Tdap Immunization

Fall 2013
Dear Colleague,

Vaccination is one of the many ways to help keep both mother and baby safe from disease. As you are aware, ACOG and ACIP recommend that all women, including those pregnant and breastfeeding, receive both the influenza and Tdap vaccine. Talk to your patients who are pregnant or planning to become pregnant about their immunization history. Strongly recommend that all of your pregnant patients receive the annual seasonal flu vaccine and the Tdap vaccine at every pregnancy, which will protect both mother and newborn.

We know that pregnant women, especially those in the third trimester, are beginning to think of what needs to be done when their new baby arrives. To help educate your patients, ACOG has teamed up with the national nonprofit organization, Every Child By Two - Carter/Bumpers Champions for Immunization. Arming mothers-to-be with science-based information on childhood immunizations will help them when they encounter the abundance of misinformation regarding the safety and necessity of timely vaccinations, much of which is found online. Every Child By Two’s Vaccinate Your Baby website, www.vaccinateyourbaby.org, is directed towards families who seek scientifically-sound answers to questions about the safety of vaccines and the importance of immunizations. The website also provides links to other credible organizations and immunization resources including ACOG’s Immunization for Women website www.immunizationforwomen.org.

Earlier this spring you received ACOG’s new Immunization Tool Kit for Obstetricians & Gynecologists, which included resources to help you routinize immunizations into your practice. This new folder contains additional materials to help you and your staff communicate with pregnant women about the importance of adult vaccination as a way to “cocoon” their infants and protect them from pertussis (whooping cough) by getting the Tdap vaccine. The folder also contains a poster for placement in your office and a flier that can be copied and handed out to your patients on the topic of childhood immunizations.

We hope the enclosed materials are helpful to you, your practice team, and your patients. We would greatly appreciate your feedback and ask that you visit www.ecbt.org/surveys/acog/mail.htm to fill out a very short online survey. If you have any questions or would like additional materials from ACOG, please email us at immunization@acog.org or call 202-863-2443. If you would like additional materials to help educate your patients about the importance of childhood immunization and cocooning, please visit Every Child By Two’s website created specifically for vaccine advocates and healthcare providers www.ecbt.org.

Sincerely,

Gerald F. Joseph Jr, MD, FACOG
Vice President, Practice Activities

Amy Pisani, MS
Executive Director, Every Child By Two
Frequently Asked Questions for Patients Concerning Tdap Vaccination

What is pertussis (whooping cough)?
Pertussis (also called whooping cough) is a highly contagious disease that causes severe coughing. People with pertussis may make a “whooping” sound when they try to breathe and are gasping for air. In newborns (birth to 1 month), pertussis can be a life-threatening illness. Multiple recent outbreaks have demonstrated that infants who are younger than 3 months are at a very high risk of severe infection.

What is Tdap?
Tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis (Tdap) vaccine is used to prevent three infections: tetanus, diphtheria, and pertussis.

I am pregnant. Should I get a Tdap shot?
Yes. All pregnant women should receive a Tdap vaccine preferably between 27 weeks and 36 weeks of gestation. The Tdap vaccine is an effective and safe way to protect you and your baby from serious illness and complications of pertussis. The Tdap vaccine should be administered during each pregnancy.

Is it safe to receive the Tdap shot during pregnancy?
Yes. There are no theoretical or proven concerns about the safety of the Tdap vaccine (or other inactivated vaccines like Tdap) during pregnancy. The available data demonstrate that the vaccine is safe when given to pregnant women or women in the postpartum period.

During which trimester is it safe to receive a Tdap shot?
It is safe to get the Tdap vaccine during all trimesters of pregnancy. Experts recommend that Tdap be administered to you during the third trimester of your pregnancy (ideally between 27 weeks and 36 weeks of gestation) to maximize the protection of your newborn. The newborn protection occurs because the protective antibodies you make after being vaccinated are transferred to the fetus and protect your newborn until he or she begins to receive the vaccines against pertussis (at 2 months of age).
Can newborns be vaccinated against pertussis?
No. Newborns cannot begin their vaccine series against pertussis until 2 months of age because the vaccine does not work in the first few weeks of life. That is partly why infants are at a higher risk of getting pertussis and getting very ill early in life.

What else can I do to protect my baby against pertussis?
Getting your Tdap shot is the most important step in protecting yourself and your baby against pertussis. It is also important to make sure all family members and caregivers are up to date with their vaccines and, if necessary, that they receive the Tdap vaccination at least 2 weeks before having contact with your baby. This creates a safety “cocoon” of vaccinated caregivers around your baby.

I am breastfeeding my baby. Is it safe to get vaccinated with Tdap?
Yes. The Tdap vaccine can safely be given to breastfeeding mothers if they have not been previously vaccinated with Tdap.

I did not receive my Tdap shot during pregnancy. Do I still need to be vaccinated?
For women not previously vaccinated with Tdap, if Tdap was not administered during pregnancy, it should be administered immediately postpartum.

I got my Tdap shot with my previous pregnancy. Do I need to be vaccinated with Tdap again in this pregnancy?
Yes. All pregnant women should be vaccinated with Tdap during each pregnancy preferably between 27 weeks and 36 weeks of gestation. This time frame is recommended in order to generate the most protection for the mother and fetus because this appears to maximize the antibodies in the newborn at birth.

I received a Tdap shot early in this pregnancy before 27–36 weeks of gestation. Do I need to get another Tdap shot during 27–36 weeks of gestation?
A pregnant woman should not be re-vaccinated later in the same pregnancy if she received the vaccine in the first or second trimester.
Physician Script Concerning Tdap Vaccination

All women should receive the tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis (Tdap) vaccine; this is particularly important for pregnant women because they are susceptible to acquiring pertussis (whooping cough) and newborns are at highest risk of having severe complications from pertussis. The American College of Obstetricians and Gynecologists recommends that pregnant women receive a Tdap vaccination, preferably between 27 weeks and 36 weeks of gestation to maximize the maternal antibody transfer to the fetus. Unvaccinated adolescents and adults, including adults aged 65 years and older, who will have contact with infants younger than 12 months also should receive a single dose of Tdap.

For women not previously vaccinated with Tdap, if Tdap was not administered during pregnancy, it should be administered immediately postpartum to provide pertussis immunity and reduce the risk of transmission to the newborn. The American College of Obstetricians and Gynecologists recommends that unvaccinated women receive a Tdap vaccination as part of routine preventive care. Educate your patients about the Tdap vaccine and provide guidance on where to find it. It is also important that you and your staff who are unvaccinated receive a single dose of Tdap.

To properly administer any vaccine in your office, according to federally established guidelines, you must give your patients a Vaccine Information Statement (VIS) upon their receipt of an immunization. It is also important to provide immunizations in accordance with your state guidelines. Vaccine Information Statement forms can be found in multiple languages at www.immunize.org/vis/.

Multiple studies show that the most effective way to increase your patients’ vaccination acceptance rate is for you to directly recommend and provide the vaccine. Talk to your patients about Tdap today. Here is a script for your consideration:

“I strongly recommend that you get the Tdap shot today. I offer Tdap vaccination to all of my patients who need it. This includes pregnant women, who preferably should get the shot between 27 weeks and 36 weeks of gestation to maximize the maternal antibody transfer to the fetus. The vaccine is safe and effective and has not been shown to cause any adverse effects during pregnancy, including autism. Your family members who will be in contact with your newborn, or who have contact with other infants younger than 12 months, also should be vaccinated. This helps provide protection for your newborn because he or she cannot get this vaccination until 2 months of age.”

RESOURCES

The American College of Obstetricians and Gynecologists

Immunization for Women
http://www.immunizationforwomen.org/immunization_facts/vaccine-preventable_diseases/pertussis

Centers for Disease Control and Prevention
http://www.cdc.gov/vaccines/vpd-vac/pertussis/default.htm
## Coding Information on Tdap Immunization for Patients

### CPT Codes for Vaccine Administration

<table>
<thead>
<tr>
<th>Code</th>
<th>Method</th>
<th>Route of Administration</th>
<th>Type of Service</th>
<th>Reporting Rules</th>
</tr>
</thead>
<tbody>
<tr>
<td>90471</td>
<td>Injection</td>
<td>Percutaneous, intradermal, subcutaneous, or intramuscular</td>
<td>Primary</td>
<td>Report only one primary vaccine administration per encounter.</td>
</tr>
<tr>
<td>+90472</td>
<td>Injection</td>
<td>Percutaneous, intradermal, subcutaneous, or intramuscular</td>
<td>Additional</td>
<td>Report for secondary or subsequent vaccine administration. Report only with code 90471 or code 90473.</td>
</tr>
<tr>
<td>90460</td>
<td>Any Route</td>
<td>Percutaneous, intradermal, subcutaneous, or intramuscular</td>
<td>Primary</td>
<td>Report only one primary vaccine administration per day. Report for administration of first vaccine if more than one was provided. Physician also provides counseling. Patient is 18 years of age or younger.</td>
</tr>
<tr>
<td>90461</td>
<td>Any Route</td>
<td>Percutaneous, intradermal, subcutaneous, or intramuscular</td>
<td>Additional</td>
<td>Report for secondary or subsequent vaccine administration. Physician also provides counseling. Patient is 18 years of age or younger.</td>
</tr>
</tbody>
</table>

### Tdap Vaccines Administered to Adolescents and Adults

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Code for Vaccine Product</th>
<th>CPT Administration Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis (Tdap), patient 7 years of age or older, intramuscular</td>
<td>90715</td>
<td>90471-90472</td>
</tr>
</tbody>
</table>

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For more information, please visit the Coding section on the Immunization for Women web page, http://www.immunizationforwomen.org/practice_management/coding.
Committee on Obstetric Practice

Update on Immunization and Pregnancy: Tetanus, Diphtheria, and Pertussis Vaccination

ABSTRACT: In the face of dramatic and persistent increases in pertussis disease in the United States, the Centers for Disease Control and Prevention’s Advisory Committee on Immunization Practices has updated its guidelines for the use of the tetanus toxoid, reduced diphtheria toxoid and acellular pertussis vaccine (Tdap) for pregnant women. The new guidance was issued based on an imperative to minimize the significant burden of pertussis disease in vulnerable newborns, the reassuring safety data on the use of Tdap in adults, and the evolving immunogenicity data that demonstrate considerable waning of immunity after immunization. The revised Advisory Committee on Immunization Practices guidelines recommend that health care personnel administer a dose of Tdap during each pregnancy, irrespective of the patient’s prior history of receiving Tdap. To maximize the maternal antibody response and passive antibody transfer and levels in the newborn, optimal timing for Tdap administration is between 27 weeks and 36 weeks of gestation, although Tdap may be given at any time during pregnancy. However, there may be compelling reasons to vaccinate earlier in pregnancy. 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 safety of such use. For women who previously have not received Tdap, if Tdap was not administered during pregnancy it should be administered immediately postpartum to the mother in order to reduce the risk of transmission to the newborn. Additionally, other family members and planned direct caregivers also should receive Tdap as previously recommended (sustained efforts at cocooning). Given the rapid evolution of data surrounding this topic, immunization guidelines are likely to change over time and the American College of Obstetricians and Gynecologists will continue to issue updates accordingly.

The overwhelming majority of morbidity and mortality attributable to pertussis infection occurs in infants who are less than or equal to 3 months of age (1). Infants do not begin their own vaccine series against pertussis (with the diphtheria, tetanus and acellular pertussis vaccine [DTaP]) until 2 months of age (2). This situation leaves a window of significant vulnerability for newborns, many of whom appear to contract serious pertussis infections from family members and caregivers, including the mother (3). Starting in 2006, the Advisory Committee on Immunization Practices (ACIP) of the Centers for Disease Control and Prevention (CDC) recommended an approach to combat neonatal pertussis infection referred to as “cocooning” (4). This approach essentially consisted of a recommendation to administer Tdap to all women in the immediate postpartum period and all other family members and caregivers who had not previously received the vaccine in order to provide a protective cocoon of immunity around the newborn. This approach has proved challenging and insufficient when used alone at preventing neonatal pertussis infections for a variety of reasons. Importantly, cocooning leaves vulnerable infants without any endogenous protective antibody until they begin their own vaccine series at 2 months of age. Thus, they are solely dependent on the immunity of those around them for pertussis protection in the critical first 2–3 months of life.

In June of 2011, the ACIP considered this situation and issued a new recommendation that pregnant women who had not previously received a dose of Tdap should
receive it during pregnancy (preferably after 20 weeks of gestation). The recommendation suggested that the third trimester or the late second trimester would be optimal timing for the administration of Tdap (5). Additionally, the ACIP stated that women who did not receive Tdap during pregnancy should still be immunized in the immediate postpartum period, along with all others who will have close contact with the newborns (sustained efforts at cocooning). Preliminary data on this new approach suggests that uptake of the maternal immunization recommendation has been suboptimal (2.6%), although robust data are not yet available (6).

The ACIP again reconsidered this topic in October 2012 in the face of dramatic and persistent increases in pertussis disease in the United States. Issues considered included an imperative to minimize the significant burden of disease in vulnerable newborns, the reassuring safety data on use of Tdap in adults, and the evolving immunogenicity data that demonstrate considerable waning of immunity after immunization (7). The ACIP published its updated recommendation in February 2013, which recommends that health care personnel administer a dose of Tdap during each pregnancy, irrespective of the patient’s prior history of receiving Tdap (6). To maximize the maternal antibody response and passive antibody transfer and levels in the newborn, optimal timing for Tdap administration is between 27 weeks and 36 weeks of gestation, although Tdap may be given at any time during pregnancy (6). Receipt of Tdap at some point during pregnancy is critical, and there may be compelling reasons to vaccinate earlier in pregnancy (see examples under “Special Situations During Pregnancy”). For women who previously have not received Tdap, if Tdap was not administered during pregnancy, it should be administered immediately postpartum to the mother in order to reduce the risk of transmission to the newborn (6). Additionally, other family members and planned direct caregivers also should receive Tdap at least 2 weeks before planned infant contact, as previously recommended (sustained efforts at cocooning) (4). The American College of Obstetricians and Gynecologists’ (the College) Committee on Obstetric Practice supports these revised recommendations. Given the rapid evolution of data surrounding this topic, immunization guidelines are likely to change over time, and the College will continue to issue updates accordingly.

General Considerations Surrounding Immunization During Pregnancy

The American College of Obstetricians and Gynecologists recommends routine assessment of each pregnant woman’s immunization status and administration of indicated immunizations. The benefits of nonlive vaccines outweigh any unproven potential concerns. Importantly, evolving data demonstrate both maternal and neonatal protection against an increasing number of aggressive newborn pathogens through the use of maternal immunization programs, suggesting pregnancy is an optimal time to immunize for disease prevention in both mothers and newborns (8, 9). 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 safety of such use. Co-administration of indicated inactivated vaccines during pregnancy (ie, Tdap and influenza) is also acceptable, safe, and may optimize effectiveness of immunization efforts (10). Furthermore, no evidence exists that suggests that any vaccine is associated with an increased risk of autism or adverse effects due to exposure to traces of the mercury-containing preservative thimerosal (11–14). It should be remembered, however, that live attenuated vaccines (eg, measles-mumps-rubella [MMR], varicella, and live attenuated influenza vaccine) do pose a theoretical risk (although never documented or proved) to the fetus and generally should be avoided during pregnancy. All vaccines administered during pregnancy as well as health care provider-driven discussions about the indications and benefits of immunization during pregnancy should be fully documented in the patient’s prenatal record. In addition, if a patient declines vaccination, this should be documented in the patient’s prenatal record, and the health care provider is advised to revisit the issue of vaccination at subsequent visits.

Special Situations During Pregnancy

Ongoing Epidemics

Pregnant women who live in geographic regions with epidemics of pertussis should be immunized as soon as feasible possible for their own protection in accordance with local recommendations for nonpregnant adults. Less emphasis should be given to targeting the proposed optimal gestation window (between 27 weeks and 36 weeks of gestation) in these situations given the imperative to protect the mother from locally prevalent disease. Newborn protection will still be garnered from vaccination earlier in the same pregnancy. Importantly, a pregnant woman should not be re-vaccinated later in the same pregnancy if she already received the vaccine in the first or second trimester (6).

Example case: A pregnant woman at 8 weeks of gestation with one kindergarten-aged child at home calls the office and mentions that pertussis has recently been diagnosed in four different children by their pediatricians in her neighborhood. She is not sure what to do and has heard that she is supposed to get a Tdap shot in the third trimester. How should you best manage this patient?

Answer: She should be advised to come that day and receive Tdap in your office. She should be reassured that Tdap is safe to give at any point in pregnancy and that getting the vaccine now will directly protect her, indirectly protect her fetus, and also may provide some protection for her newborn from pertussis.
She will only need to receive Tdap once during pregnancy. All other adolescent and adult family members also should be advised to get a dose of Tdap to protect themselves and the newborn.

**Wound Management**

As part of standard wound management care to prevent tetanus, a tetanus toxoid-containing vaccine is recommended in a pregnant woman if 5 years or more have elapsed since her previous tetanus and diphtheria (Td) vaccination. If a Td booster vaccination is indicated in a pregnant woman for acute wound management, health care providers should administer Tdap irrespective of gestational age (6). A pregnant woman should not be re-vaccinated with Tdap in the same pregnancy if she received the vaccine in the first or second trimester.

**Example case:** An emergency department (ED) physician calls you about a patient, gravida 4, para 3, at 13 weeks of gestation who is being seen after accidentally stepping on a rusty nail in the house her family is renovating. The patient cannot remember when she last received a tetanus booster and the ED physician is confused about when to administer the indicated tetanus booster because the CDC guidelines recommend the administration of Tdap between 27 weeks and 36 weeks of gestation. How should you advise the ED physician?

**Answer:** The ED physician should be advised that the appropriate acute wound management strategy for the patient is to receive a dose of Tdap now. This vaccine replaces the solitary tetanus booster vaccine, and administering it now as part of acute wound management is the most important factor. The patient should be told that getting Tdap now will preclude her getting it again between 27 weeks and 36 weeks of gestation in this pregnancy. She and her baby will likely still receive pertussis prevention benefits from receipt at 13 weeks of gestation.

**Due for Tetanus and Diphtheria Booster Vaccination**

If a Td booster vaccination is indicated during pregnancy (ie, more than 10 years since the previous Td vaccination) then health care providers should administer Tdap during pregnancy, preferably between 27 weeks and 36 weeks of gestation (6). Because of the nonurgent nature of this indication, waiting until 27–36 weeks of gestation appears to be the appropriate management plan to obtain maternal immunity and maximize antibody transfer to the newborn.

**Unknown or Incomplete Tetanus Vaccination**

To ensure protection against maternal and neonatal tetanus, pregnant women who have never been vaccinated against tetanus should begin the three-vaccination series, containing tetanus and reduced diphtheria toxoids, during pregnancy. The recommended schedule for this vaccine series is 0, 4 weeks, and 6–12 months; Tdap should replace one dose of Td, preferably given between 27 weeks and 36 weeks of gestation (6).

**Vaccination of Adolescents and Adults in Contact With Infants**

The ACIP recommends that all adolescents and adults who have or who anticipate having close contact with an infant younger than 12 months (eg, siblings, parents, grandparents, child care providers, and health care providers) who previously have not received Tdap should receive a single dose of Tdap to protect against pertussis and reduce the likelihood of transmission (6). Ideally, these adolescents and adults should receive Tdap at least 2 weeks before they have close contact with the infant (4).

**Current Immunization Guidelines and Information**

Extensive information for health care providers and consumers about vaccines can be obtained at www.cdc.gov/vaccines and on the College’s immunization web site at www.immunizationforwomen.org. The ACIP issues recommendations on immunization that are updated regularly and are available at www.cdc.gov/vaccines/pubs/ACIP-list.htm.

**Resources**


Centers for Disease Control and Prevention Vaccines and Immunizations Information Page, available at http://www.cdc.gov/vaccines

**References**


5. Updated recommendations for use of tetanus toxoid, reduced diphtheria toxoid and acellular pertussis vaccine (Tdap) in pregnant women and persons who have or anticipate having close contact with an infant aged <12 months—Advisory Committee on Immunization Practices (ACIP), 2011. Centers for Disease Control and Prevention (CDC). MMWR Morb Mortal Wkly Rep 2011;60:1424–6.


There’s so much to do before the big day. Let us help guide you on ways to keep your newborn healthy from start.

Visit www.VaccinateYourBaby.org to learn…

- How getting flu and pertussis vaccinations while pregnant protects your newborn.
- Why it’s important to follow the CDC’s recommended schedule.
- Which vaccines your baby needs and when each is due.
- Why your baby needs the Hepatitis B vaccine before leaving the hospital.
- How vaccines are continually monitored for safety.
- What to do if you can’t afford to pay for vaccines.
- Where to go for reliable resources on children’s health.
- And much, much more…

This flier is supported through funding provided by the CDC through cooperative agreement 1U38IP000455-1.
Before Your Baby Arrives...

www.VaccinateYourBaby.org
The American College of Obstetricians and Gynecologists has the following immunization resources for patients and providers. You can access all of this and more on the College's Immunization for Women web site.

www.immunizationforwomen.org

FAQ Tear Pads for Patients
Flu Shot for Pregnant Patients: Frequently Asked Questions (English and Spanish)
Frequently Asked Questions for Patients Concerning Vaccine Safety (English and Spanish)
Frequently Asked Questions for Patients Concerning Tdap Vaccination (English and Spanish)

Laminated Physician Scripts and Coding Information
Physician Script Concerning Tdap Vaccination and Coding Information on Tdap Immunization for Patients
Physician Script on Influenza Immunization During Pregnancy and Coding Information on Influenza Immunization for Pregnant Patients

Committee Opinions
Human Papillomavirus Vaccination (Committee Opinion Number 467) September 2010
Influenza Vaccination During Pregnancy (Committee Opinion Number 468) October 2010
Integrating Immunizations Into Practice (Committee Opinion Number 558) April 2013

Vaccine Information Statements
Visit www.immunize.org/vs for a comprehensive list of vaccine information statements in multiple languages.

Additional Resources
Immunizations and Routine Obstetric–Gynecologic Care
A Guide for Providers and Patients
Immunization Coding for Obstetrician–Gynecologists 2013
Adult Immunization Record Card

E-mail us at immunization@acog.org
Immunization for Women Web Site

The American College of Obstetricians and Gynecologists’ immunization web page, Immunization for Women, is an excellent resource for health care providers and patients to find up-to-date information about immunizations and vaccine-preventable diseases. On the web page you can find information on the following:

- Updated immunization recommendations for adult and adolescent females
- Specific information for pregnant and breastfeeding women
- Details on proper immunization coding and reimbursement
- Information on how to set up and expand an office-based immunization program

www.immunizationforwomen.org