ILLINOIS DEPARTMENT OF PUBLIC HEALTH
IDPH
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HEALTH ADVISORY

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Pediatric Hepatitis B Prevention Guidance and Reissuance of Prior Immunization Guidance for Clinicians
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Summary and Action Items

1.) IDPH recommends universal hepatitis B vaccination at birth to prevent hepatitis B infections in children.
2.) All pregnant individuals should be screened for hepatitis B in the first trimester or their first prenatal visit. Any individuals who are at high risk for hepatitis B infection should also get screened on admission for delivery.
3.) Infants born to individuals who are hepatitis B surface antigen (HbsAg) positive should receive hepatitis B vaccination and hepatitis B immunoglobulin (HBIG) within 12 hours of birth.
4.) If the pregnant individual's HbsAg status is unknown, testing should be done as soon as possible on admission, and the infant should receive hepatitis B vaccination within 12 hours of birth. If the infant weighs <2,000 grams and the pregnant individual's HbsAg status cannot be determined within 12 hours of birth, administer both the hepatitis B vaccine and HBIG within 12 hours of birth. For infants weighing ≥2,000 grams, if the pregnant individual's test is positive or if the results are not available, administer HBIG to the infant as soon as possible and within 7 days of birth. If it is not possible to determine the pregnant individual's HBsAg status, administer both the hepatitis B vaccine and HBIG within 12 hours of birth.
5.) All medically stable infants born to HbsAg-negative individuals and weighing ≥2,000 grams at birth should receive hepatitis B vaccination within 24 hours of birth. Infants born to HbsAg-negative individuals and weighing <2,000 grams at birth should receive the hepatitis B vaccine at 1 month of age or at hospital discharge, whichever is earlier.
6.) Clinicians should ensure all infants complete the hepatitis B vaccine series according to the IDPH-adopted Child and Adolescent Immunization Schedule. No postvaccination serologic testing is recommended after routine child or adolescent hepatitis B vaccination, and when necessary, for example for infants born to HbsAg-positive individuals, postvaccination serologic testing should be performed 1-2 months after completion of the vaccine series.
7.) All adults should receive screening for hepatitis B at least once during their lifetime, and all adults through age 59 years as well as adults ages 60 years and older with risk factors for hepatitis B should get vaccinated. Adults ages 60 years and older without known risk factors may also receive hepatitis B vaccination.
8.) IDPH reaffirms its recommendations for influenza, RSV, and COVID-19 immunizations according to its respiratory virus season guidance issued on September 23, 2025.
9.) For other routine immunizations (non-seasonal), IDPH reaffirms its recommendation to follow the CDC Child and Adolescent Immunization and the Adult Immunization schedules with addendums as revised on August 7, 2025.

Background

Hepatitis B virus (HBV) infection in pregnancy can be transmitted to the infant at birth and poses a serious health risk to the infant and pregnant individual. An estimated 90% of infants infected at birth or in the first year of life will develop chronic HBV infection, and 25% of those children with chronic infection will die prematurely from chronic liver disease. The risk of transmission to children is not specific to just perinatal transmission. With over 600,000 adults in the US estimated to be living with chronic hepatitis B but only 50% aware of their infection, transmission to children can also occur through other caregivers or contacts who may have unknown status. Since the universal hepatitis B vaccine birth dose was adopted in 1991, pediatric HBV incidence has declined by 99%.

In 2024, 152 infants in Illinois were identified as having been born to hepatitis B surface antigen (HBsAg) positive individuals. Since 2015, there has been 1 confirmed case of perinatal hepatitis B infection in Illinois. However, since 2020, over 100 Illinois children and adolescents aged 19 years and under have been reported as probable or confirmed chronic hepatitis B cases, highlighting the importance of ongoing child and adult hepatitis B vaccination efforts.

Prenatal Screening Requirements and Procedures

Prenatal Screening and Counseling

All pregnant individuals should be screened for hepatitis B with hepatitis B surface antigen (HBsAg) testing during each pregnancy. Pregnant individuals who have not previously been screened with triple panel testing (HbsAg, hepatitis B surface antibody (anti-Hbs), and total hepatitis B core antibody (anti-HBc) are recommended to receive triple panel testing, regardless of vaccination status.

The Illinois Control of Notifiable Diseases and Conditions Code requires the following:

- All pregnant individuals should be tested for HBsAg during an early prenatal visit (e.g., first trimester or first prenatal visit) or when they present to a hospital for delivery if prenatal serologic results are not available. (Section 690.451)
- Pregnant individuals who are at high risk for hepatitis B infection (recent history of sexually transmitted infection, multiple sex partners, HbsAg-positive sex partner, injection drug use, or other possible risks of hepatitis B infection) should be retested upon admission to the hospital or birthing facility for delivery. (Section 690.451)
- Clinicians must report pregnant individuals who are HBsAg positive within three days to the local health department to ensure that their infants receive timely post-exposure prophylaxis and follow-up and to get recommendations on testing and immunizing contacts. (Section 690.100)

A copy of the original laboratory report indicating the pregnant individual's HBsAg status should be provided to the hospital or birthing facility where delivery is planned and to the clinician who will care for the newborn.

Routine prenatal care education for all pregnant individuals should include information regarding the rationale for and importance of newborn hepatitis B vaccination.

Management of HBsAg-Positive Pregnant Individuals

- All HBsAg-positive pregnant individuals should be tested for HBV DNA to guide the use of maternal antiviral therapy during pregnancy for the prevention of perinatal HBV transmission.
- Refer HBsAg-positive pregnant individuals to infectious disease or hepatology for evaluation and possible anti-viral therapy.
- Provide education on prevention of hepatitis B transmission and the importance of their infant receiving the hepatitis B vaccine and hepatitis B immunoglobulin within 12 hours of birth. Other topics should include hepatitis B vaccination for contacts and risk reduction strategies, including condom use, avoidance of needle sharing, proper clean-up procedures for blood spills, covering open wounds, and avoiding other high-risk behaviors for transmission.

Hepatitis B Vaccination of Pregnant Individuals

All pregnant individuals without documented history of hepatitis B vaccination or serologic evidence of immunity should get vaccinated. See Society for Maternal-Fetal Medicine Hepatitis B in Pregnancy Guidelines and CDC Guidelines for Vaccinating Pregnant Individuals.

Role of the Local Health Department

- Review all positive acute or chronic hepatitis B laboratory reports in individuals of childbearing potential to determine pregnancy status.
    - Follow up with the ordering clinician to confirm pregnancy and HBsAg status. Verify the pregnant individual is aware of their HBsAg-positive status.
    - Remind the prenatal clinician to ensure the delivery hospital/birthing facility receives a copy of the lab report.
- Provide case management to all HbsAg-positive pregnant individuals.
    - Contact the HbsAg-positive pregnant individual to explain hepatitis B prevention, especially perinatally, and the importance of their infant (1) receiving post-exposure prophylaxis (PEP) with the hepatitis B vaccine and HBIG within 12 hours of birth, (2) completing the hepatitis B vaccine series according to the IDPH-adopted Child and Adolescent Immunization Schedule, and (3) postvaccination serologic testing.
    - Document case management in I-NEDSS.

Delivery Hospital/Birthing Facility Procedures for Hepatitis B Prevention

Labor & Delivery

- Upon admission, review the pregnant individual's HBsAg lab report.
- Only accept the laboratory record of the HBsAg results, and do not rely on the handwritten prenatal record due to the possibility of transcription error or misunderstanding of the results or testing.
- Ensure the pregnant individual's HbsAg results are in the labor and delivery record and the newborn's medical record.
- Pregnant individuals admitted for delivery without documentation of HBsAg test results or with risk factors for HBV infection (as noted above) should have stat HbsAg testing as soon as possible on admission.
- Alert the pediatric team if the pregnant individual is HBsAg positive, if the pregnant individual's HBsAg result is unknown, or if repeat HBsAg testing is indicated and has been ordered.

Pediatric Care

- Infants Born to HBsAg-Positive Individuals
    - Administer single-antigen hepatitis B vaccine within 12 hours of birth.
    - Administer hepatitis B immunoglobulin (HBIG 0.5 mL) within 12 hours of birth.
        - The hepatitis B vaccine and HBIG should be administered at different injection sites.
    - Document the date and time of administration of hepatitis B vaccine and HBIG in the infant medical record.
    - Complete mandated reporting of the infant to the Adverse Pregnancy Outcome Reporting System (APORS) and ensure information on the hepatitis B vaccine and HBIG administrations are included.
    - For preterm infants weighing <2,000 grams who are born to a HBsAg-positive individual, HBIG and the hepatitis B vaccine should be administered within 12 hours of birth, but this initial vaccine dose will not be counted as part of the vaccine series because of the potentially reduced immunogenicity of hepatitis B vaccine in these infants. Additional doses of vaccine (for a total of four doses including the initial birth dose) should be administered beginning when the infant reaches age 1 month. Ensure parents/guardians receive education on this.
    - Infants born to individuals for whom HBsAg testing results during pregnancy are not available but have other evidence suggestive of maternal hepatitis B virus infection (presence of HBV DNA, HBeAg is positive, or pregnant individual is known to be chronically infected with hepatitis B) should be managed as if born to an HBsAg-positive individual.
    - For infants who are transferred to a different facility after birth, staff at the transferring and receiving facilities should communicate with each other regarding whether the infant received hepatitis B vaccination and HBIG to ensure prophylaxis is administered in a timely manner.
    - See Follow Up of Infants Perinatally Exposed to Hepatitis B below.
- Infants Born to Individuals with Unknown HBsAg Status
    - Verify the HBsAg has been drawn on the pregnant individual and monitor for laboratory results.
    - Administer the hepatitis B vaccine within 12 hours of birth.
    - For infants with birth weight ≥2,000 grams, if the pregnant individual's test is positive or if the results are not available, administer HBIG to the infant as soon as possible and within 7 days of birth.
    - For infants with birth weight <2,000 grams, due to the potentially decreased immunogenicity of the vaccine in infants weighing <2,000 grams, if the pregnant individual's HbsAg status cannot be determined within 12 hours of birth, administer both the hepatitis B vaccine and HBIG within 12 hours of birth. This initial vaccine dose will not be counted as part of the vaccine series because of the potentially reduced immunogenicity of hepatitis B vaccine in these infants. Additional doses of vaccine (for a total of four doses including the initial birth dose) should be administered beginning when the infant reaches age 1 month. Ensure parents/guardians receive education on this.
    - If it is not possible to determine the pregnant individual's HBsAg status (e.g., where confidential safe surrender of infant occurs shortly after birth), administer both the hepatitis B vaccine and HBIG within 12 hours of birth. The vaccine series and postvaccination serologic testing should be completed according to the recommended schedule for infants born to HBsAg-positive individuals (see Follow Up of Infants Perinatally Exposed to Hepatitis B below).

    - Infants born to individuals for whom HBsAg testing results during pregnancy are not available but have other evidence suggestive of maternal hepatitis B virus infection (presence of HBV DNA, HBeAg is positive, or pregnant individual is known to be chronically infected with hepatitis B) should be managed as if born to an HBsAg-positive individual.
    - For infants who are transferred to a different facility after birth, staff at the transferring and receiving facilities should communicate with each other regarding whether the infant received hepatitis B vaccination and HBIG to ensure prophylaxis is administered in a timely manner.
- Infants Born to HbsAg-Negative Individuals
    - Administer a single-antigen first dose of the hepatitis B vaccine to all medically stable infants weighing ≥2000 grams within 24 hours of birth.
    - Infants weighing <2000 grams and born to HBsAg-negative individuals should receive the first hepatitis B vaccine dose one month after birth or at hospital discharge (whichever is earlier and even if weight is still <2000 grams).
    - Educate parents/guardians on the importance of the hepatitis B vaccine and completion of the series according to the IDPH-adopted Child and Adolescent Immunization Schedule.

Delivery Hospital/Birth Facility Policies

- Hospital/birth facility policy should address hepatitis B vaccination of all newborns prior to discharge according to the above guidance, including standing orders for the hepatitis B vaccine birth dose, provision of the vaccine information statement (VIS), and parent/guardian education and consent.
- Ensure documentation of all vaccine doses in the Illinois immunization registry, I-CARE, so that other clinicians who care for the child may access the vaccination records. Contact I-CARE at dph.icare@illinois.gov or 217-785-1455 for more information on how this can be done through an import from the electronic medical record.

Follow Up of Infants Perinatally Exposed to Hepatitis B

Role of Clinicians who Provide Care to Children

- Completion of hepatitis B vaccine series for infants perinatally exposed to hepatitis B
    - Infants who weighed ≥2000 grams at birth should complete the hepatitis B vaccine series according to the routine childhood schedule as found in the IDPH-adopted Child and Adolescent Immunization Schedule.
    - Infants who weighed <2000 grams at birth should receive 3 additional doses of hepatitis B vaccine beginning at age 1 month. The birth dose should not be counted as part of the vaccine series because of the potentially reduced immunogenicity in these infants.
    - The final dose in the hepatitis B vaccine series should not be administered before age 24 weeks.
    - To ensure timely and accurate communication of vaccine administration to the local health department (LHD), the Illinois Department of Public Health (IDPH), and the infant's pediatric care team, all vaccine doses should be documented in the Illinois immunization registry, I-CARE. Contact I-CARE at dph.icare@illinois.gov or 217-785-1455 for more information on how this can be done through an import from the electronic medical record.

- Postvaccination serologic testing for infants perinatally exposed to hepatitis B
    - Postvaccination serologic testing (PVST) for hepatitis B surface antibody (anti-HBs, quantitative test) and HBsAg should be performed after completion of the vaccine series at 9-12 months of age, ensuring 1-2 months have passed since the last vaccine dose. If completion of the series was delayed, PVST should occur 1-2 months after completing the vaccine series.
        - PVST should not be done before 9 months of age. This minimizes the likelihood of detecting passively transferred anti-HBs from HBIG and maximizes the likelihood of detecting late HBsAg-positive infections.
        - PVST should be done 1-2 months after completion of the series and no sooner.
            - Following vaccination, HBsAg testing may be transiently positive for up to 18 days due to vaccination and not infection.
            - Serologic testing (anti-Hbs) in between doses is not recommended as the threshold for immunity (≥10 mIU/mL) only applies to those who have completed the series.
            - Hepatitis B core antibody (anti-HBc) testing of infants is not recommended as passively acquired maternal anti-HBc may be detected in infants born to HbsAg-positive individuals up to 24 months of age.
    - HBsAg-negative infants with anti-HBs levels ≥10 mIU/mL are considered protected and need no further follow up related to their perinatal exposure.
    - HBsAg-negative infants with anti-HBs levels <10 mIU/mL should be revaccinated with a single dose of hepatitis B vaccine and repeat serologic testing (HBsAg and anti-HBs) should be done 1-2 months later.
        - If the infant continues to have an anti-HBs of <10 mIU/mL following single dose revaccination, complete a second 3-dose series by administering 2 additional doses followed by repeat PVST 1-2 months after the final dose.
        - Alternatively, based on clinical circumstances or parent/guardian preference, HBsAg-negative infants born to HBsAg-positive individuals who show no serologic immune response after receiving the initial hepatitis B vaccine series may instead be revaccinated with a second 3-dose series and have repeat PVST 1-2 months after the final dose.
        - Subsequent doses of hepatitis B vaccine when anti-HBs concentrations remain <10mIU/mL after the sixth dose are not indicated as the available data do not suggest a benefit from additional doses.
    - Infants who are HBsAg positive should be referred for appropriate medical follow-up.
    - Provide documentation of vaccination and PVST results to the local health department on all infants born to HBsAg-positive individuals.

Role of Local Health Departments

- Local health departments should provide case management for all infants perinatally exposed to hepatitis B.
- Communicate with the infant's parents/guardians and collaborate with the infant's pediatric care team to ensure timely completion of the hepatitis B vaccine series and timely and appropriate postvaccination serologic testing (PVST).
- Complete documentation of case management in I-NEDSS.

Routine Hepatitis B Vaccination Schedule and Screening

Children
All children ages 18 years or younger should complete hepatitis B vaccination according to the IDPH-adopted Child and Adolescent Immunization Schedule. Children who have not received previously received the hepatitis B vaccine should be vaccinated routinely following the catch-up schedule.

No postvaccination serologic testing is recommended after routine child or adolescent hepatitis B vaccination, whether in between doses or after completion of the series. When necessary, for example for infants born to HbsAg-positive individuals, postvaccination serologic testing should be performed 1-2 months after completion of the vaccine series or any recommended additional doses. The threshold for immunity (≥10 mIU/mL) only applies to those who have completed the series.

Clinicians who provide care to children are encouraged to enroll in the federally funded Vaccines for Children (VFC) program to obtain no-cost hepatitis B vaccines for eligible children (i.e., Medicaid-eligible, uninsured, or American Indian or Alaska Native). Information on enrolling in the VFC program is available at http://www.dph.illinois.gov/topics-services/prevention-wellness/immunization/vfc-program.

Adults
All adults ages 19-59 years and adults ages 60 years and older with risk factors for hepatitis B who have not previously completed the hepatitis B series should be vaccinated according to the IDPH-adopted Adult Immunization Schedule. Adults ages 60 years and older without known risk factors may also receive hepatitis B vaccination.

In addition, all adults ages 18 years and older should be screened for hepatitis B at least once in their lifetime, regardless of vaccination status, using triple panel testing for HbsAg (hepatitis B surface antigen), anti-HBs (hepatitis B surface antibody), and total anti-HBc (hepatitis B core antibody). See CDC Clinical Testing and Diagnosis for Hepatitis B for additional details.

References

- IDPH Immunization Webpage
- CDC Clinical Overview of Perinatal Hepatitis B
- CDC Clinical Overview of Hepatitis B
- Prevention of Hepatitis B Virus Infection in the United States: Recommendations of the Advisory Committee on Immunization Practices, MMWR, January 12, 2018
- Universal Hepatitis B Vaccination in Adults Aged 19–59 Years: Updated Recommendations of the Advisory Committee on Immunization Practices — United States, 2022, MMWR, April 1, 2022

Target Audience

Pediatricians, OB-GYN, Physicians, Nurses, Pharmacists, VFC Providers, Infectious Disease Staff, Hospital/Clinic Administrators, FQHC Administrators, Local Health Departments, and Regional Health Offices.

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