

Guidelines for Pertussis (Whooping Cough) Outbreaks

Define the outbreak:

Outbreak Definition: Two or more epi-linked cases from different households with symptom onset within 42 days.

Case Definitions:

Probable:

In the absence of a more likely diagnosis, a cough illness lasting ≥ 2 weeks, with at least one sign or symptom of pertussis (see below) AND no laboratory confirmation AND no link to a laboratory confirmed case

OR, FOR INFANTS AGED <1 YEAR ONLY:

Acute cough illness of any duration, with at least one sign or symptom of pertussis (see below) AND Polymerase chain reaction (PCR) positive for pertussis **OR** Acute cough illness of any duration, with at least one sign or symptom of pertussis (see below) AND contact with a laboratory-confirmed case of pertussis.

Confirmed (for all ages):

Acute cough illness of any duration, with isolation of *B. pertussis* from a clinical specimen (culture)

OR cough illness lasting at least ≥ 2 weeks, with at least one sign or symptom of pertussis (see below) AND PCR positive for pertussis

OR cough illness lasting at least ≥ 2 weeks, with at least at one sign or symptom of pertussis (see below) AND contact with a laboratory-confirmed case of pertussis.

Signs and Symptoms

- Paroxysms- Fits of coughing
- Inspiratory “whoop” when trying to catch breath after coughing
- Post-tussive vomiting- Vomiting as a result of coughing so hard
- Apnea with or without cyanosis- Pauses in breathing with or without turning blue (FOR INFANTS AGED <1 YEAR ONLY)

Cough Interview Questions:

- Do you have coughing “fits” where you feel like you cannot stop (paroxysms)?
- Do you cough so hard you make a whooping noise when you try to catch your breath (whoop)?
- Do you cough so hard you vomit? Do you cough so hard you throw up? (post-tussive vomiting)
- Has your baby stopped breathing (apnea)? (if they are <1)
- Has your baby stopped breathing and turned blue (apnea with cyanosis)? (if they are < 1)
- Do you know anyone else who has a cough?

Incubation Period: 7-10 days (range 5-21 days)

Communicability: between 12 to 25 days, with an average of 16 to 18 days

Transmission: person to person by droplet transmission, and direct contact with contaminated surfaces

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Guidelines for Pertussis (Whooping Cough) Outbreaks

When you have an outbreak (for all settings):

1. Immediately isolate symptomatic individuals and ensure that cases stay home until they have completed 5 days of appropriate treatment or for 21 days after cough onset.
2. Report the outbreak immediately to your local health department.
3. Collect nasopharyngeal (NP) swabs from symptomatic individuals for pertussis testing. West Virginia Office of Laboratory Services (OLS) will assist with testing. Information on specimens collection and shipment can be found at <http://www.wvdhhr.org/labservices/labs/micro/collection.cfm>
4. Start a line list and use it to identify and track cases. Line list for cases can be accessed at: <http://www.dhhr.wv.gov/oeps/disease/ob/Pages/PertussisToolkit.aspx>
5. Use the line list for contacts to identify and track close contacts. A close contact is defined as an individual who has had: direct face-to-face contact, shared confined space in close proximity for a prolonged time (ex. 1 hour), or direct contact with respiratory, oral or nasal secretions from a symptomatic patient. Contact line list can be accessed at: <http://www.dhhr.wv.gov/oeps/disease/ob/Pages/PertussisToolkit.aspx>
6. Provide close contacts with antimicrobial prophylaxis
7. Bring contacts up to date on vaccinations.
8. Bring cases up to date on vaccinations upon completion of treatment.

Additional guidelines for Healthcare Settings:

1. Place symptomatic patient in droplet precautions for the first 5 days after starting the recommended antimicrobial treatment.
2. Recommend postexposure antimicrobial prophylaxis for all healthcare workers (HCWs) who had unprotected exposure to pertussis and are likely to expose a patient at risk for severe complications related to pertussis.
3. Restrict visitation to newborn and infant units and restrict visitors with respiratory symptoms.
4. Conduct active surveillance for 42 days from the date of cough of the last case.
5. Treat cases and administer prophylaxis to contacts.
6. During community outbreaks, reinforce respiratory hygiene and cough etiquette
7. Before you have an outbreak
 - Document and maintain the immunization status of healthcare HCWs, including Tdap immunization status.
 - Train HCPs to observe respiratory precautions when examining a patient with a cough illness.

Additional Guidelines for Schools/Day Care Facilities

1. Maintain line lists for pertussis cases and contacts.
2. Identify and document dates that suspect patient attended facility/classes during infectious period.
3. Identify close contacts and add their info in the contact line list.
4. Determine number of classrooms, ages of children, and number of staff per room.
5. Evaluate contacts for acute cough illness.
6. Administer chemoprophylaxis to all close contacts (for day care facilities entire class or facility).
7. Review the immunization status of students and administer age appropriate vaccines, if indicated.
8. Notify parents, employees, and local healthcare providers about possible exposure to pertussis to increase awareness of outbreak and identify potential cases and contacts.

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