



Bulletin No. 11

May 9, 1994

## Universal Infant Hepatitis B Immunization

**BACKGROUND:** In 1991, the Centers for Disease Control and Prevention (CDC) recommended universal immunization of all infants against hepatitis B (HB).

The State of Alaska initiated a Universal Infant HB Immunization Program in the spring of 1993. All newborns are now offered HB vaccine. Preliminary results of a recent survey of all hospitals in Alaska (military, private, and IHS), indicated that 100% were offering HB vaccine to newborns at birth. An estimated 94% of newborns received the first dose of vaccine before discharge. Studies are being developed to assess vaccine series completion rates.

**ELIGIBILITY:** All newborns and infants 12 months of age or younger are eligible for state-supplied vaccine. Due to limited funds, older children are not eligible for routine, free hepatitis B vaccine supplied by the State at this time.

**VACCINE:** The Alaska Immunization Program supplies HB vaccine. Because administration of the vaccine alone is effective in preventing perinatal hepatitis B virus infections, the Alaska Immunization Program does not supply HBIG. Only minor, transient side effects have been associated with vaccine and include pain at the injection site, and a low grade fever. The vaccine has been shown to be 80%-95% effective in preventing HB infection and clinical hepatitis among susceptible children and adults<sup>(1)</sup>.

**ADMINISTRATION:** The vaccination series consists of 3 doses: the first dose within 12 hours of birth, the second dose at age 1 month, and the third dose at age 6 months. HB vaccine can be given simultaneously with all other age-appropriate immunizations. The vaccine should be given intramuscularly; the anterolateral thigh is the preferred site for infants.

**INTERRUPTED SCHEDULE:** Do not restart the series. If the vaccination series is interrupted after the first dose, the second dose should be administered as soon as possible. If the third dose is delayed, it should be administered when convenient. The second and third doses must be separated by a minimum interval of 2 months, with a 3-5 month separation being optimal.

**BOOSTER DOSES:** Long-term studies of healthy adults and children indicate that immunologic memory remains intact for at least 10 years and confers protection against chronic hepatitis B virus infection (even though antibody levels may drop below detectable level). Booster doses of HB vaccine are not routinely recommended for children or adults at this time.

**CONTRAINDICATIONS:** 1) Previous anaphylactic reaction to vaccine or vaccine components (including baker's yeast, thimerosal, or mercurial antiseptic), 2) moderate or severe illness, with or without fever.

**POST-VACCINATION TESTING:** Routine post-vaccination testing for HB surface antibody response is not necessary and is not recommended.

The Alaska Immunization Program distributes single-dose vials of HB vaccine, free of charge to public and private health-care providers. Call 561-4406 to order HB pediatric vaccine, or to discuss questions about infant HB immunization.

### References:

1. CDC. Hepatitis B virus: a comprehensive strategy for eliminating transmission in the United States through universal childhood vaccination. *MMWR* 1991; 40: 1-17.
2. McMahon, BJ., Rhoades ER., Heyward WL., et al. A comprehensive programme to reduce the incidence of hepatitis B virus infection and its sequelae in Alaska Natives. *Lancet* 1987; 2: 1134-6.

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