

Ottawa Public Health Pertussis Case & Contact Management Guidelines

Ottawa Public Health (OPH) Pertussis Case and Contact Management Guidelines are used to manage persons under investigation for pertussis, those diagnosed with probable or confirmed pertussis and their contacts.

Reporting to OPH		
All probable and confirmed cases of pertussis must be reported to the Infectious Disease Program at Ottawa Public Health (OPH) immediately by phone at 613-580-2424 ext. 24224 or by fax at 613-580-9640. The report should include the name of the childcare facility, school or family daycare centre attended by the case.		
Definitions		
Probable Case: Cough lasting 2 weeks or longer in the absence of appropriate laboratory tests and not epidemiologically linked to a laboratory-confirmed case, for which there is no other known cause AND one or more of the following, with no other known cause: • paroxysmal cough of any duration • cough with inspiratory "whoop" • cough ending in vomiting or gagging, or associated with apnea		
Confirmed Case: Laboratory confirmation of infection: Isolation of <i>Bordetella pertussis</i> from an appropriate clinical specimen (e.g., nasopharyngeal swabs) OR Detection of <i>B. pertussis</i> deoxyribonucleic acid (DNA) by nucleic acid amplification test (NAAT) from an appropriate clinical specimen (e.g., nasopharyngeal swabs) AND one or more of the following: • cough lasting 2 weeks or longer • paroxysmal cough of any duration • cough with inspiratory "whoop" • cough ending in vomiting or gagging, or associated with apnea OR Epidemiologic link to a laboratory-confirmed case AND one or more of the following for which there is no other known cause: • paroxysmal cough of any duration • cough with inspiratory "whoop" • cough ending in vomiting or gagging, or associated with apnea		
Antimicrobials indicated for treatment of pertussis		
The choice of treatment is a clinical decision, considering the case's age, the cost of the medication and the potential side effects. If symptoms started less than 3 weeks ago, treatment options include:		
Age	Drug	Dosage
Infants (< 1 month)	Azithromycin	10 mg/kg once daily in a single dose for 5 days
	Erythromycin	Not preferred
	Clarithromycin	Not recommended
Infants (1 – 5 months)	Azithromycin	As per < 1 month
	Erythromycin	40 mg/kg po (maximum 1 gm) in 3 divided 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)
Note: Azithromycin is the preferred antimicrobial for infants < 1 month of age. Clarithromycin is not recommended during pregnancy as it is classified as a Category C drug. Pregnancy is not a contraindication to azithromycin or erythromycin; both are classified as Category B drugs.		

Laboratory Testing

Persons under investigation for pertussis should have a nasopharyngeal (NP) aspirate or swab obtained for PCR, ideally within the first 3 weeks of symptom onset. This can be performed in a physician's office using a pertussis kit (#390052), obtained from the Public Health Ontario Laboratory by phone at 613-736-6800 or by fax at 613-736-6820. Please remember to:

- Ensure the requisition indicates that this is a NP swab or aspirate and that you are requesting pertussis testing.
- Complete the symptoms, date of onset of cough, exposure history and vaccination history fields.
- Store the specimens in the fridge until sent to the laboratory; specimens must be stored at 2-8 degrees Celsius and shipped on ice packs as soon as possible.
- **PCR** results are available in up to 4 working days once received at the Public Health Lab
- When the DNA is detected at low levels, the results will need to be interpreted in the context of the clinical illness.
- PCR testing is not recommended for asymptomatic patients because false-positive results are more likely in these individuals.

Exclusion from Childcare Facility, Healthcare Settings, or Similar Settings

Persons under investigation for pertussis should be excluded from childcare settings, healthcare settings, or similar settings until the etiology has been evaluated. They may return once assessment is completed and any necessary measures have been instituted, or the diagnosis of pertussis is ruled out. Anyone tested for pertussis should be counselled to avoid contact with young children, infants, and women in their third trimester of pregnancy and to stay home as much as possible, avoiding non-essential activities.

Confirmed or probable cases should be excluded until:

5 days after the start of appropriate antibiotic therapy.

OR

If no treatment is initiated, 21 days after the onset of paroxysmal cough.

Contacts of probable or confirmed cases: No exclusion is required.

Contact Chemoprophylaxis

Contact management is only initiated for confirmed cases of pertussis. The drugs and dosages used for chemoprophylaxis are the same as those used for treatment, as outlined above. The efficacy of chemoprophylaxis is related to early implementation and is unlikely to be of any benefit after 21 days have elapsed since the first contact with the person diagnosed with pertussis. Laboratory diagnostic testing of contacts should not be done to guide decisions around who should receive chemoprophylaxis.

Chemoprophylaxis is recommended for the following contacts of confirmed pertussis cases as soon as possible and no later than 21 days after the first exposure:

- All of the case's household contacts should receive chemoprophylaxis only when there is an infant less than 1 year of age (immunized or not) or when there is a pregnant woman in the third trimester within that household.
- If the case attends or works at a home daycare centre, all attendees at home daycare centres are considered household contacts and should receive chemoprophylaxis only when there is an infant less than 1 year of age (immunized or not) or when there is a pregnant woman in the third trimester within that home daycare centre.
- Non-household contacts who are infants less than 1 year of age (immunized or not) or pregnant women in their third trimester who have had face-to-face exposure and/or have shared confined air for > 1 hour.

Immunization of Contacts

The immunization status of all contacts of any age should be updated, as required, according to the recommended schedule for pertussis on the current *Publicly Funded Immunization Schedules for Ontario*.

References

- Public Health Ontario, [Public Health Management Considerations for Pertussis, 2022](#).
- Ministry of Health and Long-Term Care, [Infectious Disease Protocol, 2023](#).

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