

Guidelines for Pertussis (Whooping Cough) Outbreaks

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

Case Definitions:

Probable	Confirmed
<p>1) In the absence of a more likely diagnosis, a cough illness lasting ≥ 2 weeks, with at least one sign or symptom of pertussis:</p> <ul style="list-style-type: none"> ● Paroxysms of coughing; OR ● Inspiratory whoop; OR ● Post-tussive vomiting; OR ● Apnea (with or without cyanosis) <p>OR</p> <p>2) Contact with a laboratory confirmed case (epidemiologic linkage) AND illness with cough of any duration, with at least one of the following signs or symptoms:</p> <ul style="list-style-type: none"> ● Paroxysms of coughing; OR ● Inspiratory whoop; OR ● Post-tussive vomiting; OR ● Apnea (with or without cyanosis) 	<p>Acute cough illness of any duration with</p> <ul style="list-style-type: none"> ● Isolation of <i>B. pertussis</i> from a clinical specimen (culture) OR ● PCR positive for <i>B. pertussis</i>

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 (post-tussive vomiting)?
- Have you or your baby stopped breathing and/or turned blue (apnea with cyanosis)?
- Do you know anyone else who has a cough?

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

Communicability: Persons with pertussis are infectious from the beginning of the catarrhal stage through the third week after the onset of paroxysms or until five days after the start of effective antimicrobial treatment.

Transmission: Person-to-person by droplet transmission and direct contact with contaminated surfaces.

When you have an outbreak (for all settings):

1. Immediately isolate symptomatic individuals and ensure that cases stay home until they have completed five days of appropriate treatment or for 21 days after cough onset.
2. Report the outbreak immediately to your local health department (LHD).
3. Conduct contact tracing and collect nasopharyngeal (NP) swabs from symptomatic individuals for pertussis testing. The West Virginia Department of Health, Bureau for Public Health, West Virginia Office of Laboratory Services will assist with testing. Information on specimen collection and shipment can be found at: https://dhhr.wv.gov/ols/labs/Documents/Micro/Pertussis_Collection_Instructions.pdf.

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4. Start a line list and use it to identify and track cases. Line list for cases can be accessed at: oeeps.wv.gov/toolkits/Pages/toolkits_pertussis.aspx.
5. Use the line list for contacts to identify and track close contacts. A close contact is defined as an individual who: 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: oeeps.wv.gov/toolkits/Pages/toolkits_pertussis.aspx.
6. Provide postexposure antimicrobial prophylaxis (PEP) to all household contacts, people at high risk of developing severe pertussis infection, and those who will have contact with people at high risk. *See below for setting specific PEP recommendations.
 - a. People at high risk include infants under 12 months of age and people with pre-existing health conditions such as asthma or immunocompromising conditions.
 - b. Those who will have contact with people at high risk may include pregnant women in their third trimester and people who work/visit high-risk settings such as childcare settings, neonatal intensive care units, and maternity wards.
7. Bring contacts up to date on vaccinations.
8. Bring cases up to date on vaccinations upon completion of treatment.
9. For more information on how to identify close contacts, please refer to the surveillance protocol found here: oeeps.wv.gov/pertussis/Documents/LHD/pertussis_protocol.pdf.

Additional guidelines for Healthcare Settings:

1. Place symptomatic patients in droplet precautions for the first five days after starting the recommended antimicrobial treatment or for 21 days if treatment is not administered.
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. This is regardless of vaccination status.
3. HCWs who have symptoms of pertussis within 21 days of exposure should be excluded from work for at least five days after treatment or 21 days if not treated.
4. Restrict visitation to newborn and infant units and restrict visitors with respiratory symptoms.
5. Conduct active surveillance for 42 days from the date of cough of the last case.
6. During community outbreaks, reinforce respiratory hygiene and cough etiquette.
7. Before you have an outbreak, document and maintain the immunization status of HCWs, including Tdap immunization status and train HCWs 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. Exclude cases of pertussis for at least five days after treatment or 21 days with no treatment.
3. Identify and document dates that suspect patients attended facility/classes during the infectious period.
4. Identify close contacts and add their information in the contact line list.
5. Determine number of classrooms, ages of children, and number of staff per room.
6. Evaluate contacts for acute cough illness for 21 days after exposure.
7. In the school setting administer postexposure antimicrobial prophylaxis to close contacts that are household contacts, overnight guests of a case while they were infectious, those at high risk for developing severe pertussis infection, or those who have contact with someone at high risk.
 - a. The use of antibiotics for large groups of students is usually not recommended, especially in the setting of widespread community transmission.
8. In Daycare/Childcare facilities administer postexposure antimicrobial prophylaxis to the entire class or facility.
9. Review the immunization status of students and administer age-appropriate vaccines, if indicated.
10. Notify parents, employees, and local healthcare providers about possible exposure to pertussis to increase awareness of the outbreak and identify potential cases and contacts.