



December 4, 2024

TO: Hospitals, Local Health Departments, Laboratories, Emergency Rooms, Family Medicine, Pediatrics, Adolescent Medicine, Infectious Disease, Infection Control practitioners, Schools, Day Cares, Colleges, Urgent Care and Primary Care Providers

FROM: NYS Department of Health (Department) Division of Vaccine Excellence

HEALTH ADVISORY: INCREASE IN PERTUSSIS (WHOOPING COUGH) CASES

SUMMARY

- The Department reminds healthcare providers to consider pertussis in the differential diagnosis of patients presenting with a prolonged cough illness, **regardless of vaccination status**. If suspected, collect the appropriate specimens for testing, and initiate treatment.
- Patients with pertussis should be advised to stay home and avoid close contact with others until five days of antibiotic treatment have been completed (or through 21 days after the onset of cough, if not treated).
- The best way to prevent severe pertussis and complications is through vaccination. Healthcare providers should also ensure that patients are up to date with pertussis-containing vaccine.
- There has been a statewide increase in pertussis cases in 2024 with approximately 1,544 cases reported from January 1, 2024, to December 2, 2024, in New York State (excluding New York City); in comparison, 593 pertussis cases were reported in 2023 in New York State (excluding New York City).
- Over fifty percent of the cases reported this year occurred among individuals 10-19 years of age, almost all of whom were vaccinated. **Vaccinated cases are less likely to have severe disease. However, these cases can transmit pertussis to very young infants and older adults who are more likely to have severe disease.**
- Fifty-one cases have been hospitalized during this period. Infants aged <12 months of age accounted for 7.5% of cases but 41.2% of hospitalizations, and those over 65 years of age accounted for 23.5% of hospitalizations. In addition, 75% of hospitalized cases in infants were not vaccinated.
- Pertussis may begin like a common cold, but unlike a cold, the cough can last for weeks or months. Pertussis also has serious complications, especially in infants and young children.

- The pertussis vaccine is typically given in combination with other vaccines, such as those for diphtheria and tetanus, and is recommended for infants, children, adolescents, and adults.
- Reports of pertussis cases were lower than usual during and following the COVID-19 pandemic. However, reported cases in the United States are beginning to return to [pre-pandemic patterns](#).

SYMPTOMS AND COMPLICATIONS

Symptoms of whooping cough usually develop within 7 to 10 days after contact with respiratory or airborne droplets. Sometimes symptoms do not develop for as long as 3 weeks after exposure. Symptoms include:

- Coryza or runny nose
- Low-grade fever (less than 100.4°F)
- Mild, occasional cough (usually at the onset of illness through the first 2 weeks)
- Paroxysms of cough (may become more frequent and violent as the illness progresses) with a “whoop” on inhalation
- Post-tussive vomiting
- Apnea and cyanosis, sometimes without cough, in babies and young children
- The classic “whooping” sound may not be heard in all patients.

Infants and young children who are not up to date with pertussis vaccines are at highest risk for serious complications including:

- Pneumonia (the cause of most pertussis-related deaths)
- Convulsions
- Encephalopathy
- Apnea

TESTING

- Clinicians should obtain a nasopharyngeal (NP) swab or aspirate for polymerase chain reaction (PCR) testing or culture, from all persons with suspected pertussis. A properly obtained nasopharyngeal (NP) swab or aspirate is essential for optimal diagnostic results.
- Serologic testing is not standardized and should not be relied on for lab confirmation as the primary diagnostic modality for acute disease.

VACCINE RECOMMENDATIONS

- The Centers for Disease Control and Prevention (CDC) recommends diphtheria, tetanus, and acellular pertussis vaccination (DTaP and Tdap) across the lifespan including for infants, children, adolescents, pregnant people, and adults.
- In addition to routine vaccination, providers are encouraged to vaccinate unimmunized and under-immunized patients according to the catch-up schedule.
- A summary of CDC vaccine recommendations for pertussis can be found [here](#).

TREATMENT/PROPHYLAXIS

- Antibiotics should be provided to the patient immediately following testing for highly suspect cases. **Do not wait for test results** since early therapy can eradicate the organism from respiratory secretions.
- **Macrolides (erythromycin, clarithromycin, and azithromycin) are preferred** for the treatment or postexposure prophylaxis of pertussis.

- All household and high-risk close contacts of a positive pertussis case should be prescribed post-exposure prophylaxis. High-risk contacts include infants and pregnant and/or immunocompromised persons. Exposed persons who will have close contact with those at high risk of developing severe pertussis are also recommended to receive postexposure prophylaxis. Ensure that all household members are given postexposure prophylaxis, including all adults.
- Additional treatment information can be found [here](#).

KEY RECOMMENDATIONS FOR PROVIDERS

- Ensure that patients are up to date with pertussis-containing vaccine and recall patients who are not up to date with DTaP and Tdap vaccines.
- Consider pertussis in the differential diagnosis of patients presenting with a prolonged cough illness, **regardless of vaccination status**.
- If pertussis is suspected based on clinical presentation or known exposure to a pertussis case, clinicians should collect a nasopharyngeal (NP) swab or aspirate for polymerase chain reaction (PCR) testing or culture.
- Provide prompt treatment for all suspect cases. Do not wait for test results.
- Provide prompt postexposure prophylaxis to all household and recommended close contacts as soon as possible after a case is confirmed.
- Pregnant people should be provided Tdap vaccine, preferably during the late second or third trimester (after 20 weeks and preferably between 27 and 36 weeks) during every pregnancy to protect themselves and their infants against pertussis disease.
- Report suspected or confirmed cases of pertussis to the local health department (LHD) of the county in which the patient resides.
 - Outside of New York City, LHD contact information is available at: https://www.health.ny.gov/contact/contact_information.
 - For NYC residents, report to the NYC Department of Health and Mental Hygiene's Provider Access Line at 866-692-3641.

RESOURCES

- Pertussis vaccination: <https://www.cdc.gov/vaccines/vpd/pertussis/index.html>
- Infographic for offices: <https://www.cdc.gov/vaccines/parents/diseases/tdap-basics-color.pdf>
- Resource for catch-up vaccination: <https://www.immunize.org/catg.d/p2055.pdf>
- Pinkbook Chapter 16 Pertussis: https://www.cdc.gov/pinkbook/hcp/table-of-contents/chapter-16-pertussis.html?CDC_AAref_Val=https://www.cdc.gov/vaccines/pubs/pinkbook/pert.html