



Lexington-Fayette County Health Department

Infectious Disease
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HEALTH ALERT

Pertussis Cases Identified in Lexington-Fayette County – May 16, 2024

HEALTHCARE PRACTITIONERS: Please distribute widely in your office

KEY POINTS:

- Assess immunization status of children, adults, and pregnant individuals at every office visit, including sick visits, and, if indicated, immunize for any vaccine-preventable disease.
- All pregnant persons should receive Tdap vaccine during every pregnancy regardless of pertussis vaccination history, preferably at the first opportunity between 27-36 weeks gestation to maximize the maternal antibody response and passive antibody transfer to the infant.
- Maintain a high index of suspicion for pertussis in patients who present with lingering cough in the absence of a more likely diagnosis.
- Consider the proper testing for pertussis; nasopharyngeal swab (NP) for polymerase chain reaction (PCR) for *Bordetella pertussis* remains the test of choice if collected during the first 3 weeks of cough. Serology is NOT recommended to assess infection.
- Complete the Kentucky Reportable Disease Form (EPID200) found at the following webpage: <https://www.chfs.ky.gov/agencies/dph/dehp/idb/Documents/EPID200.pdf> and fax to (859) 288-7512 or you can email it to epidemiology@lfchd.org.

BACKGROUND INFORMATION:

The Lexington-Fayette County Health Department (LFCHD) has received several confirmed cases of pertussis (whooping cough) among teenage children within the last few weeks. LFCHD is encouraging health care providers to suspect and test for pertussis in patients with a cough illness to encourage families to receive the appropriate vaccinations to prevent pertussis.

RECOMMENDATIONS/GUIDANCE:

Pertussis (whooping cough) usually starts with mild cold-like symptoms such as runny nose, sneezing, and a mild cough. These symptoms can last up to two weeks and are followed by increasingly severe coughing spells. Fever, if present, is usually mild. Symptoms appear between six to twenty-one days (average 7-10) after exposure to the pertussis bacteria.

Among older children and adults, the disease usually results in symptoms that can be mistaken for bronchitis and upper respiratory infections - persistent cough, but no whoop. In infants younger than 6 months, apnea (cessation of

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breathing) is a common manifestation and whoop may be absent. Infants <12 months of age are at greatest risk of severe disease or death from pertussis.

It is important to remember that while pertussis is most often considered a young child's disease, it can occur at any age. Pertussis should be considered in older children and adults who have a persistent cough lasting more than 7-14 days, that cannot be attributed to another specific illness. Untreated, these older children and adults can act as a reservoir for pertussis disease and infect younger children. Immunity from vaccination or natural infection wanes over time so infections frequently occur in people who have been previously vaccinated against pertussis.

Pertussis can cause serious and potentially life-threatening complications in infants and young children, especially those who have not received all the recommended vaccines. Pertussis can also be more severe for infants younger than 2 months of age whose mothers did not get Tdap while pregnant. In infants younger than 12 months of age who get pertussis, about a third need treatment in a hospital. Hospitalization is most common in infants younger than 6 months of age.

TESTING:

Whenever possible, clinicians should obtain an NP swab or nasal aspirate from all persons with suspected pertussis. A properly obtained NP swab or nasal aspirate is essential for optimal diagnostic results. The same specimen can be used both for culture and PCR. Ideally, specimens should be collected during the first 3 weeks of illness following cough onset.

PREVENTION/VACCINATION:

CDC recommends vaccination and postexposure antimicrobial prophylaxis to prevent pertussis. See Diphtheria, Tetanus, and Pertussis Vaccination: Information for Healthcare Professionals (<https://www.cdc.gov/vaccines/vpd/dtap-tdap-td/hcp/index.html>) for information on all pertussis vaccine recommendations by vaccine, age, and indication.

Post-exposure prophylaxis (PEP) through antimicrobial therapy options is recommended for:

- All household contacts of a pertussis case.
- High risk contacts within 21 days of exposure to an infectious pertussis case.
- High risk persons include:
 - Infants and women in their third trimester of pregnancy.
 - Individuals who are immunocompromised.
 - All people with pre-existing health conditions may be exacerbated by a pertussis infection.
 - People who have close contact with infants (under 12 months of age), pregnant women, or individuals with pre-existing health conditions.
- All people in high-risk settings (i.e., neonatal intensive care units, childcare settings, maternity wards).
- Broad use of PEP may be appropriate in limited closed settings when the number of identified cases is small and when a community-wide outbreak is not ongoing.

TREATMENT:

A 5-day course of azithromycin is the appropriate first-line choice for treatment and post-exposure prophylaxis. After the paroxysmal cough is established, antimicrobial agents have no discernible effect on the course of illness but are recommended to limit the spread of organisms to others. Erythromycin or Clarithromycin are also recommended, or Trimethoprim-sulfamethoxazole can be used as an alternative.

Early treatment of pertussis is most effective for reducing symptom severity. The earlier a person, especially an infant, starts treatment the better. If a person starts treatment during the first 1 to 2 weeks before coughing paroxysms occur, symptoms may be lessened. Antibiotics will not alter the course of the illness or prevent transmission if they are given later in the course of illness.

Clinicians should strongly consider treating prior to test results if any of the following are present:

- Clinical history is strongly suggestive of pertussis
- The person is at risk for severe or complicated disease (e.g., infants)
- The person has or will soon have routine contact with someone that is considered at high risk of serious disease (e.g., pregnant women).

REPORTING:

Complete the Kentucky Reportable Disease Form (EPID200) found at the following webpage:

<https://www.chfs.ky.gov/agencies/dph/dehp/idb/Documents/EPID200.pdf> and fax to (859) 288-7512 or you can email it to epidemiology@lfchd.org.

FOR MORE INFORMATION:

CDC: <https://www.cdc.gov/pertussis/index.html>

Pink Book: <https://www.cdc.gov/vaccines/pubs/pinkbook/pert.html>

Vaccination: <https://www.cdc.gov/vaccines/vpd/pertussis/index.html>

Child and Adolescent Schedule: <https://www.cdc.gov/vaccines/schedules/hcp/imz/child-adolescent.html>

Adult Schedule: <https://www.cdc.gov/vaccines/schedules/hcp/imz/adult.html>

Clinical Features: <https://www.cdc.gov/pertussis/hcp/clinical-signs/index.html>

Treatment: <https://www.cdc.gov/pertussis/hcp/clinical-care/index.html>