



## Communicable Disease Case Reporting and Investigation Protocol **Pertussis**

### I. Identification and definition of cases

#### A. Clinical description:

Pertussis, or whooping cough, is an acute infectious disease caused by the bacterium *Bordetella pertussis*. Illness is typically characterized by a prolonged paroxysmal cough often with an inspiratory whoop. Symptoms can vary with age and history of previous exposure or vaccination.

Pertussis begins with mild upper respiratory tract symptoms similar to the common cold (catarrhal stage). The cough gradually becomes more severe leading to the paroxysmal stage, which is characterized by bursts (paroxysms) of numerous, rapid coughs which can be followed by the inspiratory whoop and vomiting. During such an attack, the patient may turn blue (cyanotic). Children and young infants often appear very ill and distressed. Infants may present atypical, with gagging, gasping, or apnea as the prominent early manifestations. The person does not appear ill between attacks. This stage typically lasts 1 to 2 weeks but may persist for up to 10 weeks. Symptoms wane gradually over weeks to months (convalescent stage).

Transmission occurs by close contact with cases via aerosolized droplets. The incubation period is 7 to 10 days. Infected people are most contagious during the catarrhal stage through the third week after onset of paroxysms.

#### B. Clinical criteria:

In the absence of a more likely diagnosis, a cough illness lasting  $\geq 2$  weeks, with at least 1 of the following signs or symptoms:

- Paroxysms of coughing; **or**
- Inspiratory whoop; **or**
- Post-tussive vomiting; **or**
- Apnea (with or without cyanosis)

#### C. Laboratory criteria:

Confirmatory laboratory evidence:

- Isolation of *B. pertussis* from a clinical specimen
- Positive polymerase chain reaction (PCR) for *B. pertussis*

#### D. Epidemiologic linkage:

Contact with a laboratory-confirmed case of pertussis

#### E. Wisconsin surveillance case definition:

**Confirmed:** Acute cough illness of any duration, with:

- Isolation of *B. pertussis* from a clinical specimen **or**
- Polymerase chain reaction (PCR) positive for *B. pertussis*

**Probable:**

- In the absence of a more likely diagnosis, illness meeting the clinical criteria

**or**

- Illness with cough of any duration, with at least one of the following signs or symptoms:
  - Paroxysms of coughing, **or**
  - Inspiratory whoop, **or**
  - Post-tussive vomiting, **or**
  - Apnea (with or without cyanosis)

and

- Contact with a laboratory confirmed case (epidemiologic linkage)

## II. Reporting

### A. Wisconsin notifiable disease category I – Methods for reporting pertussis:

Starting November 1, 2024, [reporting of suspected or confirmed pertussis cases to local or Tribal health departments \(LTHD\) by telephone is no longer required in Wisconsin](#). Health care providers should report a suspected or confirmed case of pertussis to the LTHD within 24 hours by either submitting a case report online through the Wisconsin Electronic Disease Surveillance System (WEDSS) or by fax using an [Acute and Communicable Disease Case Report](#) (F44151).

### B. Responsibility for reporting:

According to Wis. Admin. Code § [DHS 145.04\(1\)](#), persons licensed under Wis. Stat. ch. [441](#) or [448](#), laboratories, health care facilities, teachers, principals, or nurses serving a school or day care center, and any person who knows or suspects that a person has a communicable disease identified in [Appendix A](#).

### C. Clinical criteria for reporting:

Clinically compatible illness. Cases should be reported upon consideration of pertussis in the differential diagnosis.

### D. Laboratory criteria for reporting:

Laboratory evidence of infection (for example, PCR or culture).

## III. Case investigation

### A. Responsibility for case investigation:

It is the responsibility of the LTHD to investigate or arrange for investigation of suspected or confirmed cases as soon as is reasonably possible. A case investigation may include information collected by phone, in person, in writing, or through review of medical records or communicable disease report forms, as necessary and appropriate.

### B. Required documentation:

1. Complete the Wisconsin Electronic Disease Surveillance System (WEDSS) disease incident investigation report, including appropriate, disease-specific tabs.
2. Upon completion of investigation, set WEDSS disease incident process status to “Sent to State.”

### C. Additional investigation responsibilities:

Contact your [Immunization Program Regional Representative](#).

## IV. Public health interventions and prevention measures

- A. In accordance with Wis. Admin. Code § [DHS 145.05](#), LTHD agencies should follow the methods of control recommended in the current editions of *Control of Communicable Diseases Manual*, edited by David L. Heymann, published by the American Public Health Association, and the American Academy of Pediatrics’ *Red Book: Report of the Committee on Infectious Diseases*, unless otherwise specified by the state epidemiologist.
- B. Refer to Wisconsin DPH’s [Pertussis Surveillance and Control Guidance](#) for detailed information on case and contact management.
- C. Begin investigation once the LTHD is notified of a suspect or confirmed case of pertussis and be prepared to implement control measures as soon as needed or upon lab confirmation.

## V. Contacts for consultation

- A. [Local health departments and Tribal health agencies](#):
- B. [Regional Immunization Program representatives](#)

- C. Wisconsin Division of Public Health, Immunization Program: 608-267-9959.  
After hours number: 800-943-0003 (option 4).
- D. Wisconsin State Laboratory of Hygiene: 1-800-862-1013.  
After hours emergency number: 608-263-3280.

## VI. Related references

- A. Heymann DL, ed. Pertussis. In: Control of Communicable Disease Manual. 21<sup>st</sup> ed. Washington, DC: American Public Health Association, 2022, 477-483.
- B. Committee on Infectious Diseases, American Academy of Pediatrics. David W. Kimberlin, MD, FAAP, ed. 2024. Red Book: 2024-2027 Report of the Committee on Infectious Diseases - 33rd Ed. American Academy of Pediatrics. ISBN 978-1-61002-734-2. eISBN 978-1-61002-735-9.
- C. Centers for Disease Control and Prevention. Epidemiology and Prevention of Vaccine-Preventable Diseases. Hall E., Wodi A.P., Hamborsky J., et al., eds. 14th ed. Washington, D.C. Public Health Foundation, 2021
- D. Centers for Disease Control and Prevention. [Manual for the Surveillance of Vaccine-Preventable Diseases Pertussis](#) website.
- E. Centers for Disease Control and Prevention. Pertussis Surveillance Worksheet. Retrieved October 31<sup>st</sup>, 2024, from <https://www.cdc.gov/surv-manual/downloads/appendix11-4-pertussis-wrsht-508.pdf>
- F. [Wisconsin Immunization Program Pertussis](#) webpage
- G. Wisconsin Department of Health Services. [Pertussis surveillance and control guidance](#).