

Timing of Infants' First Dose of Hepatitis B Vaccine is Critical

Can we afford not to follow the current recommendations?

In December 1999, a three-month-old Michigan infant died from acute hepatitis B. After investigation, it was discovered that the infant's mother was chronically infected with hepatitis B and tested positive for hepatitis B surface antigen (HBsAg) during her pregnancy. Tragically, the test results were communicated inaccurately to the hospital where the baby was born. This was during the time that hospitals stopped giving all newborns the first dose of hepatitis B vaccine before discharge because of the concern raised about the preservative thimerosal in hepatitis B vaccine. Because the information from the prenatal care provider indicated that the infant's mother was negative for hepatitis, the infant did not receive hepatitis B vaccine or hepatitis B immune globulin (HBIG). Unfortunately, documentation errors continue to occur and put unvaccinated infants at risk of getting hepatitis B.

Based on estimates from the Centers for Disease Control and Prevention (CDC), Michigan identifies <50% of all babies born to pregnant HBsAg-positive women every year. Without proper prophylaxis, more than 300 babies in Michigan could become infected with hepatitis B. We have worked hard to identify all pregnant HBsAg-positive women, but have not been successful according to these estimates. The only safety net would be to give all babies born in Michigan the birth dose of hepatitis B vaccine.

On December 23, 2005, the Advisory Committee on Immunization Practices (ACIP) published "A Comprehensive Immunization Strategy to Eliminate Transmission of Hepatitis B Virus Infection in the United States." www.cdc.gov/ncidod/diseases/hepatitis/b/acip.htm

Part of the recommendations listed for hospitals are to ensure policies and procedures and standing orders are in place and are implemented to:

- Initiate immunization for infants born to HBsAg-positive mothers, infants born to mothers with unknown HBsAg status, and for all infants; and to
- Ensure enrollment and participation in the federally-funded Vaccines for Children (VFC) Universal Hepatitis B Program.

We currently have 91 of 94 birthing hospitals enrolled in the VFC Universal Hepatitis B Program.

Our Electronic Birth Certificate (EBC) has a field to document that a baby has received the birth dose of hepatitis B vaccine. Once the birth dose is documented on the EBC, this information can be forwarded to the state and downloaded in the Michigan Care Improvement Registry (MCIR).

Through MCIR assessments, documentation of the birth dose of hepatitis B vaccine on the EBC has increased two percent every year since 2002. In 2002, it was 72% and in 2006 it was 80%. However, only 42 (of the 94) birthing hospitals document >90% of their babies are receiving the birth dose of hepatitis B vaccine, even though we have FREE hepatitis B vaccine for all babies born in Michigan.

Again this year, the Perinatal Hepatitis B Prevention Program staff will contact every birthing hospital in Michigan. We will conduct a survey to review current policies and standing orders, and will verify that the birth dose of hepatitis B vaccine is being properly documented on the EBC. Over the next five years we will be conducting hospital chart reviews and feedback sessions as a follow-up to these surveys and in compliance with our program objectives.

We will be contacting the local health departments to verify the level of hepatitis B administration in birthing hospitals as it compares to the birth dose coverage levels reported through MCIR and to see how we can work together to improve the birth dose coverage levels in Michigan.

If you have any questions, please contact Pat Fineis at 517-335-9443 or at 800-964-4487.