

Nebraska Department of Health and Human Services

Health Alert Network

ADVISORY

October 8, 2024

Increase in Pertussis (Whooping Cough) Cases in Nebraska

Summary: A recent increase of pertussis (whooping cough) has been detected in Nebraska. Health care providers should be vigilant in diagnosing pertussis, especially in infants, young children, and unvaccinated individuals. Early detection and treatment are important to prevent the spread of this contagious disease.

Background: According to the Centers for Disease Control and Prevention (CDC), “Pertussis is an acute highly infectious disease caused by the bacterium *Bordetella pertussis*.” Pertussis is only found in humans. The disease is particularly dangerous for infants and those with weakened immune systems. Transmission occurs through respiratory droplets; even mild or asymptomatic individuals can spread the disease. Infants are often infected by family members who may be unaware they have the illness. Early symptoms of pertussis may appear like a common cold, including runny and/or stuffy noses, low-grade fevers, and mild coughs. However, one to two weeks after symptom onset, people may experience coughing fits called paroxysms. Coughing fits may persist from 1-10 weeks and may cause the high-pitched “whoop” sound characteristic of pertussis. Some people may also experience vomiting, feel fatigued after coughing fits, struggle to breathe, and more severe symptoms.

Current Situation: A total of 51 cases have been reported in the state of Nebraska in 2024 to date. This number is about three times the number of pertussis cases last year at this time. Nebraska’s increase in cases is similar to those reported nationally.

Risk Assessment: According to CDC, “Babies younger than one year old are at greatest risk for getting whooping cough and having severe complications.” However, people with certain pre-existing health conditions, like moderate to severe medically treated asthma or who are immunocompromised, are at high risk for developing a severe infection.

Recommendations for Health Care Providers:

- Vaccination: The best way to prevent pertussis is to get vaccinated. CDC recommends pertussis vaccination for everyone. Verify that patients are up to date according to CDC’s recommended vaccination schedule.
- Clinical presentation: Consider pertussis in patients presenting with the following symptoms regardless of vaccination status: a cough of any duration in a person who has been notified of a close exposure to pertussis, a paroxysmal cough of any duration, with whooping, post-

tussive vomiting/gagging or apnea, or a persistent cough of unknown etiology, lasting more than seven days.

- **Testing for pertussis:** Only test if symptoms are present. *B pertussis* is unlikely to be recovered in individuals with no symptoms.
 - PCR is the preferred test and is best when a nasopharyngeal (NP) swab is collected within the first two to three weeks of cough onset.
 - Culture is best when an NP swab is collected and placed into transport medium and plated within 24 hours of collection during the first two to three weeks of cough onset.
 - Serology is best when collected two to three weeks or later after cough onset.
- **Treatment:** Antibiotic treatment early in the course of infection may help. Use Erythromycin, Azithromycin, Clarithromycin, or Trimethoprim-Sulfamethoxazole for treatment. If 21 days have already elapsed since cough onset, treatment is not recommended, as it will not improve the outcome.
- **Infection Control:** Advise infected individuals to stay home from work, school, and other group settings until they have completed five days of antibiotics.
- **Close contacts:** Prescribe antimicrobial prophylaxis (same regimen as treatment) to persons who are close contacts of pertussis cases. Asymptomatic contacts receiving prophylaxis should not be excluded from their usual activities. Symptomatic contacts should be evaluated for pertussis.
- **Pregnant Women:** CDC and the American College of Obstetricians and Gynecologists recommend pertussis vaccination between 27 through 36 weeks of each pregnancy to help protect babies from serious illness until they are old enough to get vaccinated on their own.

Recommendations for the Public:

- If you think you have been exposed to pertussis or have symptoms, call your health care provider.
- Get vaccinated. CDC recommends pertussis vaccination for everyone.

Call to Action:

- Ensure patients are up to date on vaccinations.
- Increase vigilance and testing for pertussis.
- Report suspected cases to DHHS or your [local health department](#).

Resources:

Vaccine recommendations: https://www.cdc.gov/pertussis/hcp/vaccine-recommendations/?CDC_AAref_Val=https://www.cdc.gov/vaccines/vpd/pertussis/recs-summary.html

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

Information for providers: <https://www.cdc.gov/pertussis/hcp/clinical-overview/index.html>

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