DEPARTMENT OF HEALTH

Managing Pertussis: Think, Test, Treat & Stop Transmission

THINK of pertussis in anyone with these symptoms, regardless of vaccination history

- A cough of any duration in a person who has been notified of a close exposure to pertussis,
- A paroxysmal cough of any duration, with whooping, post-tussive vomiting/gagging or apnea, or
- A persistent cough of unknown etiology, lasting more than seven days.

TEST for pertussis

Based on the guidance in the table, collect a specimen using a nasopharyngeal (NP) swab, wash or aspirate for PCR or culture. Collect serum for IgG.

- **Do not test if symptoms are not present**. It is unlikely that *B. pertussis* can be recovered through testing if the patient is not experiencing symptoms.

Interpreting Test Results

Test	Timing of specimen collection	Test result interpretation
PCR (results within 24-96 hours)	Best if collected within first 2-3 weeks of cough. PCR will detect non-viable organisms present, even in persons who have been treated with antimicrobials; however, false negatives can occur and are more common later in the illness.	**(+) Positive:** Confirms *B. pertussis* if clinical and/or exposure history support the diagnosis of pertussis. **(-) Negative:** Does not rule out *B. pertussis* infection. Consider clinical presentation.
IgG Serology (results can take up to a week)	In general, specimens are best collected at 2-3 weeks or later after onset of cough. Collected earlier in cough illness can lead to false negatives.	**(+) Positive:** Likely pertussis, although should be interpreted in combination with recent pertussis vaccine history (can give a false positive) and in combination with each lab's specific panel. **(-) Negative:** Likely negative for pertussis.
Culture (results can take up to 10 days)	Best if collected within first 2-3 weeks of cough. Recovering the organism is unlikely beyond 3 weeks of cough or in patients who have received antimicrobials. False negatives are common even early in the illness.	**(+) Positive:** Confirms *B. pertussis* infection. **(-) Negative:** Does not rule out *B. pertussis* infection. Consider clinical presentation.

TREAT and report suspected and confirmed cases

- Use Erythromycin, Azithromycin, Clarithromycin, or Trimethoprim-Sulfamethoxazole for treatment. **If 21 days have already elapsed since cough onset, treatment is not recommended, as it will not improve outcome.**
- Prescribe antimicrobial prophylaxis (same regimen as treatment) to persons who are close contacts of pertussis cases.
  - Asymptomatic contacts receiving prophylaxis should not be excluded from their usual activities.
  - Symptomatic contacts should be evaluated for pertussis.
- For recommendations on pertussis treatment and prophylaxis of case contacts, see Pertussis Treatment and Prophylaxis (www.health.state.mn.us/diseases/pertussis/hcp/treatment.html).
- Laboratory confirmed and clinically diagnosed cases are reportable.
- Call your local health department if you have questions.

STOP TRANSMISSION

- Inform patients with suspected pertussis to **stay at home** and avoid close contact with others until they have:
  - Completed the fifth day of an appropriate antibiotic

  OR
  - Had cough symptoms for at least 3 weeks. (Cases are potentially infectious for the first 3 weeks of cough.)

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