

**PENNSYLVANIA DEPARTMENT OF HEALTH**  
2024 – PAHAN – 767-09-04-ADV  
**All Provider Pertussis Update**

<b>DATE:</b>	9/4/2024
<b>TO:</b>	Health Alert Network
<b>FROM:</b>	Debra L. Bogen, MD, FAAP, Secretary of Health
<b>SUBJECT:</b>	All Provider Pertussis Update
<b>DISTRIBUTION:</b>	Statewide
<b>LOCATION:</b>	n/a
<b>STREET ADDRESS:</b>	n/a
<b>COUNTY:</b>	n/a
<b>MUNICIPALITY:</b>	n/a
<b>ZIP CODE:</b>	n/a
<b>This transmission is a “Health Advisory” which provides important information for a specific incident or situation; may not require immediate action.</b>	

**HOSPITALS:** PLEASE SHARE WITH ALL MEDICAL, PEDIATRIC, NURSING AND LABORATORY STAFF IN YOUR HOSPITAL; **EMS COUNCILS:** PLEASE DISTRIBUTE AS APPROPRIATE; **FQHCs:** PLEASE DISTRIBUTE AS APPROPRIATE **LOCAL HEALTH JURISDICTIONS:** PLEASE DISTRIBUTE AS APPROPRIATE; **PROFESSIONAL ORGANIZATIONS:** PLEASE DISTRIBUTE TO YOUR MEMBERSHIP; **LONG-TERM CARE FACILITIES:** PLEASE SHARE WITH ALL MEDICAL, INFECTION CONTROL, AND NURSING STAFF IN YOUR FACILITY

**Summary**

- In December 2023, the Pennsylvania Department of Health (DOH) released a [PA Health Alert](#), indicating that Pennsylvania had been seeing an increase in cases along with outbreaks of [pertussis](#) across the Commonwealth, primarily among high school students and their close contacts. **Cases and outbreaks have continued throughout the summer even though most schools were closed.**
- Historically, pertussis was primarily considered a childhood infection; however, there has been an increasing awareness of cases and hospitalizations occurring in older adults. This is likely due to a multitude of factors including waning vaccine protection and the lack of timely recognition and testing by adult providers leading to more severe infections, co-infections, and hospitalizations in older adults.
- It is important for providers to have an increased suspicion for pertussis in all patients who present with [symptoms concerning for pertussis](#) and [test for pertussis](#).
- If there is a high index of suspicion for pertussis and/or if patients have certain [high risk conditions](#) or [occupations](#), providers should start antibiotics prior to receiving test results and patients should be told to remain home until completing five days of antibiotics or testing negative for pertussis.
- Primary care providers should promptly prescribe [Post Exposure Prophylactic \(PEP\)](#) antibiotics to high-risk patients and close contacts of cases. This includes all household contacts of cases, regardless of vaccination status.
- The DOH also reminds providers to immediately report suspected cases of pertussis to local public health authorities or to the DOH at 877-PA-HEALTH (877-724-3258).

## Background

Since [December 2023](#), the DOH has reported increasing cases and outbreaks of pertussis among high school aged people and their contacts. The Centers for Disease Control and Prevention reports similar trends [nationwide](#). Currently, concerns are heightened as cases continued into the summer even though schools, a primary driver of transmission, were not in session. Since there has been continued spread of pertussis during the summer, the DOH is anticipating a continued increase in pertussis cases during the upcoming school year. Infants under one year old are at greatest risk for serious disease and death because their immune systems are still developing. Many babies who get whooping cough are infected by older siblings, parents, or caregivers whose symptoms can be so mild especially at first they do not know they have pertussis, but they can still be sources of infection for any infant sibling or younger child.

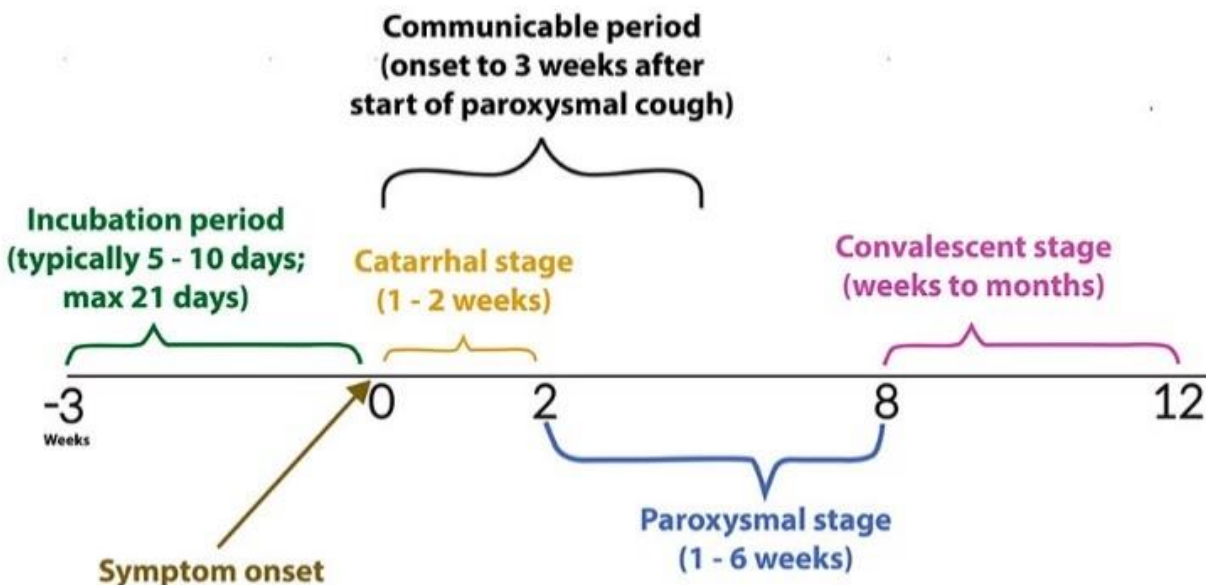
## Pertussis Clinical Manifestations & Transmission

Pertussis is an acute bacterial disease caused by [Bordetella pertussis](#) spread through airborne droplets. The incubation period is typically 7-10 days but can range from 5 to 21 days. Patients are infectious from the onset of symptoms until 3 weeks after the cough starts or until after 5 days of appropriate antibiotic treatment. The DOH advises providers to suspect pertussis in patients with the following symptoms, regardless of vaccination status:

- Cough lasting longer than two weeks, especially if they also have at least one of the following symptoms:
  - Paroxysms of cough
  - Inspiratory whoop
  - Post-tussive vomiting
  - Apnea
- If there is a known exposure to a case of pertussis

The clinical course of Pertussis is divided into three stages:

### **Pertussis Disease Progression**

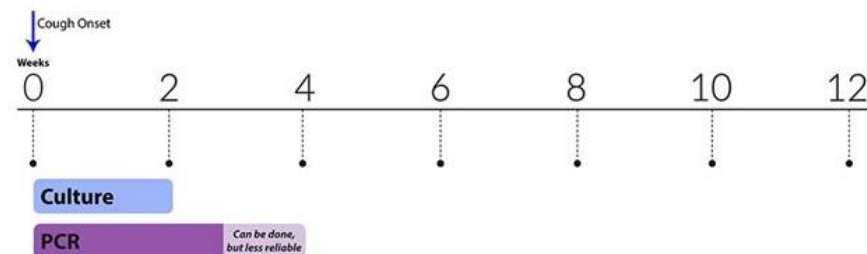


## [Pertussis Testing](#)

Providers should [test for pertussis](#) in any patient who is suspected of having pertussis. There is a risk that pertussis may be misdiagnosed as a viral respiratory illness **and** viral panels do not test for this bacterial infection. Consider testing those with compatible symptoms for pertussis even if there already is a diagnosis of a different viral infection since pertussis is associated with [co-infections](#) including RSV. Testing should occur despite vaccination status as [vaccine protection can fade over time](#). This is especially true for adults patients and therefore all providers need to be vigilant and test for pertussis in all patients with [symptoms of pertussis](#).

Typically, testing is via Polymerase Chain Reaction (PCR) on a [nasopharyngeal \(NP\) swab](#) or [aspirate](#). PCR testing has a quick turnaround and is commonly available through commercial laboratories. Culturing for pertussis is considered the gold standard for pertussis testing; however, it can take up to 1 week to obtain results of a culture for pertussis. In addition to diagnostic testing, obtaining specimens from cases associated with outbreaks to send to the CDC for characterization testing is also important. When this occurs, DOH will assist with specimen collection using a special medium (culturable transport media) which will be sent to the DOH's Bureau of Laboratories (BOL). BOL will culture the specimens and send them to the CDC for characterization testing. Serology is not reliable and therefore not recommended for the diagnosis of an acute case of pertussis.

### Optimal Timing for Pertussis Diagnostic Testing



[cdc.gov/pertussis](http://cdc.gov/pertussis)



## [Treatment for Pertussis:](#)

Pertussis should be treated as early as possible and preferably before the coughing paroxysms begin. Providers should strongly consider initiating treatment prior to getting test results if the following are present:

- A strong clinical suspicion of pertussis (e.g., clinically compatible illness with a known exposure or increased circulation in the community).
- A patient who is at risk for [severe or complicated disease](#) such as infants or patients whose health conditions may be worsened by a pertussis infection.
- A patient that will have contact with someone who is considered high risk.

**All patients who are diagnosed with pertussis or in whom there is a high index of suspicion for pertussis should be treated with antibiotics and told to stay home until they have completed 5 days of antibiotics or until they test negative for pertussis.**

## [Prevention of Pertussis:](#)

- **Post Exposure Prophylaxis (PEP) of Contacts**

- DOH and CDC support [targeting postexposure antibiotic](#) use to people who are household contacts or at [high risk](#) of developing severe pertussis, as well as people who will have close contact with others at [high risk](#) within 21 days of exposure.
- The antibiotics used for PEP are the same as those used in [treatment](#) and may be given regardless of vaccination status.
- Patients who fall into one of the categories above should be encouraged to follow up with their primary care provider for an evaluation and discussion about whether they need PEP.
- **[Monitoring/Active Screening](#)**
  - If patients do not qualify for PEP, the DOH recommends active monitoring for signs and symptoms of pertussis for 21 days from the last day of exposure. If symptoms develop within those 21 days, patients should contact their provider for an evaluation and possible pertussis testing and treatment.
- **[Vaccination](#)**
  - Close contacts who are not immunized or under-immunized should have pertussis immunization initiated or continued as soon as possible using age-appropriate products according to the recommended schedule.

**To prevent the spread of vaccine preventable diseases like pertussis, the DOH reiterates the importance of people of all ages to remain up to date on all vaccines, including pertussis vaccine.**

**DOH also reminds providers to immediately report suspected cases of pertussis to local public health authorities or to the DOH at 877-PA-HEALTH (877-724-3258).**

**For questions, please call your local health department or the DOH at 1-877-PA-HEALTH (877-724-3258).**

Individuals interested in receiving future PA-HANs can register at <https://ondemand.mir3.com/han-pa-gov/login/>.

Categories of Health Alert messages:

**Health Alert:** conveys the highest level of importance; warrants immediate action or attention.

**Health Advisory:** provides important information for a specific incident or situation; may not require immediate action.

**Health Update:** provides updated information regarding an incident or situation; unlikely to require immediate action.

This information is current as of September 4, 2024, but may be modified in the future.
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