

Guidelines for Standing Orders in Labor & Delivery and Nursery Units to Prevent Hepatitis B Virus Transmission to Newborns

In December 2005, the Centers for Disease Control and Prevention (CDC) published updated recommendations of the Advisory Committee on Immunization Practices (ACIP) for prevention of hepatitis B virus (HBV) infections in infants, children, and adolescents. The American Academy of Pediatrics, American Academy of Family Physicians, and American College of Obstetricians and Gynecologists have endorsed these recommendations. To obtain a copy, go to www.cdc.gov/mmwr/PDF/rr/rr5416.pdf.

CDC recommends that all delivery hospitals institute standing orders to ensure

- Administration of hepatitis B vaccine to all medically stable newborns weighing at least 2 kg (4.4 lb) at birth before discharge from the nursery.
- Identification of infants born to hepatitis B surface antigen (HBsAg)-positive mothers and infants born to mothers with unknown HBsAg status and administration of appropriate immunoprophylaxis to these infants.

The guidance below has been developed to help your hospital establish standing orders in the labor and delivery and nursery units and has been reviewed by CDC staff for consistency with ACIP recommendations.

Labor and Delivery (L&D)

- Upon admission, review the HBsAg¹ status of all pregnant women. You must review a copy of the mother's original laboratory report to verify that the correct test was performed during this pregnancy and to verify the test date. Do not rely on a transcribed test result!

Women with a documented HBsAg test result

- Place a copy of the original laboratory report of the mother's HBsAg¹ test result into (1) the mother's L&D record and (2) the infant's medical record.
- If the mother is HBsAg positive, alert the nursery staff.
- If the mother is HBsAg negative and is at risk for HBV infection during this pregnancy (e.g., had more than one sex partner in the previous 6 months; had an HBsAg-positive sex partner; had evaluation or treatment for a sexually transmitted disease; currently uses or recently used injection drugs), perform a repeat test for HBsAg.¹ Instruct the laboratory to call L&D and the nursery with the HBsAg test result ASAP.

Women without a documented HBsAg test result

- Perform HBsAg¹ testing ASAP on women who do not have a documented HBsAg test result from the current pregnancy.
- Instruct the lab to call L&D and the nursery with the HBsAg test result ASAP.

Nursery

All newborns

- Review a copy of the mother's original HBsAg¹ lab report. Provide appropriate management based on (1) the mother's HBsAg status and (2) the infant's birth weight. Manage those who weigh less than 2 kg differently from those who weigh 2 kg or more (see below and footnotes 2, 5, 6).
- Ensure that a copy of the original maternal HBsAg¹ laboratory report is in the infant's medical record.

Infants born to HBsAg-negative mothers

- Administer single-antigen hepatitis B vaccine (0.5 mL, IM) before discharge to all infants weighing at least 2 kg at birth.^{2,3,4} Document the hepatitis B vaccine dose appropriately in the infant's medical record, including date and time of administration.
- Give the mother an immunization record card that includes the hepatitis B vaccination date, and explain the need for a complete hepatitis B vaccine series to fully protect her baby. Remind the mother to bring the card with her each time her baby sees a provider.

Infants born to mothers with unknown HBsAg status

- Administer single-antigen hepatitis B vaccine (0.5 mL, IM) within 12 hours of birth.^{3,5} Do not wait for test results to return before giving this dose of vaccine! Document the hepatitis B vaccine dose appropriately.
- Give the mother an immunization record card that includes the hepatitis B vaccination date. Explain the need for further doses to fully protect her baby. Remind

the mother to bring the card with her each time her baby sees a provider.

- Confirm that the laboratory has received serum for the mother's HBsAg¹ test. Verify when the HBsAg result will be available and that it will be reported to L&D and the nursery ASAP. If the nursery does not receive the report at the expected time, call the laboratory for the result.
- If the mother's HBsAg¹ test result comes back positive
 - Administer hepatitis B immune globulin (HBIG 0.5 mL, IM) to the infant ASAP. Document the HBIG dose appropriately in the infant's medical record. There is little benefit in giving HBIG if more than 7 days have elapsed since birth.
 - Alert the mother's and infant's physician(s) of the test result.
 - Follow the instructions below for infants born to HBsAg-positive mothers.
- If the infant must be discharged before the HBsAg result is known
 - Document contact information for the parents (e.g., addresses, telephone numbers, emergency contacts) in case further treatment is needed.
 - Obtain the name, address, and phone number of the mother's and the infant's healthcare provider.
 - Notify the mother's and the infant's healthcare provider that the mother's HBsAg test result is pending.

Infants born to HBsAg-positive mothers

- Administer HBIG (0.5 mL, IM) and single-antigen hepatitis B vaccine^{3,6} (0.5 mL, IM) at separate injection sites within 12 hours of birth. Document the hepatitis B vaccine and HBIG doses appropriately in the infant's medical record, including date and time of administration.
- Give the mother an immunization record card that includes the date of the hepatitis B vaccine and HBIG doses, and explain the need for further doses of hepatitis B vaccine to fully protect her baby. Remind the mother to bring the card with her each time her baby sees a provider.
- Notify the local or state health department of the infant's birth and the date and time of administration of HBIG and hepatitis B vaccine doses.
- Obtain the name, address, and phone number of the infant's primary care provider. Notify the provider of the infant's birth, the date and time of HBIG and hepatitis B vaccine doses administered, and the importance of additional on-time vaccination and postvaccination testing of the infant for HBsAg and antibody to HBsAg after completion of the hepatitis B vaccine series.
- Provide advice to the mother. Tell her
 - About the importance of her infant completing the full hepatitis B vaccine series on schedule
 - About modes of HBV transmission and the need for vaccination of her susceptible household, sexual, and needle-sharing contacts
 - That she may breast-feed her infant upon delivery, even before hepatitis B vaccine and HBIG are given
 - That blood will need to be drawn from the infant after completion of the hepatitis B vaccine series at age 9–18 months to determine if the infant needs further management
 - That she needs to have a medical evaluation for chronic hepatitis B, including an assessment of whether she is eligible for antiviral treatment

1. Be sure the correct test for HBsAg (hepatitis B surface antigen) was/is ordered. The HBsAg test should not be confused with other hepatitis B serologic tests, including antibody to HBsAg (anti-HBs or HBsAb) and antibody to hepatitis B core antigen (anti-HBc or HBcAb).

2. Infants weighing less than 2 kg whose mothers are documented to be HBsAg negative should receive the first dose of vaccine 1 month after birth or at hospital discharge. The mother's HBsAg status must be part of the infant's medical record.

3. Federal law requires that you give parents a Hepatitis B Vaccine Information Statement (VIS) before vaccine administration. To obtain a VIS, download from the IAC website at www.immunize.org/vis or call your state health department.

4. Exceptions to giving the birth dose of hepatitis B vaccine are allowed on a case-by-case basis and only in rare circumstances. If a birth dose is not administered, a copy of the mother's negative HBsAg test result from the current pregnancy must be placed in the infant's medical record and the attending physician must write a specific order directing staff not to administer the birth dose in the hospital.

5. An infant weighing less than 2 kg whose mother's HBsAg status is unknown should receive HBIG and hepatitis B vaccine within 12 hours of birth. Do not count the hepatitis B vaccine dose as the first dose in the vaccine series. Reinitiate the full hepatitis B vaccine series at age 1–2 months.

6. An infant weighing less than 2 kg whose mother is HBsAg positive should receive the first dose of hepatitis B vaccine and HBIG within 12 hours of birth. Do not count the hepatitis B vaccine dose as the first dose in the vaccine series. Reinitiate the full hepatitis B vaccine series at age 1–2 months.