

Increase in Pertussis Cases

Epidemiology: In 2024, Vancouver Coastal Health (VCH) has seen an increase in cases of pertussis (whooping cough). Pertussis is a vaccine preventable respiratory infection caused by the *Bordetella pertussis* bacteria. It causes a prolonged cough (up to 3 months), which can be fatal in infants under one year of age. Pertussis is cyclical, with peaks in activity expected every two to five years. VCH most recently had a cyclical peak in 2020, followed by a period of low activity in 2021-2023. A resurgence of pertussis has also been observed across British Columbia.

Clinical Presentation: During the initial two weeks of infection, symptoms may be indistinguishable from minor respiratory tract infections (catarrhal phase). Afterwards, the cough develops into the classic paroxysms followed by an inspiratory whoop and may include post-tussive vomiting (paroxysmal phase). The whoop is usually absent in older children and adults. Suspect pertussis in a patient who has a paroxysmal cough of any duration, a cough with an inspiratory whoop, or cough ending in vomiting or gagging or associated with apnea. Pertussis should also be suspected in patients with prolonged cough with no other known cause, or among those with compatible symptoms and a recent exposure (incubation period averages 7-10 days).

Diagnostics and Testing: The recommended swab has recently changed. If you suspect pertussis, test the patient using a nasopharyngeal swab with the COPAN green-top eSwab. A throat swab cannot be used to diagnose pertussis. If you do not have the appropriate swabs, you can order them (for free) from the Public Health Laboratory by completing the [Sample Container Order Form](#). For further instructions refer [to PHSA Laboratory Collection Instructions for Pertussis Testing](#).

Treatment and Post-Exposure Prophylaxis: People with pertussis are infectious 2 weeks prior to cough onset and up to 21 days following the onset of a cough, or until five days after the initiation of antibiotics. Antibiotics given in the catarrhal phase can decrease the duration of illness. Once a cough develops, antibiotics will not change the duration of symptoms but shorten the infectious period. To prevent transmission, antibiotics should be given to all pertussis cases who present within 3 weeks of the onset of the paroxysmal phase. Symptomatic contacts of a lab confirmed pertussis case (i.e. those who have had face-to-face, household, daycare or classroom contact with a pertussis case during their infectious period) can be treated empirically, and an NP swab can also be collected to confirm the diagnosis. Cases of pertussis should stay home until 5 days of antibiotic treatment is completed. Please see the table on the following page for treatment recommendations.

To prevent disease in infants and pregnant people, antibiotic prophylaxis may be recommended for some asymptomatic close contacts of pertussis cases. Public Health will follow-up all pertussis cases to determine the need for contact prophylaxis. If you are concerned about pregnant people or infants who have had close contact with a case of pertussis, please contact VCH Public Health at 604-675-3924 for advice regarding prophylaxis.

You can reach a Medical Health Officer at 604.675.3900 | Toll free at 1.855.675.3900 For public health emergencies after hours, contact the Medical Health Officer on call at 604.527.4893

Vancouver Coastal Health Medical Health Officers

Chief Medical Health Officer: Dr. Patricia Daly | Regional Communicable Disease: Dr. Rohit Vijh
Vancouver: Dr. Althea Hayden, Dr. Mark Lysyshyn, Dr. Michael Schwandt, Dr. Brandon Yau 604.675.3900
Richmond: Dr. Meena Dawar 604.233.3150

North Shore: Dr. Ceinwen Pope 604.983.6700 | Coastal Rural: Dr. Moliehi Khaketla 604.984.5070

To receive these updates by email, please contact us at VCHPhysiciansUpdate@vch.ca

Physicians' and Nurse Practitioners' Update

December 13, 2024

From the Office of the Chief Medical Health Officer

Immunization: This is a good opportunity to ensure your patients' pertussis immunizations are up-to-date. Acellular pertussis vaccine is part of the routine publicly funded immunizations and offered to children at 2, 4, 6, 18 months and kindergarten entry with another booster in grade 9. It is particularly important at this time that pregnant individuals and infants are immunized against pertussis without delay so vulnerable infants can be protected at the earliest opportunity. It is recommended adults get a booster dose of the pertussis vaccine (given as the Tdap vaccine) once in adulthood. Most adults will have to buy this vaccine. However, it is free for pregnant people (recommended in every pregnancy) or adults who have not been fully immunized or whose immunization history is unknown. Vaccination is available through primary care, public health and pharmacies (<https://www.vch.ca/en/service/immunization-clinics#short-description--5931>).

Pertussis Treatment and Chemoprophylactic Agents – Dosage Summary

AGE	AZITHROMYCIN	CLARITHROMYCIN	TRIMETHOPRIM – SULFAMETHOXAZOLE (alternative agent)
< 1 month	Recommended agent. 10 mg/kg per day in a single dose for 5 days	Not recommended (safety data unavailable).	Contraindicated for infants aged < 2 months (risk for kernicterus).
1 – 5 months	10 mg/kg per day in a single dose for 5 days	15 mg/kg/day po (maximum 1 gm/day) divided in 2 doses for 7 days	Contraindicated for infants aged < 2 months (risk for kernicterus) Children 2 months to 12 years of age: Trimethoprim 4 mg/kg and Sulfamethoxazole 20 mg/kg po twice a day for 14 days (maximum Trimethoprim 160 mg and Sulfamethoxazole 800 mg twice daily)
6 months to ≤ 12 years	10 mg/kg/day po (maximum 500 mg) once for 1 day, then 5 mg/kg/day po (maximum 250 mg/day) once daily for 4 days	15 mg/kg/day po (maximum 1 gm/day) divided in 2 doses for 7 days	Children 2 months to 12 years of age: Trimethoprim 4 mg/kg and Sulfamethoxazole 20 mg/kg po twice a day for 14 days (maximum Trimethoprim 160 mg and Sulfamethoxazole 800 mg twice daily)
> 12 years	500 mg po once for one day then 250 mg po once daily for 4 days	1 gm/day divided in 2 doses for 7 days Not recommended in pregnancy.	Adults and children over 12 years of age: Trimethoprim 160 mg and Sulfamethoxazole 800 mg po twice a day for 14 days Not recommended in pregnancy.

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