

SUBJECT: Pertussis in the Community
Date: February 10, 2023
Pages: 3
To: Primary Care Providers
From: Dr. Nicola Mercer, Medical Officer of Health & CEO

Background

In Ontario, pertussis cases increase and circulate every 2-5 years.¹ Pertussis protection wanes over time. Wellington-Dufferin-Guelph Public Health (WDGPH) has received increased reports of probable pertussis cases in children within our region, largely with the under-vaccinated or non-vaccinated population. Our surrounding health units, Region of Waterloo Public Health and Huron Perth Public Health, have also seen this trend. Up-to-date vaccination is the best protection from this illness.

Clinical Signs and Symptoms of Pertussis

Onset of mild upper respiratory symptoms (the catarrhal stage) usually occurs 9-10 days (range 6-20 days) after exposure. This progresses to the paroxysmal stage over the next 1-2 weeks. Classic symptoms include repeated and often violent coughing characterized by an inspiratory whoop commonly followed by vomiting. Fever is **not** usually present. Symptoms in infants less than 6 months of age can be atypical and much more severe. Cough may last for 10 weeks or longer in adolescents.

Pertussis is highly infectious during the catarrhal stage and is negligible after approximately 3 weeks. Cases are not infectious after 5 days of effective treatment. **Up to 80% of household contacts will develop pertussis regardless of their immunization status**, becoming a source of unrecognized infection for infants and young children.

Diagnosis of Pertussis

The preferred method of testing is using nasopharyngeal swabs during the acute phase of the illness. Refer to [PHO's Test Information Sheet for Bordetella – Respiratory](#) for testing guidelines (summarized below) and ordering of appropriate specimen collection kits.

Test Requested	Required Requisition	Specimen Type	Collection Kit
<i>Bordetella pertussis</i>	General Test Requisition	Nasopharyngeal (NP) swab NP aspirate Sputum (including induced), Tracheal aspirates also acceptable but NP swab and NP aspirate is preferred	<i>Bordetella pertussis</i> BP collection kit; Kit order # 390052

Please order PCR testing for Bordetella Pertussis

The Public Health Laboratory General Test Requisition should indicate testing for *Bordetella pertussis*. Ensure the transport medium that you are using for PCR testing is colourless. Specimen must be refrigerated between 2°C to 8°C and transported to the Public Health Ontario Laboratory as STAT.

Treatment of Pertussis Cases

Antibiotics given early in the disease may ameliorate symptoms and will limit the spread of disease to others. Symptomatic individuals should not return to school, daycare, work, or participate in group activities until the prescribed antibiotic has been taken for **5 days**.

Management of Contacts

Please confirm that pertussis immunizations are up to date for any of your patients who identify as close contacts of a pertussis case. Antimicrobial chemoprophylaxis is recommended specifically for household contacts of confirmed pertussis cases where the household includes an infant < 1 year of age [immunized or not] or a pregnant woman in the third trimester.

Antimicrobials Indicated for Chemoprophylaxis for People Without Contraindications

Age	Drug	Dose
Infants (< 1 month)	Azithromycin	10 mg/kg once daily in a single dose for 5 days
Infants (1 – 5 months)	Azithromycin	As per < 1 month
	Erythromycin	40 mg/kg po (maximum 1 gm) in 3 doses for 7 days
	Clarithromycin	15 mg/kg/day po (maximum 1 gm/day) in 2 divided doses for 7 days
Infants (≥ 6 months and children)	Azithromycin	10 mg/kg po (maximum 500 mg) once for 1 day, then 5 mg/kg po (maximum 250 mg) once daily for 4 days
	Erythromycin	As per 1 – 5 months
	Clarithromycin	As per 1 – 5 months
Adults	Azithromycin	500 mg po once for 1 day then 250 mg po once for 4 days
	Erythromycin	As per 1 – 5 months
	Clarithromycin	1 gm/day in 2 divided doses for 7 days (Not recommended in pregnancy)

Source: Infectious Disease Protocol, Appendix 1 Case Definitions and Disease Specific Information, Pertussis (Whooping Cough), Table 1, May 2022

Immunization

The current schedule for acellular pertussis vaccine is **2, 4, 6, and 18 months**, and booster doses at **4-6 years**, and **14-16 years** as per [Ontario's Publicly Funded Immunization Schedule](#).

Reporting

Pertussis is a reportable disease. If you suspect a case of pertussis, please report to Wellington-Dufferin-Guelph Public Health immediately, **519-822-2715 ext 4752**. After hours, weekends and holidays please call **1-877-884-8653**.

References

1. Smith T, Rotondo J, Desai S, Deehan H. Pertussis surveillance in Canada: trends to 2012. Can Commun Dis Rep. 2014;40(3):21-30. February 7, 2014. Available at: [doi: 10.14745/ccdr.v40i03a0](https://doi.org/10.14745/ccdr.v40i03a0)

For more information, please contact:

Name/Title: Lilliana Marinko, Manager, Infectious Diseases Team
Email: lilliana.marinko@wdgpublichealth.ca
Website: www.wdgpublichealth.ca