AGA Clinical Practice Guideline on the Prevention and Treatment of Hepatitis B Virus Reactivation in At-Risk Individuals[1]

By: Garrett Cole, MD

Definition and Background

- Hepatitis B virus reactivation (HBVr) is characterized by a loss of immunologic suppression of HBV activity in patients who are either positive for HBV surface antigen (HBsAg) or HBV core antibody (anti-HBc).
- Hepatitis B reactivation (HBVr) can occur due a variety of different immuno-modulating exposures within different drug classes and disease states.
  - Incidence varies by degree and mechanism of immunosuppression
- Antiviral prophylaxis can mitigate the risk, however in some clinical circumstances clinical monitoring can be sufficient.

Baseline risk of HBVr

Low risk: baseline risk of 0.1%

High risk: Risk of >10%

Moderate risk: baseline risk of 5%

Best Practice Advice Screening

- For individuals at **potential** risk of HBVr, the AGA recommends testing for hepatitis B (*Strong recommendation, moderate certainty evidence*).
- Given universal Centers for Disease Control and Prevention (CDC) screening guidance for hepatitis B for all adults aged ≥18 years by testing for HBsAg, anti-HBs, and total anti-HBc, stratifying screening practices by magnitude of HBVr risk is no longer needed.
- It is reasonable to test initially for serologic markers alone (at minimum for HBsAg, anti-HBc) followed by viral load testing (HBV-DNA) if HBsAg and/or anti-HBc is positive.

Prophylaxis vs. Monitoring

- **Prophylaxis**: Entecavir, Tenofovir alafenamide, tenofovir disoproxil fumarate
- **Monitoring**: Monitoring should be performed at 1- to 3-month intervals, and must include assessment of hepatitis B viral load in addition to assessment of alanine aminotransferase (ALT).

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Best Practice Advice 1

- For individuals at **high** risk of HBVr, the AGA recommends **antiviral prophylaxis over monitoring alone**. (*Strong recommendation, moderate certainty evidence*)
- Antiviral prophylaxis should be started before start of medications that impose risk of HBVr and should be continued for at least 6 months after discontinuation of risk-imposing therapy.
    - At least 12 months for B cell–depleting agent

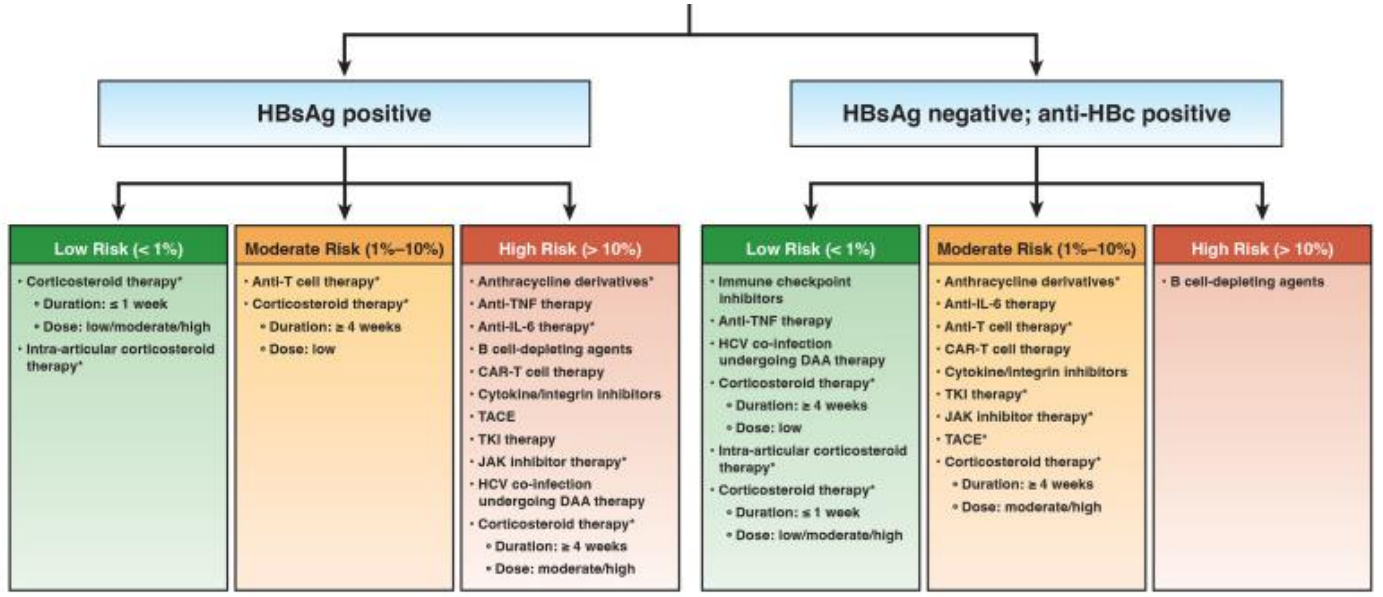
Best Practice Advice 2

- For individuals at **moderate** risk of HBVr, the AGA **suggests antiviral prophylaxis over monitoring alone.** (*Conditional recommendation, moderate certainty evidence*).
- Patients who place a higher value on *avoiding* long-term use of antiviral therapy and the cost associated with its use, and a lower value on avoiding the small risk of reactivation (particularly in those who are HBsAg-negative) may reasonably select active monitoring over antiviral prophylaxis.

Best Practice Advice 3

- For individuals at **low** risk of HBVr, the AGA suggests **monitoring alone over using antiviral prophylaxis** (*Conditional recommendation, moderate certainty evidence*).
- Patients who place a higher value on avoiding the small risk of reactivation (particularly those who may be on more than *one* low-risk immunosuppressive medication) and a lower value on the burden and cost of antiviral therapy may reasonably select antiviral therapy.

Evaluation for HBV Reactivation in at risk individuals



High Risk	Recommend antiviral prophylaxis over monitoring alone (*strong recommendation, moderate certainty evidence*)
Moderate Risk	Suggest antiviral prophylaxis over monitoring alone (*conditional recommendation, moderate certainty evidence*)
Low Risk	Suggest monitoring alone over using antiviral prophylaxis (*conditional recommendation, moderate certainty evidence*)

Glucocorticoids (prednisone or equivalent): low dose, < 10 mg; moderate dose, 10–20 mg; high dose, > 20 mg

*Lower certainty in the evidence for this classification

NOTE:

- The risk of HBVr from exposure to multiple agents can be cumulative
- Using anti-HBs status to guide antiviral prophylaxis for all risk groups is not supported by the evidence
- Antiviral prophylaxis should be started before the start of risk-imposing therapy and continued for at least 6 months after discontinuation of risk-imposing therapy (at least 12 months for B cell-depleting agents)
- The risk for HBV reactivation refers to the duration of the risk-imposing state or up to one year, unless otherwise noted; longer-term risk has higher uncertainty
- If the risk-imposing state changes, reassess the risk categorization

TNF, tumor necrosis factor; HCV, hepatitis C virus; DAA, direct acting antiviral agent(s); IL-6, interleukin-6; TKI, tyrosine kinase inhibitor; JAK, janus kinase; TACE, transcatheter arterial chemoembolization

Resources:
1.AGA Clinical Practice Guideline on the Prevention and Treatment of Hepatitis B Virus Reactivation in At-Risk Individuals
Ali, Faisal S. et al.
Gastroenterology, Volume 168, Issue 2, 267 – 284

LINK: https://www.gastrojournal.org/article/S0016-5085(24)05744-5/fulltext#supplementary-material