

Prevention and control of Pneumococcal Disease in Aged Care Homes

Pneumococcal disease is an infection caused by a bacteria called *Streptococcus pneumoniae*. Infection may be mild or severe invasive disease. Invasive disease includes meningitis, pneumonia and bloodstream infection. Milder infections include otitis media (or middle ear infections).³ Young children and elderly people have the highest incidence of invasive pneumococcal infection. Older people are more vulnerable as their immune systems may not be able to fight infection. Disease burden is also higher in Aboriginal and Torres Strait Islander people.

Signs and Symptoms

Symptoms of pneumococcal infection vary according to the site of infection, underlying immunity and age. The incubation period is 1-3 days.³ Bacteria causing infection may spread from the nose and throat into other body sites to cause mild disease such as:

- sinusitis
- otitis media (middle ear infection)
- pneumonia

Invasive infections include:

- meningitis
- pneumonia
- bloodstream infection³

Symptoms of pneumococcal infections	
respiratory symptoms – cough, chills and shaking	blood-stained sputum (spittle/mucus)
difficulty breathing	light sensitivity
ear pain or discharge from the ear	poor appetite
fever	confusion
nausea and vomiting	irritability
headaches	drowsiness
chest pain – breathing in and out	skin rash
shortness of breath	

How can pneumococcal disease be prevented?

1. Pneumococcal vaccination for adults

Two vaccines are available to help protect people against the most common strains of the *Streptococcus pneumoniae* bacteria.

Pneumococcal vaccinations are given free as part of the [National Immunise Australia Program Schedule \(external site\)](#) to:

- adults 65 and over
- Aboriginal people 15 years and over¹

Pneumococcal vaccines for adults (Pneumococcal polysaccharide vaccine (PPV))

- 23vPPV to non-Indigenous adults aged ≥65 years if they have not already received a dose.
 - Another dose 5 years later is recommended if they have a pre-existing health condition that increases the risk of invasive pneumococcal infection; e.g. chronic cardiac disease.
- 23vPPV to Aboriginal and Torres Strait Islander adults aged ≥50 years, and give another dose 5 years later.¹

2. Infection prevention and control measures

Streptococcus pneumoniae is transmitted from person to person through contact with respiratory droplets of asymptomatic carriers. The following measures reduce the risk of transmission:

- Antibiotic Therapy. Appropriate therapy makes people non-infectious within 24 hours.
- Strict hand hygiene practices by staff
- Droplet transmission based precautions for 24 hours.
 - Residents to remain in a single room.
 - All staff and visitors to wear surgical mask when attending to the resident.

Diagnosis of pneumococcal infection

- Pneumococcal disease is diagnosed on the basis of medical review and physical examination. A variety of tests may be required, depending on your symptoms: blood, urine, and sputum specimens for culture
- chest x-ray
- lumbar puncture (collection of spinal fluid for testing)²

Management of pneumococcal infection

- antibiotics
- pain relief
- drinking more fluids
- rest
- admission to hospital for acute cases.³

References:

1. National Health and Medical Research Council (NHMRC), 2013, Australian Immunisation Handbook,
2. National Centre for Immunisation Research & Surveillance (NCIRS) 2018, Pneumococcal vaccines for Australians, <http://www.ncirs.org.au/ncirs-factsheets-fags/pneumococcal-vaccines-australians>
3. Victorian Department of Health and Human Services, Invasive pneumococcal disease, <https://www2.health.vic.gov.au/public-health/infectious-diseases/disease-information-advice/pneumococcal-disease>