Birth Dose of Hepatitis B Vaccine

Hepatitis B vaccine administered to newborns before hospital discharge may minimize the risk of infection due to errors in maternal HBsAg testing or reporting, or from exposure to persons with chronic hepatitis B infection in the household.

In LA county, of the reported 751 infants born to HBsAg-positive mothers in 2005, 18 (2.4%) did not receive immunoprophylaxis (hepatitis B vaccine and HBIG) within 24 hours of birth.

It is estimated that over 40% of infants born to HBsAg-positive mothers will become infected without prophylaxis. An estimated 90% of infants who become infected by perinatal transmission develop chronic HBV infection and as many as 25% will die from chronic liver disease as adults. Although not a substitute for immunoprophylaxis, routinely administering hepatitis B vaccine to infants at birth regardless of the mothers HBsAg status can serve as a safety net. Studies have shown that administering hepatitis B vaccine without HBIG beginning ≤12 hours after birth in a 3- or 4-dose schedule can prevent 70%–95% of perinatal hepatitis B infections among infants born to HBsAg positive mothers.

**Recommendations from national organizations**

Noted medical groups – the Advisory Committee on Immunization Practices (ACIP), American Academy of Pediatrics (AAP), and American Academy of Family Physicians (AAFP) – recommend health care providers routinely administer the first dose of hepatitis B vaccine to infants soon after birth and before hospital discharge. Only in rare circumstances, and on a case-by-case basis, may the first dose be delayed until after hospital discharge for an infant who weighs ≥2,000g and whose mother is HBsAg-negative. Preterm infants weighing < 2000g and born to HBsAg-negative mothers should have their first vaccine dose delayed until one month after birth or hospital discharge. Universal hepatitis B vaccine birth dose policy in all delivery hospitals will optimize the protection of all infants from human error and chronic HBV infection.

**County ranks low on birth doses**

In the county, too few hospitals have implemented the routine administration of the birth dose of hepatitis B regardless of the mother’s HBsAg status. In 2005, the National Immunization Survey found that in Los Angeles County, only 26% of infants received the birth dose of hepatitis B vaccine, compared to the national average of 47.9% and the state of California’s average of 29.4%.

The Los Angeles County Immunization Program’s Perinatal Hepatitis B Prevention Program (IPHBPP) conducted a survey in 2006 of the birthing hospitals in the county (excluding the city of Long Beach) to assess current practice on administering the recommended universal birth dose of hepatitis B vaccine. Of the 58 delivery hospitals, 50 hospitals responded to the survey (86%). Of the responders, 46% had a policy to offer hepatitis B vaccine to newborns before discharge regardless of the HBsAg status of the mother, 16% of the hospitals reported that vaccine was available as long as it was ordered by the health care provider, and 38% responded that they did not have a policy.

**County recommendations**

All county birthing hospitals are encouraged to offer the birth dose of hepatitis B vaccine. The (IPHBPP) will assist hospitals in developing policies and procedures to implement the routine administration of hepatitis B vaccine to newborns before hospital discharge. The program also offers patient pamphlets on hepatitis B, Vaccine Information Statements, the California Immunization Record (yellow card), and in-service training for hospitals.

Contact the program at (213) 351-7400 for more information.

California law requires group health insurers to cover vaccination for those age groups recommended by the ACIP; therefore insurers should cover administration of hepatitis B at birth. For children that are uninsured or covered by Medi-Cal, hospitals may desire to apply to become Vaccines for Children Program (VFC) providers and receive federally purchased hepatitis B vaccine without cost for use in eligible infants.

For more information on joining the VFC Program visit the state immunization office’s website at: [http://www.dhs.ca.gov/ps/dcdcdc/izgroup/providers/vfc.htm](http://www.dhs.ca.gov/ps/dcdcdc/izgroup/providers/vfc.htm) or telephone (877) 243-8832 and press 2.

For current hepatitis B recommendations, contact the (IPHBPP) at (213) 351-7400 or visit [http://lapublichealth.org/ip/perinatalhepB/index.htm](http://lapublichealth.org/ip/perinatalhepB/index.htm).

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