

Hepatitis B status – initial screening

Hep B surface antigen HBsAg	Hep B core antibody HBcAb	Hep B surface antibody HBsAb	Hep B core IgM	Status	Management
Pos	Pos	Neg	Neg	Chronic	Determine phase, test: HBeAg, HBV DNA, HBeAb, LFT, FBC, INR, AFP and Liver USS Assess liver fibrosis-cirrhosis → Screen for co-infection: HIV, HCV, HDV and HAV Screen household and sexual contacts and vaccinate as needed.
Pos	Pos	Neg	Pos High Titre	Acute	
Neg	Neg	Pos		Immune (vaccination)	HBsAb >10IU/ml = immune Document in client file
Neg	Pos	Pos		Immune (acquisition)	Immunity due to resolved infection Document in client file
Neg	Pos	Neg		Unclear	Interpretation: 1. Resolved infection (most common) 2. False positive 3. Occult HBV infection 4. Resolving acute infection
Neg	Neg	Neg		Non-immune	Non-immune Offer Hep B vaccination

Acute HBV = <6mths

Chronic HBV = >6months

95% of adults obtain natural clearance of acute Hepatitis B

Non-Invasive fibrosis assessment

- Image-based elastography
- Serum interpretation

Cirrhosis – present or likely

Treatment indicated
Refer to specialist

Elastography – non-invasive technique to check the stiffness of the liver.

Serum interpretation – non-invasive, serum interpretation for cirrhosis.
Use APRI or FIB-4 See clinical calculator at www.hepatitisb.uw.edu

Fibrosis – scarring of the liver with the formation of large amounts of scar tissue as the liver attempts to repair and replace damaged cells.

Cirrhosis – widespread distortion of the internal structure of the liver when permanently replaced with scar tissue. Scar tissue develops with repeated or continuous damage to the liver ie. Chronic hepatitis.

Chronic Hepatitis B - assessing phase of infection

HBeAg	HBV DNA	ALT	Anti-HBe	Phase	Management
Pos	High >20,000IU/ml	Normal		Immune tolerance HBeAg-pos chronic infection	No treatment indicated
Pos	High >20,000IU/ml	Elevated Women >19U/L Men >30U/L		Immune clearance HBe-Ag-pos chronic hepatitis	Treatment indicated Refer to specialist
Neg	Low <2000IU/ml	Normal	Pos	Immune control HBe-Ag-neg chronic infection	No treatment indicated
Neg	High >2000IU/ml	Elevated Women >19U/L Men >30U/L	Pos	Immune escape HBe-Ag-neg chronic hepatitis	Treatment indicated Refer to specialist

