

**NEW YORK STATE DEPARTMENT OF HEALTH
GUIDANCE ON PERTUSSIS CONTROL FOR HEALTH CARE PROVIDERS**

The New York State Department of Health (NYSDOH) has developed the following guidance for health care providers on the control of pertussis disease.

Pertussis is a cough illness typically characterized by a prolonged paroxysmal cough often accompanied by an inspiratory whoop. Disease presentation varies with age and history of previous exposure or vaccination. Test results for pertussis are most reliable when performed early in the course of the illness and prior to the initiation of antibiotic treatment.

| Symptoms | Epidemiologically Linked* to a Known Case? | |
|--|--|---|
| | Yes | No |
| Cough of any duration without other known cause with <i>at least one of the following</i> additional symptoms of pertussis: paroxysms of coughing, inspiratory “whoop”, post-tussive vomiting or apnea | <p>Obtain specimens for polymerase chain reaction (PCR) and culture.</p> <p>Initiate treatment.</p> <p>Patient should be excluded from school or work until completion of <u>5 days</u> of appropriate antibiotic treatment. Patients who do not take antibiotic treatment should be excluded for <u>21 days</u> from the onset of cough.</p> | <p>Obtain specimens for PCR and culture.</p> <p>Initiate treatment.</p> <p>Patient should be excluded from school or work until completion of <u>5 days</u> of appropriate antibiotic treatment. Patients who do not take antibiotic treatment should be excluded for <u>21 days</u> from the onset of cough.</p> |
| Cough of any duration without other known cause, without any additional symptoms of pertussis | <p>Obtain specimens for PCR and culture.</p> <p>Initiate treatment.</p> <p>Patient should be excluded from school or work until completion of <u>5 days</u> of appropriate antibiotic treatment. Patients who do not take antibiotic treatment should be excluded for <u>21 days</u> from the onset of cough.</p> | <p>Obtain a thorough history and monitor closely. Only if patient develops at least one additional symptom of pertussis (i.e., paroxysms of coughing, inspiratory “whoop”, post-tussive vomiting, or apnea),</p> <ul style="list-style-type: none"> • obtain specimens for PCR and culture, • initiate treatment, and • exclude patient from school or work until completion of <u>5 days</u> of appropriate antibiotic treatment. <p>Patients who do not take antibiotic treatment should be excluded for <u>21 days</u> from the onset of cough.</p> |
| Catarrhal symptoms only (mild upper respiratory symptoms including low-grade fever, runny nose, and sneezing) | <p>Obtain a thorough history and monitor closely. Only if patient develops cough, obtain specimens for PCR and culture.</p> <p>Initiate prophylaxis immediately upon notification of exposure to pertussis. <u>Do not wait for onset of cough before initiating prophylaxis.</u></p> | No testing or treatment for pertussis indicated. |
| None | <p>Monitor closely. Only if patient develops cough, obtain specimens for PCR and culture.</p> <p>Initiate prophylaxis immediately upon notification of exposure to pertussis. <u>Do not wait for onset of cough before initiating prophylaxis.</u></p> | No testing or treatment indicated. |

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***Definition: Epidemiologically linked**

- An individual that had close contact (defined as a distance of ≤ 3 feet for ≥ 1 hour) with a known pertussis case, and/or direct contact with respiratory, oral, or nasal secretions from a known pertussis case.
- Persons may be considered epidemiologically linked if they are a household contact; a close friend, boyfriend or girlfriend; or attended, worked or volunteered in the same daycare classroom as a known pertussis case while the case was coughing.

Testing Methods

Testing must be done on nasopharyngeal specimens obtained by using *Dacron*, NOT cotton swabs. A pharyngeal or throat swab is not acceptable for pertussis testing. Providers should wear gloves and masks immediately before and during specimen collection, dispose of gloves and wash hands immediately after specimen collection, and routinely clean clinical surfaces using a bleach solution.

PCR and culture are the only recommended diagnostic testing methods for pertussis in New York State.

- PCR testing of nasopharyngeal aspirates or swabs is a rapid, sensitive method for diagnosing pertussis. It is not a perfect test, and results should be interpreted in light of patient symptoms. PCR is available at approved laboratories throughout NYS as well as NYSDOH's Wadsworth Center.
- Culture for *Bordetella pertussis* is performed on special media culture and its fastidious growth requirements make it hard to isolate. However, it is important to submit specimens for culture to confirm the disease. Specimens obtained within 3 weeks of cough onset have a higher proportion of culture-positive results. Prior antibiotic treatment or a history of vaccination may interfere with culture growth.
- Direct fluorescent antibody (DFA) and serology are not reliable testing methods for *Bordetella pertussis*. Neither is recommended for the diagnosis of pertussis disease.

Additional Information

- General information on pertussis is available from the Centers for Disease Control and Prevention (CDC) at: <http://www.cdc.gov/vaccines/vpd-vac/pertussis/default.htm>.
- Complete clinical information is available at: <http://www.cdc.gov/vaccines/pubs/surv-manual/chpt10-pertussis.html>.
- Information on diagnostic testing from the CDC is available at: <http://www.cdc.gov/pertussis/clinical/diagnostic-testing/index.html>.
- Current treatment and prophylaxis information is available in: Recommended antimicrobial agents for the treatment and postexposure prophylaxis of pertussis; 2005 CDC guidelines. MMWR 2005;54(No. RR-14). <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5414a1.htm>.

Reporting Requirements and Resources:

- Local health departments (LHDs) must be notified within 24 hours of when a case is suspected or identified, or on Monday morning if a case is identified on a weekend.
- Please contact your LHD for additional information and assistance.