



March 12, 2015

To: Jefferson County Health Care Providers
From: Tom Locke, MD, MPH, Jefferson County Health Officer
Re: Pertussis Advisory

Situation Report: In 2012 Washington State experienced widespread pertussis outbreak activity. In 2015 pertussis cases appear to be on the rise with 128 reported so far this year vs. 24 in the comparable period last year. Jefferson County has documented two recent cases and more tests are pending.

Pertussis is spread primarily by droplet transmission and is highly communicable. Life threatening illness occurs with infants, the aged, and the severely immunocompromised and serious complications can occur in pregnancy. Pertussis outbreaks are the result of low levels of vaccination in adolescent and adult populations and waning immunity from childhood vaccinations. The acellular pertussis vaccine that replaced the whole cell vaccine in the early 1990's has proven to be much less immunogenic than its predecessor resulting in decreased vaccine efficacy.

Evaluation: Pertussis should be considered in the differential of cough illness lasting greater than 2 weeks, especially if accompanied by post-tussive vomiting or inspiratory stridor ("whooping cough"). Nasopharyngeal swabs for PCR testing are the preferred diagnostic tests and will typically be positive for the first 3 weeks of illness. Confirmed pertussis cases should be isolated until they have completed 5 days of antibiotic treatment.

Treatment: Antibiotic treatment of acute pertussis infection is most effective in the early stages of illness. After 1-2 weeks of symptoms, antibiotic therapy does not substantially alter the clinical course (damage to the respiratory epithelium has already occurred at this point) but does reduce infectivity. Identification of active pertussis cases with positive PCR tests allows prompt early treatment of exposed contacts, either early in their clinical course or at a pre-symptomatic stage.

Treatment after 21 days of symptoms is no longer beneficial with the exception of infants and pregnant women who should be treated up through 6 weeks after cough onset.

Erythromycin, clarithromycin, or azithromycin are the preferred treatment for pertussis in persons >1month of age. Sulfa-trimethoprim is an alternative in persons > 2 months of age. Azithromycin is preferred for treatment of infants under 1 month of age.

Post exposure prophylaxis: Household contacts and high risk close contacts of confirmed pertussis cases should be treated with prophylactic antibiotics (same dose and duration as for treatment) regardless of vaccination status. Jefferson County Public Health will help identify candidates for post exposure prophylaxis during the notifiable condition reporting process.