VEMLIDY is recommended as a preferred first-line therapy for chronic hepatitis B (CHB)[a]

Recommendations from 5 guidelines

SABA 2022[1] **USTA** 2021[2] **AATA** 2018[3]

AASLD 2018[4] **EASL** 2017[5]

Actor portrayals.

Choose VEMLIDY as your first-line CHB therapy for your appropriate treatment-naïve patients

INDICATION

VEMLIDY is indicated for the treatment of chronic hepatitis B virus (HBV) infection in adults with compensated liver disease.

IMPORTANT SAFETY INFORMATION

BOXED WARNING: POSTTREATMENT SEVERE ACUTE EXACERBATION OF HEPATITIS B

- **Discontinuation of anti-hepatitis B therapy, including VEMLIDY, may result in severe acute exacerbations of hepatitis B. Hepatic function should be monitored closely with both clinical and laboratory follow-up for at least several months in patients who discontinue anti-hepatitis B therapy, including VEMLIDY. If appropriate, resumption of anti-hepatitis B therapy may be warranted.**

Click here for full Prescribing Information for VEMLIDY, including **BOXED WARNING** on posttreatment severe acute exacerbation of hepatitis B.

AASLD, American Association for the Study of Liver Diseases; AATA, Asian American Treatment Algorithm; EASL, European Association for the Study of the Liver; SABA, Simplified Approach Hepatitis B Algorithm; USTA, United States Treatment Algorithm; TDF, tenofovir disoproxil fumarate.

[a]Other preferred first-line CHB therapies include entecavir, TDF, and peginterferon.

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For more information on guidelines

Click here to learn more about the **Simplified Approach Hepatitis B Algorithm (SABA)** recommendations for the management of CHB.

Click here to learn more about the **USTA, AATA, AASLD, and EASL** recommendations for the management of CHB.

Gilead is not responsible for the content of the site that is referred to by this link.

IMPORTANT SAFETY INFORMATION (continued)

Warnings and Precautions

- **Risk of Development of HIV-1 Resistance in HBV/HIV-1 Coinfected Patients:** Due to this risk, VEMLIDY alone should not be used for the treatment of HIV-1 infection. Safety and efficacy of VEMLIDY have not been established in HBV/HIV-1 coinfected patients. HIV antibody testing should be offered to all HBV-infected patients before initiating therapy with VEMLIDY, and, if positive, an appropriate antiretroviral combination regimen that is recommended for HBV/HIV-1 coinfected patients should be used.
- **New Onset or Worsening Renal Impairment:** Postmarketing cases of renal impairment, including acute renal failure, proximal renal tubulopathy (PRT), and Fanconi syndrome have been reported with TAF-containing products. Patients with impaired renal function and/or taking nephrotoxic agents (including NSAIDs) are at increased risk of renal-related adverse reactions. Discontinue VEMLIDY in patients who develop clinically significant decreases in renal function or evidence of Fanconi syndrome. Monitor renal function in all patients – See Dosage and Administration.
- **Lactic Acidosis and Severe Hepatomegaly with Steatosis:** Fatal cases have been reported with the use of nucleoside analogs, including tenofovir disoproxil fumarate (TDF). Discontinue VEMLIDY if clinical or laboratory findings suggestive of lactic acidosis or pronounced hepatotoxicity develop, including hepatomegaly and steatosis in the absence of marked transaminase elevations.

Adverse Reactions

Most common adverse reactions (incidence ≥5%; all grades) in clinical studies through week 144 were headache, upper respiratory tract infection, abdominal pain, cough, back pain, arthralgia, fatigue, nausea, diarrhea, dyspepsia, and pyrexia.

Drug Interactions

- Coadministration of VEMLIDY with drugs that reduce renal function or compete for active tubular secretion may increase concentrations of tenofovir and the risk of adverse reactions.

HIV, human immunodeficiency virus; NSAID, non-steroidal anti-inflammatory drug; TAF, tenofovir alafenamide.

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Overview of Guideline-Based Criteria for Treatment of CHB

	Population	HBV DNA (IU/mL)	ALT (U/L)
SABA 2022[1]	≥30 years old[a]	>2000	Regardless of ALT level
USTA 2021[2]	HBeAg+	≥2000	>ULN* or if fibrosis present/ other risk factors[b]
	HBeAg-	≥2000	>ULN* or if fibrosis present
AATA 2018[3]	HBeAg+/-	>2000	>ULN* or liver disease[c]/ other risk factors[d]
AASLD 2018[4]	HBeAg+ HBeAg-	>20,000 >2000	≥2× ULN* or liver disease[c,e]

*ULN criteria for men and women, respectively: SABA 2022: 30 U/L and 19 U/L; USTA 2021: 30 U/L and 19 U/L; AATA 2018: local laboratory range; AASLD 2018: 35 U/L and 25 U/L.

All guidelines indicate that CHB patients (HBeAg+/-) with compensated cirrhosis and detectable HBV DNA, regardless of ALT levels, should be treated.[1-4]

VEMLIDY is indicated for the treatment of chronic hepatitis B virus (HBV) infection in adults with compensated liver disease.[6]

IMPORTANT SAFETY INFORMATION (continued)

Drug Interactions (continued)

- Coadministration of VEMLIDY is not recommended with the following: oxcarbazepine, phenobarbital, phenytoin, rifabutin, rifampin, rifapentine, or St. John's wort. Such coadministration is expected to decrease the concentration of tenofovir alafenamide, reducing the therapeutic effect of VEMLIDY. Drugs that strongly affect P-glycoprotein (P-gp) and breast cancer resistance protein (BCRP) activity may lead to changes in VEMLIDY absorption.

Consult the full prescribing information for VEMLIDY for more information on potentially significant drug interactions, including clinical comments.

AFP, alpha-fetoprotein; ALT, alanine aminotransferase; DNA, deoxyribonucleic acid; HBeAg, hepatitis B envelope antigen; HCC, hepatocellular carcinoma; ULN, upper limit of normal.

[a]SABA recommends treatment for patients <30 years old if they have HBV DNA >2000 IU/mL and ALT >ULN. VEMLIDY is indicated for the treatment of chronic HBV infection in adults with compensated liver disease.
[b]Consider treatment based on risk factors for developing HCC as well as patient's age, lifestyle, and desire to undergo treatment.
[c]Noninvasive testing showing significant fibrosis (≥F2) or liver biopsy showing moderate/severe inflammation (A2 or A3) and/or significant fibrosis (≥F2).
[d]Albumin <3.5 g/dL, platelet count <130,000/mm^3, presence of basal core promoter mutation, HCC in first-degree relative, or elevated AFP in the absence of HCC.
[e]Treatment can be considered for those >40 years of age, with a family history of cirrhosis or HCC, previous treatment history, or extrahepatic manifestations (presence of extrahepatic manifestation is an indication for treatment, independent of liver disease severity).

The 2022 SABA guideline was funded by Gilead Sciences, Inc., and developed independently by the SABA panel. The development of the 2018 AATA was supported, in part, by an independent grant from Gilead Sciences, Inc.

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Choose VEMLIDY for your appropriate treatment-naïve patients, as recommended by HBV guidelines

- **Proven efficacy**
  "Based on [the] ... safety profile and non-inferiority of efficacy endpoints, [VEMLIDY] represents an attractive alternative to TDF in the treatment of CHB"[3] (AATA)
- **Demonstrated long-term renal and bone safety**
  VEMLIDY can be considered in patients with, or at risk for, renal dysfunction or bone disease[1] (SABA)
  "TAF is a prodrug which enhances delivery of active tenofovir to hepatocytes and reduces circulating levels of tenofovir relative to TDF, and thereby decreases the risk of renal dysfunction and bone mineral density decline"[3] (AATA)
- **An optimized prodrug of tenofovir, offering more efficient delivery to hepatocytes**
  "[VEMLIDY] is more stable than TDF in plasma and delivers the active metabolite to hepatocytes more efficiently, allowing a lower dose to be used with similar antiviral activity, [and] less systemic exposure..."[4] (AASLD)

IMPORTANT SAFETY INFORMATION (continued)
Dosage and Administration

- **Testing Prior to Initiation:** HIV infection.
- **Prior to or When Initiating, and During Treatment:** On a clinically appropriate schedule, assess serum creatinine, estimated creatinine clearance, urine glucose, and urine protein in all patients. In patients with chronic kidney disease, also assess serum phosphorus.
- **Dosage in Adults:** 1 tablet taken once daily with food.
- **Renal Impairment:** Not recommended in patients with end stage renal disease (ESRD; eCrCl <15 mL/min) who are not receiving chronic hemodialysis; in patients on chronic hemodialysis, on hemodialysis days, administer VEMLIDY after completion of hemodialysis treatment.
- **Hepatic Impairment:** Not recommended in patients with decompensated (Child-Pugh B or C) hepatic impairment.

eCrCl, estimated creatinine clearance.

References
1. Dieterich D, et al. *Gastro Hep Advances*. 2023;2(2):209-218. **2.** Martin P, et al. *Clin Gastroenterol Hepatol*. 2022;20(8):1766-1775. **3.** Tong MJ, et al. *Aliment Pharmacol Ther*. 2018;47(8):1181-1200. **4.** Terrault NA, et al. *Hepatology*. 2018;67(4):1560-1599. **5.** European Association for the Study of the Liver. *J Hepatol*. 2017;67(2):370-398. **6.** VEMLIDY Prescribing Information, Foster City, CA: Gilead Sciences, Inc.; October 2022.

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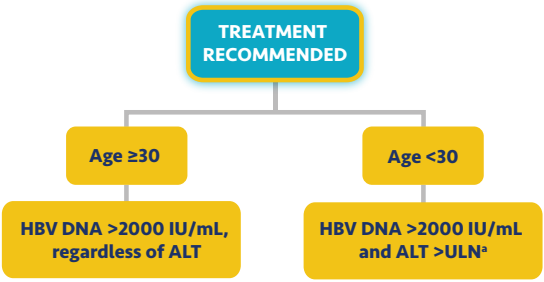
Simplified Approach Hepatitis B Algorithm (SABA)[1]

To reduce the number of patients who are not receiving appropriate treatment, the expert panel's approach was ***"to assume that all patients with chronic HBV infection need to be treated, and then to exclude those who do not 'qualify' for treatment,"*** rather than the currently prevailing, reverse perspective.[1]

*Treatment criteria recommendations**

CHB patients with compensated cirrhosis and detectable HBV DNA, regardless of ALT levels, should be treated.



- **Refer to a specialist if HIV coinfection exists**
- **VEMLIDY is not indicated for patients with decompensated (Child-Pugh B or C) hepatic impairment and has not been tested in this population**

VEMLIDY is a recommended FIRST-LINE HBV therapy for CHB patients[1,b-e]

- VEMLIDY can be considered in patients with, or at risk for, renal dysfunction or bone disease[1,c,d]
- VEMLIDY has demonstrated antiviral efficacy with a low risk of drug resistance[1,b]

INDICATION

VEMLIDY is indicated for the treatment of chronic hepatitis B virus (HBV) infection in adults with compensated liver disease.

IMPORTANT SAFETY INFORMATION

BOXED WARNING: POSTTREATMENT SEVERE ACUTE EXACERBATION OF HEPATITIS B

- **Discontinuation of anti-hepatitis B therapy, including VEMLIDY, may result in severe acute exacerbations of hepatitis B. Hepatic function should be monitored closely with both clinical and laboratory follow-up for at least several months in patients who discontinue anti-hepatitis B therapy, including VEMLIDY. If appropriate, resumption of anti-hepatitis B therapy may be warranted.**

*If HBV DNA <2000 IU/mL OR if less than age 30 and HBV DNA >2000 IU/mL and ALT ≤ULN, then re-evaluate for treatment eligibility in 6 months. Use clinical judgment and shared decision-making to determine if patient would benefit from or prefer treatment.
[a]The ALT ULN are 30 U/L for men and 19 U/L for women.
[b]Other recommended first-line nucleos(t)ide analogs are entecavir and TDF.
[c]**VEMLIDY is not recommended in patients with end stage renal disease (ESRD; eCrCl <15 mL/min) who are not receiving chronic hemodialysis; See Dosage and Administration.**
[d]**Postmarketing cases of renal impairment, including acute renal failure, proximal renal tubulopathy (PRT), and Fanconi syndrome have been reported with TAF-containing products. See section 5.3 of the Prescribing Information.**
[e]VEMLIDY has not been tested for use during pregnancy.

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IMPORTANT SAFETY INFORMATION (continued)

Warnings and Precautions

- **Risk of Development of HIV-1 Resistance in HBV/HIV-1 Coinfected Patients:** Due to this risk, VEMLIDY alone should not be used for the treatment of HIV-1 infection. Safety and efficacy of VEMLIDY have not been established in HBV/HIV-1 coinfected patients. HIV antibody testing should be offered to all HBV-infected patients before initiating therapy with VEMLIDY, and, if positive, an appropriate antiretroviral combination regimen that is recommended for HBV/HIV-1 coinfected patients should be used.
- **New Onset or Worsening Renal Impairment:** Postmarketing cases of renal impairment, including acute renal failure, proximal renal tubulopathy (PRT), and Fanconi syndrome have been reported with TAF-containing products. Patients with impaired renal function and/or taking nephrotoxic agents (including NSAIDs) are at increased risk of renal-related adverse reactions. Discontinue VEMLIDY in patients who develop clinically significant decreases in renal function or evidence of Fanconi syndrome. Monitor renal function in all patients – See Dosage and Administration.
- **Lactic Acidosis and Severe Hepatomegaly with Steatosis:** Fatal cases have been reported with the use of nucleoside analogs, including tenofovir disoproxil fumarate (TDF). Discontinue VEMLIDY if clinical or laboratory findings suggestive of lactic acidosis or pronounced hepatotoxicity develop, including hepatomegaly and steatosis in the absence of marked transaminase elevations.

Adverse Reactions

Most common adverse reactions (incidence ≥5%; all grades) in clinical studies through week 144 were headache, upper respiratory tract infection, abdominal pain, cough, back pain, arthralgia, fatigue, nausea, diarrhea, dyspepsia, and pyrexia.

Drug Interactions

- Coadministration of VEMLIDY with drugs that reduce renal function or compete for active tubular secretion may increase concentrations of tenofovir and the risk of adverse reactions.
- Coadministration of VEMLIDY is not recommended with the following: oxcarbazepine, phenobarbital, phenytoin, rifabutin, rifampin, rifapentine, or St. John's wort. Such coadministration is expected to decrease the concentration of tenofovir alafenamide, reducing the therapeutic effect of VEMLIDY. Drugs that strongly affect P-glycoprotein (P-gp) and breast cancer resistance protein (BCRP) activity may lead to changes in VEMLIDY absorption.

Consult the full prescribing information for VEMLIDY for more information on potentially significant drug interactions, including clinical comments.

Dosage and Administration

- **Testing Prior to Initiation:** HIV infection.
- **Prior to or When Initiating, and During Treatment:** On a clinically appropriate schedule, assess serum creatinine, estimated creatinine clearance, urine glucose, and urine protein in all patients. In patients with chronic kidney disease, also assess serum phosphorus.
- **Dosage in Adults:** 1 tablet taken once daily with food.
- **Renal Impairment:** Not recommended in patients with end stage renal disease (ESRD; eCrCl <15 mL/min) who are not receiving chronic hemodialysis; in patients on chronic hemodialysis, on hemodialysis days, administer VEMLIDY after completion of hemodialysis treatment.
- **Hepatic Impairment:** Not recommended in patients with decompensated (Child-Pugh B or C) hepatic impairment.

The 2022 SABA guideline was funded by Gilead Sciences, Inc., and developed independently by the SABA panel.

ALT, alanine aminotransferase; DNA, deoxyribonucleic acid; eCrCl, estimated creatinine clearance; HBV, hepatitis B virus; HIV, human immunodeficiency virus; NSAID, non-steroidal anti-inflammatory drug; TAF, tenofovir alafenamide; TDF, tenofovir disoproxil fumarate; ULN, upper limit of normal.

Reference

1. Dieterich D, et al. *Gastro Hep Advances*. 2023;2(2):209-218.

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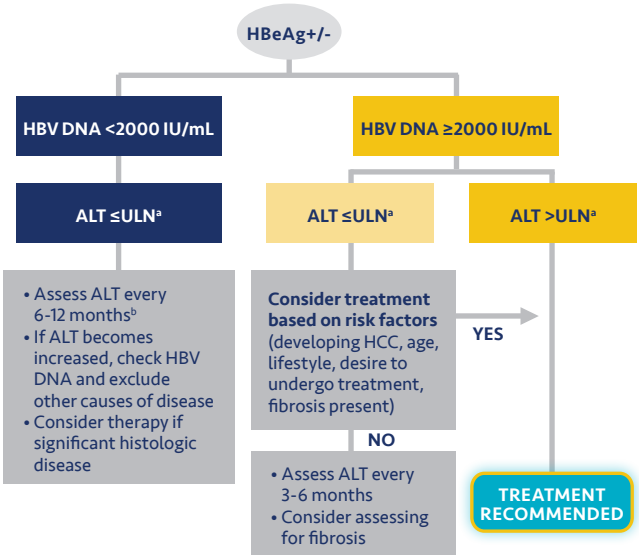
United States Treatment Algorithm (USTA) for Managing Chronic Hepatitis B[1]

CHB patients with compensated cirrhosis and detectable HBV DNA, regardless of ALT levels, should be treated.



VEMLIDY is a PREFERRED FIRST-LINE HBV therapy for CHB patients[1,c]

"[VEMLIDY] has greater stability in plasma than TDF, and this enables more efficient delivery of the active metabolite to target cells at a substantially lower dose"[1]

"The dosage of all nucleoside/nucleotide analogs needs adjustment in patients with progressive degrees of renal impairment, except for [VEMLIDY]"[1,d]

INDICATION

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[a]The ULN for serum ALT concentration is 30 U/L for men and 19 U/L for women.
[b]Upon initial diagnosis, monitor every 3 months for 1 year to ensure stability.
[c]Other preferred first-line CHB therapies include entecavir, TDF, and peginterferon.
[d]**VEMLIDY is not recommended in patients with end stage renal disease (ESRD; eCrCl <15 mL/min) who are not receiving chronic hemodialysis; in patients on chronic hemodialysis, on hemodialysis days, administer VEMLIDY after completion of hemodialysis treatment.**

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IMPORTANT SAFETY INFORMATION (continued)

Warnings and Precautions

- **Risk of Development of HIV-1 Resistance in HBV/HIV-1 Coinfected Patients:** Due to this risk, VEMLIDY alone should not be used for the treatment of HIV-1 infection. Safety and efficacy of VEMLIDY have not been established in HBV/HIV-1 coinfected patients. HIV antibody testing should be offered to all HBV-infected patients before initiating therapy with VEMLIDY, and, if positive, an appropriate antiretroviral combination regimen that is recommended for HBV/HIV-1 coinfected patients should be used.
- **New Onset or Worsening Renal Impairment:** Postmarketing cases of renal impairment, including acute renal failure, proximal renal tubulopathy (PRT), and Fanconi syndrome have been reported with TAF-containing products. Patients with impaired renal function and/or taking nephrotoxic agents (including NSAIDs) are at increased risk of renal-related adverse reactions. Discontinue VEMLIDY in patients who develop clinically significant decreases in renal function or evidence of Fanconi syndrome. Monitor renal function in all patients – See Dosage and Administration.
- **Lactic Acidosis and Severe Hepatomegaly with Steatosis:** Fatal cases have been reported with the use of nucleoside analogs, including tenofovir disoproxil fumarate (TDF). Discontinue VEMLIDY if clinical or laboratory findings suggestive of lactic acidosis or pronounced hepatotoxicity develop, including hepatomegaly and steatosis in the absence of marked transaminase elevations.

Adverse Reactions

Most common adverse reactions (incidence ≥5%; all grades) in clinical studies through week 144 were headache, upper respiratory tract infection, abdominal pain, cough, back pain, arthralgia, fatigue, nausea, diarrhea, dyspepsia, and pyrexia.

Drug Interactions

- Coadministration of VEMLIDY with drugs that reduce renal function or compete for active tubular secretion may increase concentrations of tenofovir and the risk of adverse reactions.
- Coadministration of VEMLIDY is not recommended with the following: oxcarbazepine, phenobarbital, phenytoin, rifabutin, rifampin, rifapentine, or St. John's wort. Such coadministration is expected to decrease the concentration of tenofovir alafenamide, reducing the therapeutic effect of VEMLIDY. Drugs that strongly affect P-glycoprotein (P-gp) and breast cancer resistance protein (BCRP) activity may lead to changes in VEMLIDY absorption.

Consult the full prescribing information for VEMLIDY for more information on potentially significant drug interactions, including clinical comments.

Dosage and Administration

- **Testing Prior to Initiation:** HIV infection.
- **Prior to or When Initiating, and During Treatment:** On a clinically appropriate schedule, assess serum creatinine, estimated creatinine clearance, urine glucose, and urine protein in all patients. In patients with chronic kidney disease, also assess serum phosphorus.
- **Dosage in Adults:** 1 tablet taken once daily with food.
- **Renal Impairment:** Not recommended in patients with end stage renal disease (ESRD; eCrCl <15 mL/min) who are not receiving chronic hemodialysis; in patients on chronic hemodialysis, on hemodialysis days, administer VEMLIDY after completion of hemodialysis treatment.
- **Hepatic Impairment:** Not recommended in patients with decompensated (Child-Pugh B or C) hepatic impairment.

ALT, alanine aminotransferase; DNA, deoxyribonucleic acid; eCrCl, estimated creatinine clearance; HBeAg, hepatitis B envelope antigen; HBV, hepatitis B virus; HCC, hepatocellular carcinoma; HIV, human immunodeficiency virus; NSAID, non-steroidal anti-inflammatory drug; TAF, tenofovir alafenamide; TDF, tenofovir disoproxil fumarate; ULN, upper limit of normal.

Reference

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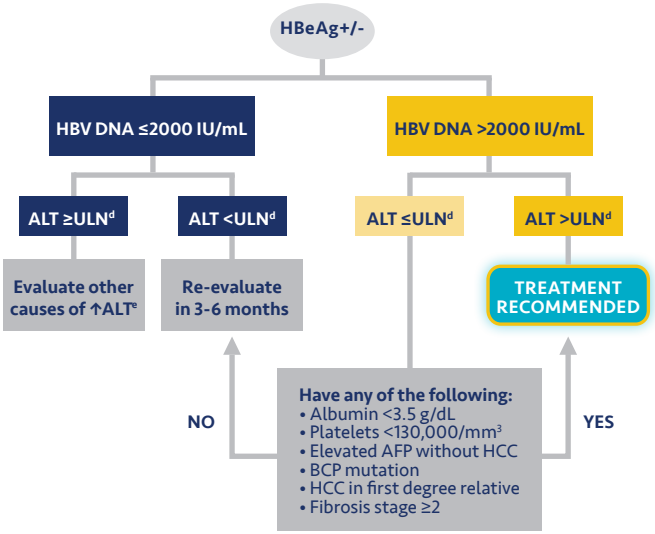
Asian American Treatment Algorithm (AATA) Hepatitis B Management Recommendations[1]

CHB patients with compensated cirrhosis and detectable HBV DNA, regardless of ALT levels, should be treated.



VEMLIDY is a PREFERRED FIRST-LINE HBV therapy for CHB patients[1,a]

"Based on [the] ... safety profile and non-inferiority of efficacy endpoints, [VEMLIDY] represents an attractive alternative to TDF in the treatment of CHB"[1]

"TAF is a prodrug which enhances delivery of active tenofovir to hepatocytes and reduces circulating levels of tenofovir relative to TDF, and thereby decreases the risk of renal dysfunction and bone mineral density decline"[1,b,c]

INDICATION

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[a]Other preferred first-line CHB therapies include entecavir, TDF, and peginterferon.
[b]**VEMLIDY is not recommended in patients with end stage renal disease who are not receiving chronic hemodialysis; See Dosage and Administration.**
[c]**Postmarketing cases of renal impairment, including acute renal failure, proximal renal tubulopathy (PRT), and Fanconi syndrome have been reported with TAF-containing products. See section 5.3 of the Prescribing Information.**

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IMPORTANT SAFETY INFORMATION (continued)

Warnings and Precautions

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Adverse Reactions

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- **Hepatic Impairment:** Not recommended in patients with decompensated (Child-Pugh B or C) hepatic impairment.

The development of the 2018 AATA was supported, in part, by an independent grant from Gilead Sciences, Inc.

AFP, alpha-fetoprotein; ALT, alanine aminotransferase; BCP, basal core promoter; DNA, deoxyribonucleic acid; eCrCl, estimated creatinine clearance; HBeAg, hepatitis B envelope antigen; HBV, hepatitis B virus; HCC, hepatocellular carcinoma; HIV, human immunodeficiency virus; NSAID, non-steroidal anti-inflammatory drug; TAF, tenofovir alafenamide; TDF, tenofovir disoproxil fumarate; ULN, upper limit of normal.
[d]ALT ULN is based on local laboratory range.
[e]Other causes include medications, supplements, non-alcoholic fatty liver disease, alcohol intake, and other viral etiologies (ie, hepatitis A virus, hepatitis C virus, hepatitis D virus, HIV, Epstein-Barr virus, and cytomegalovirus).

Reference

1. Tong MJ, et al. *Aliment Pharmacol Ther.* 2018;47(8):1181-1200.

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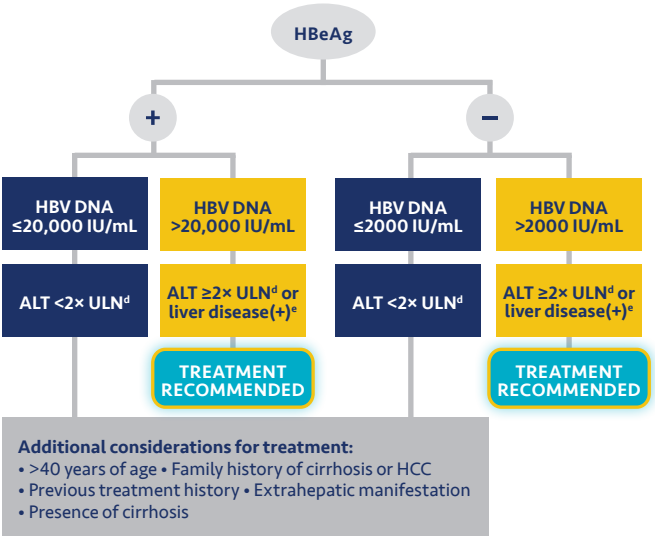
American Association for the Study of Liver Diseases (AASLD) Hepatitis B Guidance[1]

CHB patients with compensated cirrhosis and detectable HBV DNA, regardless of ALT levels, should be treated.



VEMLIDY is a PREFERRED FIRST-LINE HBV therapy for CHB patients[1,a]

"[VEMLIDY] is more stable than TDF in plasma and delivers the active metabolite to hepatocytes more efficiently, allowing a lower dose to be used with similar antiviral activity, [and] less systemic exposure..."[1]

"[VEMLIDY] can be considered in patients with, or at risk for, renal dysfunction or bone disease"[1,b,c]

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BOXED WARNING: POSTTREATMENT SEVERE ACUTE EXACERBATION OF HEPATITIS B

- **Discontinuation of anti-hepatitis B therapy, including VEMLIDY, may result in severe acute exacerbations of hepatitis B. Hepatic function should be monitored closely with both clinical and laboratory follow-up for at least several months in patients who discontinue anti-hepatitis B therapy, including VEMLIDY. If appropriate, resumption of anti-hepatitis B therapy may be warranted.**

[a]Other preferred first-line CHB therapies include entecavir, TDF, and peginterferon.
[b]VEMLIDY is not recommended in patients with end stage renal disease who are not receiving chronic hemodialysis; See Dosage and Administration.
[c]Postmarketing cases of renal impairment, including acute renal failure, proximal renal tubulopathy (PRT), and Fanconi syndrome have been reported with TAF-containing products. See section 5.3 of the Prescribing Information.

Click here for full Prescribing Information for VEMLIDY, including **BOXED WARNING** on posttreatment severe acute exacerbation of hepatitis B.

Vemlidy®
tenofovir alafenamide 25mg tablets

IMPORTANT SAFETY INFORMATION (continued)

Warnings and Precautions

- **Risk of Development of HIV-1 Resistance in HBV/HIV-1 Coinfected Patients:** Due to this risk, VEMLIDY alone should not be used for the treatment of HIV-1 infection. Safety and efficacy of VEMLIDY have not been established in HBV/HIV-1 coinfected patients. HIV antibody testing should be offered to all HBV-infected patients before initiating therapy with VEMLIDY, and, if positive, an appropriate antiretroviral combination regimen that is recommended for HBV/HIV-1 coinfected patients should be used.
- **New Onset or Worsening Renal Impairment:** Postmarketing cases of renal impairment, including acute renal failure, proximal renal tubulopathy (PRT), and Fanconi syndrome have been reported with TAF-containing products. Patients with impaired renal function and/or taking nephrotoxic agents (including NSAIDs) are at increased risk of renal-related adverse reactions. Discontinue VEMLIDY in patients who develop clinically significant decreases in renal function or evidence of Fanconi syndrome. Monitor renal function in all patients – See Dosage and Administration.
- **Lactic Acidosis and Severe Hepatomegaly with Steatosis:** Fatal cases have been reported with the use of nucleoside analogs, including tenofovir disoproxil fumarate (TDF). Discontinue VEMLIDY if clinical or laboratory findings suggestive of lactic acidosis or pronounced hepatotoxicity develop, including hepatomegaly and steatosis in the absence of marked transaminase elevations.

Adverse Reactions

Most common adverse reactions (incidence ≥5%; all grades) in clinical studies through week 144 were headache, upper respiratory tract infection, abdominal pain, cough, back pain, arthralgia, fatigue, nausea, diarrhea, dyspepsia, and pyrexia.

Drug Interactions

- Coadministration of VEMLIDY with drugs that reduce renal function or compete for active tubular secretion may increase concentrations of tenofovir and the risk of adverse reactions.
- Coadministration of VEMLIDY is not recommended with the following: oxcarbazepine, phenobarbital, phenytoin, rifabutin, rifampin, rifapentine, or St. John's wort. Such coadministration is expected to decrease the concentration of tenofovir alafenamide, reducing the therapeutic effect of VEMLIDY. Drugs that strongly affect P-glycoprotein (P-gp) and breast cancer resistance protein (BCRP) activity may lead to changes in VEMLIDY absorption.

Consult the full prescribing information for VEMLIDY for more information on potentially significant drug interactions, including clinical comments.

Dosage and Administration

- **Testing Prior to Initiation:** HIV infection.
- **Prior to or When Initiating, and During Treatment:** On a clinically appropriate schedule, assess serum creatinine, estimated creatinine clearance, urine glucose, and urine protein in all patients. In patients with chronic kidney disease, also assess serum phosphorus.
- **Dosage in Adults:** 1 tablet taken once daily with food.
- **Renal Impairment:** Not recommended in patients with end stage renal disease (ESRD; eCrCl <15 mL/min) who are not receiving chronic hemodialysis; in patients on chronic hemodialysis, on hemodialysis days, administer VEMLIDY after completion of hemodialysis treatment.
- **Hepatic Impairment:** Not recommended in patients with decompensated (Child-Pugh B or C) hepatic impairment.

ALT, alanine aminotransferase; DNA, deoxyribonucleic acid; eCrCl, estimated creatinine clearance; HBeAg, hepatitis B envelope antigen; HBV, hepatitis B virus; HCC, hepatocellular carcinoma; HIV, human immunodeficiency virus; NSAID, non-steroidal anti-inflammatory drug; TAF, tenofovir alafenamide; TDF, tenofovir disoproxil fumarate; ULN, upper limit of normal.

[d]The ULN for serum ALT concentration is 35 U/L for men and 25 U/L for women.

[e]Liver disease defined as: Noninvasive testing showing significant fibrosis (≥F2) or liver biopsy showing moderate/severe inflammation (A2 or A3) and/or significant fibrosis (≥F2).

Reference

1. Terrault NA, et al. *Hepatology.* 2018;67(4):1560-1599.

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