

Subject: Infants of Hepatitis Positive Mothers	
REVISION DATE: January 2013, December 2011, April 2007, March 1997 REPLACES: NYS: Hepatitis Positive Mothers	WRITTEN: June 1980 REVIEWED: July 2015 SUPERSEDES DATE: June 2012

This guideline is used to assist staff when caring for an infant of a HBsAg positive mother. This applies to all medical and nursing personnel.

Purpose: To provide safe and effective guidelines for treatment of infants born to Hepatitis positive mothers. Hepatitis B immunoglobulin (HBIG) and Hepatitis B Vaccine can markedly decrease the chance of the baby becoming infected and becoming a chronic carrier.

Summary of Changes: References/content updated to reflect most current standards of practice.

1. References:

- 1.1. Alaska Area Native Health Service (AANHS) (2012). Protocol for Hepatitis B perinatal infection control program.
- 1.2. American Academy of Pediatrics (2003). *Red Book: 2003 Report of the committee on infectious diseases* (26th ed.). Elk Grove Village, Illinois: American Academy of Pediatrics

2. General

- 2.1. The risk of an infant acquiring HBV from an infected mother is 70% - 90% for infants born to mothers who are HBsAg and HBeAg positive; the risk is 5% - 20% for infants born to HBeAg negative mothers.
- 2.2. More than 90% of infants infected perinatally will develop chronic HBV infection. Up to 25% of infants and older children who acquire chronic HBV infection will eventually develop HBV-related hepatocellular carcinoma or cirrhosis.
- 2.3. Breastfeeding is **NOT** contraindicated with HBsAg positive mothers as it does not appear to pose an additional threat of Hepatitis B transmission to the infant. Administration of Hepatitis B vaccine and Hepatitis B Immunoglobulin should eliminate any theoretical risk of transmission
- 2.4. The requirement for informed consent is fulfilled by giving the parent the Vaccine Information Statement (VIS) and documenting the VIS publication date in the EHR Power form.

3. Definitions.

- 3.1. HBsAg- Hepatitis B Surface Antigen - Presence in the blood indicates patient positive for hepatitis B infection.
- 3.2. HBIG – Hepatitis B Immunoglobulin- Human immune globulin given for prevention of hepatitis B in infants born to HBsAg-positive mothers.
- 3.3. Hepatitis B Vaccine- Vaccine given for prevention of hepatitis B, recommend for all infants.
- 3.4. HBeAg- Hepatitis B e antigen- Antigen from the hepatitis B virus that circulates in blood during acute infection.

4. Standards of Practice/Guidelines for Care:

- 4.1. Review the maternal record and determine mother's HBsAg status.
- 4.2. Give the newborn parent(s) the Vaccine Information Statement (VIS). Document the VIS publication date and information given in patient's EHR.
 - 4.2.1 If mother is **HBsAg positive**, the pediatrician will be notified and documentation of maternal status will be annotated in the newborn record through the result copy function in the Electronic Health Record (EHR) upon the newborn admission.
 - 4.2.1.1. Infants of HBsAg positive mothers will be bathed within 15 minutes of birth.
 - 4.2.1.2. All infants born to HBsAg positive mothers should receive Hepatitis B Immunoglobulin (HBIG) (0.5 mL) and Hepatitis B vaccine (0.5 mL) **within 12 hours of birth.**
 - 4.2.1.2.1. Administration of HBIG should occur in the Right Anterior Thigh (RAT). Hepatitis B vaccine is administered at the same time in the Left Anterior Thigh.
 - 4.2.1.2.2. Presence or absence of maternal HBeAg should have no effect on the decision to treat with HBIG in the newborn.
 - 4.2.2. Infants of mothers whose **HBsAg status is unknown** should receive Hepatitis B Vaccine in the dose recommended for infants of HBsAg positive mothers (0.5 mL) and the HBsAg status of the mother should be determined as soon as possible.
 - 4.2.2.1. Because the vaccine itself is highly effective, HBIG is not warranted for infants of mothers with unknown HBsAg status.
 - 4.2.2.2. If the mother is found to be HBsAg positive, HBIG should be administered as soon as possible (within 7 days).
 - 4.2.3. It is recommended that infants of **HBsAg negative** mothers receive the Hepatitis B Vaccine as part of the normal childhood immunization routine, with the first dose started

within 12 hours of birth.

Recommended Schedule of Hepatitis B Immunoprophylaxis to Prevent Perinatal Transmission:

<i>Infant Born to Mother Known to be HBsAg Positive:</i>	
First Dose of Hepatitis B Vaccine	Birth (within 12 hours)
HBIG	Birth (within 12 hours)
<i>Term Infant Born to Mother Not Screened for HBsAg:</i>	
First Dose of Hepatitis B Vaccine	Birth (within 12 hours)
HBIG	If mother found to be HBsAg positive, give as soon as possible, no later than one week after birth
<i>Term Infant Born to Mother Known to be HBsAg Negative</i>	
First Dose of Hepatitis B Vaccine	Birth (within 12 hours)
HBIG	Not warranted

4.3. For preterm infants:

4.3.1. Preterm infants with birth weights ≥ 2 kg (4.40 Lbs.) produce an immune response to the HBV comparable to that in term infants. The American Academy of Pediatrics (AAP) and Advisory Committee on Immunization Practices (ACIP) recommend that HBV immunization be administered to premature infants according to the HBsAg status of the mother and the birth weight of the infant as follows:

Hepatitis B Immunoprophylaxis Scheme for Preterm and Low Birth Weight Infants:

Maternal Status:	Infant ≥ 2000 g:	Infant < 2000 g:
HBsAg positive	Hepatitis B Vaccine + HBIG (within 12 h of birth)	Hepatitis B Vaccine + HBIG (within 12 h of birth)
HBsAg status unknown	Hepatitis B Vaccine (by 12 h) + HBIG (within 7 days) if mother tests HBsAg positive. Test mother for HBsAg immediately	Hepatitis B Vaccine + HBIG (by 12 h)
HBsAg negative	Hepatitis B Vaccine preferred at birth	Hepatitis B Vaccine dose 1 at 30 days of chronologic age if medically stable, or at hospital discharge if before 30 days of chronologic age

5. Documentation.

5.1. Document the Hepatitis B Vaccine and/or Hepatitis B Immunoglobulin in the electronic Medication Administration Record (eMAR) and in VacTrak.

5.2. Document VIS Sheet provided to parents

5.3. Document refusal of immunization by parents if applicable.