FROM THE AMERICAN ACADEMY OF FAMILY PHYSICIANS

Talking About Vaccines During Pregnancy

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Introduction

Immunization is a vital component of prenatal care — offering protection from preventable diseases to patients who are pregnant and their fetuses. The Centers for Disease Control and Prevention (CDC) Advisory Committee on Immunization Practices (ACIP) recommends immunizing every patient who is pregnant during their third trimester with the tetanus, diphtheria, and acellular pertussis (Tdap) vaccine and providing the influenza vaccine to all patients who are pregnant during flu season. The American Academy of Family Physicians (AAFP) and the American College of Obstetricians and Gynecologists (ACOG) jointly endorse these recommendations.[1]

Young infants are at high risk for pertussis infection and death in the first months of life.[2] Maternal immunoglobulins produced in response to the Tdap vaccine cross the placenta to provide passive immunity to the fetus, significantly reducing pertussis hospitalizations and death in infants in the first two months of life.[3,4] Prenatal Tdap vaccination protects infants 85% more effectively than postpartum vaccination.[5]

Influenza disproportionately impacts patients of reproductive age, leading to adverse pregnancy outcomes, including fetal loss and preterm delivery.[6] Prenatal influenza vaccination also results in passive immunity for the fetus — critical protection before the infant reaches six months and is eligible for vaccination.[7,8]

This educational supplement provides family physicians information about overcoming vaccine myths, misinformation, and mistrust; defines our role in vaccinating patients who are pregnant; and offers communication tips to address vaccine hesitancy.

Myths, Misinformation, and Mistrust

Despite clear benefits of receiving recommended immunizations during pregnancy, the increase of myths, misinformation, and mistrust regarding vaccines has led to hesitancy for some patients.[9] Many patients who are pregnant avoid vaccination due to erroneous beliefs about the mechanism of immunization or concerns about possible effects on their pregnancy. Family physicians are trusted sources of evidence-based information to address patients' concerns and answer questions to help them overcome the following vaccine myths, misinformation, and mistrust.

The flu shot can make you sick. Address this myth in a straightforward manner. Patients who are pregnant should get a flu shot — but not the live, attenuated intranasal vaccine. Inactivated influenza vaccines cannot infect a patient with the virus and give them influenza. The thing that can make patients sick is the influenza virus. Patients who are pregnant are at increased risk of serious influenza outcomes, including hospitalization, fetal loss, preterm labor and delivery, and maternal death.[6] The flu vaccine is the best way to decrease this risk.

The flu shot can make you feel sick. This myth can be dispelled by providing accurate information about the frequency and severity of side effects patients may experience after vaccination. Reactions to the influenza vaccine may temporarily mimic symptoms of a cold, such as chills, body aches, and/or headaches, but these typically resolve quickly and without risk of harm to the patient or the fetus.[10]

The flu shot contains dangerous chemicals like mercury. Misinformation such as this is outdated. It contends that preservatives used in vaccines contain toxins. The preservative thimerosal is used to prevent the growth of bacteria in some adult multi-dose vaccine vials and contains a minimal amount of ethyl mercury. The vaccine misinformation that the flu shot contains mercury is unfounded. For example, the influenza vaccine given to patients who are pregnant is typically distributed in pre-filled syringes or single-dose vials without any need for a preservative, so no thimerosal is present. Some other adult multi-dose vaccine vials contain thimerosal, but the minimal amount of preservative is cleared from the body quickly and without harm.[11]

Tdap isn't required during pregnancy if your tetanus vaccine is current. While routine Tdap immunization given in the third trimester (27 to 36 weeks; ideally given early in that window) protects the patient who is pregnant against tetanus, diphtheria, and pertussis, the real goal of vaccination is to protect the infant. Recent pre-pregnancy receipt of a tetanus booster — even one with acellular pertussis — does not mean a patient who is pregnant should forego a Tdap vaccine in the third trimester.[12] A surge in antibodies against pertussis after immunization allows valuable immune system proteins to cross the placenta and protect the newborn. Antibody production wanes over time, so an additional Tdap shot is needed in each pregnancy.[13]

Vaccines cause autism. Although most concerns about a possible link between immunization and autism focused on toddlers given the measles, mumps, and rubella (MMR) vaccine, mistrust has persisted among some patients who are worried broadly about a connection between shots given during pregnancy and developmental disorders in offspring. A growing body of evidence conclusively reports no link between vaccines and autism, no matter the stage of life they are administered.[14,15]

Family Physician's Role

Family physicians interact with patients of reproductive age at many points before and during their pregnancy. Our primary role means we may directly provide prenatal care or collaborate with a patient's maternity care provider. Assess a patient's vaccination status early during prenatal care. Address any concerns expressed about the safety or timing of vaccines. MMR and varicella vaccines are contraindicated during pregnancy. Other vaccines may be given during pregnancy if a risk exists, such as a disease exposure or travel.[16]

Family physicians should recommend the following to all patients who are pregnant:

- All patients who will be pregnant during influenza season and any person with whom they share a living space or have close contact should receive an influenza vaccine.[16]
- All patients who are pregnant should receive a Tdap vaccine in the third trimester (between 27 and 36 weeks), ideally early enough to allow at least two weeks for antibody development and cross-placental transfer before delivery.[17]
- All household members and infant caregivers in contact with the patient who is pregnant should receive a Tdap vaccine if they have not done so previously or need a routine tetanus booster.[17]

Make vaccinations convenient for patients who arrive for prenatal care appointments or offer the opportunity to receive appropriately timed vaccines during a visit for another concern. Patients are more likely to follow through with physician recommendations if a vaccine is immediately available.[18]

Communicating About Vaccine Hesitancy

Begin your immunization conversations with the presumption that patients who are pregnant will accept your vaccine recommendations. Many patients appreciate the opportunity to receive a vaccine and will follow your evidence-based advice. Explain that the recommended immunization schedule is essential to protect the patient who is pregnant and unborn child with benefits extending into the newborn period. Follow up the uncomplicated explanation with your strong recommendation to administer the vaccine today. Confident communication from a trusted physician makes a difference in vaccine acceptance.[19]

When patients ask questions about vaccine safety, reply truthfully using plain language. Influenza and Tdap vaccines are indeed very safe. Many patients who initially question your recommendation want reassurance and clarification but are not resistant to vaccination. Provide education to address their concerns. The AAFP's familydoctor.org has some excellent patient-friendly resources, such as "Flu Vaccine During Pregnancy" (www.familydoctor.org/flu-vaccine-pregnancy/) and "Vaccines: Myth Versus Fact" (www.familydoctor.org/vaccine-myths/).

If a patient declines vaccination, inquire about their reason(s) to refuse the vaccine. Practice nonjudgmental, active listening and provide evidence-based facts to counter any myths, misinformation, and mistrust the patient expresses. Patients who are pregnant often feel a heightened sense of responsibility and anxiety about health care decisions and may not instantly accept a vaccine recommendation. Preserve your physician-patient relationships by addressing immunizations at a follow-up visit. Persist with your strong recommendation at future interactions and provide your patient with other reliable resources, such as the CDC's webpage "Vaccines During and After Pregnancy" (www.cdc.gov/vaccines/pregnancy/vacc-during-after.html).

Author: Laura E. Morris, MD, MSPH, FAAFP

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