

Hepatitis B Vaccination

Hepatitis B immune status

Post-vaccination serological testing 4–8 weeks after the third dose of hepatitis B vaccine is recommended only for those at high risk of acquiring the infection (e.g. health-care workers, close contacts of Hepatitis B carriers, and those likely to have a poor response e.g. immunosuppressed). It is not recommended for the general population. If adequate anti-HBs levels are not reached following a full course of hepatitis B vaccination, the possibility of chronic HBV should be investigated with the testing of HBsAg and also anti-HBc.

Non-responders to primary vaccination

Those who are HBsAg negative and do not respond should be offered further doses. These can be given as a further 3 doses at monthly intervals, with further testing at least 4 weeks after the last dose. Regimens involving a fourth double dose have not been adequately validated.

There is limited evidence from several trials that HBsAg negative healthcare workers, who are non-responders to a primary course of vaccination and subsequent intramuscular booster schedule, as above, may respond to 5 µg of Engerix-B (0.25 mL of the adult formulation) administered intradermally at fortnightly intervals (up to 4 doses) with anti-HBs levels measured before each dose to assess for seroconversion.

Persistent non-responders should be informed that they are not protected and should minimise exposure risk, and require Hepatitis B Immunoglobulin (HBIG) within 72 hours of parenteral or mucosal exposure to HBV.

For individuals where prior seroconversion following a documented primary course is unknown, but have anti-HBs levels < 10 IU/mL, a booster dose of vaccine should be administered. Anti-HBs should be checked 4 weeks later.

Booster doses

Although vaccine-induced antibody levels decline with time and may become undetectable, booster doses are not recommended in immunocompetent individuals after a primary course, as there is good evidence that a completed primary course of hepatitis B vaccination provides long-lasting protection. This applies to children and adults, including healthcare workers and dentists. However, booster doses are recommended for individuals with impaired immunity, in particular those with either HIV infection or renal failure. The time for boosting in such individuals should be decided by regular monitoring of anti-HBs levels at 6 to 12-monthly intervals.

Australian Immunisation Handbook, 10th Edition (2017).

<http://www.immunise.health.gov.au/internet/immunise/publishing.nsf/Content/Handbook10-home>