

3. PROCEDURES OF CASE MANAGEMENT

A. PROGRAM ADMINISTRATION

- Each LHD will designate a program contact person (e.g. communicable disease nurse, immunization nurse, nursing director, etc.). This person will inform the ODH PHBPP when any changes of individual contact information or personnel are made. See 'LHD contact person form' in the Appendix.

B. IDENTIFICATION AND REPORTING OF HBsAg POSITIVE PREGNANT FEMALES

1. All pregnant females should be tested for HBsAg **during each pregnancy.**
2. As detailed in the Ohio Administrative Code, all positive lab findings of Class B reportable diseases are required to be reported to the LHD within whose jurisdiction the client resides. This means that any physician, health care agency or other lab that detects a positive serology for any HBV marker, other than hepatitis B surface antibody (anti-HBs), is required to report it to the appropriate local health department. (Anti-HBs may be indicative of vaccination or resolved infection.)
3. All infectious disease reports indicating a positive serology for any reportable hepatitis B marker should be entered into ODRS, regardless of acute or chronic status for hepatitis B. On a weekly basis, the ODH PHBPP will monitor ODRS for all newly entered cases and updates of HBsAg positive females and children. Known pregnant HBsAg-positive females (including repeat pregnancies) and pregnancy status should be indicated in ODRS.
4. If pregnancy status is unknown for the female of childbearing age who is confirmed hepatitis B positive (HBsAg, HBeAg, IGM anti-HBc, or HBV DNA), the LHD will contact the physician's office to determine pregnancy status, collect any additional hepatitis B laboratory data, clinical findings and diagnostic information regarding chronic or acute status. If the physician does not have pregnancy status information, contact the client directly.
5. The form "Perinatal Hepatitis B Prevention Program Case & Contact Roster" may be used as a worksheet. But all information also needs to be entered into ODRS. If the client is found not to be pregnant, document this in ODRS. If she is found to be pregnant or recently delivered, document this in ODRS also.

C. CASE MANAGEMENT OF HBsAg POSITIVE PREGNANT FEMALES

1. Currently, ODH PHBPP will send the "Hospital Report" form as an advance notice to the hospital. If the hospital has not received the "Hospital Report" form as an advance notice, they have copies on hand they can use to report the infant.
2. The pregnant female should be sent the 'Introduction Letter' (found in the letter module in ODRS) and be interviewed by the LHD to identify all household contacts and her current sexual contact(s). Documentation of these contacts may be made on the "Perinatal Hepatitis B Prevention Program Case & Contact Roster", but most

importantly, make sure all information is entered into ODRS. If this program has followed the pregnant female during a previous pregnancy, she should be asked if there are any new household and/or sexual contact(s). Information is then entered into ODRS by the LHD. If she has moved to our jurisdiction from another state, contact the ODH PHBPP Consultant, so she can obtain the needed information from the previous state.

D. MANAGEMENT OF HOUSEHOLD AND SEXUAL CONTACTS

1. Determine the hepatitis B status of all household and sexual contact(s) and enter into ODRS. The LHD should contact and educate each contact about the importance of laboratory screening and vaccination as indicated. The LHD will provide educational materials as needed. Referral letters will be sent by the LHD to the PCP as needed. If serology is indicated, referral should be made to the PCP. If there is no other way to obtain testing, specimens may be drawn at the LHD for testing at a lab under ODH contract, using the instructions and laboratory form obtained from the ODH PHBPP Coordinator. The fees for these tests are paid by ODH, but shipping and supplies are provided by the LHD.
 - a. Household and sexual contacts who have a history of three doses of hepatitis B vaccine and are immune to HBV, or who have been found previously to be hepatitis B positive, need not be screened. If the contact has no history of disease or vaccination, or if they haven't been shown to be immune, they should have serology drawn and vaccination started. If serology shows immunity, the vaccine series doesn't need to be completed; otherwise complete the series and do PVS 1-2 months after completion. Update ODRS.
 - b. Household contacts (including children) with no documentation of hepatitis B vaccine series completion should be followed to ensure that the vaccine series is finished (enter into Immunization Registry as needed). Update ODRS.
 - c. Contacts who do not seroconvert should receive a second 3- dose series of vaccine, followed by testing for anti-HBs and HBsAg. If after the 6th dose, the contact has not seroconverted, no more doses are indicated. If it has been greater than 6 months since the last vaccine was administered, give one dose of vaccine and test one month later. Update ODRS.
 - d. It is difficult to interpret the meaning of a negative anti-HBs serologic response in a person who received hepatitis B vaccine in the past and was not tested after vaccination. Without postvaccination testing 1 to 2 months after completion of the series, it is not possible to determine if persons testing negative years after vaccination represent true vaccine failure (i.e., no initial response), or have anti-HBs antibody that has waned to below a level detectable by the test. The latter is the most likely explanation, because up to 60% of vaccinated people lose detectable antibody (but not protection) 9 to 15 years after vaccination. (Pink Book, 12th edition, Pg133)
 - i. One management option is to assume true vaccine failure and administer a second series to these persons. Serologic testing for anti-HBs antibody should be repeated 1 to 2 months after the sixth dose.
 - ii. A second, probably less expensive option is to administer a single dose of hepatitis B vaccine and test for hepatitis B surface antibody in 4 to 6

weeks. If the person is anti-HBs antibody positive, this most likely indicates a booster response in a previous responder, and no further vaccination (or serologic testing) is needed. If the person is anti-HBs antibody negative after this "booster" dose, a second series should be completed (i.e., two more doses). If the person is still seronegative after six total doses, he or she should be managed as a nonresponder

- e. It is recommended that children of the case mom have a serology drawn once.
 - i. If they have not started the vaccine, either draw the serology or refer the child to the PCP for serologies (HBsAg and anti-HBs) and vaccinate.
 - ii. If there is previous documentation of vaccination and no previous serologies have been drawn, do the Post Vaccine Serology.
 - may be drawn up to age 2 and still be classified as Perinatal Infection if positive HBsAg
 - may be drawn up to 5 to 9 years after last vaccine to determine immunity
2. Contact case management will be completed when the above recommendations are fulfilled. If the recommendations are not completed after reasonable attempts have been made, close the case in ODRS and indicate the reason.

E. MANAGEMENT OF THE INFANT BORN TO A HBsAg POSITIVE FEMALE **OR** FEMALE WHOSE HBsAg STATUS REMAINS UNKNOWN (INCLUDING ABANDONED BABIES OR SAFE HAVEN BABIES)

1. The ODH PHBPP, upon notification of the birth, will notify the LHD of the baby's birth. The ODH PHBPP will fax the completed "Hospital Report" form to the LHD PHBPP nurse.
2. If notification of delivery is not received within three weeks of the estimated date of delivery (EDD), check the Immunization Registry to see if the infant has been entered. If no birth is found, the LHD will contact the prenatal provider to determine pregnancy/delivery status. When delivery is confirmed, contact the delivering hospital to send a copy of the "Hospital Report" form.
3. At 2-4 weeks of age, the LHD will confirm the infants PCP.
 - Call the PCP listed on the "Hospital Report" form to verify that they are seeing the infant.
 - If no one is listed or the infant is not registered with the listed PCP, attempt calling the parent/guardian.
4. The PCP is sent the Infant Referral letter (found in the letter module in ODRS). If the baby weighed > 2000 grams, send the 3 dose letter. If the baby weighed < 2000 grams at birth, send the 4 dose letter. The parent/guardian is sent the Infant Referral letter, the Hepatitis brochure, and the 'Birth Letter' (found in the letter module in ODRS). Document in ODRS.
 - If unable to verify the PCP, send the referral letter and a personal letter if you choose to send one, to the parent/guardian. In place of the PCP's name on top of the referral letter, write "Doctor Unknown, Sent to Mother to take to the Doctor".

5. ODRS will be used to track follow-up for the infant, which will consist of the second and third dose of hepatitis B vaccine at 1-2, and 6 months of age.
6. Upon completion of the vaccine series, mail the PVS letter (found in the letter module in ODRS) to the PCP and a congratulatory letter (found in the letter module in ODRS) to the mother. PVS should be drawn at 9-18 months of age. LHDs should contact the PCP for PVS results.
 - a. If time has elapsed since the last vaccine was given:
 - If less than 2 years since the last vaccine, draw the HBsAg and anti-HBs and class as Perinatal Infection if HBsAg positive.
 - If greater than 2 years since the last vaccine, but less than 9 years, draw HBsAg and anti-HBs.
 - If greater than 9 years, draw only HBsAg.
 - b. If PVS indicates the child is not immune, send the Negative PVS letter to the PCP and parent.
 - c. Infants who test HBsAg-negative and anti-HBs-negative should receive a second 3-dose series of vaccine followed by testing for HBsAg and anti-HBs 1-3 months after series completion. Alternatively, 1-3 additional doses of vaccine, followed by testing for HBsAg and anti-HBs, one month after each dose, can be administered. If, after the 6th dose, the child does not seroconvert, no more doses are indicated. As a non-responder, this infant should be considered susceptible to a hepatitis B virus infection. Send the Non-Responder letter to the doctor, update ODRS and close the case. If the child was tested by the LHD, send the Non-Responder letter to the parent and counsel the parent that the child did not develop immunity and is susceptible to the hepatitis B virus, and educate them about healthy lifestyle and need for future medical care.
 - d. If PVS indicates the infant has developed disease, the ODH PHBPP will be contacted. Infants who test HBsAg positive are identified as being chronically infected and will need to have long-term medical management. Update ODRS.
 - e. If PVS indicates the infant has positive anti-HBs and negative HBsAg, update ODRS as 'Not a Case' and close the case. If tested by the LHD, notify the parent/guardian and PCP of the results.
6. The LHD should report the Hepatitis B Perinatal Infection (infant who is HBsAg positive on PVS, tested by 2 years of age, born to an HBsAg positive female, and born in the US) by changing the Classification status in ODRS to "Perinatal Hepatitis B- Confirmed".

F. CASE CLOSURE

1. At this time, review the case to see if follow-up is needed for household contacts. Upon completion of the child's 3-dose series (6 doses where indicated) and seroconversion documented with PVS, the infant record in ODRS will be closed and changed to "Not a Case". If seroconversion is not obtained after the 6-dose series, the infant case is closed in the same manner without further treatment. The case will remain open until all criteria for closure is met. Three attempts should be made by phone, letter, or home visit, within one year of the infants' last vaccine, to the

- doctor and/or the family. Document each attempt in ODRS. If recommendations are not completed after reasonable attempts have been made (three attempts should be made by phone, letter, or home visit, to the doctor and/or the family), the case will be closed due to non-compliance in ODRS.
2. At the completion of the follow-up, send a closure letter (found in the letters module in ODRS) and information sheet to the mother regarding her chronic hepatitis B follow-up care.

CRITERIA FOR CLOSURE, IF FOLLOW-UP IS NOT COMPLETED:

- Infant and Children: Case closed if 3 attempts have been made by phone, letter, or home visit, within one year of the infants' last vaccine, to the doctor and/or the family.
- Household/Sexual Contacts: Case closed after reasonable attempts have been made.
- Transfer Out of Jurisdiction: If the case is being transferred to another jurisdiction within Ohio, change the case jurisdiction in ODRS. If the case is being transferred out of state, Contact ODH PHBPP, who will do the transfer.
- Death: Contact ODH PHBPP