



Communicable Disease Case Reporting and Investigation Protocol **HEPATITIS B**

I. IDENTIFICATION AND DEFINITION OF CASES

- A. **Clinical Description:** An illness with insidious onset of symptoms including anorexia, vague abdominal discomfort, nausea, vomiting, and sometimes arthralgia and rash that often progresses to jaundice. Only a small proportion of infections are clinically recognized: less than 10% of children and 30%-50% of adults with acute infection will have icteric disease.
- B. **Laboratory Criteria:**
1. **Acute:** IgM antibody to hepatitis B core antigen (IgM anti-HBc) positive or hepatitis B surface antigen (HBsAg) positive
 2. **Chronic:** IgM anti-HBc negative **and** a positive result on one of the following tests: HBsAg, hepatitis B e antigen (HBeAg), or hepatitis B virus (HBV) DNA, **OR** HBsAg positive or HBV DNA or HBeAg positive two times at least six months apart (any combination of these tests performed six months apart is acceptable).
 3. **Perinatal:** HBsAg positive.
- C. **Wisconsin Surveillance Case Definition:**
1. **Acute:** Confirmed—Laboratory confirmation AND discrete onset of symptoms* (e.g., fever, headache, malaise, anorexia, nausea, vomiting, diarrhea, abdominal pain, dark urine) AND jaundice or elevated serum aminotransferase levels (ALT) >100 IU/L.
 - a. *Note: A documented negative HBsAg result within six months prior to a positive HBsAg, HBeAg, or HBV DNA test result does not require an acute clinical presentation to meet the surveillance case definition.
 2. **Chronic:** Confirmed—Laboratory Confirmation
 3. **Probable:** Single HBsAg positive or HBV DNA positive or HBeAg positive lab result, and does not meet the case definition for acute hepatitis B.
 4. **Perinatal:** Confirmed—Laboratory confirmation in any infant greater than 1 month and up to 24 months old who was born in the United States or in U.S. territories to an HBsAg-positive mother.

II. REPORTING

- A. **Wisconsin Disease Surveillance Category II – Methods for Reporting:** This disease shall be reported to the patient's local health officer or to the local health officer's designee within 72 hours of recognition of a case or suspected case, per Wis. Admin. Code § [DHS 145.04 \(3\) \(b\)](#). Report electronically through the Wisconsin Electronic Disease Surveillance System (WEDSS), or mail or fax a completed Acute and Communicable Disease Case Report ([F-44151](#)) to the address on the form.
- B. **Responsibility for Reporting:** According to Wis. Admin. Code § [DHS 145.04\(1\)](#), persons licensed under Wis. Stat. ch. [441](#) or [448](#), laboratories, health care facilities, teachers, principals, or nurses serving a school or day care center, and any person who knows or suspects that a person has a communicable disease identified in [Appendix A](#).
- C. **Clinical Criteria for Reporting:** Clinically compatible illness.
- D. **Laboratory Criteria for Reporting:** Laboratory evidence of infection. All positive results should be reported.

III. CASE INVESTIGATION

- A. **Responsibility for case investigation:** It is the responsibility of the local health department (LHD) to investigate or arrange for investigation of suspected or confirmed cases as soon as is reasonably possible. A case investigation may include information collected by phone, in person, in writing, or through review of medical records or communicable disease report forms, as necessary and appropriate.

1. Determine pregnancy status if the patient is a woman of child-bearing age (approximately 12-55 years). Refer pregnant patient to the Perinatal Hepatitis B Prevention Program through their local public health department. See [Perinatal Hepatitis B Prevention Program Manual](#) for detailed follow-up recommendations.
 2. Refer the patient to a medical care provider to monitor outcome or progress of infection.
 3. Exclude patient from school, day care, or work until acute illness has resolved.
 4. Educate patient on how to protect others from exposure to HBV.
 5. Persons who are not immune to hepatitis A virus (HAV) and who have liver disease should be vaccinated against HAV.
 6. Post-exposure prophylaxis* with hepatitis B immunoglobulin (HBIG) and/or hepatitis B vaccine (where appropriate) for:
 - All infants born to mothers who are HBsAg-positive (recommended within 12 hours of birth).
 - Unvaccinated infants whose mothers or primary care givers have acute hepatitis B.
 - Sexual contacts of persons with acute hepatitis B.
 - Health care workers after occupational exposure depending on vaccination status and immune response.
 - Household contacts and sexual contacts of persons with chronic HBV infection do not need prophylaxis with HBIG but should be vaccinated.
- *Within seven days for percutaneous exposures and within 14 days for sexual exposures.

B. Required Documentation:

1. Complete the WEDSS disease incident investigation report, including appropriate disease-specific tabs.
2. Upon completion of investigation, set WEDSS disease incident process status to “Sent to State.”

C. Additional Investigation Responsibilities

1. Assess patient for high-risk settings or activities to include providing patient care or child care, or attending a child care facility.
2. Determine whether the case is potentially outbreak-related and notify the Wisconsin Division of Public Health (DPH), Bureau of Communicable Diseases (BCD).

IV. PUBLIC HEALTH INTERVENTIONS AND PREVENTION MEASURES

- A. In accordance with Wis. Admin. Code § [DHS 145.05](#), local public health agencies should follow the methods of control recommended in the current editions of *Control of Communicable Diseases Manual*, edited by David L. Heymann, published by the American Public Health Association, and the American Academy of Pediatrics’ *Red Book: Report of the Committee on Infectious Diseases*, unless otherwise specified by the state epidemiologist.
- B. Hepatitis B vaccine is universally recommended for all infants at 0, 1-2 and 6-18 months of age. Catch-up vaccination is recommended for all children and adolescents aged ≤ 18 years. In addition, vaccination is recommended for previously unvaccinated adults at risk for hepatitis B infection including: sex partners of HBsAg-positive persons, sexually active persons not in a long-term mutually monogamous relationship (more than one sex partner during the previous six months), persons seeking evaluation or treatment for a sexually transmitted disease, men who have sex with men, current or recent intravenous drug user, household contacts of HBsAg-positive persons, residents and staff of facilities for developmentally disabled persons, health care and public safety workers with risk for exposure to blood or blood-contaminated body fluids, persons with end-stage renal disease, persons with diabetes mellitus, international travelers to regions with high or intermediate levels (HBsAg prevalence of 2% or higher), and persons with HIV infection.
- C. Perinatal HBV infection can be prevented through:
 1. Routine screening of all pregnant women for HBsAg during each pregnancy.
 2. Immunoprophylaxis of infants born to HBsAg-positive women (HBIG and hepatitis B vaccine within 12 hours of birth) or to women with unknown HBsAg status (hepatitis B vaccine within 12 hours of birth and STAT testing of the mother to guide whether or not to administer HBIG).
 3. Universal administration of a dose of hepatitis B vaccine within 24 hours of birth to infants born to HBsAg-negative women.

V. CONTACTS FOR CONSULTATION

- A. Local health departments and tribal health agencies: <https://www.dhs.wisconsin.gov/lh-depts/index.htm>
- B. Regional Immunization Program representatives: <https://www.dhs.wisconsin.gov/lh-depts/counties.htm>
- C. Bureau of Communicable Diseases, Immunization Program: 608-267-9959. After hours number 608-258-0099.
- D. Wisconsin State Laboratory of Hygiene: 1-800-862-1013. After hours emergency number 608-263-3280.

VI. RELATED REFERENCES

- A. Heymann DL, ed. Hepatitis B In: *Control of Communicable Diseases Manual*. 20th ed. Washington, DC: American Public Health Association, 2015: 257-264.
- B. Pickering LK, ed. Hepatitis B In: *Red Book: 2015 Report of the Committee on Infectious Diseases*. 30th ed. Elk Grove Village, IL: American Academy of Pediatrics, 2015: 400-423.
- C. Centers for Disease Control and Prevention. A Comprehensive Immunization Strategy to Eliminating Transmission of Hepatitis B Virus Infection in the United States: Recommendations of the Advisory Committee on Immunization Practices (ACIP) Part I: Immunization of infants, children and adolescents. *MMWR* 2005; 54 (No. RR-16).
- D. Centers for Disease Control and Prevention. A Comprehensive Immunization Strategy to Eliminating Transmission of Hepatitis B Virus Infection in the United States: Recommendations of the Advisory Committee on Immunization Practices (ACIP) Part II: Immunization of Adults. *MMWR* 2006; 55 (No. RR-16).
- E. Centers for Disease Control and Prevention. *Epidemiology and Prevention of Vaccine-Preventable Diseases*. Hamborsky J, Kroger A, Wolfe S, eds. 13th ed. Washington D.C. Public Health Foundation, 2015.
- F. Centers for Disease Control and Prevention. (1993). *Viral Hepatitis Case Record for Reporting of Patients with Symptomatic Acute Viral Hepatitis*. Retrieved July 24, 2017, from https://www.cdc.gov/hepatitis/pdfs/vhsp_form.pdf
- G. Centers for Disease Control and Prevention Manual for the Surveillance of Vaccine-Preventable Diseases Hepatitis B website: <https://www.cdc.gov/vaccines/pubs/surv-manual/chpt04-hepb.html>
- H. Hamborsky J, Kroger A, Wolfe S, eds. *Hepatitis B In: Epidemiology and Prevention of Vaccine-Preventable Diseases*. 13th ed. Washington DC: Public Health Foundation, 2015: 149-174.
- I. Wisconsin Immunization Program Hepatitis B webpage: <https://www.dhs.wisconsin.gov/immunization/hepb.htm>