

# MAINE PUBLIC HEALTH ALERT NETWORK SYSTEM

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*Maine Department of Health and Human Services  
Maine Center for Disease Control and Prevention (Maine CDC)  
(Formerly Bureau of Health)  
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**\*\*ADVISORY – Important Information\*\***

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**2007PHADV015**

**TO:** Brunswick Area Health Care Provides, Private & Public Colleges, State & Fed-Required, Public Health Required, RRC-Required, County EMA-Required, MEMA, Maine Tribal HC Centers-Required, Maine Labs

**FROM:** Dora Anne Mills, M.D., M.P.H., Public Health Director

**SUBJECT:** **Outbreak of Atypical Pneumonia in College Students, Brunswick**

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**PRIORITY:** Review

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## **Outbreak of Atypical Pneumonia in College Students, Brunswick**

Summary: The Maine Center for Disease Control and Prevention (Maine CDC) is working closely with the Bowdoin College Health Services to investigate and control an outbreak of 32 cases of atypical pneumonia that have occurred over a two month period at the college. Initial diagnostic testing has identified *Mycoplasma pneumoniae* (*M. pneumoniae*), the most common agent of pneumonia in adolescents and young adults, as the probable cause of this outbreak. Epidemiological and laboratory investigations are ongoing. Students at the college have been encouraged to practice cough hygiene measures, to minimize contact with others during acute illness, and to visit the infirmary for medical evaluation if they have fever or cough illnesses. There is no evidence that this outbreak is currently affecting college employees or residents of surrounding communities.

Background: Since early September, a total of 32 students at Bowdoin College have been diagnosed with pneumonia. Most patients have been mildly-moderately ill with cough and fever, and with prominent constitutional symptoms (fatigue, myalgias, headache, nausea). Almost all of these students have also had evidence of pneumonia on chest x-ray. While two of the students were briefly hospitalized for IV hydration and antibiotic treatment, most others did well on oral macrolide or doxycycline therapy.

Laboratory Testing: Microbiological testing on specimens from several students was negative for influenza, Group A streptococcal infection and for *Legionella pneumoniae*. Eleven of 15 respiratory specimens were positive by polymerase chain reaction (PCR) testing for *M. pneumoniae*, done with assistance from the Federal CDC and the Maine CDC's Health and Environmental Testing Laboratory.

Epidemiological Investigation: The onset of pneumonia illnesses among the affected students has occurred steadily over a two month period, suggesting that person to person transmission is likely to be occurring. There is no evidence that cases have been clustered by residence hall or by particular activities. There is currently no evidence that the outbreak has spread to college employees or among residents in Brunswick or nearby communities. The Maine CDC is continuing the epidemiological investigation.

### Comment:

*M. pneumoniae* is a common cause of acute respiratory tract infections (pharyngitis, tracheobronchitis, and pneumonia), especially among school-aged children and young adults. Outbreaks of *M.pneumoniae* tend to occur in closed or semi-closed settings such as college campuses and military barracks, and may persist for weeks or months. Adolescents and young adults are most often affected in such outbreaks, and

extension of such outbreaks to the surrounding community is uncommon, though may be difficult to document. The incidence of *Mycoplasma* infections – both sporadic and outbreak-associated – may be cyclic, with upswings every 4-8 years.

Transmission of *M. pneumoniae* (and of most other respiratory infections) usually occurs through *prolonged, close contact* with infected persons who are coughing or sneezing, and also probably through indirect contact with articles and surfaces freshly contaminated with oral and nasal secretions. Crowding, especially when ventilation is poor, increases the risk of transmission. The incubation period is 1 – 4 weeks and patients can test positive for *M. pneumoniae* even after treatment has ended. These factors possibly contribute to the prolonged outbreaks this microbe can cause.

Although specialized testing (*Mycoplasma* PCR) is sometimes used in research and in outbreak settings such as this one, it is not generally available, nor is it recommended, for routine use in the diagnosis and management of community-acquired pneumonia. Current recommendations for the empirical antibiotic treatment of community-acquired pneumonias (including *M. pneumoniae*) in healthy adult outpatients, include the use of a macrolide or of doxycycline.

([www.journals.uchicago.edu/CID/journal/issues/v44nS2/41620/41620.html](http://www.journals.uchicago.edu/CID/journal/issues/v44nS2/41620/41620.html))

#### Recommendations:

At Bowdoin College, Maine CDC has made the following prevention and control recommendations:

- All persons with febrile respiratory illnesses should rest and stay home /away from classes, athletic events, work sites, and any crowded settings on campus or off, until their fever has been gone for 24 hours.
- Everyone should practice good respiratory hygiene, by coughing or sneezing into their sleeves or into a disposable tissue and by washing hands frequently with soap and water or an alcohol-based hand gel ( [www.maine.gov/dhhs/boh/Flu%20Posters.htm](http://www.maine.gov/dhhs/boh/Flu%20Posters.htm) ).
- Students who have cough and/or fever should be evaluated at the infirmary so that they can receive appropriate examination, testing, and if necessary, antibiotic treatment.

All other health care providers, especially those in the Midcoast area or in other universities/colleges:

- Anticipate possible increased interest among patients with respiratory symptoms.
- Call Maine CDC at 1-800-821-5821 to report suspected *outbreaks* of pneumonia.
- Continue to follow standard practice recommendations for evaluation and management of community-acquired pneumonia.

For further information:

- On *Mycoplasma pneumonia*, pneumonia outbreaks, and current recommendations on diagnosis and management of community-acquired pneumonia, go to:  
[www.maine.gov/dhhs/boh/pneumonia.htm](http://www.maine.gov/dhhs/boh/pneumonia.htm) or call Maine CDC at 1-800-821-5821.
- Downloadable Posters on Respiratory Hygiene:  
<http://www.maine.gov/dhhs/boh/Flu%20Posters.htm>.
- Other: contact Maine CDC at [www.mainepublichealth.gov](http://www.mainepublichealth.gov) or at 1-800-821-5821.