

MAINE PUBLIC HEALTH ALERT NETWORK SYSTEM



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****ADVISORY – Important Information****

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TO: All Academic, All Epidemiologists, HETL, All Local Public Health Liaisons, All Childcare, City and County Health Departments, All Healthcare, Lab Facilities, County EMA Directors, Maine Medical Association, Northern New England Poison Center, All Public Health, Public Health Nursing, EMS, All RRCs

FROM: Dr. Sheila Pinette, Maine CDC Director
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SUBJECT: **Statewide Pertussis – Maine, July 2012**

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Statewide Pertussis – Maine, July 2012

Background: Maine, like many other states, has been experiencing an increasing number of pertussis cases in the past year. During January 1 – July 26, 2012, 300 pertussis cases have been reported to Maine CDC from 13 Maine counties. This number far exceeds the 75 reported pertussis cases during the same period in 2011 and the total number of reported cases that year (205). In Maine, the majority of reported cases have occurred among persons aged 7-19 years. As of July 5, 2012, 37 states reported increases in pertussis compared with the same time period in 2011. As of July 19, 2012, nearly 18,000 cases have been reported to federal CDC. The national year-to-date case count for 2012 has surpassed case counts from the previous five years for the same period.

Pertussis is a highly communicable, vaccine-preventable disease that can last for many weeks. It is transmitted through direct contact with respiratory secretions of infected persons. Classic pertussis symptoms include paroxysmal cough, whoop, and posttussive vomiting. Pertussis can cause serious illness and can even be life-threatening, especially in infants. More than half of infants less than 1 year of age who get pertussis must be hospitalized.

Immunity to pertussis following infection is not lifelong. Persons with a history of pertussis should continue to receive pertussis-containing vaccines according to the recommended schedule. Because vaccination is not 100% effective and immunity wanes over time, even fully vaccinated persons can become infected with pertussis. However, unvaccinated children have an 8 times higher risk of becoming infected with pertussis than fully vaccinated children. Furthermore, vaccinated children who do get infected with pertussis have milder symptoms, shorter duration of illness, fewer severe outcomes (including hospitalization) and are less infectious than their non-vaccinated counterparts. Therefore, vaccination remains the most effective way to prevent pertussis.

Maine CDC investigates all cases of pertussis to reinforce treatment guidelines and identify close contacts to assess whether prophylaxis is warranted. Maine CDC also works with schools and communities to implement control measures and prevent disease transmission. These efforts include targeted health communications to inform medical providers, school officials, child care providers, parents, and the public about pertussis and how to prevent infections. The primary goal of pertussis outbreak control efforts is to decrease morbidity and mortality among infants; a secondary goal is to decrease morbidity among persons of all ages.

The following recommendations are highlighted to guide clinical management of suspect cases and persons reporting exposure to pertussis.

Clinicians are encouraged to:

1. Check the vaccination status of all patients and ensure they are up-to-date on pertussis vaccination.
 - a. Infants and children should receive DTaP (diphtheria, tetanus, and acellular pertussis) vaccine at 2, 4, and 6 months, 15 through 18 months, and 4 through 6 years of age.
 - b. Tdap is routinely recommended as a single dose for those aged 11-18 years with preferred administration at 11-12 years.
 - c. Children aged 7-10 years who did not complete the childhood DTaP vaccine series should receive a one-time dose of Tdap.
 - d. Persons aged 19 years and older who have not received a dose of Tdap should receive a one-time dose (no matter when their last tetanus booster [Td] was administered), especially if they have close contact with an infant.
 - e. Pregnant women who have not previously received Tdap are recommended to receive a single dose of Tdap vaccine, preferably during the 3rd trimester or late 2nd trimester (after 20

- weeks gestation). If Tdap is not received during pregnancy, it should be given immediately postpartum.
- f. Tdap is recommended as a one-time vaccination for healthcare workers.
2. Consider pertussis when evaluating any patient with an acute illness characterized by cough >2 weeks in duration, or cough with paroxysms, whoop, or posttussive vomiting. Infants may present with gasping, gagging, apnea and/or cyanosis. Infants are also likely to have leukocytosis with an increased absolute lymphocyte count.
 3. Test persons who exhibit symptoms consistent with pertussis. Collect specimen with a nasopharyngeal swab and send specimens to Maine CDC's Health and Environmental Testing Laboratory or a reference laboratory for polymerase chain reaction (PCR) testing. Testing is not recommended for persons who are asymptomatic, as contamination of specimens with DNA from pertussis vaccines has been documented in healthcare settings leading to false-positive results.
 4. Treat patients diagnosed with pertussis with appropriate antibiotics and exclude from daycare, work, camp and social activities until 5 days of treatment have been completed. Symptomatic contacts of pertussis cases should be tested for pertussis and placed on appropriate antibiotics.
 5. If pertussis is a possible diagnosis in a young infant, treatment with azithromycin should be started immediately pending test results. The severity of illness in an infant with pertussis is unpredictable and clinical decline is often rapid. All young infants (aged ≤ 3 months) with possible pertussis should be admitted to the hospital and many will require PICU care.
 6. Prophylaxis is recommended for asymptomatic household and high-risk contacts of persons diagnosed with pertussis (e.g. infants and their household contacts, pregnant women, healthcare workers), regardless of vaccination status. Contact Maine CDC for assistance in prophylaxis decisions. See table below for dosing regimens for pertussis treatment and prophylaxis.
 7. Report suspect cases of pertussis to **Maine CDC at 1-800-821-5821**.

For More Information:

- General information on pertussis as well as a statewide weekly surveillance report (including county and age group breakdowns) can be found on the Maine CDC website <http://www.maine.gov/dhhs/mecdc/infectious-disease/epi/vaccine/pertussis.shtml>.
- Additional information on the diagnosis and management of young infants with pertussis can be found on the California Department of Health website at: <http://www.cdph.ca.gov/HealthInfo/discond/Documents/CherryPertussisInYoungInfants2011-06-20.pdf>.
- For information about pertussis vaccine or vaccine schedules, please contact the Maine Immunization Program at www.immunizeme.org or by calling 1-800-867-4775.
- Maine CDC epidemiologists are available to answer any questions about pertussis diagnosis or management through the 24/7 disease reporting line at 1-800-821-5821.