

Pertussis Update
Provided by Rashmi K. Chugh, MD
IAFP Public Health Committee

With an increased number of pertussis (whooping cough) cases being reported in some northern Illinois counties (e.g., Lake and Winnebago Counties, Chicago), family physicians are reminded of the importance of early disease recognition, diagnosis, reporting, and preventive measures that should be followed to control and prevent further transmission. There is still a common perception that pertussis is a disease primarily of children. In fact, adolescents and adults are often the main reservoir of the disease, and then may unknowingly transmit the infection to an infant, which may lead to hospitalization or death.

Consider pertussis in the differential diagnosis when evaluating any infant, child, adolescent or adult with an acute cough illness (at least 2 weeks) characterized by prolonged cough or cough with paroxysms (spasmodic fits of coughing), inspiratory “whoop”, or post-tussive gagging/vomiting, with no other attributable cause. Infants may present with apnea and/or cyanosis. If you, the clinician, are suspecting pertussis in a patient, then **testing** (by nasopharyngeal swab for culture or PCR) is high priority, as well as **reporting** any suspect or known case of pertussis to the local health department. **Diagnosis** of pertussis is based primarily on clinical presentation, and may be confirmed by a positive culture and/or PCR testing by nasopharyngeal swab. A negative culture or PCR test, however, does not rule out pertussis if the patient’s clinical presentation is otherwise consistent with pertussis; the case should still be reported, and appropriate treatment and prophylaxis is recommended and should still be administered. Direct Fluorescent antibody (DFA) is not recommended because of low sensitivity and variable specificity. Serological testing for antibody levels is not yet standardized and results are difficult to interpret. Testing in the absence of symptoms is not recommended. For more information, visit: <http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/pert.pdf>.

Appropriate **treatment** is recommended with an antibiotic effective against pertussis (such as azithromycin, erythromycin or trimethoprim-sulfamethoxazole). **Post-exposure prophylaxis** is recommended for all close contacts of a patient with pertussis (e.g., household members and persons who have had direct contact with respiratory/oral/nasal secretions from a person diagnosed with pertussis), regardless of age and vaccination status. Patients with pertussis must be isolated from day care, school, work, and public gatherings until at least 5 days after the start of appropriate antibiotic therapy. Frequent hand-washing and respiratory hygiene (cover coughs and sneezes with a tissue, and throw out the tissues right away) are also necessary to prevent further transmission. Additional information on treatment and prophylaxis of pertussis is available at <http://www.cdc.gov/mmwr/PDF/rr/rr5414.pdf>.

Prevention: Vaccinate infants--start and complete all of the recommended doses of DTaP vaccine (at 2, 4, and 6 months of age). Additional doses of DTaP vaccine is recommended at 15-18 months of age and at 4-6 years of age. **Vaccinate adolescents and adults, including post-partum women, and other women of childbearing age, healthcare workers, and household contacts of infants** with a single dose of Tdap vaccine, containing tetanus toxoids, reduced diphtheria toxoid and acellular pertussis. Additional information about administration of Tdap during pregnancy is available at <http://www.cdc.gov/vaccines/pubs/preg-guide.htm#tdap>. Treat pertussis cases and provide prophylaxis for close contacts. Untreated pertussis illness in mothers and other close contacts of newborn children can result in serious illness, and death of the newborn.

For more information regarding diagnosis, management, and reporting of pertussis, contact your local health department or the Illinois Department of Public Health Immunization Section at 1-800-526-4372.