Screening and prevention of hepatitis B virus (HBV) reactivation in immunosuppressed patients


Current HBV infection (HBsAg+)

Screen all patients with HBV serology (HBsAg and HBcAb)

No prior HBV infection (HBcAb–)

Refer patient to a specialist for consideration of antiviral therapy

Duration: High risk of reactivation post-antiviral therapy
Prechemotherapy HBeAg+ and HBV DNA > 10^4 copies/mL
• Consider long-term antiviral therapy with endpoint being HBeAg seroconversion.
• Monitor LFTs and HBV-DNA monthly for evidence of antiviral resistance.
• Add additional agent if resistance develops.

Duration: Low risk of reactivation post-antiviral therapy
Prechemotherapy HBeAg– and HBV DNA < 10^4 copies/mL
• Cease ≥ 6 months after last chemotherapy when WBC returns to normal range.
• Monitor LFTs and HBV-DNA monthly for 1 year after antiviral cessation.
• Restart antiviral therapy if > 1 log_{10} increase in HBV-DNA.

Past HBV infection (HBcAb+, HBsAg–)

Proceed to chemotherapy

Current HBV infection (HBsAg+)

Prophylactic antiviral therapy
Commence ≥ 1 week before chemo

Duration: Low risk of reactivation post-antiviral therapy
Prechemotherapy HBeAg– and HBV DNA < 10^4 copies/mL
• Cease ≥ 6 months after last chemotherapy when WBC returns to normal range.
• Monitor LFTs and HBV-DNA monthly for 1 year after antiviral cessation.
• Restart antiviral therapy if > 1 log_{10} increase in HBV-DNA.

Duration: Low risk of reactivation post-antiviral therapy
Prechemotherapy HBeAg– and HBV DNA < 10^4 copies/mL
• Monitor LFTs and HBV serology monthly.
• In haematopoietic stem cell transplants, a fall in HBsAb predicts reverse seroconversion.

? Risk of seroconversion
HBsAg– to HBsAg+ in HBcAb+ patient
• Monitor LFTs and HBV serology monthly.
• Monitor LFTs and HBV-DNA monthly for 1 year after antiviral cessation.
• Restart antiviral therapy if > 1 log_{10} increase in HBV-DNA.