North Carolina Society of Gastroenterology
2026 Annual Meeting

Hepatitis B: Updates and Reactivation Risk

Mark W Russo, MD MPH FAASLD FACG AGAF
Professor of Medicine
Wake Forest School of Medicine, Charlotte
Advocate Health

Joint Providership

Disclosures

None

Outline
Chronic Hepatitis B

- CHB: Immune tolerant phase, age and fibrosis
- CHB in unique populations:
  -Pregnancy, high risk setting
- CHB and reactivation

AASLD/IDSA Practice Guideline on Treatment of Chronic Hepatitis B 2025

Phases of CHB

	HBV DNA IU/mL	ALT U/L <25, 35	
Inactive	<2000	normal	eAg-
Immune active	>20,000 >2000	≥2xULN	eAg+ eAg-
Immune-tolerant	>10 million	Normal	eAg+
Indeterminant	Does not meet any of above		

NCSG
North Carolina Society of Gastroenterology

Goals of treatment

- Prevent progression to cirrhosis, HCC, liver-related death
- Reduce transmission
- Improve quality of life

CHB and Immune-tolerant Phase

45-year-old man with CHB presents with
HBV DNA 20,80,000 IU/mL
ALT 20 U/L
eAg +
VCTE with LSM of 5.8 kPa.

Which of the following factors in this patient would lead you to recommend antiviral therapy?

A. Age
B. eAg+
C. VCTE
D. HBV DNA

CHB and Immune-tolerant Phase

Treat patients in immune-tolerant phase if

- **≥40 years or**
- **Liver inflammation (≥ grade 2) or fibrosis (≥ F2)**

For persons < 40 years old shared decision-making with consideration of risk factors as well as the benefits and risks of treatment.

In this case patient is 45 y/o and started antiviral therapy

AASLD CHB guidelines 2025

NCSG
North Carolina Society of Gastroenterology

CHB Indeterminant phase

51 y/o patient with type 2 DM, obesity and chronic kidney disease presents with CHB. His labs show:
Hep B sAg pos
eAg neg
ALT 52 U/L
PLT 220K
HBV DNA 690 IU/mL
VCTE F0-1 fibrosis, S2 hepatic steatosis

What do you recommend?

NCSG
North Carolina Society of Gastroenterology

CHB Indeterminant phase

In this case: ALT>ULN<2xULN, HBV DNA<2000 IU/mL

Discuss recommendations and treatment for MASLD
Monitor HBV DNA and ALT q 3-6 months

If HBVDNA ≥2000 and ALT<2x ULN F0-1 fibrosis then can consider treatment if:
male
>40y/o,
plt<180k
increased risk HCC

In this case can consider treatment but would address MASLD

NCSG
North Carolina Society of Gastroenterology

HBV and Pregnancy

For pregnant persons with HBV DNA levels greater than 200,000 IU/mL at any time point during pregnancy regardless of HBeAg status, AASLD recommends:

- Initiating tenofovir disoproxil fumarate (TDF) or tenofovir alafenamide (TAF) at gestational week 28 to prevent mother-to-child transmission. TDF has a more extensive safety record in pregnancy than TAF.
- Both entecavir and peginterferon use are contraindicated during pregnancy
- For mothers with HBVDNA>200,000 and if HBIG unavailable initiate tenofovir at week 16 gestation + vaccinate infant
- Can stop tenofovir at delivery and monitor or continue it and breast feeding safe

NCSG
North Carolina Society of Gastroenterology

High-risk scenarios

- SHEA III health care workers (invasive procedures with direct contact of providers skin with open surgery, dental work)
- Infected persons with CHB who have unprotected sex, multiple partners, injecting drugs, living with susceptible household members

High-risk scenarios

38 year-old surgeon is seeking your advice about continuing to work because he has CHB.
He is not on treatment.
sAg+
HBV DNA 28,000 IU/mL
eAg-
ALT 32
HIV-, HCV ab-
VCTE LSM F0-1 fibrosis
RUQ US- normal
What do you recommend?

NCSG
North Carolina Society of Gastroenterology

Healthcare providers who have CHB

For HCP living with HBV who perform category III/exposure-prone procedures:

a. HCP living with HBV despite appropriate treatment, have viral loads ≥1,000 IUs should not perform category III/exposure-prone procedures.

b. HCP living with HBV viral loads consistently suppressed to <1,000 IU can perform category III/exposure-prone procedures, as long as the individual

i. Has not transmitted infection to patients while on suppressive therapy

ii. Obtains advice from the oversight panel

iii. Is followed by a personal physician who has expertise in the management of HBV infection and who is allowed by the HCP to participate or communicate with the oversight panel their clinical status

iv. Is monitored on a periodic basis (eg, every 6 months) and viral load remains <1,000 IUs, with results shared with the oversight panel and

v. Agrees, in writing, to follow the recommendations of the oversight panel.

Patient started on antiviral therapy goal to achieve HBV viral load <1000 IU/mL, ideally undetectable

Henderson, et al.SHEA 2020

High Risk Transmission

20 year-old man presents with history of CHB. He engages in unprotected sexual activity and does not use barrier protection

HBV DNA 10 million IU/mL
Hep B eAg positive
ALT 30 U/L
HIV neg, Hep C Ab NR, HDV ab neg
VCTE LSM F0-1 fibrosis

In addition to discussing the risk of sexual transmission, utilizing protective measures what additional advice do you provide?

High Risk Transmission

- Persons who are **HBsAg-positive with viremia not meeting disease-specific treatment indications** and who are in **high-risk** scenarios **for transmission** to others, AASLD suggests a **shared decision-making approach** regarding antiviral treatment.
  (Conditional recommendation, very low certainty)
- Situations favoring antiviral treatment of the viremic person include those where the person at risk for acquiring HBV is unvaccinated, has inadequate response to vaccine and/or has compromised immune systems, or has unknown vaccine status

In this case antiviral was started to reduce risk of horizontal transmission

- **HBV is not transmitted from casual contact**. People with hepatitis B should not be restricted, contact sports, school activities or professional training, and should not be required to be treated in those settings. Routine contact, sharing meals, and hugging are not considered routes of transmission, though sharing of personal hygiene items (eg, toothbrush, razors) should be avoided

CHB and Cirrhosis

Treat patients with compensated and low level viremia or decompensated cirrhosis regardless of ALT level with entecavir or tenofovir (may need to be renally dosed)

CHB and Reactivation

A patient with ulcerative colitis is about to start tofacitinib

Blood work shows
Hepatitis B sAg neg
Total core antibody positive
Surface antibody negative

What do you recommend?

CHB and Reactivation

HBsAg negative, anti-HBC positive	
	AGA 2025
High risk>10% & moderate risk (1%-10%) **Prednisone≥10 mg ≥4 weeks (1-10%)** **Cytokine/integrin inhibitors (1-10%)** **Tyrosine kinase, JAK inhibitors (1-10%)** **TACE (1-10%)** Antracyclines (1-10%) Anti-T cell/IL-6/CAR-T (1-10%) Anti-CD20, stem cell transplant (>10%)	Antiviral prophylaxis
Low risk<1% Immune check point inhibitors **Anti-TNF, DAA** **Azathioprine, methotrexate** **Any dose steroids≤1 weeks** **Low dose steroids≥ 4 weeks** or intra-articular	Monitor

NCSG
North Carolina Society of Gastroenterology

Ali, et al. Gastroenterology 2025;168:267-284.

CHB and Reactivation

HBsAg positive, anti-HBC positive	
	AGA 2025
High(>10%)& moderate risk (1%-10%) **Anti-TNF** **HCV coinfection on DAA** **Cytokine/integrin inhibitors** **JAK inhibitors** **TACE** **Corticosteroids>4 weeks /low** (1%-10%) Antracycline derivatives B-cell depleting therapy Anti-T cell (1-10%)/IL-6/CAR-T Tyrosine kinase inhibitors	Antiviral prophylaxis
Low risk<1% Intra-articular steroids **Azathioprine, methotrexate** Corticosteroids≤1 week	Monitor

North Carolina Society of Gastroenterology

Ali, et al. Gastroenterology 2025;168:267-284.

Treatment options

- Entecavir 0.5 mg or 1mg daily 2 hours before meals
- Tenofovir disoproxil fumarate 300 mg daily take with food
- Tenofovir alafenamide 25 mg daily take with food
- Peginterferon-alfa-2a 180 mcg subq weekly/IFN2b

Treatment side effects

Entecavir	HIV resistance Lactic acidosis	Test for HIV Lactic acid level
Tenofovir disoproxil fumarate	HIV resistance Lactic acidosis Bone loss Renal-Fanconi, hypophosphatemia	Test for HIV Lactic acid level Bone density Serum Cr, urine glucose protein
Tenofovir alafenamide	HIV resistance Lactic acidosis Renal-Fanconi, hypophosphatemia Hypercholesterolemia	Test for HIV Monitor symptoms Serum Cr, urine glucose, protein,serum phos Lipids q 4-12 wks
PegIFN2a	Thyroid disease cytopenia	TSH q 3 months CBC

NCSG
North Carolina Society of Gastroenterology

Can consider stopping antiviral therapy if:

- No advanced fibrosis, hepatic decompensation, HCC, extrahepatic manifestations
- If eAg+ initially then eAg-/eAb+ for >1 year
- HBV DNA undetectable >2 years
- HBsAg level<100 IU/mL
- No coinfection with HIV or HDV
- Agrees to frequent monitoring

Other Topics

- Hepatitis B and D
- When to treat severe acute hepatitis B
- HCC surveillance- coinfection, surface antigen loss
- Role of quantitative surface antigen

Take Home Points

- Threshold to treat immune tolerant phase lower and includes age, fibrosis, inflammation
- Updated criteria for indeterminant phase and treatment including age, fibrosis, platelet count, HCC risk
- Threshold to prevent reactivation is lower, based on risk of reactivation and surface antigen, total core antibody status

47 year-old patient presents for management of chronic hepatitis B. He has no other past medical history.

Physical exam is unremarkable

T bili 0.8 mg/dL, AST 18 IU/L, ALT 22 IU/L, alk phos 110 U/L,

HBsAg+, eAg+, eAb-, HBVDNA 132 million IU/mL
Cr 0.9 mg/dL, HIV neg, Hep C ab neg, HDV ab neg
AFP 2.2 ng/mL RUQ US liver normal echotexture
VCTE LSM F2 fibrosis

What do you recommend?

A. Peginterferon 180 mcg sq weekly
B. Liver biopsy
C. Entecavir 0.5 mg daily
D. Adefovir 10 mg daily

Joint Providership

ASGE
American Society for Gastrointestinal Endoscopy

NCSG
North Carolina Society of Gastroenterology

CME/MOC Answer

C. entecavir 0.5 mg daily

Patient is in the immune tolerant phase, F2 fibrosis, male and ≥40 years-old
Recommendations are to treat with entecavir or tenofovir disoproxil fumarate or tenofovir alafenamide

Joint Providership

ASGE
American Society for Gastrointestinal Endoscopy

NCSG
North Carolina Society of Gastroenterology