



Public Health
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Region 4 Public Health
Clark, Cowlitz, Skamania, Wahkiakum counties

Health Advisory

Please deliver a copy of the accompanying alert to each of the medical providers in your organization.

Thank you

Questions regarding this alert may be directed to the office of:

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Health Officer

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Deputy Health Officer

Cowlitz County Health Department
(360) 397-8412

Please Distribute

Categories of Health Alert messages:

Health Alert: conveys the highest level of importance; warrants immediate action or attention.

Health Advisory: provides important information for specific incident for situation; may not require immediate action.

Health Update: provides updated information regarding an incident or situation; no immediate action necessary.



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May 14, 2010

Pertussis Activity in Cowlitz County

Dear Health Care Provider,

Since May 5, we have received reports of eight confirmed pertussis cases and six suspected cases. Two of the cases are PCR confirmed at this time, and an additional three cases have been identified. Pertussis continues to be a concern in other parts of Washington State as well. Because severe and sometimes fatal pertussis-related complications occur in infants aged <12 months, especially among infants aged <4 months, post-exposure prophylaxis should be administered in exposure settings that include infants aged <12 months or women in the third trimester of pregnancy.

Please maintain a high level of suspicion and evaluate all persons meeting the clinical presentation described below. If needed please note the recommended treatment chart at the bottom of this document.

Clinical features of pertussis

Onset of pertussis is insidious, with symptoms of an upper respiratory infection with no or minimal fever (catarrhal stage), followed by persistent, paroxysmal coughing lasting 2-6 weeks (paroxysmal stage). In previously vaccinated persons, the symptoms may be very mild, and in adults, the diagnosis is frequently missed. Infants <6 months of age usually have apnea, cyanosis, vomiting, and a non-paroxysmal cough, and are most likely to become seriously ill. The incubation period is 5-21 days, with an average of about 10 days.

Transmission of pertussis

Pertussis is highly infectious, and transmission occurs by direct contact with respiratory secretions, or droplet aerosolization. Persons with pertussis can transmit disease during the catarrhal and paroxysmal stages; they are no longer infectious after they have received 5 days of appropriate antimicrobial therapy. The recommended infection control practice for patients with suspected pertussis is isolation using droplet precautions. Outbreaks in health care facilities have been well described and result from failure to identify and properly isolate patients with pertussis, lack of compliance with infection control recommendations, and failure to diagnose, treat, and furlough affected staff.

Diagnosis of pertussis

Unfortunately most adults and many children with pertussis will not have a classic presentation. In a person with a suspect cough illness, isolation of *Bordetella pertussis*, a gram-negative coccobacillus, from the nasopharynx (NP) is the "gold standard" for confirmation of pertussis. Direct fluorescent antibody (DFA) assays of NP secretions can provide rapid, presumptive diagnosis, but the results should be confirmed by culture or polymerase chain reaction (PCR) assay, as both false negative and false positive results may occur with DFA. Note that throat swabs are not acceptable specimens for *B.*

pertussis, and that Dacron™, not cotton; swabs should be used for collection for all diagnostic methods.

Post-exposure prophylaxis for pertussis

Azithromycin (Z-Pak) is the drug of choice for both treatment and post-exposure prophylaxis; Erythromycin and clarithromycin are effective alternatives. In addition, close contacts children who are unimmunized or have received <4 doses of pertussis-containing vaccine should have pertussis immunization initiated or continued. Children who received their third dose of pertussis vaccine >6 months before exposure should be given a fourth dose, and children who have had 4 doses of vaccine should receive a booster unless they received their fourth dose within 3 years of exposure. Both Tdap vaccines are licensed for single-dose use to add protection against pertussis and to replace the next dose of tetanus and diphtheria toxoids vaccine (Td). Available evidence does not address the safety of Tdap for pregnant women, their fetuses, or pregnancy outcomes sufficiently. Please follow previously issued DOH/CDC guidelines for all other routine DTaP, Tdap and other immunizations.

Treatment and Prophylaxis Regimens for Pertussis*

| Age group | Azithromycin | Erythromycin | Clarithromycin | TMP-SMZ |
|---|---|--|--|--|
| Infants aged <1 month | Recommended agent. 10 mg/kg per day orally in one dose (max 500 mg/d) for 5 days. <i>Only limited safety data available.</i> | Not preferred. Erythromycin is associated with infantile hypertrophic pyloric stenosis. Use if azithromycin is unavailable: 40--50 mg/kg per day (maximum: 2 g per day) in 4 divided doses for 14 days | Not recommended, safety data unavailable | Contraindicated for infants <2 months due to risk for kernicterus |
| Infants 1-5 months | 10 mg/kg per day orally in one dose (max 500 mg/d) for 5 days. | 40--50 mg/kg per day (maximum: 2 g per day) in 4 divided doses for 14 days | 15 mg/kg per day (maximum: 1 g per day) in 2 divided doses each day for 7 days | Contraindicated for infants <2 months. For infants aged ≥2 months, TMP 8 mg/kg per day, SMP 40mg/kg per day in 2 divided doses for 14 days |
| Infants aged 6 months of age and older children | 10 mg/kg (maximum: 500 mg) on day 1, followed by 5 mg/kg per day (maximum: 250 mg) on days 2--5 | 40--50 mg/kg per day (maximum: 2 g per day) in 4 divided doses for 14 days | 15 mg/kg per day (maximum: 1 g per day) in 2 divided doses each day for 7 days | TMP 8 mg/kg per day, SMP 40mg/kg per day in 2 divided doses for 14 days (maximum adult dose) |
| Adults | 500 mg in a single dose on day 1 then 250 mg per day on days 2-5. | 2 g per day in 4 divided doses for 14 days. | 1 g per day in 2 divided doses for 7 days. Pregnancy category C. | TMP 320 mg per day, SMZ 1,600 mg per day in 2 divided doses for 14 days |

*Recommended Antimicrobial Agents for the Treatment and Postexposure Prophylaxis of Pertussis 2005, CDC Guidelines: <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5414a1.htm>

Any questions, please contact your local public health department:

- Clark County Public Health: (360) 397-8182.
- Cowlitz County Health Department: (360) 414-5599

- Skamania County Community Health: (509) 427-3850
- Wahkiakum County Health and Human Services (360) 795-6207

Thank you for your partnership.