HBV Infection–Monitoring Before and After Liver Transplantation

**Pretransplant**
Chronic HBV with end-stage liver disease (ESLD)

- Obtain baseline HBV DNA level using HBVQN / Hepatitis B Virus (HBV) DNA Detection and Quantification by Real-Time PCR, Serum
- Anti-HBV drug treatment of choice
- Order HBVQN / Hepatitis B Virus (HBV) DNA Detection and Quantification by Real-Time PCR, Serum every 2 to 3 months

**Transplant**

- HBV DNA <10^4 IU/mL
  - Initiate hepatitis B immune globulin (HBIG) therapy for 1 month
  - Continue anti-HBV drug treatment of choice
  - Order HBABT / Hepatitis B Surface Antibody Monitor, Post-Transplant, Serum to guide HBIG dosing
  - Order HBs antigen (HBAG / Hepatitis B Surface Antigen, Serum) and HBV DNA (HBVQN) per transplant protocol

- HBV DNA >10^4 IU/mL
  - Initiate and continue hepatitis B immune globulin (HBIG) therapy indefinitely
  - Continue anti-HBV drug treatment of choice
  - Order HBABT / Hepatitis B Surface Antibody Monitor Post-Transplant, Serum to guide HBIG dosing
  - Order HBs antigen (HBAG / Hepatitis B Surface Antigen, Serum) and HBV DNA (HBVQN) per transplant protocol

**Negative HBs antigen:**
No reinfection

- Order HBs antigen (HBAG) and HBV DNA (HBVQN) per transplant protocol
- Administer HBV vaccine (optional)

**Positive HBs antigen:**
HBV reinfection

- Order HBVQN
- Change anti-HBV drug therapy to an alternative nucleos(t)ide analog
- Consider hepatitis B virus (HBV) drug resistance test to guide therapy. Contact Mayo Clinic Laboratories to order.

**Negative HBs antigen:**
No reinfection

- Continue anti-HBV prophylaxis and monitor every 3 to 6 months using HBVQN
- Monitor treatment response every 3 to 6 months by ordering HBVQN
- If resistance to a nucleos(t)ide analog is suspected, consider hepatitis B virus (HBV) drug resistance test. Contact Mayo Clinic Laboratories to order.