

VIRGINIA DEPARTMENT OF HEALTH

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Virginia Perinatal Hepatitis B Prevention (VPHBP)  
Program

Birthing  
Hospital  
Guidelines

# Birthing Hospital Guidelines

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## ***For the Prevention of Perinatal Hepatitis B Virus Infection***

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Division of Immunization  
VPHBP Program  
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# INTRODUCTION

The Virginia Perinatal Hepatitis B Prevention (VPHBP) Program is a collaborative effort with local health departments and private providers to identify hepatitis B surface antigen (HBsAg) positive pregnant women and their household contacts and sexual partners. Once identified, free pre-vaccination testing and vaccine, if needed, is provided to the contacts and partners of these women. Free post-vaccination testing is also offered to the partners after completion of the hepatitis B vaccine series.

To prevent the spread of the hepatitis B virus (HBV) from mother to newborn, Hepatitis B Immune Globulin (HBIG) and hepatitis B (HB) vaccine are provided free of charge to the delivery hospital and the infant's physician. Also, the VPHBP Program offers free post-vaccination testing for infants 3-9 months after completion of the HB vaccine series to ensure protection against HBV.

The goal of the VPHBP Program is to work closely with local health departments, health care providers and hospitals to prevent the perinatal transmission of hepatitis B, thereby reducing the incidence of hepatitis B disease in Virginia.

# BACKGROUND

## THE HEPATITIS B VIRUS (HBV)

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Is 100 times more infectious than HIV, the virus that causes AIDS.

The Hepatitis B Virus is Quite Stable

- ⇒ Remains viable at room temperature on environmental surfaces for 7 or more days.
- ⇒ Can transmit hepatitis B even in the absence of visible blood.

## TRANSMISSION

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Hepatitis B virus infection in infants occurs in two ways:

1. Perinatal (or vertical) transmission from mother to baby during birth.
2. Horizontal transmission from contact with infected household members.

## CHRONIC INFECTIONS

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According to the Centers for Disease Control and Prevention (CDC):

- ⇒ Up to 90% of infants perinatally infected with the HBV will develop chronic infections.
- ⇒ Approximately 1.25 million chronic infections in the U.S.
- ⇒ About 1/3 of chronic infections start in prenatal and early childhood.

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The CDC estimates that Virginia should be identifying between 576 and 786 babies born to HBsAg-positive mothers each year!

206 babies identified in calendar year 2008

# INTERPRETATION OF LABS:

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## HEPATITIS B SURFACE ANTIGEN (HBSAG)

Presence indicates that a person is infectious, whether acute or chronic.

## HEPATITIS B SURFACE ANTIBODY (ANTI-HBS)

Presence indicates immune response from vaccine, or recovery from acute hepatitis B and immunity against reinfection.

Sometimes written as HBsAb      *Hepatitis B surface antibody test results are sometimes written as HBsAb. This practice is discouraged because there is only one letter difference in the acronyms (g-surface antigen and b-surface antibody) and results can be misinterpreted.*

# Guidelines

*The following guidelines include recommendations of the Advisory Committee on Immunization Practices (ACIP) published December 23, 2005*

## ADMISSION FOR DELIVERY

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- ⇒ Review HBsAg test results on all pregnant women.
- ⇒ Record maternal HBsAg test results on:

1. Labor and delivery record;
2. Infant's delivery summary sheet.

- ⇒ Perform HBsAg testing ASAP, if indicated.

## HBSAG POSITIVE MOTHERS

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### AFTER DELIVERY AND BEFORE HOSPITAL DISCHARGE

- Hepatitis B Vaccine Information Statement must be given to mother for her review prior to administering vaccine and HBIG
- ⇒ Administer single antigen hepatitis B vaccine and hepatitis B immune globulin (HBIG) to infant within 12 hours of birth.
  - ⇒ Record date and time of administration of vaccine and HBIG in infant's medical record.
  - ⇒ Provide hepatitis B information to mother:

- May breastfeed;
- Modes of transmission of hepatitis B;
- Testing and vaccination (if needed) of susceptible household, sexual and needle-sharing contacts;
- Substance abuse treatment, if appropriate;
- Medical management and treatment.

Complete Infant Information Form and mail or fax (804/864-8089) to the VPHBP Program

## MOTHERS WITH NO PRENATAL CARE OR UNKNOWN STATUS

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PERFORM HBSAG TESTING ASAP ON WOMEN WHO PRESENT FOR DELIVERY who:

- ⇒ Do not have documented HBsAg test result;
- ⇒ Have a negative test result but are determined to be at high-risk for hepatitis B virus infection during current pregnancy:

- ✓ More than one sex partner in past 6 months;
- ✓ Has been evaluated or treated for an STD;
- ✓ Has a recent (or current) history of Injection Drug Use;
- ✓ Partner is HBsAg positive.

- ⇒ Had clinical hepatitis since previous testing.

## RECOMMENDATIONS

***Recommendations for infants born to mothers with no prenatal care or unknown status and test results are not available at time of delivery:***

Basically same recommendations as those for infants born to HBsAg + mothers

- ⇒ Give mother hepatitis B vaccine information statement to read;
- ⇒ Answer any questions she may have;
- ⇒ Administer hepatitis B vaccine **only** within 12 hours of birth until test results are received;
  - Record date and time of vaccine administration in infant's medical record

### **If mother is HBsAg positive:**

- Record date and time of HBIG administration in infant's medical record
- ⇒ Administer HBIG as soon as possible – no later than 7 days;
  - ⇒ Proceed with recommendations for HBsAg- positive mothers.

## NEGATIVE MOTHERS

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### **Medically stable infants weighing >2,000 g at birth:**

- ⇒ Give mother hepatitis B vaccine information statement to read;
- ⇒ Answer any questions she may have;
- ⇒ Administer first dose of single antigen hepatitis B vaccine prior to hospital discharge.
- ⇒ Record date and time of administration of vaccine in infant's medical record.
- ⇒ Place a copy of original laboratory report indicating mother's negative result during this pregnancy in infant's medical record.

### **Preterm** infants born to documented HBsAg-negative mothers:

- ⇒ Delay first dose of vaccine until 1 month after birth or upon hospital discharge.
- ⇒ Give mother hepatitis B vaccine information statement to read;
- ⇒ Answer any questions she may have;
- ⇒ Record date and time of vaccine administration in infant's medical record.

## UPON DISCHARGE

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- ⇒ Provide mother with infant's immunization record.
- ⇒ Remind mother to take immunization record with her to infant's first visit to pediatric health care provider.

# Hepatitis B Vaccine Birth Dose

PRETERM INFANTS (<2000 GRAMS)  
BORN TO:

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▶ **HBSAG-POSITIVE MOTHER:**

Administer HBIG and hepatitis B vaccine within 12 hours of birth.

▶ **UNKNOWN STATUS OR NO PRENATAL CARE MOTHER:**

Administer hepatitis B vaccine within 12 hours of birth.

Because immune status to vaccine may be lower – If HBsAg cannot be determined within 12 hours, administer HBIG.

**BIRTH DOSE SHOULD NOT BE COUNTED AS PART OF THE HEPATITIS B VACCINE SERIES\***

\*Because of potentially reduced immunogenicity in preterm infants

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TOTAL OF 4  
DOSES OF  
VACCINE

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⇒ Repeat dose when chronologic age 1 month (2<sup>nd</sup> dose)

⇒ 3<sup>rd</sup> dose 1-2 mo. after 2<sup>nd</sup> dose; 4<sup>th</sup> dose at 6 mo. of age

## PRETERM INFANTS (<2000 GRAMS) BORN TO:

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### ▶ **DOCUMENTED HBSAG-NEGATIVE MOTHER:**

Delay first dose of vaccine until 1 month after birth or upon hospital discharge.

Place a copy of original laboratory report indicating mother's negative result during this pregnancy in infant's medical record.

### **BIRTH DOSE MAY BE DELAYED UNTIL AFTER HOSPITAL DISCHARGE FOR INFANTS $\geq 2,000$ GRAMS AND WHOSE MOTHER IS HBSAG-NEGATIVE:**

On a case-by-case basis and only in rare circumstances:

PLACE IN INFANT'S MEDICAL RECORD:

1. Physician's order to withhold birth dose and reason why.
2. Copy of original laboratory report indicating mother's negative result during this pregnancy.

### **DO NOT DELAY BIRTH DOSE IF MOTHER:**

- ✓ Had more than one sex partner in past 6 months;
- ✓ Has been evaluated or treated for an STD;
- ✓ Has a recent (or current) history of Injection Drug Use;
- ✓ Partner is HBsAg-positive;
- ✓ Expected poor compliance with follow-up to initiate vaccine series.

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Standing Orders should be implemented for administration of the birth dose of vaccine as part of routine medical care

# Hospital is a “safety net”\*

*To eliminate perinatal transmission of the hepatitis B virus through:*

- ▶ Universal verification of maternal HBsAg testing.
- ▶ Identification and appropriate post-exposure prophylaxis of infants born to HBsAg positive mothers and infants born to mothers with unknown HBsAg status.
- ▶ Universal birth dose administration of hepatitis B vaccine.

\* Advisory  
Committee on  
Immunization  
Practices (ACIP)  
2005 Statement



# VPHBP Program Infant Information Form

*Upon receipt of a completed Infant Information Form, free replacement Hepatitis B Immune Globulin (HBIG) and vaccine are shipped to the hospital, if requested.*

- ▶ If mother was enrolled in VPHBP Program at the time of delivery.
- ▶ If mother was known by hospital to be HBsAg-positive but was unknown to the VPHBP Program.
- ▶ If mother had no prenatal care or had an unknown HBsAg status at the time of delivery and vaccine and/or HBIG was administered to infant in accordance with Labor and Delivery Guidelines.

**All** infants born to HBsAg-positive mothers should be reported to the VPHBP Program on the Infant Information Form.

INCLUDE A COPY OF MOTHER'S HBSAG-POSITIVE RESULT OR OBSTETRICAL HISTORY FORM INDICATING MOTHER'S HBSAG-POSITIVE STATUS.

## **THE INFANT INFORMATION FORM:**

- ⇒ Identifies physician who will care for infant after hospital discharge.
  - Physician is advised of the HBsAg status of mother and offered services of the VPHBP Program.
- ⇒ Documents receipt (or non-receipt) of HBIG and hepatitis B vaccine.
- ▶ Infant Information Form is available on the VPHBP Program website: <http://www.vdh.virginia.gov/epidemiology/immunization/vphbp.htm>;
- ▶ Reports can be faxed to the VPHBP Program at (804) 864-8089.

# Virginia Vaccines for Children (VVFC) Program

*All hospitals should enroll in the Virginia Vaccines for Children (VVFC) Program.*

The VVFC Program provides free vaccine (including hepatitis B vaccine) for children less than 19 years of age who meet at least one of the following criteria:

Medicaid;  
Medicaid HMO;  
Uninsured;  
American/Indian or Alaskan Native (must be member of a tribe);  
Underinsured.

For information concerning the VVFC Program, please call:

1-800-568-1929

Information is also available on the VVFC Program website:

<http://www.vdh.virginia.gov/epidemiology/immunization/VFC/index.htm>