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Pertussis

On August 14, three fluorescent antibody (FA) confirmed cases of pertussis were reported to the Health Department as occurring in the City of Anchorage. Investigation of these three cases revealed that all three were in siblings of a single family. The siblings were all unimmunized. Their ages were 6, 5, and 4 years, respectively. Epidemiologic investigation of possible contacts of these children failed to produce any other definite cases of pertussis, although this investigation was hampered because of the difficulty in determining pertussis in partially immunized susceptibles.

In patients who have been partially immunized to pertussis, the illness may present with no more than a non-specific upper respiratory infection accompanied by various degrees of cough. Several contacts of the index cases were interviewed in this instance and did have mild upper respiratory symptoms; but as of this date, no secondary cases of pertussis have been documented.

An increasing incidence of small clusters of pertussis have been reported in Alaska and throughout the United States in the last several years. For this reason these recent cases in Anchorage should serve to alert local physicians of the possibility of pertussis, especially in the preschool child. Pertussis is a common disease among children everywhere and its presentation varies greatly in those partially immunized susceptibles. It should be suspected in any child with a history of partial immunization who has manifest upper respiratory infection with cough. Of particular importance is the statistic that approximately 70% of the deaths from pertussis occur among children under one year of age. The infectious agent may be recovered in the majority of cases from nasopharyngeal swabs obtained during the catarrhal or early paroxysmal stages. Smears from these swabs should be applied to standard microscope slides and submitted to the State Health Department for proper fluorescent antibody testing.

The mode of transmission of this infection is primarily by the airborne route. The incubation period is about seven days and is highly communicable during the early catarrhal stage before the paroxysmal cough develops. When treatment is given with either erythromycin or ampicillin, a period of infectiousness extends for only five to seven days after the onset of therapy. The current recommendations for the treatment of contacts is the following: Previously immunized children under three years of age (who have not received the full course of five immunizations) should be boosted as soon after exposure as possible. Non-immunized infant contact should receive chemoprophylaxis either erythromycin or ampicillin for ten days after contact is broken or for the duration of communicability in infective contacts. If separation cannot be effective, specific treatment for the illness is erythromycin or ampicillin; there are no data to suggest that immune serum globulin is effective.

Please remember that pertussis is a reportable disease. To report a suspect or documented case, please call Dr. Thad Woodard, Medical Epidemiologist at 272-7534.