



SAN MATEO COUNTY
HEALTH SYSTEM

PUBLIC HEALTH FAX ADVISORY

June 28, 2010

To: San Mateo County Health Care Providers

From: San Mateo County Health System Public Health Programs, Communicable Disease Control

Main number 650-573-2346 ♦ fax 650-573-2919 ♦ after-hours emergency line 650-363-4981

Public Health Advisory: Pertussis is peaking. Take action!

As of 6/15/2010, there have been 910 reported cases of pertussis in California. This is a four-fold increase from the number of reported cases during the same time period in 2009 when 219 cases were reported. In San Mateo County, 35 cases have been reported so far, compared to 8 during the same time period last year. **There have been 5 deaths to date in California in 2010, all in Hispanic infants younger than 3 months of age.** Since 1998 over 80% of the infant deaths due to pertussis in California have occurred in Hispanic infants. Age range at symptom onset was 5 days to 8 weeks.

The following actions are requested of all San Mateo County clinicians:

- **Think pertussis!** Consider the diagnosis of pertussis in your patients and their close contacts.
- **Test for pertussis.** Delays in recognition of pertussis may contribute to adverse clinical outcomes.
- **Treat for pertussis.** Delays in treatment before or after hospitalization may increase the risk of fatal illness.
- **Prevent pertussis.** Assess pertussis immunization status, and use every patient encounter to vaccinate.
- **Report pertussis.** Prompt reporting supports prevention and control efforts.

(1) Think pertussis! Consider the diagnosis of pertussis in your patients and their close contacts.

- **Young infants:** The diagnosis of pertussis is often delayed or missed because of a deceptively mild onset of runny nose. There usually is no fever. Cough may be very mild or completely absent. Infants may present with apnea, hypoxia or seizures. After a few days, mild illness can transform into respiratory distress. A white blood cell count of > 20,000 cells/mm³ with >50% lymphocytes is strongly suggestive of pertussis.
- **Adolescents and adults:** 27% of reported cases occur among adults. While immunity from disease wanes in about 15 years, immunity wanes 5 to 10 years after the DTaP series. Most cases remain undiagnosed. Patients are often given a diagnosis of bronchitis or asthma. They may report episodes of a choking sensation or sweating. Leukocytosis and lymphocytosis are less likely. **Consider pertussis in adolescents and adults with a cough of more than 2 weeks duration.**

(2) Test for pertussis. Delays in recognition of pertussis may contribute to adverse clinical outcomes.

- Obtain a nasal aspirate (preferred specimen) or a nasopharyngeal swab for PCR and/or culture. Serological tests are NOT recommended.

(3) Treat for pertussis. Delays in treatment before or after hospitalization may increase the risk of fatal illness.

- **Young infants:** Because pertussis may progress very rapidly in young infants, suspected and confirmed cases should be treated promptly with azithromycin, monitored closely and possibly hospitalized in a facility with direct access to intensive care, especially if the infant is younger than 3 months of age. Almost all fatal cases have extreme leukocytosis with lymphocytosis and pulmonary hypertension.

(4) Prevent pertussis. Assess pertussis immunization status, and use every patient encounter to vaccinate. Adults often transmit pertussis to infants; almost half of the cases of pertussis in infants can be traced back to their parents, especially their mothers.

- As part of the “cocooning” strategy, all close contacts to infants (i.e. parents, siblings, grandparents, child care providers) and all health care workers should be immunized against pertussis with Tdap or DTaP vaccine, as age appropriate. **Ideally, women should be vaccinated before pregnancy, but can also be vaccinated during pregnancy or immediately post-partum.**
- Vaccinate for pertussis at the earliest opportunity, including clinic visits for routine checkups and acute care visits.
- Use Tdap instead of Td for wound management as well as routine boosters in the ED and outpatient office (Tdap replaces next regular Td booster once, can be given 2 years after prior Td or sooner if patient is in close contact with infants; for patients 11-64 years).
- **Consider an accelerated infant DTaP schedule. Per the American Academy of Pediatrics 2009 Red Book, “If pertussis is prevalent in the community, immunization can be started as early as 6 weeks of age, and doses 2 and 3 in the primary series can be given at intervals of 4 weeks.”**
- Remind parents that young infants are susceptible to many respiratory infections, so people with fever, cough, or runny nose should not handle young babies. The exception is that a breastfeeding mother should continue to breastfeed, taking care to wash her hands before nursing and to avoid coughing or breathing directly in her baby’s face, possibly using a surgical mask.

(5) Report pertussis. Prompt reporting supports prevention and control efforts.

- Report all suspected and confirmed cases of pertussis to the Communicable Disease Control Program by calling (650) 573-2346 or faxing a Confidential Morbidity Report (CMR) to (650) 573-2919. You may download a copy of the CMR at <http://www.smhealth.org/cmr>.

Useful links:

Pertussis in young infants—clinical guidance (laboratory diagnosis, treatment, PICU care, contact information for four Pediatric Infectious Diseases programs and a group of intensivists that may be called for management advice 24 hours a day):

http://www.aap-ca.org/clinical/pertussis/pertussis_in_young_infants.html

San Mateo County Health System website, pertussis information:

<http://www.smhealth.org/pertussis>

Laboratory testing/specimen collection:

http://www.cdph.ca.gov/programs/immunize/Documents/CDPH_Pertussis%20laboratory%20testing_March2010.pdf

Prevention of pertussis among pregnant, postpartum women and their infants:

<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5704a1.htm>

Pertussis antimicrobial treatment and post exposure prophylaxis:
<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5414a1.htm>

Details regarding vaccination of adults with Tdap:
<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5517a1.htm>

This Health Advisory and other documents with general information on pertussis and public health measures to prevent transmission are posted on the San Mateo County Health System website. If you have any questions, please call (650) 573-2346.