

Reported High Activity of *Mycoplasma pneumoniae* and rhino/enteroviruses in Pennsylvania

DATE:	October 11, 2024
TO:	Health Alert Network
FROM:	Debra L. Bogen, M.D., FAAP, Secretary of Health
SUBJECT:	Reported High Activity of <i>Mycoplasma pneumoniae</i> and rhino/enteroviruses in Pennsylvania
DISTRIBUTION:	Statewide
LOCATION:	Statewide
STREET ADDRESS:	N/A
COUNTY:	N/A
MUNICIPALITY:	N/A
ZIP CODE:	N/A

This transmission is a “Health Advisory” which provides important information for a specific incident or situation; may not require immediate action.

HOSPITALS: PLEASE SHARE WITH ALL MEDICAL, PEDIATRIC, NURSING AND LABORATORY STAFF IN YOUR HOSPITAL; **EMS COUNCILS:** PLEASE DISTRIBUTE AS APPROPRIATE; **FQHCs:** PLEASE DISTRIBUTE AS APPROPRIATE **LOCAL HEALTH JURISDICTIONS:** PLEASE DISTRIBUTE AS APPROPRIATE; **PROFESSIONAL ORGANIZATIONS:** PLEASE DISTRIBUTE TO YOUR MEMBERSHIP; **LONG-TERM CARE FACILITIES:** PLEASE SHARE WITH ALL MEDICAL, INFECTION CONTROL, AND NURSING STAFF IN YOUR FACILITY

Summary

- Emergency department visits for pneumonia have been increasing, particularly among children and young adults.
- Some hospitals and college student health centers have reported clusters of cases of pneumonia due to *Mycoplasma pneumoniae*.
- National laboratory surveillance for respiratory viruses is also noting an increase in percent positivity for rhinovirus/enterovirus in PA.
- Testing for respiratory pathogens should be performed to guide appropriate management and treatment. PCR-based molecular tests are preferred for rapid and accurate diagnosis of both *M. pneumoniae* and rhinovirus/enterovirus. Antibiotics should not be used to treat viral infections.
- Macrolides are the first line of treatment for *M. pneumoniae* infections. Macrolide-resistant strains are emerging, but susceptibility testing is not generally available. Consider using tetracyclines or fluoroquinolones if a macrolide does not appear to be effective.
- Use transmission-based precautions (droplet and contact) to reduce spread in health care and community settings. Promote respiratory hygiene and encourage symptomatic individuals to stay-at-home. Encourage vaccination for influenza and other respiratory viruses to reduce the risk of co-infections.
- Report unusual clusters or outbreaks of respiratory illnesses to the Pennsylvania Department of Health by calling 1-877-PA-HEALTH (1-877-724-3258) or your local public health department. Individual cases of *M. pneumoniae* and rhinovirus infection are not reportable to the Department.

Introduction:

The Centers for Disease Control and Prevention (CDC) and the Pennsylvania Department of Health are observing a significant rise in the activity of rhinovirus/enterovirus and *Mycoplasma pneumoniae* infections. These pathogens are driving elevated levels of pneumonia diagnoses in emergency department visits, especially among children and young adults. While typically mild, these infections can pose more serious risks to vulnerable populations, including young children, older adults, and individuals with underlying health conditions. The concurrent rise in these pathogens complicates diagnostic efforts, particularly with the beginning of the influenza and respiratory syncytial virus (RSV) season and ongoing high levels of COVID-19 activity. Health care providers should consider these pathogens in differential diagnoses for patients presenting with respiratory symptoms. Prompt laboratory testing is needed to guide appropriate management of these illnesses.

***Mycoplasma pneumoniae*:**

[M. pneumoniae infections](#) typically peak in the fall and primarily affect school-aged children and young adults. Infections can occur in both the upper and lower respiratory tracts, with common clinical manifestations including pharyngitis, pneumonia, and tracheobronchitis. The bacterium can also cause a wide array of extrapulmonary manifestations without obvious respiratory symptoms. Risk factors include crowded settings such as college residence halls, correctional facilities, hospitals, long-term care facilities, military training facilities, and schools. The incubation period typically ranges from 1 to 4 weeks, with the bacteria spreading through respiratory droplets during close person-to-person contact.

While most infections are mild and self-limiting, complications such as asthma exacerbations, encephalitis, hemolytic anemia, renal dysfunction, severe pneumonia, and skin disorders like Stevens-Johnson syndrome (SJS) or mycoplasma-induced rash and mucositis (MIRM) can occur.

M. pneumoniae is treated with macrolides, tetracyclines, or fluoroquinolones, with macrolides the first line of treatment. Resistance to macrolides in *M. pneumoniae* emerged globally in the early 2000s. Studies suggest that in the U.S., the overall prevalence of macrolide resistance is [under 10%](#) but is higher in the south and east.¹⁻³

Rhinovirus/Enterovirus:

Rhinoviruses and enteroviruses are members of the Picornaviridae family and share genetic similarities that contribute to their combined detection in diagnostic nucleic acid tests. Rhinovirus infections typically present with a runny nose, sore throat, cough, and congestion. Enteroviruses, on the other hand, have a broader spectrum of clinical presentations that can range from mild upper respiratory symptoms to more severe conditions such as viral meningitis, hand-foot-and-mouth disease, and myocarditis. While most of these infections are self-limiting, complications can arise, especially in individuals with underlying health conditions. Rhinovirus can exacerbate chronic respiratory diseases like asthma and chronic obstructive pulmonary disease (COPD), leading to increased health care utilization. Severe

cases of enterovirus infection, particularly with types like EV-D68, can lead to acute respiratory distress or neurological complications such as acute flaccid myelitis (AFM).

These infections are highly contagious and spread mainly through respiratory droplets, direct contact with contaminated surfaces, or close person-to-person contact. Infections tend to peak in fall and spring, with children in crowded settings being most at risk.

There are currently no specific antiviral treatments for rhinovirus or enterovirus infections, and management focuses on symptomatic relief. Preventive measures like hand hygiene and respiratory etiquette are essential to limit spread, especially when activity is high.

Laboratory testing:

Consider these pathogens in the differential diagnosis for patients presenting with respiratory symptoms, especially when there is a surge in respiratory illnesses in the community. Polymerase chain reaction (PCR) tests are preferred for diagnosing *M. pneumoniae* and rhinovirus/enteroviruses due to their speed and accuracy. PCR can detect these pathogens from respiratory specimens. Culture and serological tests are available but are less practical for immediate treatment decisions.

Report outbreaks or unusual clusters of respiratory illnesses to the Pennsylvania Department of Health by calling 1-877-PA-HEALTH (1-877-724-3258) or your local public health department. Individual cases of *M. pneumoniae* and rhinovirus infection are not reportable to the Department.

For More Information:

- [Mycoplasma pneumoniae Infection Surveillance and Trends](#)
- [Clinical Overview of Mycoplasma pneumoniae Infection](#)
- [Laboratory Testing for Mycoplasma pneumoniae](#)
- [Severe Respiratory Illnesses Associated with Rhinoviruses and/or Enteroviruses Including EV-D68 – Multistate, 2022](#)

References:

1. Rothstein TE, Cunningham SA, Rieke RA, Mainella JM, Mutchler MM, Patel R. [Macrolide resistance in Mycoplasma pneumoniae, Midwestern United States, 2014 to 2021](#). *Antimicrob Agents Chemother*. 2022;66(4):e0243221.
2. Waites KB, Ratliff A, Crabb DM, Xiao L, Qin X, Selvarangan R, Tang YW, Zheng X, Dien Bard J, Hong T, Prichard M, Brooks E, Dallas S, Duffy L, Mixon E, Fowler KB, Atkinson TP. [Macrolide-resistant Mycoplasma pneumoniae in the United States as determined from a national surveillance program](#). *J Clin Microbiol*. 2019;57(11):e00968–19.
3. Diaz MH, Benitez AJ, Winchell JM. [Investigations of Mycoplasma pneumoniae infections in the United States: Trends in molecular typing and macrolide resistance from 2006 to 2013](#). *J Clin Microbiol*. 2015;53(1):124–30.

If you have any questions, please call DOH at 1-877-PA-HEALTH (1-877-724-3258) or your local health department.

Individuals interested in receiving further PA-HANs are encouraged to register at [HAN Notification Registration \(mir3.com\)](#)

Categories of Health Alert messages:

Health Alert: conveys the highest level of importance; warrants immediate action or attention.

Health Advisory: provides important information for a specific incident or situation; may not require immediate action.

Health Update: provides updated information regarding an incident or situation; unlikely to require immediate action.

This information is current as of October 11, 2024, but may be modified in the future. We will continue to post updated information regarding the most common questions about this subject.