Date: July 30, 2014

To: Wisconsin Birthing Hospitals, Obstetricians, Pharmacists, and Local Health Departments

From: Jeffrey P. Davis, MD, Chief Medical Officer and State Epidemiologist for Communicable Diseases and Emergency Response

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Re: Vaccinations Recommended and Screening for Vaccine Preventable Diseases during Pregnancy

Vaccines help keep a pregnant woman and her growing family healthy, and your recommendations make a difference to your patients. Please help us to improve the health of Wisconsin residents by making a strong recommendation for tetanus-diptheria-acellular pertussis (Tdap) and influenza vaccination during pregnancy and for ensuring that all women are screened for hepatitis B virus (HBV) infection during pregnancy.

**Tdap Vaccination during Pregnancy**

Women who develop pertussis late in pregnancy are likely to transmit *Bordetella pertussis*, the etiologic agent, to their newborn infants. Infants, particularly early in infancy, are at high risk for developing a severe complication of pertussis, including apnea, pneumonia or death. Pregnant women should receive a dose of Tdap during each pregnancy, preferably during weeks 27 through 36, to maximize the maternal antibody response and passive antibody transfer to the infant. This will provide some protection against pertussis during the early months following birth and before the infant is able to receive the primary diphtheria-tetanus-acellular pertussis (DTaP) vaccine series. However, Tdap vaccine may be given at any time during pregnancy. All family members and caregivers (e.g., babysitters or grandparents) of infants should receive Tdap vaccine, optimally at least two weeks before the birth of the infant because immune response to the vaccine peaks about two weeks after vaccine administration. In addition, health care personnel, especially those with direct patient contact, should ensure that they have received a dose of Tdap to protect themselves and their patients.
**Influenza Vaccination during Pregnancy**

Pregnant women who get influenza are at increased risk for complications of influenza, and their infants are also at risk. Complications of influenza may include premature labor and delivery, infants who are small for gestational age or who have congenital abnormalities, hospitalization, and death. Pregnant women can receive the inactivated influenza vaccine at any time, during any trimester. Vaccination during pregnancy has been shown to protect both the mother and her infant (up to 6 months old) from influenza-related illness and hospitalization. In addition, because infants aged <6 months are too young to receive an influenza vaccination, it is important that everyone who cares for infants (health care personnel, caregivers and people who live in a household with an infant) receives the influenza vaccine.

There is no evidence of adverse fetal effects from vaccinating pregnant women with an inactivated virus or bacterial vaccines or toxoids, and a growing body of robust data demonstrates the safety of such use.

**Providers should take the following steps to encourage their pregnant patients to get vaccinated with Tdap and influenza vaccines:**
1. Screen pregnant patients for vaccination status.
2. Recommend the needed vaccines to their pregnant patients.
3. Administer the needed vaccines, or refer the pregnant patient to a provider who is able to vaccinate.
4. Document the vaccination in the patient’s medical record and submit this information to the Wisconsin Immunization Registry (WIR).

**Hepatitis B Screening during Pregnancy and Providing Appropriate Prophylaxis to Infants**

Persons with chronic HBV infection are often asymptomatic and may not be aware that they are infected. Risk of perinatal transmission of HBV is high if the infant is not given appropriate prophylaxis. Up to 90 percent of infants infected with HBV at birth will become chronically infected, resulting in an increased lifetime risk for cirrhosis and hepatocellular carcinoma. All pregnant women should be screened for hepatitis B surface antigen (HBsAg) during each pregnancy.

- Infants born to HBsAg-positive women should receive a dose of hepatitis B vaccine and hepatitis B immunoglobulin within 12 hours of birth.
- Infants born to women with unknown HBsAg status should receive a dose of hepatitis B vaccine within 12 hours of birth.
- Infants born to HBsAg-negative women should receive a dose of hepatitis B vaccine before hospital discharge.

Your role in ensuring that your patients are vaccinated against influenza and pertussis and screened for hepatitis B during pregnancy is crucial. We hope that this information will be beneficial to you to recommend and offer vaccination to your pregnant patients and ensure that they are screened for HBV infection during each pregnancy.

If you have questions or need additional assistance, please contact Stephanie Borchardt at 608-266-9923 or Stephanie.Borchardt@wi.gov.

**Resources**

Immunization and Pregnancy Vaccines Flyer
Immunization and Pregnancy Vaccines Chart

Hepatitis B Information for Health Professionals
http://www.cdc.gov/hepatitis/HBV/PerinatalXmtn.htm