

Hepatitis B factsheet for clinicians

April 2016

The facts	<ul style="list-style-type: none">• In 2013, an estimated 56,000 Victorians were living with chronic hepatitis B (CHB)• Those born overseas and Aboriginal and Torres Strait Islander people comprise two thirds of all Australians living with CHB• Over 40% of Australians with CHB infection remain undiagnosed• 90% of infected infants progress to CHB compared to 5% of immunocompetent infected adults• People with CHB infection are at increased risk of developing liver cirrhosis, hepatocellular carcinoma (HCC), with 15–40% developing complications during their lifetime• Hepatitis B is transmitted: vertically (from mother to child during pregnancy), through unprotected vaginal, anal, and oral sex, via infected needles and injecting equipment, and occasionally through sharing of household items such as toothbrushes, razors, nail clippers• Hepatitis B is NOT spread by: water, sharing food and drink, coughing, sneezing, hugging, kissing, other casual workplace contact• Hepatitis B is a vaccine-preventable disease
Who should be tested?	<p>Testing is recommended in cases where there is clinical suspicion of acute hepatitis B infection or in the context of evaluating unexplained abnormal liver function tests.</p> <p>Population groups recommended to have hepatitis B screening include:</p> <ul style="list-style-type: none">• People born overseas in areas with 2% HBV prevalence or greater. (Refer to the National Hep B Testing Policy http://testingportal.ashm.org.au/hbv)• Aboriginal and Torres Strait Islander people• People who have ever injected drugs• Men who have sex with men• People living with HIV and/or hepatitis C• Sex workers• People with haemophilia/history of receiving blood transfusion• People with multiple sexual partners• Immediate family, household and sexual contacts of people with acute or chronic hepatitis B infections• People undergoing dialysis• People who have ever been in custodial settings (remand, jail)• Pregnant women or women trying to get pregnant• Patients about to commence chemotherapy or immunosuppressive therapy• Healthcare workers, particularly those who are performing exposure prone procedures• Mobile populations, such as international students
How is it diagnosed?	<ul style="list-style-type: none">• Hepatitis B serology is requested on initial testing: hep B surface antigen, hepatitis B core antibody, and hepatitis B surface antibodies• A hepatitis B surface antigen positive result is suggestive of chronic hepatitis B infection if this has persisted for more than 6 months
How should cases be managed?	<ul style="list-style-type: none">• Notify cases to Communicable Disease, Prevention and Control via telephone 1300 651 160, fax 1300 651 170 or online at www.health.vic.gov.au/public-health/infectious-diseases within five days of diagnosis• Refer to a viral hepatitis specialist. Ongoing monitoring and timely treatment can prevent the onset of serious liver diseases• Screen patients with a positive hepatitis B result for hepatitis A, C, D and HIV• Educate patients about safe sex and other measures to prevent transmission
How should contacts be managed?	<ul style="list-style-type: none">• Test immediate family members, household, and sexual contacts of diagnosed cases for hepatitis B• Immunise those that are susceptible• Refer to the Victorian Immunisation Schedule for information about eligibility for free vaccination www.health.vic.gov.au/public-health/immunisation• Educate contacts about safe sex and other measures to prevent transmission

Test results and their interpretation

Serology	Interpretation
HBsAg negative HBsAb negative HBcAb negative	Susceptible to infection. Vaccination recommended for at-risk groups* If there is documentation of a prior appropriate immunisation schedule, discuss with your local viral hepatitis specialist for further advice
HBsAg negative HBsAb positive HBcAb negative	Immune due to hepatitis B vaccination
HBsAg negative HBsAb positive HBcAb positive	Resolved hepatitis B infection Does not need re-immunisation
HBsAg positive HBsAb negative HBcAb positive HBcAb IgM positive	Acute hepatitis B infection
HBsAg positive HBsAb negative HBcAb positive	Chronic hepatitis B infection (if Hep B surface Ag positive greater than 6 months)
HBsAg negative HBsAb negative HBcAb positive	Suggest discuss with local viral hepatitis specialist for further advice. Possibilities are: <ul style="list-style-type: none"> distant resolved hepatitis B infection. HBsAb levels below lab detectable limit. Considered hep B immune resolving acute hepatitis in period between HBsAg loss and prior to development of HBsAb occult hepatitis B infection. Hep B viral PCR test will confirm false positive lab result

*Refer to www.hepbhelp.org.au

Terminology of chronic hepatitis B

Term	Interpretation
Immune tolerance	Replicative phase High HBV DNA, normal LFTs, HBeAg positive Monitor every 6-12 months
Immune clearance	Immune competence and immunoactive phase High HBV DNA, abnormal LFTs, HBeAg positive Risk of disease progression. Treatment should be considered
Immune control	Non-replicative state Low HBV DNA, normal LFTs, HBeAg negative, HBeAb positive Monitor every 6-12 months
Immune escape	Reactivation phase High HBV DNA, abnormal LFTs, HBeAg negative, HBeAb positive Risk of disease progression. Treatment should be considered

Abbreviations

Abbreviation	Term
HBsAg	Hepatitis B surface antigen
HBsAb	Hepatitis B surface antibody
HBcAb	Hepatitis B core antibody
HBeAg	Hepatitis B e antigen
HBeAb	Hepatitis B e antibody
CHB	Chronic hepatitis B

Treatment

Treatment is indicated for some patients with chronic hepatitis B. Providing treatment can prevent, halt, reverse the progression of liver injury and prevent liver cancer.

Treatment options include antiviral agents such as entecavir and tenofovir. Interferon treatment has a role for some patients.

For a patient you think may benefit from treatment, prompt referral to a viral hepatitis specialist to ascertain suitability is recommended.

Resources for clinicians

ASHM: www.ashm.org.au/hbv/resources

Australian Immunisation Handbook 10th edition: www.immunise.health.gov.au/internet/immunise/publishing.nsf/content/handbook10-home

National HBV testing policy: <http://testingportal.ashm.org.au/hbv>

Hep B Help: www.hepbhelp.org.au/

Victorian Immunisation Schedule: www.health.vic.gov.au/public-health/immunisation/immunisation-schedule-vaccine-eligibility-criteria/immunisation-schedule-victoria

Information for patients

Better Health Channel: www.betterhealth.vic.gov.au/health/conditionsandtreatments/hepatitis-b

Hepatitis Victoria: www.hepvic.org.au

Hepatitis Australia: www.hepatitisaustralia.com

Information in other languages is available on the Health Translations website: www.healthtranslations.vic.gov.au/bhcv2/bhcht.nsf/presentdetail?open&s=hepatitis_b