State of Alaska Epidemiology **Bulletin**

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UNIVERSAL INFANT HEPATITIS B IMMUNIZATION: A NEW PROGRAM IS LAUNCHED

In 1991, the national Advisory Committee on Immunization Practices published recommendations for universal childhood hepatitis B (HB) vaccination as part of a comprehensive strategy for eliminating the transmission of HB virus (HBV) in this country (MMWR 1991; 40 [No. RR-13]: 1-25). **The Centers for Disease Control and Prevention recently approved and funded the Alaska Division of Public Health so that all newborns in Alaska can routinely be vaccinated against HB.**

Background: Children born to HBV-infected mothers are at increased risk of acquiring HBV infection, either perinatally or later in childhood. It is estimated that up to 90% of perinatally HBV-infected infants will be chronically infected and that 25% will die of chronic liver disease as adults.

The administration of HB vaccine and a dose of HB immune globulin (HBIG) to neonates of HBV-positive mothers within 12 hours of birth has been shown to be 85%-95% effective in preventing both HBV infection and the chronic carrier state. Based on recent studies, routine administration of HBIG to these infants appears **not** to be necessary.

Recommendations for Routine Infant HB Vaccination: In the United States, HB vaccines are produced by Merck, Sharp & Dohme (Recombivax®) and Smith Kline Beecham (Engerix-B®). The Alaska Immunization Program will supply Engerix-B® free of charge to hospitals, to private health-care providers, and to public health centers for administration to newborns and infants. **The HB vaccine series consists of three 0.5-ml doses, given within 12 hours after birth (or as soon thereafter as possible), at age 1 month, and at age 6 months.** This dosing schedule should effectively prevent perinatal infection in newborns, including those born to HBsAg-positive mothers. For neonates and infants, the anterolateral thigh muscle is the preferred site for administration. **Post-vaccination testing for a HB surface antibody (HBsAb) response is not necessary.**

Infant Hepatitis B Vaccination Schedule

	Engerix-B®	
Age	Dose (µg HBsAg)	Volume
Within 12 hrs of birth	10 µg	0.5 ml
1 month	10 µg	0.5 ml
6 months	10 µg	0.5 ml

If the vaccination series is interrupted after the first dose, the second dose should be administered as soon as possible. The second and third doses must be separated by an interval of at least 2 months. If only the third dose is delayed, it should be administered when convenient.

Routine HB antibody testing of pregnant women is not necessary for the purposes of this immunization project. Some providers may wish to administer HBIG to newborns of mothers known to be HBsAg-positive. The Immunization Program will not supply HBIG.

The Immunization Program will provide only Engerix-B® in single-dose (0.5-ml) vials. At the present time, standard pediatric dosages of Recombivax® and Engerix-B® are not identical. However, infants whose mothers are known to be HBsAg-negative may receive appropriate doses of either pediatric vaccine preparation interchangeably. There is currently no recommendation for routine booster doses.

The Immunization Program will begin distributing single-dose vials of HB vaccine to private health-care providers beginning February 15, 1993. The vaccine will be made available to hospitals and at public health centers at a later date (to be announced).

Call the Alaska Immunization Program at 561-4406 to order HB pediatric vaccine or to discuss questions about infant HB immunization.

(Contributed by Mike Jones, M.D., Medical Epidemiologist and Sue Anne Jenkerson, R.N.C., M.S.N., F.N.C., Immunization Program Coordinator, Section of Epidemiology)