Pertussis

Pertussis vaccine is recommended for all children 6 weeks old through 6 years old (up to the seventh birthday) who have no neurologic contraindications to its use. Concerns over outbreaks of the disease in the past decade have prompted discussion about vaccinating infants and adults. Many cases of pertussis have occurred in children younger than 6 months old or persons older than 7 years old, both groups falling in the category for which pertussis immunization previously was not recommended. The tetanus and diphtheria toxoids and acellular pertussis vaccine (Tdap) is now recommended at 11 to 12 years old for children who have completed the DTaP/DTP childhood series. The Tdap is also recommended for adolescents 13 to 18 years old who have not received a tetanus booster (Td) or Tdap dose and have completed the childhood DTaP/DTP series. When the Tdap is used as a booster dose, it may be administered regardless of the interval from the previous tetanus, diphtheria, and pertussis-containing vaccine. In addition, children 7 to 10 years old who are not fully vaccinated for pertussis (i.e., did not receive five doses of DTaP or four doses of DTaP, with the fourth dose being administered on or after the fourth birthday) should receive a dose of Tdap (Centers for Disease Control and Prevention, 2011c) (see discussion in Tetanus).

The Advisory Committee on Immunization Practices (Centers for Disease Control and Prevention) and American College of Obstetricians and Gynecologists has recommended that pregnant adolescents and women who are not protected against pertussis receive the Tdap vaccine optimally between 27 and 36 weeks gestation or postpartum prior to discharge from the hospital; breastfeeding is not a contraindication to Tdap vaccination (Centers for Disease Control and Prevention, 2013b).

Currently, two forms of pertussis vaccine are available in the United States. The whole-cell pertussis vaccine is prepared from inactivated cells of *Bordetella pertussis* and contains multiple antigens. In contrast, the acellular pertussis vaccine contains one or more immunogens derived from the *B. pertussis* organism. The highly purified acellular vaccine is associated with fewer local and systemic reactions than those occurring with the whole-cell vaccine in children of similar age. The acellular pertussis vaccine is recommended by the American Academy of Pediatrics (2015) for