September 3, 2013

Dear Colleague:

As of August 27, 2013 Texas has reported 1,935 pertussis cases to the CDC. If cases continue to be diagnosed and reported at the current rate, Texas will report the highest number of pertussis cases it has had in over 50 years. Biweekly updates on pertussis in Texas are available at http://www.dshs.state.tx.us/idcu/disease/pertussis/. Early recognition of cases, effective treatment and prophylaxis, and appropriate vaccination are vital to limiting the spread of pertussis. Pertussis can cause serious and potentially life-threatening complications in infants and young children who are not fully vaccinated. More than half of infants younger than 12 months of age who get pertussis require hospitalization.

Pertussis is characterized by a long cough illness, which may be preceded by a cold-like illness. The cough will often occur in paroxysms and may be followed by vomiting or a “whoop” sound. Vaccinated children, adolescents and adults may not present with the classic “whoop.” Coughing fits may continue for several weeks or even months. Infants with pertussis may not have coughing fits; instead they may have gag, gasp, vomit or experience apnea or cyanosis. Vaccinated children and adults can still get pertussis. A history of vaccination should not preclude a pertussis diagnosis.

**Treatment and Post Exposure Prophylaxis (PEP) Recommendations:**

**Azithromycin, Erythromycin, Clarithromycin,** and **TMP-SMZ** are the antibiotics that are effective for pertussis treatment and prevention.

- **Consider treating prior to test results** especially if clinical history is strongly suggestive, the patient is at risk for severe or complicated disease (e.g., infants), or the patient has a known pertussis exposure and has not received prophylaxis.

- **Treat patients and provide PEP regardless of vaccination history.** Many cases (85%) have occurred in persons with one or more doses of pertussis vaccine and 42% have had 5 or more doses.

- **Treat patients within 3 weeks of cough onset** except for infants aged <1 year and pregnant women (especially near term) who should be treated if within **6 weeks of cough onset**.

- **Provide, if possible, or recommend PEP to all household contacts of a pertussis case.** Within families, secondary attack rates have been demonstrated to be high, even when household contacts are current with immunizations. Administration of antimicrobial prophylaxis to asymptomatic household contacts within 21 days of onset of cough in the index patient can prevent symptomatic infection.
• Provide PEP to persons exposed to pertussis who are at high risk of severe illness or who will have close contact with a person at high risk of severe illness. These include:
  o Infants and women in their third trimester of pregnancy
  o All persons with pre-existing health conditions that may be exacerbated by a pertussis infection (such as immunocompromised persons or moderate to severe medically-treated asthma).
  o Contacts who themselves have close contact with either infants under 12 months, pregnant women, or individuals with pre-existing health conditions at risk of severe illness or complications.
  o Contacts in high risk settings that include infants aged <12 months or women in the third trimester of pregnancy.

**Vaccination:** All patients should be kept current with pertussis vaccination. Check the vaccination history of all patients and offer vaccine to anyone that is not up-to-date (Summary of Pertussis Vaccine Recommendations). Ensuring infants get the DTaP series on time and that pregnant women are vaccinated every pregnancy with Tdap can help prevent infant hospitalization and death. To maximize the maternal antibody response and passive antibody transfer to the infant, optimal timing for Tdap administration is between 27 and 36 weeks gestation, although Tdap may be given at any time during pregnancy. (http://www.preventpertussis.org). If not administered during pregnancy, Tdap should be administered immediately postpartum, to the mother.

**Exclusion Guidelines:** People suspected of having pertussis should be told to stay home from work, school, daycare, and any public outings (e.g., church, grocery store) until they have completed five days of appropriate antibiotic therapy. School and childcare exclusion are mandated by the Texas Administrative Code.

**Lab Confirmation Tests:** Culture and PCR assay are the preferred methods of pertussis testing. DFA and serological assays are not considered confirmatory tests for pertussis. PCR assays are quick and widely available at hospital and commercial laboratories and at the Texas Department of State Health Services laboratory. For PCR assays, a nasopharyngeal swab should be done using a synthetic swab. Check with the laboratory to determine what transport media, if any, is needed. More information on PCR testing is available at http://www.cdc.gov/pertussis/clinical/downloads/diagnosis-pcr-bestpractices.pdf.

**Disease Reporting Requirements/Statute:** Several Texas laws (Health & Safety Code, Chapters 81, 84, and 87) require specific information regarding notifiable conditions be provided to DSHS. Healthcare providers, hospitals, laboratories, schools, childcare facilities and others are required to report patients who are suspected of having pertussis (Chapter 97, Title 25, Texas Administrative Code).

In Texas, pertussis is required to be reported within one work day. Pertussis reports should be made to your local health department or to 800-705-8868.

Thank you,

David Lakey, MD
Commissioner, Texas Department of State Health Services

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