



## California Department of Public Health MEMORANDUM

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**DATE:** October 9, 2012

**TO:** California pediatric care providers

**FROM:** Perinatal Hepatitis B Prevention Program  
Immunization Branch  
California Department of Public Health

**SUBJECT:** Reminder about following the CDC recommendations for completion of the hepatitis B vaccine series and post-vaccination serologic testing for infants of hepatitis B infected women

Even if treated at birth to prevent perinatal transmission of hepatitis B, infants of hepatitis B-infected women who are not immune to hepatitis B face an ongoing risk of infection during infancy and childhood that can result in liver cancer. Despite this danger, not all infants of hepatitis-B infected women receive the complete hepatitis B vaccine series or are tested after they complete the hepatitis B vaccine series to ensure that they are immune as recommended by CDC.

**Please make sure to:**

- Provide all infants of hepatitis B-infected women with HBIG and a first dose of hepatitis B vaccine promptly after delivery.
- Provide all infants with the hepatitis B vaccine series on time.
- Test all infants of hepatitis B-infected women after completion of the vaccine series and report all infants who are infected with hepatitis B.
- If you also care for pregnant women, verify whether they are infected with hepatitis B virus, and report all patients who are infected.

**Background**

Hepatitis B virus may be transmitted from infected mothers to their infants during the perinatal period. To prevent perinatal transmission, the Advisory Committee for Immunization Practices (ACIP) recommends that infants born to hepatitis B-infected women be administered HBIG and the first dose of the hepatitis B vaccine series within 12 hours of birth and complete the hepatitis B vaccine series.

Moreover, because these infants are at continued risk of hepatitis B infection via household exposure, ACIP recommends administering post-vaccination serologic testing (PVST) after completion of the hepatitis B vaccine series to assess infection and immunity status.

In 2010, 2,091 infants born to hepatitis B-infected women were reported to the California Perinatal Hepatitis B Prevention Program. Of the 2,044 (98%) infants who completed the hepatitis B vaccine series and should have received PVST, only 1,649 (81%) had PVST performed.

While we are heartened that 98% of the infants of infected women born in 2010 received the complete hepatitis vaccine series, it is disappointing that almost 20% of these infants did not receive PVST. It is critical that infants of infected women receive appropriate treatment at birth, complete the vaccine series, and are tested to determine infection and immunity status. Children who are not infected at birth remain at risk from long-term interpersonal contact with their infected mothers. In one study, 38% of infants who were born to infected mothers and who were not infected perinatally became infected by age 4 years.\*

Depending on the results of PVST, infants may require additional care. Infants who are found to be susceptible to hepatitis B will require a second hepatitis B vaccine series and PVST to ensure that they are immune. Infants found to be infected will require follow-up of care for their hepatitis B infection.

Clinicians who provide care for infants should determine the hepatitis B infection status of newborn infants to ensure that the infants of infected women receive appropriate care. When providing care for infants born to infected women, clinicians should confirm that HBIG and the first dose of hepatitis B vaccine were administered within 12 hours of birth by reviewing the infant's hospital medical record (ideally the medication administration record).

Clinicians should then ensure that such infants complete the hepatitis B vaccine series and receive PVST. Throughout this process, clinicians should work with their local Perinatal Hepatitis B Prevention Programs to report vaccination dates and most importantly, PVST results.

For more information on the ACIP recommendations for infants born to HBsAg-positive women, please review the MMWR at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5416a1.htm> and the attached pediatric care provider guidance from the California Department of Public Health.

For more information on the California Perinatal Hepatitis B Prevention Program, please visit: <http://www.cdph.ca.gov/healthinfo/discond/Pages/PerinatalHepatitisBPrevention.aspx> or contact Celia Bird at [Celia.Bird@cdph.ca.gov](mailto:Celia.Bird@cdph.ca.gov).

\*Beasley RP, Hwang LY. Postnatal infectivity of hepatitis B surface antigen-carrier mothers. *J Infect Dis* 1983;147:185–90.