

Legionella and Mycoplasma Pneumonia



Health

Information for general practitioners - please distribute to medical and nursing staff

1. In NSW hospitals, pneumonia presentations to emergency departments from a variety of causes have increased recently.
2. Seven recent adults with confirmed infection with *Legionella pneumophila* serogroup 1 have all spent time in the central Sydney CBD during their exposure period.
3. Cases of *Mycoplasma pneumoniae* specifically among children of age 5 to 16 years have been increasing.
4. In patients presenting with clinically consistent disease, consider diagnostic testing with legionella urinary antigen and sputum culture for legionella infection, and nose and throat swab PCR for atypical bacteria including *Mycoplasma*.

Among the many causes of pneumonia, bacterial pathogens (such as *Mycoplasma pneumoniae* and *Legionella* species) are important to consider.

Legionella pneumophila

- Seven recent cases of *Legionella pneumophila* who travelled to Sydney CBD have been notified recently.
- *Legionella pneumophila* can cause serious illness, particularly when it occurs with other co-morbidities or in the context of immune suppression.
- The bacteria can contaminate air conditioning cooling towers, whirlpool spas, shower heads and other bodies of water. People outside may be exposed if they inhale aerosolized contaminated water.
- The typical incubation period is 2 to 10 days, but more commonly 5 to 6 days.
- Symptoms usually include fever, chills, a cough, and shortness of breath. Cases may also have muscle aches, headache, tiredness, loss of appetite and diarrhoea.
- It is difficult to distinguish *Legionella* from other types of pneumonia by symptoms alone.

Mycoplasma pneumoniae

- *Mycoplasma* infections, particularly in children aged 5 to 16 years have increased in NSW recently.
- Globally, there has been an increase in cases of *Mycoplasma pneumoniae* in children in China, Taiwan, Philippines, South Korea, North America, and Europe.
- Increase in *Mycoplasma pneumoniae* circulation usually occurs every 3-7 years as population immunity wanes.
- *Mycoplasma pneumoniae* commonly causes mild respiratory infections and generally resolves without serious complications. Cough and weakness may persist for more than 1 month.
- Infection is most common in age groups 5 and 20 years but can occur at any age.
- Symptoms may develop over 1 to 3 weeks and include fever, dry cough, headache, sore throat and malaise.
- People with *Mycoplasma pneumoniae* may appear well, often referred to as “walking pneumonia”.

Testing for pneumonia

- Diagnosis can be supported by investigations including:
 - respiratory nose and throat swab PCR including atypical bacteria such as *Mycoplasma* (especially for children aged 5 to 16 years) and *Legionella*,
 - *Legionella* urinary antigen testing (especially in adults), sputum culture and/or PCR, blood culture, acute and convalescent sera, and/or chest x-ray.

Management

- Manage as per treatment guidelines (penicillins e.g., amoxicillin) for typical pneumonia.
- For patients with clinically consistent disease and/or epidemiological suspicion of pneumonia caused by an atypical pathogen, consider including treatment with appropriate antimicrobial cover e.g., doxycycline (children 8 years and over), azithromycin or clarithromycin.
- Refer to clinical guidelines or discuss with an infectious disease specialist for further management advice.

Further information

- NSW Legionnaires' disease website <https://www.health.nsw.gov.au/Infectious/legionnaires/Pages/default.aspx>
- Pneumonia NSW Emergency Care Institute <https://aci.health.nsw.gov.au/networks/eci/clinical/clinical-tools/respiratory/pneumonia>

Dr Jeremy McAnulty

Executive Director, Health Protection NSW

03 January 2024

NSW Ministry of Health

ABN 92 697 899 630

1 Reserve Rd St Leonards

NSW 2065 Locked Mail Bag 2030

St Leonards NSW 1590 Tel. (02)

9391 9000 Fax. (02) 9391 9101

Website. www.health.nsw.gov.au