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Transmission of Pertussis from Adult to Infant

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During 1993, a total of 6,586 pertussis cases were reported in the United States, including 675 cases (10%) among persons aged >19 years. However, the total number of cases probably was substantially higher, because only an estimated 10% of all pertussis cases are reported. Underreporting is greater among adults, who often have only a mild cough. Classic symptoms of pertussis include paroxysms of cough, posttussive whoop, and apnea.

The Centers for Disease Control and Prevention (CDC) recently reported pertussis transmission from an adult resident of Massachusetts who was visiting her four-month-old susceptible nephew in Michigan. The child had received only one dose of diphtheria and tetanus toxoids and

pertussis vaccine (DTP) prior to infection. The adult aunt had a cough that worsened upon her return to Massachusetts, and she developed paroxysms of cough with inspiratory whoop and posttussive apnea. A diagnosis of pertussis was considered only after learning of her history of close contact with her nephew, who developed culture-confirmed pertussis three weeks after her visit. A 14-day course of erythromycin was prescribed for both patients and their household contacts.

The CDC recommends that healthcare providers consider pertussis in the differential diagnosis of acute cough of >7 days duration in adults, particularly if the cough is paroxysmal and associated with posttussive vomiting and/or whooping.

Transmission of pertussis can be reduced with prompt diagnosis and treatment of cases and early

administration of chemoprophylaxis to close contacts. Administration of erythromycin for 14 days is recommended for persons with pertussis and all their household contacts (regardless of age or vaccination status) and is an important method of protecting children aged <6 months, who are too young to have received the initial three-dose series of DTP recommended during infancy. Chemoprophylaxis of household contacts with erythromycin should be administered as soon as possible after first contact with a primary case; chemoprophylaxis administered >21 days after first contact is considered of limited value.

FROM: CDC. Transmission of pertussis from adult to infant-Michigan, 1993. *MMWR* 1995;44(4):75-76.