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State Health Advisory

Statewide Increase in Pertussis Cases

Wyoming Department of Health

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Summary

The Wyoming Department of Health (WDH) has investigated 17 pertussis cases from 11 counties since May 2024. There were 0 reported pertussis cases in 2023 and 2 in 2022. Eleven of the 2024 cases have occurred among partially (2) or fully (9) vaccinated individuals. The age range of those who have tested positive is seven weeks to 76 years, with an average age of 20.

Providers are asked to:

- Consider pertussis in the differential diagnosis of patients with compatible symptoms and order appropriate testing
- Encourage pertussis vaccination for all eligible patients.
- Assure all children are up-to-date for age on the primary pertussis vaccination series.

Epidemiology

Pertussis (whooping cough) is a highly contagious respiratory illness caused by the bacterium *Bordetella pertussis*. While vaccination has reduced its prevalence, outbreaks still occur worldwide, particularly in unvaccinated populations and adolescents/adults with waning immunity. Infants younger than six months are at highest risk of severe disease and complications.

Symptoms

Pertussis typically progresses through three stages:

1. **Catarrhal stage (1-2 weeks):** Mild cough, rhinorrhea, sneezing, and low-grade fever, resembling a common cold.
2. **Paroxysmal stage (2-6 weeks):** Intense coughing fits (paroxysms) followed by a "whooping" sound upon inhalation, post-tussive vomiting, and cyanosis. Infants may present with apnea instead of a classic cough.
3. **Convalescent stage (weeks to months):** Gradual reduction in coughing episodes, though residual symptoms may persist.

Diagnosis

Pertussis should be considered in patients with prolonged cough (>2 weeks) or typical paroxysmal symptoms, particularly in unvaccinated or high-risk individuals. A clinical diagnosis is often sufficient during outbreaks or in close contacts of confirmed cases.

The WDH encourages healthcare providers to test for pertussis using a polymerase chain reaction (PCR) assay. Testing is available through most commercial laboratories.

The Wyoming Public Health Laboratory (WPHL) can also conduct PCR testing for patients with suspected pertussis. The WPHL has a limited number of free respiratory panel tests that may be ordered to test individuals with suspected pertussis infection. Information on specimen collection and testing for *Bordetella pertussis* at the Wyoming Public Health Laboratory is available at <https://health.wyo.gov/publichealth/lab/microbiology-lab/other-specimen-collection-and-shipping/>

Treatment

Macrolides (e.g., azithromycin, clarithromycin, erythromycin) are first-line treatments that help prevent transmission if started early (within 3 weeks of symptom onset). For patients 2 months of age and older, an alternative to macrolides is trimethoprim-sulfamethoxazole.

WDH recommends providing antimicrobial post-exposure prophylaxis to asymptomatic household contacts of a pertussis case within 21 days of onset of cough in the index patient regardless of vaccination status. Antimicrobial post-exposure prophylaxis should also be considered for childcare contacts and individuals at high risk for severe pertussis infection. Macrolides are first-line prophylaxis agents.

Further Information

Additional information for healthcare providers from the WDH and the Centers for Disease Prevention can be found at <https://www.cdc.gov/pertussis/index.html>

Pertussis is a notifiable disease in Wyoming. Providers must report pertussis infections by calling 877-996-9000 or reporting online at https://redcap.link/wy_disease_report.

Providers with questions about this Health Advisory can call 877-996-9000 to speak with an epidemiologist.