

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 $\geq 2,000$ g and whose mother is HBsAg-negative. Preteen infants weighing < 2000 g 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/dcdc/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>.

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Immunization Program