecavir or tenofovir disoproxil fumarate.

IV. Treatment must be prescribed by or in consultation with a gastroenterologist, infectious disease specialist, or hepatologist.

V. Medication is prescribed in accordance with FDA labeling or current clinical practice guidelines.

VI. Refer to the plan document for the list of preferred products. If the requested agent is not listed as a preferred product, must have documented treatment failure or contraindication to the preferred product(s).

EXCLUSION CRITERIA

- N/A

OTHER CRITERIA

- Recent (within last 7 days) documented negative HIV-1/2 antigen/antibody test, unless being prescribed in combination with other antivirals as part of an HIV co-infection treatment regimen with 2 drugs having activity against HBV.

QUANTITY / DAYS SUPPLY RESTRICTIONS

- 30 tablets per 30 days

APPROVAL LENGTH

- **Authorization:** 1 year.
- **Re-Authorization:** Progress notes showing current medical necessity criteria are met and that the medication is effective.

APPENDIX

Table 1. Vemlidy Chronic Hepatitis B (CHB) Criteria and Treatment Recommendations[2]

Population	Vemlidy CHB Criteria	Treatment Recommendations
Adults (≥ 18 years old)	Documentation 1, 2 and, 3 (when applicable) AND 4, 5, OR 6: 1. HBsAg positive for ≥ 6 months. 2. Baseline HBV-DNA level. 3. Genotypic viral testing showing sensitivity and treatment history (only required for treatment-experienced patients). 4. Evidence of significant histologic disease[a] by fibrosis assessment testing[b] 5. ALT>2 times the ULN[c] AND HBV-DNA > 2,000 IU/mL (HBeAg negative) or > 20,000 IU/mL (HBeAg positive)	HBeAg positive with seroconversion to anti-HBe on NA therapy: o without cirrhosis: minimum of 12 additional months[c] o with cirrhosis: indefinite[d] HBeAg negative: indefinite[e] Decompensated cirrhosis: indefinite Persistent low-level viremia[f]: continue regardless of ALT

	6. ALT < 2 times the ULN AND HBV DNA ≤ 2,000 IU/mL (HBeAg negative) or ≤ 20,000 IU/mL (HBeAg positive) with ONE of the following risk factors: i. Age > 40 years old ii. Family history of cirrhosis or hepatocellular carcinoma iii. Previous treatment history iv. Presence of extrahepatic manifestations v. Cirrhosis	Virological breakthrough[g] on NA monotherapy[h]: Refer to Table 2
Children (12 to 18 years old)	Documentation of ALL (1 through 4) the following: 1. HBsAg positive for ≥ 6 months 2. HBeAg positive 3. ALT > 1.3 times the ULN[c] for at least 6 months 4. Measurable HBV-DNA levels.	HBeAg positive who seroconvert to anti-HBe on NA therapy: continue an additional 12 months

[a] Moderate-to-severe inflammation (A2 or A3) and/or significant fibrosis (≥F2) [b]Such as liver biopsy, FIB-4, FibroScan, Fibrotest, or Fibrosure; [c]The upper limit of normal for ALT is defined as 35 U/L for males and 25 U/L females; [d]duration and length of consolidation therapy (treatment of normal ALT levels and undetectable HBV-DNA levels) before treatment discontinuation requires risk benefit analysis of: risk for virological relapse; hepatic decompensation, liver cancer, and death; burden of continued antiviral therapy, medication costs and long-term monitoring costs, adherence, and potential for drug resistance; and patient and provider preferences.; [e]unless strong competing rationale for treatment discontinuation; [f]< 2,000 IU/mL; [g]Defined as a serum HBV-DNA level ≥ 100 IU/mL after achieving a previously undetectable level (<10 IU/mL) in a patient adherent with therapy, [h]tenofovir or entecavir.

Abbreviations: ALT, alanine aminotransferase; CHB, chronic hepatitis B; HBeAg, hepatitis B e antigen; HBsAg, hepatitis B surface antigen; NA, nucleos(t)ide analogue; ULN, upper limits of normal.

Table 2. Management of Nucleos(t)ide Analogue (NA) Antiviral Resistance[2]

Antiviral Resistance to Drug[a]	**Monotherapy[b]**	**Dual antiviral therapy[c]**
Adefovir	Entecavir, TDF, or TAF	Adefovir and entecavir
Entecavir	TDF or TAF	Entecavir and TDF or TAF OR 3TC/ TDF or TAF
Lamivudine	TDF or TAF	Lamivudine and TDF or TAF OR 3TC/ TDF or TAF
Telbivudine	TDF or TAF	Telbivudine and TDF or TAF
Tenofovir (TDF or TAF)	Entecavir	TDF or TAF and entecavir
Multidrug	TDF or TAF	TDF or TAF and entecavir

[a]Verified by genotypic testing; [b] Switching to monotherapy with a NA with a high barrier to resistance is the preferred strategy [c]When preferred therapy cannot be used, adding on another drug without cross-resistance is an alternative.

Abbreviations: 3TC, emtricitabine; TAF, tenofovir alafenamide; TDF, tenofovir disoproxil fumarate.

REFERENCES

1. Vemlidy. Prescribing information. Gilead Sciences, Inc; 2022. Accessed December 8, 2023. https://www.gilead.com/~/media/files/pdfs/medicines/liver-disease/vemlidy/vemlidy_pi.pdf?la=en
2. Terrault NA, Lok ASF, McMahon BJ, et al. Update on prevention, diagnosis, and treatment of chronic hepatitis B: AASLD 2018 hepatitis B guidance. *Hepatology.* 2018;67(4):1560-1599. doi: 10.1002/hep.29800