CDC LOCS Advisory

Recommendations for improving identification of hepatitis B-infected pregnant women and their infants

Summary and Background

Infants born to women who are hepatitis B surface antigen (HBsAg)-positive are at high risk of hepatitis B virus (HBV) infection. In the absence of treatment, infants infected with HBV have a 90% risk of progression to chronic hepatitis B and up to 25% of infants who acquire chronic HBV infection will die prematurely from HBV-related hepatocellular carcinoma or cirrhosis. In 1988, the Advisory Committee on Immunization Practices (ACIP) recommended that all pregnant women are screened for HBsAg with each pregnancy to ensure that infants born to HBsAg-positive women receive postexposure prophylaxis, which is up to 95% effective in preventing perinatal HBV infection. The Council of State and Territorial Epidemiologists (CSTE) recommends that all HBsAg-positive tests are reported to public health departments in all states in order for perinatal hepatitis B prevention coordinators to follow up and ensure appropriate management of the infants. Although some screening studies have estimated that about 95% of pregnant women receive prenatal HBsAg testing, fewer than half of the expected births to HBsAg-positive women are identified, indicating not all HBsAg-positive pregnant women are reported to and identified by perinatal coordinators at the state health departments.

Reasons for health departments missing HBsAg-positive pregnant women include underreporting, improper ordering by healthcare providers, misinterpretation of test results, and importantly, provision of test results without information to identify tests from pregnant women.

Recommendations for national, hospital, non-hospital local, and other laboratories providing HBsAg-testing services:

 Ensure all laboratories provide timely reports of HBsAg-positive test results to state health departments.

 Ensure pregnancy status is indicated on all HBsAg-positive test results reported to health departments and ordering physicians, according to the following guidance:

- For orders originating as obstetric (“OB”) panels or prenatal screening panels that include HBsAg as a test component, include the original test code and test name (e.g., “OB panel”, “Prenatal panel”) when reporting an HBsAg-positive test result.

- For individual HBsAg test orders originating from an OB panel or Prenatal Screen performed elsewhere (HBsAg outsourced to a reference lab as part of larger panel/screen), the reference lab should include the original test code and test name (e.g., “OB panel”) on the final lab report.

- For orders originating as an individual prenatal HBsAg test, include the test code and test name (e.g., “Prenatal HBsAg”) on the final lab report. If the original order name does not indicate a prenatal test, but the pregnancy status is indicated elsewhere on the order (e.g., diagnosis code), include the diagnosis code indicating pregnancy status on the final lab report.

 Educate and encourage clients to select an OB panel or a Prenatal Panel when screening pregnant women for hepatitis B surface antigen.

 Seek ways to have clients identify pregnant women when ordering panels including HBsAg-tests other than OB or Prenatal Panels, and ways to convey pregnancy status when reporting positive tests to public health, e.g., through regular use of diagnosis codes.

Updated 01-26-2015

 Ensure confirmatory HBsAg testing is performed on all HBsAg tests (when assay appropriate) included in OB or Prenatal panels, or when the diagnosis code indicates pregnancy, and include verification of confirmed HBsAg-positive result on the final lab report.

 Include interpretation of the specific HBsAg test result in plain English ("Test result: confirmed positive. Indicates acute or chronic hepatitis B infection"), and avoid terms that might be less familiar, e.g., "reactive". Include interpretation of other hepatitis B serologic markers to avoid confusion with HBsAg results, e.g., for anti-HBs test results. Or, add a table providing interpretation of hepatitis B serologic test results to the lab report. At a minimum, include a web link or a reference providing guidance to interpretation of serologic test results. (Example: http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5708a1.htm [table 2] or http://www.cdc.gov/hepatitis/HBV/PDFs/SerologicChartv8.pdf)

 Whenever possible, transmit results to health department and ordering physician electronically to eliminate misinterpretation of results related to illegible transmissions (i.e. fax). Encourage clients to set up electronic reporting mechanisms.

For more information:

 CSTE position statement (1998): http://www.cste.org/dnn/AnnualConference/PositionStatementArchive/tabid/398/Default.aspx

 Centers for Disease Control and Prevention (CDC). Recommendations for identification and public health management of persons with chronic hepatitis B virus infection. MMWR 2008;57(RR-08). (http://www.cdc.gov/mmwr/PDF/rr/rr5708.pdf)

 Centers for Disease Control and Prevention (CDC). A comprehensive immunization strategy to eliminate transmission of hepatitis B virus infection in the United States. Recommendations of the Advisory Committee on Immunization Practices (ACIP) part 1: immunization of infants, children, and adolescents. MMWR 2005;54(RR-16). (http://www.cdc.gov/mmwr/PDF/rr/rr5416.pdf)

 CDC Division of Viral Hepatitis website: http://www.cdc.gov/hepatitis

 CDC Perinatal Hepatitis B Prevention website: http://www.cdc.gov/hepatitis/HBV/PerinatalXmtn.htm

 American Congress of Obstetricians and Gynecologists: www.acog.org

 US Preventive Services Task Force (USPSTF). Screening for Hepatitis B Virus Infection in Pregnancy: U.S. Preventive Services Task Force Reaffirmation Recommendation Statement. Ann Intern Med 2009;150;869-873. (http://www.uspreventiveservicestaskforce.org/uspstf09/hepb/hepbpgrs.pdf)