



December 2011

Dear Colleague:

**Pertussis—a vaccine-preventable disease—is killing vulnerable infants.**

Pertussis (“whooping cough”) outbreaks are occurring all over the country. Virginia has seen an increase in pertussis in recent years, with 384 cases reported in 2010, more than double the cases reported in 2007. Newborns and infants are especially hard hit by this disease. While disease can occur in all ages, infants less than 12 months are at highest risk for severe disease and death.

Infants begin their pertussis immunization series (Diphtheria-Tetanus-Acellular Pertussis or “DTaP”) at 2 months. Maximum protection, however, is not achieved until the primary series is completed. Adolescents and adults are recommended to be immunized with a booster dose (“Tdap”). For adolescents this is given preferably at age 11 or 12 years.

**Vaccinate parents, siblings, grandparents, and caregivers of infants with Tdap.**

The Centers for Disease Control and Prevention’s Advisory Committee on Immunization Practices (ACIP) recently made significant changes on the use of the adolescent and adult pertussis vaccine to increase vaccine coverage and protect vulnerable infants. These changes were made after review of safety and immunogenicity data, especially in age groups for which Tdap is not licensed. This letter supports those recommendations and is a call to action for healthcare professionals to heed them.

ACIP now recommends use of Tdap in adults age 65 years and older and undervaccinated children ages 7 through 10 years, as well as giving Tdap regardless of the interval since the last tetanus or diphtheria containing vaccine. By being vaccinated, close contacts of infants create a protective “cocoon” for newborns and infants who either cannot be vaccinated yet or have not completed their initial vaccine series. Studies have indicated that 75% to 83% of infant pertussis cases with a known source exposure were caused by an infected household member. Parents and siblings are the most common source with 55% of cases in infants linked to an infected parent.

Vaccinating new or soon-to-be parents is critical for protecting newborns. According to ACIP’s official recommendations released in October 2011, any woman who may become pregnant and has not previously received Tdap is encouraged to receive a single dose of Tdap. Tdap is now preferred during pregnancy if no prior Tdap dose has been administered, and providers are recommended to vaccinate their pregnant patients during the 3rd trimester or late 2nd trimester (after 20 weeks gestation).

Educate the families you care for about why it is important to be up to date with Tdap vaccinations and where Tdap can be obtained. There are many opportunities to vaccinate adult or adolescent patients. Obstetricians/gynecologists and family physicians can offer Tdap to pregnant women or, alternatively, post-partum/breastfeeding women and their families before hospital discharge. Primary care and emergency physicians can offer Tdap to adolescents and adults who do not have a prior documented dose of Tdap, and they can use Tdap in wound management for those without a prior dose.

**Protect your patients—be vaccinated with Tdap yourself!**

Previous outbreaks in newborn populations have been linked to exposure from infected healthcare workers. As healthcare professionals, we have a duty to promote patient safety and public health. Do not risk the health of your most vulnerable patients—get your Tdap vaccine, too.

## Pertussis Vaccine Dosing Guide

Age Group	Vaccine Type	Recommended Dosing Schedule
Infants & Children [up to age 7 years]	DTaP	Primary Series: 2, 4, 6, 15-18 months; Booster: 4-6 years
Children [age 7 through 10 years]	Tdap	Catch up (or for unknown pertussis vaccine history): May give single dose of Tdap in place of Td in the catch-up series.
Adolescents [age 11 through 18 years]	Tdap	Booster: Give single dose Tdap, preferably at age 11-12 years.
Adults [age 19 through 64 years]	Tdap	Booster: Give single dose of Tdap in place of Td, especially if in contact with infant <12 months of age or healthcare worker with direct patient contact (e.g., parents, childcare providers, nurses, physicians, etc.).
Adults [age 65 years and older]	Tdap	Booster: Give single dose of Tdap in place of Td, especially if in contact with infant <12 months of age or healthcare worker with direct patient contact (e.g., grandparents, healthcare provider, etc.).
Pregnant women	Tdap	Booster: For women who have not previously received Tdap, one Tdap booster preferably during the 3rd or late 2nd trimester (after 20 weeks gestation). Alternatively, administer Tdap immediately postpartum.
Postpartum and breastfeeding women	Tdap	Booster: Give single dose of Tdap (if not received during pregnancy), preferably before discharge from hospital or birthing facility.

**Notes:** Tdap recommendations apply to persons that have never received Tdap.

Chart content based on vaccine information from the Centers for Disease Control and Prevention , and recommendations on use of pertussis vaccine from the Advisory Committee on Immunization Practices.

### Resources:

Atkinson W., Wolfe S., Hamborsky J., McIntyre L., eds. (2009). Chapter 14 – Pertussis. *Epidemiology and Prevention of Vaccine Preventable Diseases, 11th Ed.* (199-216). Centers for Disease Control and Prevention. Washington, DC: Public Health Foundation.

Centers for Disease Control and Prevention. (2011). 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). *Morbidity and Mortality Weekly Report, 60(41)*, 1424-1426. Available at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6041a4.htm>.

Centers for Disease Control and Prevention. (2011). Updated Recommendations for Use of Tetanus Toxoid, Reduced Diphtheria Toxoid and Acellular Pertussis (Tdap) Vaccine from the Advisory Committee on Immunization Practices, 2010. *Morbidity and Mortality Weekly Report, 60(1)*, 13-15. Available at: [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6001a4.htm?s\\_cid=mm6001a4\\_w](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6001a4.htm?s_cid=mm6001a4_w).