Program Guidelines

Minnesota Department of Health

Perinatal Hepatitis B Prevention Program

What is perinatal transmission of hepatitis B?

Perinatal transmission of the hepatitis B virus (HBV) from mother to infant at birth is very efficient. The risk of infection may be as high as 70-90%. The HBV virus is transmitted by blood exposures. Up to 90% of perinatally infected babies who are not treated will develop a chronic hepatitis B infection. An estimated 15-25% of these individuals will ultimately die of liver failure secondary to chronic hepatitis, liver cirrhosis, or primary liver cancer. Treatment initiated within 12 hours after birth is up to 90% effective at preventing this serious infection.

Approximately 100,000 new hepatitis B cases are diagnosed in the U.S. each year. One third of the chronic infections are acquired perinatally or in early childhood through close household contact. The disease is largely preventable through treatment of infants born to infected mothers, as well as vaccination of individuals at risk for infection.

Since 1988, the Centers for Disease Control's Immunization Practices Advisory Committee (ACIP) has recommended that all pregnant women be screened for hepatitis B infection. Testing should be performed with each pregnancy, regardless of patient history or previous testing results. The cost effectiveness of universal hepatitis B screening of pregnant women compares with other prenatal and neonatal screening programs (including hypothyroidism and phenylketonuria).

What is the perinatal hepatitis B prevention program in Minnesota?

The Minnesota Department of Health (MDH) implemented a perinatal hepatitis B prevention program in 1990. **The goal of the MDH Perinatal Hepatitis B Prevention Program is to identify and treat infants born to HBV-infected mothers in an effort to prevent perinatally acquired infection.** The benefits of this cost-effective strategy are:

- preventing potential long-term health consequences for the child, and
- eliminating a potential source of infection to others in the future.

To prevent perinatal transmission:

1. Obstetric patients are evaluated and screened for HBV infection **early** in ***each*** **pregnancy** regardless of past test results and/or immunization status. **HBsAg(surface antigen**) serology testing is used for screening. If the patient is high risk, screening tests are repeated later in the pregnancy.
2. HBV-infected women receive further medical evaluation and follow-up.
3. Hepatitis B serology results are documented in the patient's prenatal record. A copy of the original HBsAg lab is forwarded to the hospital to be placed prominently in the patient's chart.
4. Pregnancies in HBV-infected women are reported to MDH within one working day of knowledge of the pregnancy.
5. Local public health nurses receive referrals from MDH and follow up with the expectant mother to educate her about her infection, and the implications and recommended preventive treatment for her baby.
6. Infants born to HBV-infected mothers receive:
   a. Hepatitis B immune globulin (HBIG) and HBV vaccine within 12 hours of birth,
   b. Additional doses of HBV vaccine to complete the series in accordance with the recommended schedule, and
   c. Post-vaccination serology

   All treatment is documented in the infant's medical record and reported to local or state health departments.
7. Infants who do not demonstrate an immune response in post-vaccination serologic testing receive a second vaccine series.
8. HBV-infected infants are referred for further medical evaluation and follow-up.
9. Household members and other close contacts of the mother and infant are screened; HBV-susceptible individuals are vaccinated; and infected individuals receive further medical evaluation and follow-up.

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