Latest treatment guidelines and algorithms indicate

A GROWING SHIFT TOWARD EARLIER TREATMENT

FOR ADULT PATIENTS WITH CHRONIC HEPATITIS B[1-7]

Actor portrayals.

Consider VEMLIDY, a preferred **first-line therapy** for the treatment of chronic hepatitis B in adults with compensated liver disease, as recommended by 5 treatment guidelines and algorithms[1,2,4-6,a]

[a]Other recommended first-line nucleoside/nucleotide analogs are entecavir and tenofovir disoproxil fumarate (TDF).[1,2,4-6]

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.**

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.

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

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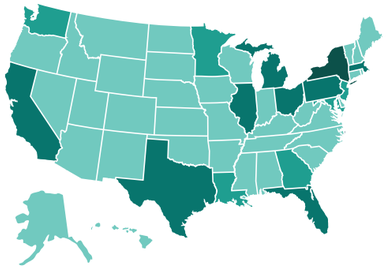
Recognizing important **gaps in the management of chronic hepatitis B**

In the United States, chronic hepatitis B is undermanaged and undertreated



The map depicts US 2021 chronic hepatitis B diagnosis estimates indicated by teal shading; darker shade indicates higher estimated diagnosis rates.[8]

>600,000
people diagnosed with chronic hep B in the US[9,10,a]

Data show that there are significant gaps in:

Chronic hep B treatment

~70%
of patients who are diagnosed with chronic hepatitis B are **not receiving antiviral treatment**[11,b]

Moreover, ***~65%***
of patients who have **chronic hepatitis B and cirrhosis are not receiving antiviral treatment**[11,b]

Understanding chronic hep B outcomes

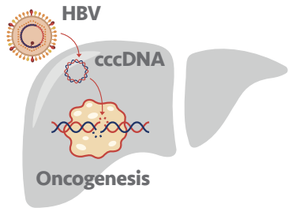
28%
of patients have **significant fibrosis despite normal ALT levels**[12,c]

20%-30%
of adults with chronic hepatitis B will **develop complications such as cirrhosis, and potentially, HCC**[13]

Chronic hep B monitoring

>60%
of patients with chronic hepatitis B are **not receiving regular monitoring of their infection or screening for HCC**[14,15,d]

HBV increases the risk of HCC through direct and indirect mechanisms, which may occur at early stages of tumor development and during any phase of HBV infection[4,16-18]



- Direct mechanisms revolve around the ability of HBV to integrate into the host's genome, leading to potentially carcinogenic chromosomal aberrations and protein expression[16-18]
- Indirect mechanisms center on the ability of HBV to induce continuous, recurring liver necroinflammation, which may culminate in the development of cirrhosis[16,18]
- Persons with chronic hep B are at a 25- to 37-fold increased risk of HCC compared to non-infected people[4]

Real-world data indicate that using **HBV DNA level >2000 IU/mL alone** for patients without cirrhosis, and removing ALT and HBeAg treatment eligibility criteria, **would help avoid many cases of HCC and early deaths**[4,19]

ALT=alanine aminotransferase; cccDNA=covalently closed circular DNA; HBeAg=hepatitis B envelope antigen; HBsAg=hepatitis B surface antigen; HBV=hepatitis B virus; HCC=hepatocellular carcinoma; ULN=upper limit of normal.

[a]Based on a prevalence estimate of ~2 million people with chronic hep B in the US in 2018 and a rate of awareness of chronic HBV infection of ~34% among people with chronic hep B, from a National Health and Nutrition Examination Survey analysis from 2013-2016.[9,10]

[b]Based on an analysis of 57,847 patients diagnosed with chronic hep B from the commercial US Truven Health MarketScan Database (2007-2014). In this analysis, the treatment rate was 30.7% among patients diagnosed with chronic hep B and 34.8% in patients diagnosed with chronic hep B and cirrhosis.[11]

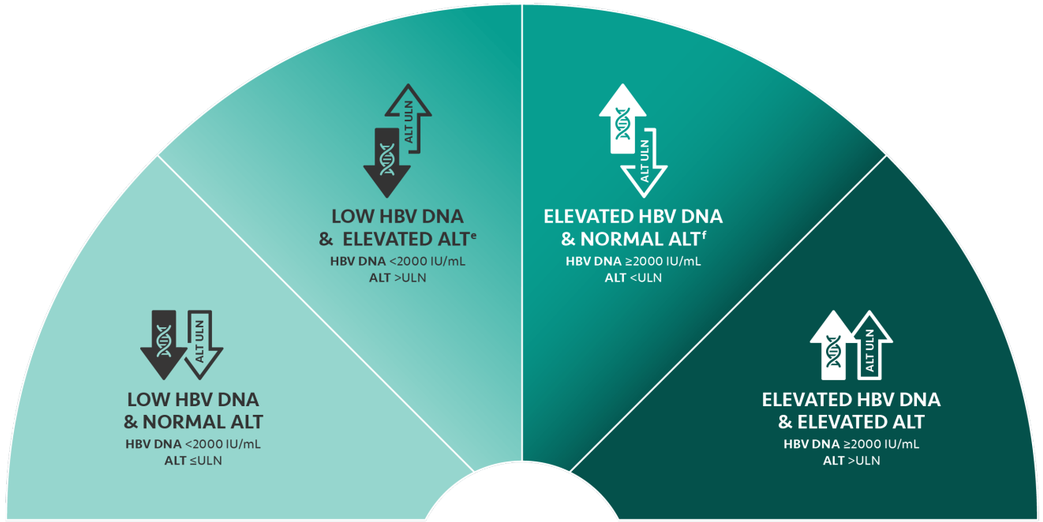
[c]Based on a meta-analysis of 3 clinical studies that used ULN of 30 IU/L for men and 19 IU/L for women, comprising a total of 81 patients with chronic hep B.[12]

[d]Based on the Chronic Hepatitis Cohort Study, in which 62% of patients with chronic hep B followed from 2006-2013 (N=2338) received less than annual HBV DNA assessment, and a study of US Truven Health MarketScan Database, in which <40% of commercially insured and Medicare patients with private insurance supplement in 2007-2014 received annual HCC surveillance (N=55,317).[14,15]

More of your patients with chronic HBV infection **may be eligible for treatment**[6]

Patients who are HBsAg positive and have **detectable HBV DNA levels** should not be overlooked, regardless of ALT levels

- Expanded treatment criteria include patients with elevated HBV DNA and normal ALT *or* low HBV DNA and elevated ALT



Monitor closely/consider treatment	Patients should receive antiviral therapy
Consider antiviral therapy for all patients with chronic HBV infection and active viral replication. Earlier treatment aims to prevent complications from ongoing viral replication	Treat patients in this zone regardless of ALT levels (normal or elevated)

Prioritization of treatment depends on a patient's risk of disease progression and HCC, as indicated by virological and host factors.

[e]Patients with persistently low HBV DNA (<2000 IU/mL) and persistently elevated ALT (>ULN) can be treated. However, consider other liver diseases that could also be implicated.

[f]Treatment is recommended if HBV DNA is ≥2000 IU/mL and if patient has any of the following: ALT >ULN, fibrosis, cirrhosis, risk factors for HCC, extrahepatic manifestations, immunosuppression, or risk for HBV transmission.

A 2024 overview of clinical evidence conducted by experts in the US and Taiwan showed that patients with low HBV DNA/elevated ALT or elevated HBV DNA/normal ALT remain at risk for disease progression, including the development of HCC.[20]

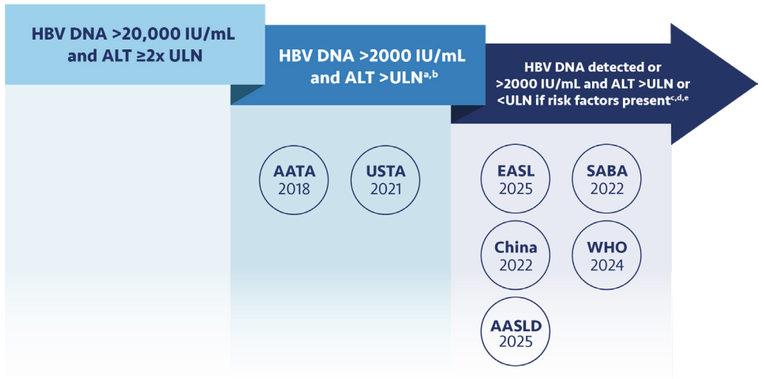
(Mak LY, et al, 2024)

38% of patients were classified into an indeterminate/gray zone where treatment intervention is not clearly recommended[21]

The 2015 study by Di Bisceglie et al included 2290 adult participants from a Hepatitis B Research Network Cohort or Treatment study. A total of 1571 participants met inclusion criteria and 1390 participants had sufficient data available to allow a baseline phenotype to be determined. This cohort was enrolled in 19 different medical sites in the US and 1 site in Canada. Within this cohort, the largest single phenotype (38%; 524/1390) was classified as "indeterminate" when using a fixed ALT ULN of 30 U/L for men and 20 U/L for women.[21]

There's clear momentum across the globe to **treat chronic hepatitis B earlier**[7]

Over time, expert groups have expanded treatment criteria, **lowering thresholds for HBV DNA and ALT**[1-7]



In a Korean HBV population modeling study, **the estimated treatment-eligible patient population increased from**

25% ➡ 54%[22,f]

Based on modeling estimates of 262,000/1,210,000 patients (UI: 994,000–1,206,000) for current treatment criteria and 676,000/1,210,000 patients (UI: 994,000–1,206,000) for expanded treatment criteria.

[a]AATA recommends treatment for HBeAg+/- if ALT >ULN or if fibrosis (≥F2)/other risk factors are present.[1]
[b]USTA recommends considering treatment based on risk factors for developing HCC, as well as patient's age, lifestyle, and desire to undergo treatment.[3]
[c]SABA recommends treatment for patients <30 years old if they have HBV DNA >2000 IU/mL and ALT >ULN.[4]
[d]The China guidelines recommend considering treatment for people with a family history of HBV-related cirrhosis or HCC; age >30 years; or HBV-related extrahepatic manifestations.[5]
[e]For HBeAg+, AASLD recommends considering treatment for patients with HBV DNA >10 million IU/mL, ALT ≤ULN, and age ≥40 years or fibrosis (≥F2), or age <40 years based on shared decision-making; or for patients with HBV DNA ≥20,000 to ≤10 million IU/mL and ALT <2× ULN, or HBV DNA >10 million IU/mL and ALT 1-<2× ULN, based on shared decision-making. For HBeAg-, AASLD recommends considering treatment based on shared decision-making for patients with HBV DNA ≥2000 IU/mL and ALT <2× ULN or patients with HBV DNA <2000 IU/mL and ALT >ULN.[2]
[f]An estimate of untreated patients with chronic hep B who would be eligible for treatment per outlined criteria. Lim et al populated a fully dynamic transmission and Markov disease burden model with historical Korean-specific background population, mortality, and epidemiologic HBV data to track the distribution of HBsAg across sex, age, year, disease stage, and viral load. Using the PRoGReSs model, 4 scenarios were examined to assess the future impact of different treatment rates and eligibility requirements compared with the current treatment paradigm. The study was funded in part by Gilead Sciences, Inc.[22]

Evolving treatment guidelines for initiation mean more patients with chronic hepatitis B could benefit from earlier treatment[7]

IMPORTANT SAFETY INFORMATION (continued)

Warnings and Precautions (continued)

- **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.

Explore an **overview of key guideline-based criteria** for treating chronic hepatitis B

	Population	HBV DNA (IU/mL)	ALT (U/L)
AASLD 2025[2]	HBeAg+/-	≥20,000/≥2000	≥2x ULN,[g] or if <2x ULN and presence of risk factors, consider treatment based on shared decision-making[e,h]
SABA 2022[4]	Age ≥30 years[c]	>2000	Regardless of ALT level
EASL 2025[6]	HBsAg+	≥2000	>ULN[g] or presence of fibrosis (≥F2), risk factors for HCC, extrahepatic manifestations, immunosuppression, or risk for HBV transmission
China 2022[5]	HBeAg+/-	Detected	Presence of fibrosis/other risk factors[d] or >ULN[g] when other causes are excluded
AATA 2018[1]	HBeAg+/-	>2000	>ULN[g] or significant liver disease[h]/other risk factors[i]

All treatment guidelines and algorithms indicate that patients with chronic HBV infection with compensated cirrhosis and detectable HBV DNA should be treated, regardless of ALT levels[1,2,4-6]

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.

AASLD=American Association for the Study of Liver Diseases; AATA=Asian American Treatment Algorithm; AFP=alpha-fetoprotein; EASL=European Association for the Study of the Liver; SABA=Simplified Approach Hepatitis B Algorithm; UI=uncertainty interval; USTA=United States Treatment Algorithm; WHO=World Health Organization.
[g]ULN criteria for men and women, respectively: AASLD 2025: 35 U/L and 25 U/L; AATA 2018: local laboratory range; China 2022: unspecified; EASL 2025: 40 U/L and 40 U/L; SABA 2022: 30 U/L and 19 U/L.[1,2,4-6]
[h]Liver disease assessed by noninvasive testing or liver biopsy showing significant liver inflammation (≥A2) or fibrosis (≥F2).[1,2]
[i]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.[1]

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Consider the **American Association for the Study of Liver Diseases (AASLD) chronic hepatitis B guidance** for your appropriate patients[2]

2025 AASLD guidelines

HBsAg+

HBeAg+

IA
HBV DNA ≥20,000 IU/mL
ALT ≥2× ULN[a]

Treatment recommended

Monitor all patients and consider treatment for:
- Immune-tolerant patients age ≥40 years or fibrosis (≥F2)[b,c]
- Immune-tolerant patients age <40 years based on shared decision-making[c]
- Indeterminate (not meeting criteria for IA or immune-tolerant disease) based on shared decision-making[c]

HBeAg-

IA
HBV DNA ≥2000 IU/mL
ALT ≥2× ULN[a]

Treatment recommended

Monitor all patients and consider treatment based on shared decision-making for:
- Indeterminate (not meeting criteria for IA or inactive disease)[c,d]

Shared decision-making approach

A collaborative process where a healthcare provider and patient make informed healthcare decisions by considering clinical evidence, taking into account the individual's personal values, preferences, and circumstances, allowing the patient to actively participate in choosing the best treatment option for them[2]

IA=immune-active.
[a]The ULN for serum ALT concentration is 35 U/L for men and 25 U/L for women.[2]
[b]Liver disease assessed by noninvasive testing or liver biopsy showing significant liver inflammation (≥A2) or fibrosis (≥F2).[2]
[c]**For HBeAg+, AASLD recommends considering treatment for patients with HBV DNA >10 million IU/mL, ALT ≤ULN, and age ≥40 years or fibrosis (≥F2), or age <40 years based on shared decision-making; or for patients with HBV DNA ≥20,000 to ≤10 million IU/mL and ALT <2× ULN, or HBV DNA >10 million IU/mL and ALT 1-<2× ULN, based on shared decision-making. For HBeAg-, AASLD recommends considering treatment based on shared decision-making for patients with HBV DNA ≥2000 IU/mL and ALT <2× ULN or patients with HBV DNA <2000 IU/mL and ALT >ULN.[2]**
[d]Patients with advanced fibrosis (≥F3) should receive treatment.[2]

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.

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.

Consider the **Simplified Approach Hepatitis B Algorithm (SABA)** to initiate treatment earlier for appropriate patients with chronic hepatitis B[4]

SABA 2022 recommendations

Patients with chronic hepatitis B with compensated liver disease and detectable HBV DNA should be treated, regardless of ALT levels or HBeAg status.

Treatment recommended

Age ≥30 years → **HBV DNA >2000 IU/mL, regardless of ALT[e,f]**

Age <30 years[g] → **HBV DNA >2000 IU/mL and ALT >ULN[e,f]**

- **Refer to a specialist if HIV co-infection 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 therapy*** for chronic hep B patients[h]

VEMLIDY ***can be considered*** in patients with, or at risk for, renal dysfunction and bone disease[i]

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.

eCrCl=estimated creatinine clearance.
[e]If HBV DNA <2000 IU/mL OR if age <30 and HBV DNA >2000 IU/mL and ALT ≤ULN, then re-evaluate for treatment eligibility in 6 months. Assess ALT and HBV DNA every 6 months for 2 years, then annually if no change; assess HBsAg every 2 years.[4]
[f]ALT ULN defined as 30 U/L for men and 19 U/L for women.[4]
[g]VEMLIDY is indicated for the treatment of chronic HBV infection in adults with compensated liver disease.[23]
[h]Other recommended first-line nucleoside/nucleotide analogs are entecavir and TDF.[4]
[i]**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.[23]**

Watch experts discuss the SABA recommendations

IMPORTANT SAFETY INFORMATION (continued)

Pregnancy and Lactation

- **Pregnancy:** A pregnancy registry has been established for VEMLIDY. Available clinical trial data show no significant difference in the overall risk of birth defects for VEMLIDY compared with the background rate of major birth defects in the U.S. reference population.
- **Lactation:** TAF and tenofovir can pass into breast milk. The developmental and health benefits of breastfeeding should be considered along with the mother's clinical need for VEMLIDY and any potential adverse effects on the breastfed infant from VEMLIDY or from the underlying maternal condition.

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The movement toward earlier treatment is happening now.[1,2,4-6]

Are you ready to treat your patients with chronic hepatitis B sooner?

Consider VEMLIDY, a preferred first-line therapy for the treatment of chronic hepatitis B in adults with compensated liver disease, as recommended by 5 global treatment guidelines and algorithms.[1,2,4-6,a]

✓ **AASLD 2025** ✓ **SABA 2022** ✓ **EASL 2025** ✓ **China 2022** ✓ **AATA 2018**

VEMLIDY can be considered in patients with, or at risk for, renal dysfunction and bone disease[1,2,4-6,b]

INDICATION

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

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Warnings and Precautions

- **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.

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[b] **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.[23]**

References: 1. Tong MJ, Pan CQ, Han SB, et al. An expert consensus for the management of chronic hepatitis B in Asian Americans. *Aliment Pharmacol Ther.* 2018;47(8):1181-1200. **2.** Ghany MG, Pan CQ, Lok AS, et al. AASLD IDSA Practice Guideline on treatment of chronic hepatitis B. *Hepatology.* 2026;83(4):974-997. doi:10.1097/HEP.0000000000001549 **3.** Martin P, Nguyen MH, Dieterich DT, et al. Treatment algorithm for managing chronic hepatitis B virus infection in the United States: 2021 update. *Clin Gastroenterol Hepatol.* 2022;20(8):1766-1775. doi:10.1016/j.cgh.2021.07.036 **4.** Dieterich D, Graham C, Wang S, et al. It is time for a simplified approach to hepatitis B elimination. *Gastro Hep Adv.* 2022;2(2):209-218. doi:10.1016/j.gastha.2022.10.004 **5.** You H, Wang F, Li T, et al. Guidelines for the prevention and treatment of chronic hepatitis B (version 2022). *J Clin Transl Hepatol.* 2023;11(6):1425-1442. doi:10.14218/JCTH.2023.00320 **6.** European Association for the Study of the Liver. EASL Clinical Practice Guidelines on the management of hepatitis B virus infection. *J Hepatol.* Published online May 8, 2025. doi:10.1016/j.jhep.2025.03.018 **7.** *Guidelines for the Prevention, Diagnosis, Care and Treatment for People With Chronic Hepatitis B Infection.* World Health Organization; 2024. **8.** Data on file. Gilead Sciences, Inc. **9.** Wong RJ, Brosgart CL, Welch S, et al. An updated assessment of chronic hepatitis B prevalence among foreign-born persons living in the United States. *Hepatology.* 2021;74(2):607-626. doi:10.1002/hep.31782 **10.** Kim HS, Yang JD, El-Serag HB, Kanwal F. Awareness of chronic viral hepatitis in the United States: An update from the National Health and Nutrition Examination Survey. *J Viral Hepat.* 2019;26(5):596-602. doi:10.1111/jvh.13060 **11.** Ogawa E, Yeo YH, Dang N, et al. Diagnosis rates of chronic hepatitis B in privately insured patients in the United States. *JAMA Netw Open.* 2020;3(4):e201844. doi:10.1001/jamanetworkopen.2020.1844 **12.** Chao DT, Lim JK, Ayoub WS, Nguyen LH, Nguyen MH. Systematic review with meta-analysis: the proportion of chronic hepatitis B patients with normal alanine transaminase ≤40 IU/L and significant hepatic fibrosis. *Aliment Pharmacol Ther.* 2014;39(4):349-358. doi:10.1111/apt.12590 **13.** *Guidelines for the Prevention, Care and Treatment of Persons With Chronic Hepatitis B Infection.* World Health Organization; 2015. **14.** Tran S, Jeong D, Henry L, Cheung RC, Nguyen MH. Initial evaluation, long-term monitoring, and hepatocellular carcinoma surveillance of chronic hepatitis B in routine practice: a nationwide US study. *Am J Gastroenterol.* 2021;116(9):1885-1895. **15.** Spradling PR, Xing J, Rupp LB, et al. Infrequent clinical assessment of chronic hepatitis B patients in United States general healthcare settings. *Clin Infect Dis.* 2016;63(9):1205-1208. **16.** Levrero M, Zucman-Rossi J. Mechanisms of HBV-induced hepatocellular carcinoma. *J Hepatol.* 2016;64(1 Suppl):S84-S101. doi:10.1016/j.jhep.2016.02.021 **17.** Lupberger J, Hildt E. Hepatitis B virus-induced oncogenesis. *World J Gastroenterol.* 2007;13(1):74-81. doi:10.3748/wjg.v13.i1.74 **18.** Di Bisceglie AM. Hepatitis B and hepatocellular carcinoma. *Hepatology.* 2009;49(5 Suppl):S56-S60. doi:10.1002/hep.22962 **19.** Lim YS, Seto WK, Kurosaki M, et al. Review article: switching patients with chronic hepatitis B to tenofovir alafenamide—a review of current data. *Aliment Pharmacol Ther.* 2022;55(8):921-943. doi:10.1111/apt.16788 **20.** Mak LY, Yee LJ, Wong RJ, Ramers CB, Frenette C, Hsu YC. Hepatocellular carcinoma among patients with chronic hepatitis B in the indeterminate phase. *J Viral Hepat.* 2024;31 Suppl 2(Suppl 2):27-35. doi:10.1111/jvh.13914 **21.** Di Bisceglie AM, Lombardero M, Teckman J, et al. Determination of hepatitis B phenotype using biochemical and serological markers. *J Viral Hepat.* 2017;24(4):320-329. doi:10.1111/jvh.12643 **22.** Lim YS, Ahn SH, Shim JJ, Razavi H, Razavi-Shearer D, Sinn DH. Impact of expanding hepatitis B treatment guidelines: A modelling and economic impact analysis. *Aliment Pharmacol Ther.* 2022;56(3):519-528. doi:10.1111/apt.17052 **23.** VEMLIDY Prescribing Information. Foster City, CA: Gilead Sciences, Inc.; March 2024.

GILEAD

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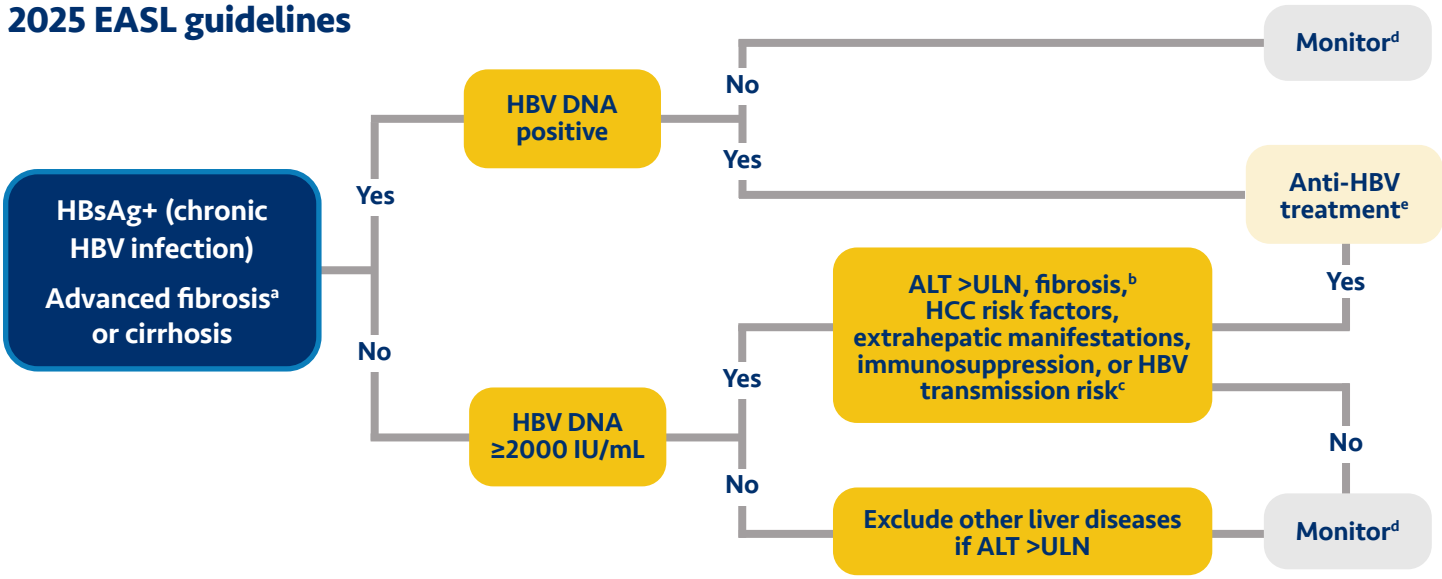
Latest guidance from EASL broadens treatment eligibility to support earlier intervention in chronic hepatitis B care[1]

2025 EASL guidelines



The updated EASL treatment guidelines introduce a unified, streamlined treatment algorithm that applies to HBeAg-positive and HBeAg-negative patients. **The guidance focuses on a single HBV DNA threshold and removes rigid ALT cutoffs.**

Key shifts from 2017[1,2]:

- HBV DNA ≥2000 IU/mL now serves as a universal threshold for treatment consideration
- ALT >ULN simplifies eligibility
- Emphasis on shared decision-making between healthcare provider and patient

EASL recommends early initiation of antiviral treatment[1]

ALT=alanine aminotransferase; EASL=European Association for the Study of the Liver; HBeAg=hepatitis B envelope antigen; HBsAg=hepatitis B surface antigen; HBV=hepatitis B virus; HCC=hepatocellular carcinoma; LSM=liver stiffness measurement; ULN=upper limit of normal.

[a]Equivalent of Ishak stage ≥4/Metavir ≥F3 (noninvasive assessment is preferred, LSM >8 kPa).[1]

[b]Equivalent of Ishak stage ≥3/Metavir ≥F2 (noninvasive assessment is preferred, LSM >7 kPa).[1]

[c]The threshold values for HBV DNA vary depending on the activity and risk of transmission. Important: treat pregnant women with HBV DNA ≥200,000 IU/mL with tenofovir. Please see Important Safety Information and full Prescribing Information for Pregnancy and Lactation information.[1]

[d]Initiate anti-HBV treatment in patients with HCC, HIV co-infection, extrahepatic manifestations, and immunosuppression.[1]

[e]Other recommended first-line nucleoside/nucleotide analogs are entecavir and tenofovir disoproxil fumarate.[1]

- **Refer to specialist if HIV co-infection exists[3]**
- **VEMLIDY is not indicated for patients with decompensated cirrhosis, HCC, extrahepatic manifestations, and immunosuppression, and has not been tested in them[3]**

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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.**

Please see additional Important Safety Information on the following page.

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Choose VEMLIDY as a first-line treatment option for your appropriate patients with chronic hepatitis B[1]

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.

Pregnancy and Lactation

- **Pregnancy:** A pregnancy registry has been established for VEMLIDY. Available clinical trial data show no significant difference in the overall risk of birth defects for VEMLIDY compared with the background rate of major birth defects in the U.S. reference population.
- **Lactation:** TAF and tenofovir can pass into breast milk. The developmental and health benefits of breastfeeding should be considered along with the mother's clinical need for VEMLIDY and any potential adverse effects on the breastfed infant from VEMLIDY or from the underlying maternal condition.

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

References: 1. European Association for the Study of the Liver. EASL Clinical Practice Guidelines on the management of hepatitis B virus infection. *J Hepatol*. Published online May 8, 2025. doi:10.1016/j.jhep.2025.03.018 **2.** European Association for the Study of the Liver. EASL 2017 Clinical Practice Guidelines on the management of hepatitis B virus infection. *J Hepatol*. 2017;67(2):370-398. doi:10.1016/j.jhep.2017.03.021 **3.** VEMLIDY Prescribing Information. Foster City, CA: Gilead Sciences, Inc.; March 2024.

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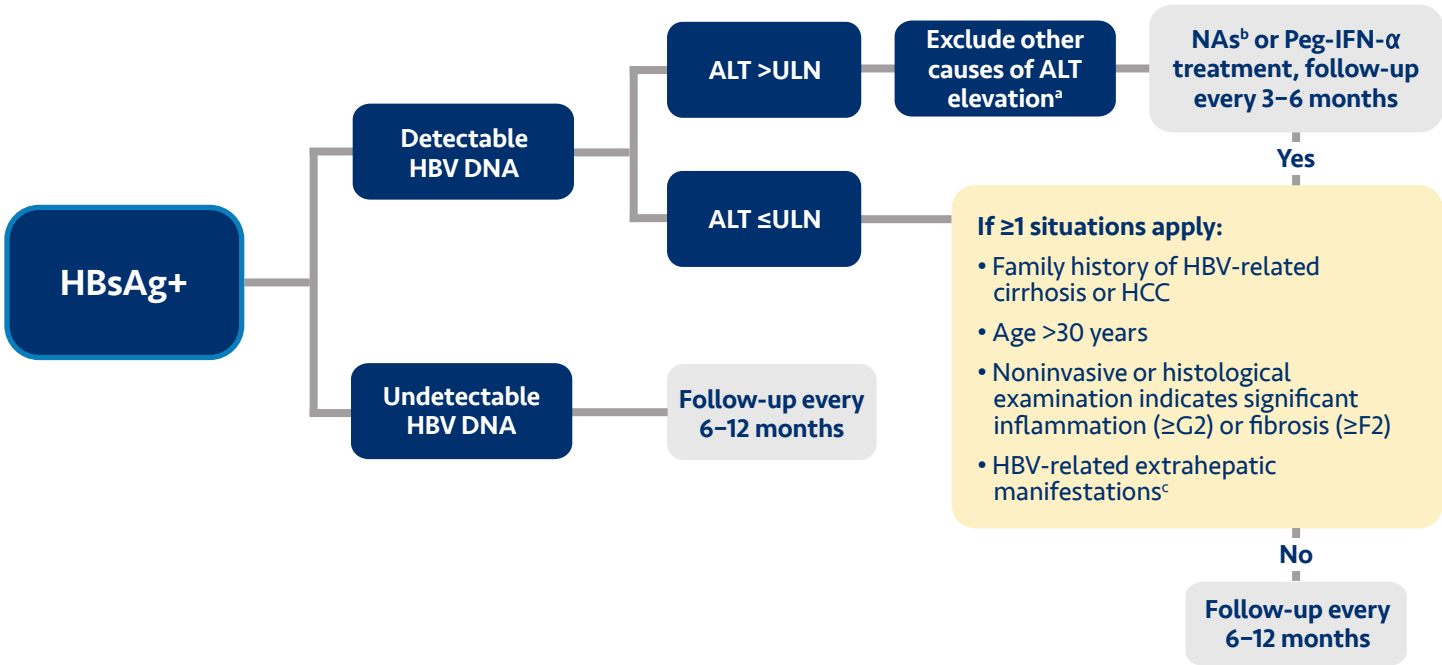
Consider the **2022 China guidelines** for your appropriate patients with chronic hepatitis B[1]

2022 China guidelines



All patients with chronic HBV infection with compensated cirrhosis should be treated with antiviral therapy, regardless of ALT levels, HBV DNA levels, or HBeAg status

VEMLIDY is a preferred first-line therapy for patients with chronic HBV and compensated liver disease

ALT=alanine aminotransferase; HBeAg=hepatitis B envelope antigen; HBsAg=hepatitis B surface antigen; HBV=hepatitis B virus; HCC=hepatocellular carcinoma; NA=nucleoside/nucleotide analog; Peg-IFN-α=pegylated interferon alfa; ULN=upper limit of normal.
[a]Exclude other causes of ALT elevation: infection with other pathogens, history of taking drugs or poisons, history of alcohol consumption, lipid metabolism disorder, autoimmune disorder, liver congestion or vascular disease, genetic and metabolic liver injury, systemic disease, etc.[1]
[b]NAs: entecavir, tenofovir disoproxil fumarate, tenofovir alafenamide, or tenofovir amibufenamide (not available in US markets).[1]
[c]HBV-related extrahepatic manifestations: glomerulonephritis, vasculitis, etc.[1]

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.**

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Choose VEMLIDY as a first-line treatment option for your appropriate patients with chronic hepatitis B[1]

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.
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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.
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Dosage and Administration

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Pregnancy and Lactation

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

Reference: 1. You H, Wang F, Li T, et al. Guidelines for the prevention and treatment of chronic hepatitis B (version 2022). *J Clin Transl Hepatol*. 2023;11(6):1425-1442. doi:10.14218/JCTH.2023.00320

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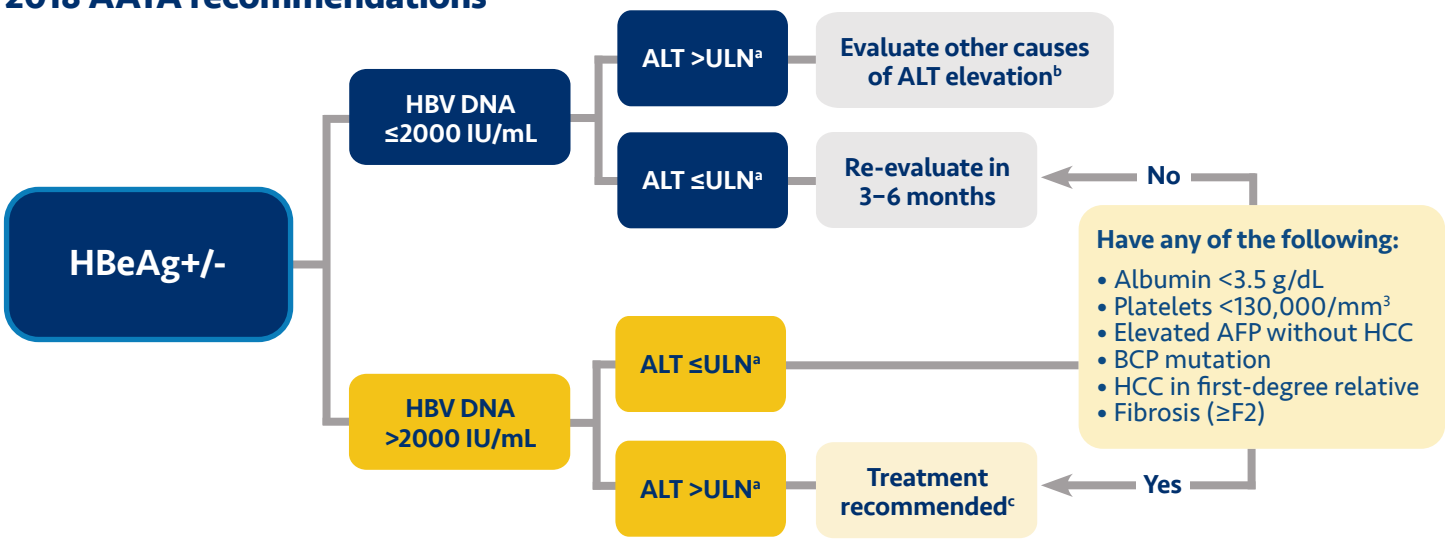
Review recommendations from the **Asian American Treatment Algorithm** for your appropriate patients with chronic hepatitis B[1]

2018 AATA recommendations



All patients with chronic HBV infection with compensated cirrhosis and detectable HBV DNA should be treated, regardless of ALT levels

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

AATA=Asian American Treatment Algorithm; AFP=alpha-fetoprotein; ALT=alanine aminotransferase; BCP=basal core promoter; HBeAg=hepatitis B envelope antigen; HBV=hepatitis B virus; HCC=hepatocellular carcinoma; ULN=upper limit of normal.

[a] ALT ULN is based on local laboratory range.[1]

[b] Other causes include medications, supplements, nonalcoholic 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).[1]

[c] Other recommended first-line nucleoside/nucleotide analogs are entecavir and tenofovir disoproxil fumarate.[1]

INDICATION

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

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Choose VEMLIDY as a first-line treatment option for your appropriate patients with chronic hepatitis B[1]

IMPORTANT SAFETY INFORMATION (continued)

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Reference: 1. Tong MJ, Pan CQ, Han SB, et al. An expert consensus for the management of chronic hepatitis B in Asian Americans. *Aliment Pharmacol Ther.* 2018;47(8):1181-1200.

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