

## Respiratory Illness Alert: Increase in *Mycoplasma Pneumoniae* and *Bordetella pertussis* Cases in Massachusetts

November 8, 2024

Dear Colleagues,

The Massachusetts Department of Public Health (MDPH) has observed a significant rise in cases of the respiratory illnesses caused by *Mycoplasma pneumoniae* and *Bordetella pertussis* across the Commonwealth in recent weeks. Please see below for reminders for managing and preventing spread of these respiratory infections.

### Mycoplasma Pneumoniae

**Key Details:** *M. pneumoniae* is a common cause of community-acquired pneumonia, especially in children, and can cause community outbreaks. Symptoms of mycoplasma pneumoniae often include persistent cough, fever, and fatigue, though symptoms are often mild and patients do not require hospitalization.

In October 2024, CDC reported that respiratory infections caused by *M. pneumoniae* have increased in the United States, especially in young children. In recent weeks, clinicians in Massachusetts have noted that they are treating higher than usual numbers of pneumonia cases, particularly among school-aged children and young adults. Additionally, syndromic surveillance using electronic hospital emergency department visits show emergency department visits for pneumonia caused by mycoplasma to be at very high levels over the past several weeks. The Massachusetts State Public Health Laboratory has recently noted a high number of mycoplasma detections on diagnostic assays.

### **Recommendations:**

- 1. Increased Vigilance:** Please be alert for symptoms and consider testing for mycoplasma pneumoniae in patients presenting with respiratory symptoms.
- 2. Identify and Treat Mycoplasma Pneumoniae:** Test patients with symptoms consistent with mycoplasma pneumoniae. Either a nasopharyngeal or throat swab is acceptable for testing. Polymerase chain reaction (PCR) tests for respiratory specimens are readily available in many clinical settings and are preferred for diagnosing *M. pneumoniae* because of their speed and accuracy. Macrolides (e.g., azithromycin) are generally first line treatment for mycoplasma pneumoniae, but doxycycline, or a fluoroquinolone (e.g., levofloxacin or moxifloxacin) may be used.
- 3. Limit Spread of Disease:** *M. pneumoniae* is spread from person to person primarily via respiratory droplets; hand and respiratory hygiene are important for preventing spread. Patients should be reminded to wash their hands with soap and water, or with an alcohol-based hand sanitizer, and to cover one's mouth when coughing or sneezing. Individuals should stay home and not attend school or work while

symptomatic. Antibiotic prophylaxis is not needed for most patients who have been exposed to a person with an active *M. pneumoniae* infection.

4. **Public Health Response:** Cases of *M. pneumoniae* are not explicitly reportable to public health in Massachusetts. However, outbreaks or clusters of cases associated with a particular site (e.g., school, day care, institution, business) should be reported promptly to the Local Board of Health who may make public health recommendations to help mitigate the outbreak.

## **Pertussis**

**Key Details:** Pertussis, also known as "whooping cough," is a highly contagious, vaccine preventable respiratory illness caused by the bacteria *Bordetella pertussis*. Following a significant decline during the COVID-19 pandemic, cases of pertussis in Massachusetts are increasing to pre-pandemic levels, particularly among adolescents. MDPH issued a clinical advisory detailing the increase in cases and providing clinical guidance in August 2024. Pertussis illness begins with mild upper respiratory tract symptoms and can progress to severe paroxysms of cough, often with a characteristic respiratory whoop, which may be followed by vomiting. Although children can be exhausted after paroxysms, they usually appear relatively well between episodes. The cough is often worse at night. Cyanosis and apnea may occur; fever is usually absent or minimal.

## **Recommendations:**

1. **Increased Vigilance:** Maintain a high index of suspicion and include pertussis in the differential diagnosis for patients in all age groups who present with prolonged cough illness, regardless of vaccination status.
2. **Identify and treat Pertussis:** Test patients who have symptoms of pertussis. Whenever possible, a nasopharyngeal swab or aspirate should be properly obtained from all suspected cases. PCR testing is readily available in many clinical settings and results are available quickly. Antibiotic treatment is recommended for people with a diagnosis of pertussis and cough duration of <3 weeks. Early treatment may shorten symptom duration and can help limit spread of disease. Macrolides (e.g., azithromycin) are generally first line treatment for pertussis.
3. **Limit Spread of Disease:** Pertussis cases and symptomatic close contacts should be treated and excluded from public activities including work/school/camp until they have completed five days of appropriate antibiotic treatment. Post exposure prophylactic antibiotics given to household members of cases and selected close contacts can help limit spread of disease. Administer a course of antibiotics within 3 weeks of exposure to household contacts of the case and other high priority close contacts, which include people who are at increased risk of severe disease (infants, immunocompromised people, pregnant people in the third trimester) or those who live or work in close proximity to those at increased risk of severe disease (e.g., in a NICU, infant daycare, or school for students with special medical needs).

4. **Vaccination:** Encourage eligible patients to stay up to date on pertussis vaccinations, particularly infants and young children.
5. **Public Health Response:** Cases of pertussis are individually reportable to public health in Massachusetts by the laboratory that performs the test. However, outbreaks or clusters of cases associated with a particular site (e.g. school, day care, institution, business) should be reported promptly to the Local Board of Health who may make public health recommendations to help mitigate the outbreak.

**Respiratory Illness Season:** During fall and winter, there will be several circulating respiratory pathogens in addition to mycoplasma and pertussis. These seasonal pathogens include influenza viruses, SARS-CoV-2, and respiratory syncytial virus (RSV). Please continue to test, treat, and vaccinate your patients for these seasonal pathogens. Vaccination of eligible individuals against RSV, influenza, and COVID-19 plays a critical role in preventing illnesses and hospitalizations.

Thank you for your continued commitment to the health of the people living in Massachusetts.

## Resources

- CDC: Mycoplasma Pneumoniae Infections Have Been Increasing <https://www.cdc.gov/ncird/whats-new/mycoplasma-pneumoniae-infections-have-been-increasing.html>
- CDC: Clinical overview of Mycoplasma pneumoniae Infections <https://www.cdc.gov/mycoplasma/hcp/clinical-overview/index.html>
- MADPH: Pertussis advisory <https://www.cdc.gov/ncird/whats-new/mycoplasma-pneumoniae-infections-have-been-increasing.html>
- CDC: Clinical Overview of Pertussis <https://www.cdc.gov/pertussis/hcp/clinical-overview/index.html>
- MADPH Epidemiologist - for questions regarding case investigation and implementation of control measures call (617) 983-6800 (day, night and weekend)