

MEMORANDUM

TO: Local Health Departments, Hospitals, Infection Control Practitioners, Illinois Pediatricians, Family Physicians, Obstetricians, and other Health Care Providers

FROM: Karen Pendergrass, Administrator, Immunization Surveillance
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DATE: November 4, 2011

RE: 2011 Pertussis update

- Maintaining high vaccination coverage rates among preschool children, adolescents, and adults and minimizing exposures of infants and persons at high risk for Pertussis is the most effective way to prevent Pertussis.
- Antibiotic treatment of Pertussis and judicious use of antimicrobial agents for post exposure prophylaxis will eradicate *B. Pertussis* from the nasopharynx of infected persons (symptomatic or asymptomatic).
- Close asymptomatic contacts can be administered post exposure chemoprophylaxis to prevent secondary cases; symptomatic contacts should be treated as cases.
- The Center for Disease Control and Prevention (CDC) Advisory Committee on Immunization Practices, or ACIP recommends the off-label use of Tdap, vaccine in two specific patient groups—see # 7 below for information.

Illinois, like many other states, is seeing an increase in the number of reported Pertussis cases. To date in 2011, 694 cases of Pertussis have been reported in Illinois. Of the 694 cases, 148 (21%) have occurred since September 1 (start of the school year). Of the cases reported this year, 106 (15%) have occurred among infants less than 12 months of age, and 465 (67%) in children and teenagers between the ages of 1 and 18 years.

Clinicians are reminded of the importance of early disease recognition, diagnosis, treatment, reporting, and preventive measures that should be followed to control and prevent further transmission. Pertussis poses the greatest risk to infants, who have illness that is more serious and are more likely to have complications and be hospitalized than persons in other age groups.

Protect your patients from Pertussis by taking the following actions:

1. Vaccinate infants –start and complete the DTaP series on time. Complete all the recommended doses of DTaP vaccine (at 2, 4, and 6 months of age). An additional dose of DTaP vaccine is recommended at 15-18 months of age and at 4-6 years of age.
2. Vaccinate adolescents and adults, including post-partum women, and other women of childbearing age, healthcare workers, and household contacts of infants.
3. ACIP recommends that women's health-care personnel implement a Tdap vaccination program for pregnant women who previously have not received Tdap. Health-care personnel should administer Tdap during pregnancy, preferably during the third or late second trimester (after 20 weeks' gestation). If not administered during pregnancy, Tdap should be administered immediately postpartum.
4. Adults less than 65 years of age who will have close contact with an infant less than 12 months of age should receive Tdap, ideally at least two weeks before beginning close contact with infants. In situations such as this, when it is important to protect against Pertussis, intervals shorter than 10 years since the last Td vaccination may be used. A 2-year interval between Td and Tdap is suggested, but not required. An additional dose of DTaP vaccine is recommended at 15-18 months of age and at 4-6 years of age.
5. Health care workers who have direct patient contact in hospitals or clinics should be immunized against Pertussis with Tdap.
6. Adolescents should receive a single dose of Tdap instead of a Td booster between the ages of 11 and 18 years. Note: Adults should substitute Tdap for one booster dose of Td.
7. ACIP recommended Tdap vaccination for the following groups for whom the vaccine is not FDA approved:
 - Persons ≥ 65 years of age who have close contacts with infants.
 - Children 7–10 years of age who have not been fully immunized against Pertussis, for whom no contraindication to Pertussis vaccine exists, or whose vaccination status against Pertussis is unknown.ACIP also recommended that **adolescents and adults who have not received a dose of Tdap should be immunized as soon as feasible**. Tdap can be administered regardless of the interval since the last tetanus or diphtheria-containing vaccine
8. 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. Infants' close contacts who

have cough illness that may be due to Pertussis should be promptly evaluated and treated for Pertussis as appropriate. Prophylaxis is recommended for close contacts of Pertussis cases, including infants, regardless of immunization status. If a woman acquires Pertussis late in pregnancy or shortly before delivery, CDC recommends that a macrolide be administered to the woman, her household contacts, and the neonate. 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 to limit further transmission. For more information visit: <http://www.cdc.gov/mmwr/PDF/rr/rr5414.pdf>

9. Minimize infants' exposure (close contact) to persons who have cold symptoms or cough illness. Coughing people of any age, including parents, siblings, and grandparents can have Pertussis. When a person has cold symptoms or cough illness, they need to stay away from young infants as much as possible. Frequent hand washing and respiratory hygiene (covering coughs and sneezes with a tissue, and disposing of the soiled tissues) are also necessary to prevent further transmission.

10. Cocooning. ACIP recommends that adolescents and adults (e.g., parents, siblings, grandparents, child-care providers, and health-care personnel) who have or anticipate having close contact with an infant aged <12 months should receive a single dose of Tdap to protect against pertussis if they have not previously received Tdap. Ideally, these adolescents and adults should receive Tdap at least 2 weeks before beginning close contact with the infant.

Special Situations

1. **Pregnant women due for tetanus booster.** If a tetanus and diphtheria booster vaccination is indicated during pregnancy for a woman who has previously not received Tdap (i.e., more than 10 years since previous Td), then Tdap should be administered during pregnancy, preferably during the third or late second trimester (after 20 weeks' gestation).

2. **Wound management for pregnant women.** As part of standard wound management care to prevent tetanus, a tetanus toxoid--containing vaccine might be recommended for wound management in a pregnant woman if 5 years or more have elapsed since last receiving Td. If a tetanus booster is indicated for a pregnant woman who previously has not received Tdap, Tdap should be administered.

3. **Pregnant women with unknown or incomplete tetanus vaccination.** To ensure protection against maternal and neonatal tetanus, pregnant women who have never been vaccinated against tetanus should receive three

vaccinations containing tetanus and reduced diphtheria toxoids. The recommended schedule is 0, 4 weeks, and 6 to 12 months. Tdap should replace 1 dose of Td, preferably during the third or late second trimester (after 20 weeks' gestation) of pregnancy.

For more information visit

http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6041a4.htm?s_cid=mm6041a4_w

Important Reminder:

For more information regarding diagnosis, management, and reporting of Pertussis contact your local health department, or the IDPH Immunization Section, at 1-800-526-4372.