Prevention of Tetanus, Diphtheria and Pertussis among Pregnant Women: Provisional ACIP Recommendations for the Use of Tdap Vaccine

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Provisional Recommendations for use of Td and Tdap in Pregnant Women (adolescents 11-18 years and adults 19-64 years of age) who previously have not received Tdap

- **Routine post-partum Tdap:** Pregnant women who previously have not received a dose of Tdap (including women who are breastfeeding) should receive Tdap after delivery, before discharge from the hospital or birthing center, if 2 years or more have elapsed since the last Td; shorter intervals can be used (see *Special Situations*). If Tdap cannot be administered before discharge, it should be given as soon as feasible. The dose of Tdap replaces the next decennial dose of Td.

- **Simultaneous administration:** Tdap can be administered with other vaccines that are indicated. Each vaccine should be administered using a separate syringe at a different anatomic site.

Special Situations

- **Post-partum Tdap when less than 2 years have elapsed since the last Td:** Health-care providers should obtain a history of adverse reaction following previous doses of vaccines containing tetanus and diphtheria toxoids. Available information is limited on the risk of local and systemic reactions after Tdap at interval shorter than 2 years. Providers can choose to administer Tdap to these post-partum women for protection against pertussis.

- **Protection against tetanus, diphtheria and neonatal tetanus**: ACIP recommends Td for booster vaccination during pregnancy if 10 years or more have elapsed since a previous Td booster. To provide protection against pertussis in addition to tetanus and diphtheria, health-care providers can defer the Td vaccination if sufficient tetanus protection is likely, and vaccinate the post-partum woman with Tdap instead before discharge. Sufficient tetanus protection is likely if:
    - The pregnant woman is younger than 30 years of age and has received a complete childhood series of immunization (4 or 5 doses of pediatric DTP, DTaP, DT)* *and* at least one Td booster during adolescence or as an adult.
    - The pregnant woman is older than 30 years of age and has received a complete childhood series of immunization (4 or 5 doses of pediatric DTP, DTaP, DT)*, *and* at least two Td booster doses.
    - The pregnant woman has a protective level of serum tetanus antitoxin (0.1 IU/mL or more by ELISA).

  *A primary series consisting of 3 doses of Td (or TT) administered during adolescence or as an adult substitutes for the childhood series of immunization.

- **Considerations for use of Td and Tdap in pregnant women:** ACIP recommends Td when tetanus and diphtheria protection is required during pregnancy. In some situations (see below), health-care providers can choose to administer Tdap instead of Td to add protection against pertussis. When Td or Tdap is administered during pregnancy, the second or third trimester is preferred.

  Pregnancy is not a contraindication for use of Tdap. Data on safety, immunogenicity and the outcomes of pregnancy are not available for pregnant women who receive Tdap. When Tdap is administered during pregnancy, transplacental maternal antibodies might protect the infant against pertussis in early life. They also could interfere with the infant's immune response to infant doses of DTaP, and leave the infant less well protected against pertussis.

- Providers who choose to administer Tdap to pregnant women should discuss the lack of data with the pregnant women and are encouraged to report Tdap administrations regardless of the trimester, to the appropriate manufacturers' pregnancy registry: for BOOSTRIX® to GlaxoSmithKline Biologicals at 1-888-825-5249, or for ADACEL®, to sanofi pasteur at 1-800-822-2463 (1-800-VACCINE).

- **Situations with increased risk for pertussis:** Health-care providers can choose to administer Tdap instead of Td to protect against pertussis in pregnant adolescents for routine or "catch-up" vaccination because the incidence of pertussis is high among adolescents, in pregnant health-care personnel and child care providers to prevent transmission to infants younger than 12 months of age and to other vulnerable persons, and in pregnant women employed in an institution or living in a community with increased pertussis activity.

- **Tetanus prophylaxis for wound protection:** ACIP recommends Td booster for wound management in pregnant women in some situations if 5 or more years have elapsed since the previous Td. Health-care providers can choose to substitute Tdap for Td in this situation.

- **Incomplete or unknown vaccination history**: Pregnant women who have not received three doses of a vaccine containing tetanus and diphtheria toxoids should complete a series of 3 vaccinations. Two doses of Td should be administered during pregnancy to ensure protection against maternal and neonatal tetanus. The preferred schedule in pregnant women is two doses of Td separated by 4 weeks, and a dose of Tdap 6 months after the second dose (post-partum). Health-care providers can choose to substitute a single dose of Tdap for a dose of Td during pregnancy.

- **Alternatives to Tdap for protection against pertussis:** Health-care providers should encourage vaccination of household and child care provider contacts of infants younger than 12 months to protect against pertussis. Families can be advised of the symptoms of pertussis and that early antimicrobial prophylaxis can be effective preventing transmission of pertussis to infants. http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5503a1.htm), http://www.cdc.gov/nip/recs/provisional_recs/default.htm

Contraindications to Td and Tdap

- History of serious allergic reaction (i.e., anaphylaxis) to any component of the vaccine.

- For Tdap (but not Td), history of encephalopathy (e.g., coma or prolonged seizures) not attributable to an identifiable cause within 7 days of administration of a vaccine with pertussis components.

Precautions and Reasons to Defer Td or Tdap

- Guillain-Barré syndrome with onset 6 weeks or less after the previous dose of tetanus toxoid-containing vaccine.

- Moderate or severe acute illness

- History of an Arthus reaction to tetanus toxoid and/or diphtheria toxoid-containing vaccine less than 10 years previously

- For adults, unstable neurologic conditions (e.g., cerebrovascular events, acute encephalopathic conditions)

- For adolescents, any progressive neurologic disorder including progressive encephalopathy or uncontrolled epilepsy (until the condition has stabilized)