

## STEP 1 Should I test for HBV?

### Who to offer testing to?

- People born in intermediate and high prevalence countries (offer interpreter)
- Aboriginal & Torres Strait Islander peoples
- Patients undergoing chemotherapy or immunosuppressive therapy (due to risk of reactivation)
- Pregnant women
- Infants and children born to mothers who have HBV (>9mths)
- People with clinical presentation of liver disease &/or elevated Alanine transaminase (ALT) / Alpha fetoprotein (AFP) of unknown aetiology
- Health professionals who perform exposure prone procedures
- Partner/household/sexual contacts of people with acute or chronic HBV
- People who have ever injected drugs
- Men who have sex with men
- People with multiple sex partners
- People in custodial settings or who have ever been in custodial settings
- People with HIV or hepatitis C, or both
- Patients undergoing dialysis
- Sex workers

## STEP 2 To determine hepatitis B status, order 3 tests

Order HBsAg, anti-HBs and anti-HBc to determine susceptibility; immunity through vaccination or past infection; or current infection (acute or chronic).

All 3 tests are Medicare rebatable simultaneously. Write '? chronic hepatitis B' or similar on the request slip.

If acute HBV is suspected (through recent risk, presentation, or both) IgM anti-HBc can also be ordered to support clinical suspicion.

## STEP 3 Interpreting serology

HBsAg	positive	Chronic HBV infection
anti-HBc	positive	
anti-HBs	negative	
HBsAg	positive	Acute HBV infection * (high titre)
anti-HBc	positive	
IgM anti-HBc*	positive	
anti-HBs	negative	
HBsAg	negative	Susceptible to infection (vaccination should be recommended)
anti-HBc	negative	
anti-HBs	negative	
HBsAg	negative	Immune due to resolved infection
anti-HBc	positive	
anti-HBs	positive	
HBsAg	negative	Immune due to hepatitis B vaccination
anti-HBc	negative	
anti-HBs	positive	
HBsAg	negative	Various possibilities including: distant resolved infection, recovering from acute HBV, false positive, 'occult' HBV
anti-HBc	positive	
anti-HBs	negative	

## STEP 4 Initial assessment if HBsAg positive

It is essential to assess the phase of disease (see graph for more information) by determining:

- Hepatitis B e antigen status (HBeAg and anti-HBe)
- HBV DNA level
- LFT, FBC, INR and alpha fetoprotein (AFP)
- Physical examination
- Liver ultrasound

### IN ADDITION:

- Test for HAV, HCV, HDV and HIV to check for co-infection. Discuss vaccination if susceptible to HAV. Discuss transmission and prevention of BBVs.
- Screen household contacts and sexual partners for HBsAg, anti-HBs and anti-HBc, then vaccinate if susceptible to infection. Vaccination is recommended for all high risk groups, and is provided free in many cases. Contact your local Health Department for details.

## STEP 5 Follow up and monitoring for chronic HBV

Patients with CHB must be regularly re-evaluated to determine which phase they are in and managed accordingly. See graph over page for more information. Also refer patient if evidence of chronic liver disease, suspicion of immune-suppression, pregnancy, <16 years or possible HCC on surveillance.

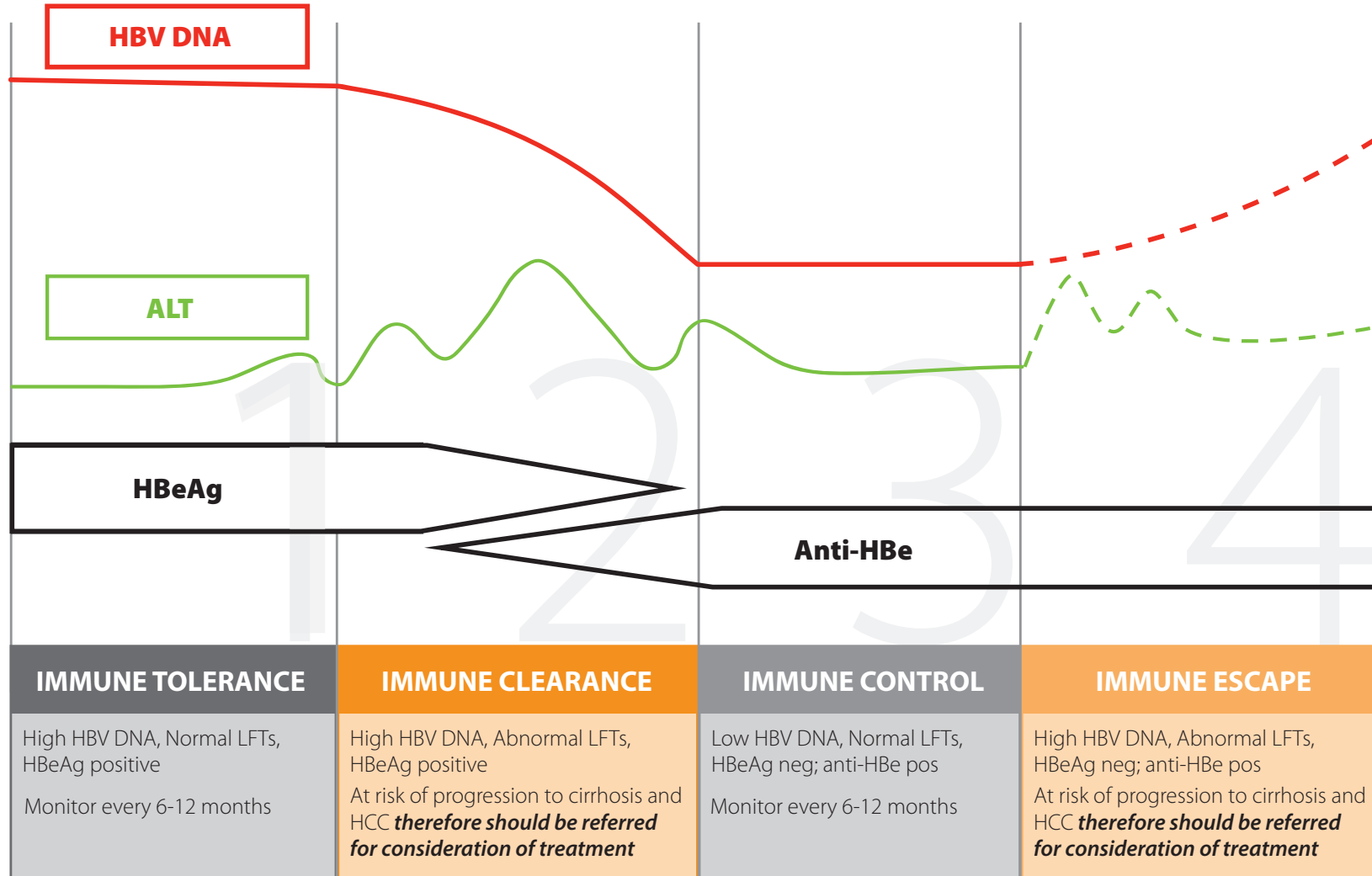
**Hepatocellular carcinoma (HCC) surveillance (6 monthly ultrasound & AFP) is recommended in these HBsAg + groups:**

- Africans > 20
- Aboriginal and Torres Strait Islander people > 50
- Asian men > 40
- HCC family history
- Asian women > 50
- Patients with cirrhosis

### BEWARE 'normal' ALT

Elevated ALT levels are: >30 U/L MEN >19 U/L WOMEN

## Natural History of Chronic HBV: The 4 Phases and Relevance to Treatment Decisions



Additional copies and electronic version available at [www.ashm.org.au/publications](http://www.ashm.org.au/publications)