

Hepatitis B and pregnancy



The Hepatitis Foundation of New Zealand

www.hepatitisfoundation.org.nz | 0800 33 20 10



About hepatitis B

- Hepatitis B (HBV) is transmitted through exposure to infected blood, semen and other bodily fluids. It may be acute <6 months or chronic >6 months
- Hepatitis B has an incubation period of 30-180 days. It is a DNA virus that is more resilient than RNA viruses such as HCV and HIV; it can live outside the body on any surface for at least seven days
- Hepatitis B is the world's most common serious liver infection and the leading cause of liver cancer. A vaccine is available.

Vertical transmission

- Hepatitis B doesn't usually cause problems for pregnant women and their unborn babies. However, for a baby born to an HBV-positive woman, there is a risk of vertical (mother-to-baby) transmission as high as 90 percent if no prophylaxis is given.
- Vertical transmission predominantly occurs during labour, but can also happen with threatened abortion or amniocentesis (low risk)
- The risk of transmission increases with higher virus levels (HBV DNA viral load) and for those who are e-antigen positive.

HBV management in pregnant women

Pregnant women with hepatitis B should be given full HBV serology.

Screen all pregnant women for HBsAg early in pregnancy, even if previously tested or vaccinated. If HBsAg-positive, test HBeAg, liver function tests (LFTs) and HBV DNA (viral load).

Women with high viral loads ($>\log 7$ copies per ml) or abnormal liver functions (high ALT) need referral to a service able to care for high-risk pregnancies. If indicated, the women will begin tenofovir (anti-viral medication) in the third trimester and continue for 3-4 months post-natally. Post-natal flares can occur ($\text{ALT} > \times 5$) and need to be monitored.



Prevent vertical transmission

- Screen all pregnant women for HBsAg
- Immunoprophylaxis: Hepatitis B immunoglobulin and Hepatitis B vaccination given within 24 hours of birth, followed by two further vaccine doses, prevents vertical transmission in 90 percent of cases.
- Failure of immunoprophylaxis can occur in women with very high virus levels, e.g. $>200,000$ IU/mL
- All HBsAg-positive pregnant women should have their HBV DNA viral load checked. Those with levels $>200,000$ IU/mL should be offered tenofovir from 24-28 weeks gestation to reduce the risk of perinatal transmission.

Tenofovir suppresses hepatitis B virus multiplication, thereby stopping the virus crossing the placenta to infect the baby. Tenofovir is safe for mother and baby. Women can breastfeed while taking it.

HBV serology

- Hepatitis B surface antigen (HBsAg): Determines whether there is continued viral infection
- Hepatitis B e-antigen (HBeAg): This checks the status of infection. A positive result indicates the virus is in the more active form and means the patient can spread it to other people
- Alpha-fetoprotein (AFP): This is a normal protein of every pregnancy and levels rise as the pregnancy progresses. For non-pregnant people with hepatitis B, AFP goes up in liver cancer and active hepatitis and should be checked every six months
- Liver function tests (LFTs): Check for active liver inflammation. Depending on your patient's results, anti-viral medication may be considered. A patient can have HBV even if their LFTs are normal. If your patient has risk factors for HBV, please screen them with the above tests.

About us



The Hepatitis Foundation of NZ aims to improve health outcomes for people with hepatitis B in NZ.

We have more than 30 years' experience in delivering facilitation, assessment, follow-up, education and support.

We work extensively with Māori, Pacific and Asian ethnic communities.

Visit us at:
www.hepatitisfoundation.org.nz
Call us on:
0800 33 20 10

The Hepatitis Foundation of New Zealand



What do we offer patients?

- A confidential national follow-up programme for people with chronic hepatitis B
- Regular monitoring of hepatitis B (vital in detecting early liver cancer)
- Six-monthly follow-up of chronic hepatitis B patients to help reduce the risk of liver disease
- Advice and support to people living with chronic hepatitis B
- Information on lifestyle and treatment, contact with a community hepatitis nurse and referral to secondary care (if required)
- Advocacy for clients living with chronic hepatitis B.

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