Hepatitis B Virus Screening and Management for Patients with Cancer Prior to Therapy Algorithm

**Evidence of HBV infection**
- CHRONIC HBV
  - HBsAg+
    - Systemic anticancer therapy
      - Cytotoxic, immunotherapy, or targeted therapy
        - Start antiviral prophylaxis, continue at least 12 mos after last anticancer therapy.
        - Check HBV DNA and ALT at baseline and every 6 mos during antiviral therapy.
        - After anticancer therapy, monitor ALT for hepatitis flares and may need long-term antiviral therapy.
    - For Chronic HBV
      - Consult HBV specialist, if available, for consideration of long-term antiviral therapy.
  - For Chronic HBV
    - Consult HBV specialist for co-management, if available.
- PAST HBV
  - HBsAg+
    - Anti-CD20 therapy or stem cell transplant
  - No further monitoring is necessary.
  - For Past HBV
    - Check HBV DNA and ALT at baseline and every 6 mos during antiviral therapy.
    - After antiviral therapy, monitor ALT for hepatitis flares and may need long-term antiviral therapy.
  - For Past HBV
    - Check HBV DNA and ALT at baseline and every 6 mos during antiviral therapy.
    - After antiviral therapy, monitor ALT for hepatitis flares and may need long-term antiviral therapy.
- PAST HBV
  - HBsAg–, anti-HBc+ (total Ig or IgG), and anti-HBs testing before anticancer therapy
    - If HBsAg+, then start antiviral therapy immediately.
    - If hepatitis flare, check HBV DNA. If HBV DNA >1000 IU/ml, start antiviral therapy immediately.
- No evidence of HBV infection
  - All other systemic anticancer therapy
    - Monitoring
      - Check HBV DNA and ALT every 3 mos during anticancer therapy.
      - If HBsAg+, then start antiviral therapy immediately.
      - If hepatitis flare, check HBV DNA. If HBV DNA >1000 IU/ml, start antiviral therapy immediately.

**Notes.**
- HBV, hepatitis B virus; HBsAg, hepatitis B surface antigen; HBc, hepatitis B core antibody; anti-HBs, antibody to hepatitis B surface antigen; CD20, anti-CD20; stem cell transplant.
- In patients with past HBV, if anti-HBs is positive or HBc positive, regardless of anti-HBs status, and a positive anti-HBs test, a positive anti-HBs test likely attenuates the risk of reactivation in patients with past HBV infection (see text for details).
- Monitoring during antiviral therapy, and for up to 12 mos after last anticancer therapy (see text for details).
- Long-term antiviral therapy management for patients with cancer after the cessation of anticancer therapy should follow national hepatology recommendations for all patients with chronic HBV.

**References.**