

Hepatitis B Newborn Prophylaxis Protocols



Communicable Disease Control Branch

The following hepatitis B newborn prophylaxis protocols apply to:

- A. Infants born to HBsAg-positive mothers
- B. Infants born to untested mothers
- C. Infants born to families with a household member known to be HBsAg-positive

NOTE: As follow-up of the newborn is determined by the parent/guardian's area of residence, which may be in a First Nations Inuit Health jurisdiction, references to Public Health or instructions for Regional Public Health include First Nations Inuit Health.

Health care providers are asked to complete the *Hepatitis B-Prophylaxis-Record Sheet for Infants* as well as the *Manitoba Immunization Monitoring System (MIMS) Immunization Monitoring Form for Hospitals and Clinics* at the time of prophylaxis. These forms are provided with each vial of hepatitis B immune globulin (HBIG) and should be returned along with the infant's post-partum referral to the regional public health office of the parent/guardian's region of residence for appropriate public health follow-up including:

- generating follow-up form letters (to be signed by Regional Medical Officer of Health or First Nations Inuit Health) to the infant's physician/practitioner and parent/guardian. The follow-up letters will advise that two additional doses of hepatitis B virus (HBV) vaccine should be given at one and six months following the first dose.
- ensuring that HBIG and HBV vaccine immunizations have been administered and entered into MIMS (by either infant's physician/practitioner or Public Health), once the infant's Personal Health Information Number (PHIN) is assigned.
- ensuring that arrangements for performing post-immunization testing have been initiated by either the infant's physician/practitioner or Public Health.

A) Infants Born to HBsAg-positive Mothers

For the prevention of perinatal transmission of HBV in infants born to HBsAg-positive mothers:

- 1) Give HBIG (0.5 mL IM) in the anterolateral thigh immediately after birth (within 12 hours).
- 2) Give HBV vaccine (Recombivax HB®) 0.5 mL (5µg) IM simultaneously with the HBIG at a different injection site. The pediatric preparation is thimerosal-free. **NOTE:** Passive antibody from HBIG does **not** interfere with an active response to HBV vaccine.
- 3) The infant will require two additional doses of vaccine at **one** and at **six** months of age. The regional health authority of residence of the infant's parent/guardian will send a letter to the parent/guardian as well as to the infant's physician/practitioner indicating that two more doses of vaccine are required, along with ordering instructions. Regional Public Health should ensure that HBIG and HBV vaccine immunizations have been administered and entered into MIMS (by either infant's physician/practitioner or Public Health), once the infant's PHIN is assigned.

NOTE: Infants who are premature (less than 37 weeks gestation) and/or of low birth weight (less than 2,000 g) should receive prophylaxis in the same way as other newborns (see steps 1 to 3 above), except that an additional dose of vaccine should be given approximately two months after the third dose.

- 4) Post-immunization testing for HBsAg and anti-HBs is recommended to ensure that the infant is not infected (HBsAg negative) and that protective antibody is present (anti-HBs positive). This recommendation is included in the letter to the infant's parent/guardian as well as in the letter to the infant's regular physician/practitioner. Regional Public Health should follow-up to ensure that arrangements for

performing post-immunization testing have been initiated by either the infant's physician/practitioner or by Public Health.

B) Infants Born to Unscreened Mothers

- If maternal status is not available within 12 hours of delivery (call Cadham Provincial Laboratory at 204-945-6123 to determine status), consideration should be given to administering vaccine and HBIG (as described in steps 1 to 4 in Section A) while the results are pending, taking into account the mother's risk factors for infection (e.g., no prenatal care, intravenous drug use, multiple sex partners, immigration from an area of high endemicity¹ or person of Inuit descent). Health care practitioners should err on the side of providing vaccine if there is any suspicion that the mother could be infected.
- If the mother's serologic test results are available within 12 hours of delivery and she is found to have HBV infection, both HBIG and hepatitis B vaccine should be administered and post-immunization testing performed as described above in steps 1 to 4 in Section A.

NOTE: Completion of the HBV vaccination series in the infant and post-immunization testing of the infant are not necessary if the mother tests HBsAg negative subsequent to initiation of HBIG and HBV vaccine immunoprophylaxis in the infant.

C) Infants Born to Families with a Household Member known to be HBsAg-positive

- If the father or other household member is HBsAg-positive and will be the primary caregiver, or there is an acute case in the household, both HBIG and hepatitis B vaccine should be administered to the infant as described above in steps 1 to 4 in Section A.
- If there is a carrier in the household (other than the mother or primary caregiver), only the HBV vaccine series is required for the infant as described above in steps 2 to 4 in Section A.

¹ Africa, Southeast Asia, China, Hong Kong, Mongolia, North and South Korea, Taiwan, South Pacific (excluding Australia, Guam and New Zealand), Middle East (Jordan and Saudi Arabia), Eastern Europe and Northern Asia, Western Europe (Malta and indigenous populations in Greenland), Alaska Natives, Amazonian areas of Bolivia, Brazil, Colombia, Peru and Venezuela, and Turks and Caicos in the Caribbean (CDC 2006).