Older Australians lacking equal opportunity for disease prevention with vaccines despite being at an increased risk

The Australian population is ageing, and healthy ageing is key to the future of our society. Older Australians are at increased risk of contracting vaccine-preventable diseases such as pneumococcal disease, influenza, shingles and pertussis (whooping cough) compared to younger people. Vaccination is a safe and available means of prevention, but vaccination among this demographic, in comparison to childhood immunisation, is both under-valued and under-utilised.

“Pneumonia is the old man’s friend” is a common saying, laden with value judgement about the elderly that does not account for the problems associated with acute infections, suffering, the right to health, nor the transmissibility to others. The “older” elderly and people with dementia are less likely to be vaccinated than the younger, healthier elderly. For many reasons, there are missed opportunities for averting vaccine preventable-diseases and associated pain in the elderly.

Today’s “Equity in disease prevention: vaccines for the elderly” workshop focuses on scientific evidence, ethics and value judgements affecting disease-prevention in the elderly.

About pneumonia & pneumococcal pneumonia

- Pneumonia is a lung infection resulting in air sacs in the lungs filling with secretions and fluids that obstruct normal air flow.
- Pneumococcal pneumonia is caused by the bacterium known as *Streptococcus pneumoniae* (*S. pneumoniae*).
- Symptoms include fever, cough and difficulty breathing.
- Healthy people may carry *S. pneumoniae* bacteria in their nose and throat (upper respiratory tract). While most of the time this does not cause any illness, vulnerable groups may develop pneumococcal disease.

Incidence (new cases) & prevention of pneumococcal pneumonia

- *S. pneumoniae* is responsible for approximately 1.6 million deaths annually world-wide, with the highest rates of disease at the extremes of age – infants and the elderly.
- Community-acquired pneumonia (CAP) is the third most frequent hospital diagnosis among patients aged 65 years or over in developed countries.
- The mean duration of hospital stay for pneumococcal pneumonia rises with age, ranging from six days for those aged under 65, to 13 days for those aged 65 or over.
- According to a study of the Victorian population, the annual incidence of pneumococcal pneumonia rises exponentially between the ages of 50 and 80 years, to nearly 200 per 100,000.
- According to the same study, pneumonia accounted for 82 per cent of diagnoses of those aged over 65 with pneumococcal disease.
- Pneumonia and influenza are among the top 20 causes of death in Australia, resulting in 2,300 mortalities between 2009 and 2010. Death from pneumonia occurs rapidly and despite advances in medical care, rates of death from pneumonia have not greatly reduced over the past two decades.
- Vaccination may protect against pneumococcal pneumonia.
• National Immunisation Guidelines recommend pneumococcal vaccination for all Australians aged 65 years and older.11,15
• In Australia, pneumococcal vaccination is listed on the government’s National Immunisation Program (NIP) and funded under Immunise Australia for older Australians (65 years and older), infants and Aboriginal and Torres Strait Islanders.
• There are 2 types of pneumococcal vaccines available for adults – the 23 valent polysaccharide vaccine (funded for all adults aged 65 years and above, and for some aged 70 years) and a 13 valent conjugate vaccine, which has been shown to protect against vaccine-type pneumonia.16
• A second dose of vaccine is available to some Australians, a minimum of five years following their first dose.1,9,11
• Those with underlying chronic illnesses are also recommended to be vaccinated against pneumococcal pneumonia.15 In addition to the vaccine, practicing good hygiene is vital to prevent the spread of infection – regular hand-washing, keeping household surfaces clean, and learning to recognise the symptoms of pneumococcal pneumonia, including rapid or difficulty breathing, cough, fever, chills or loss of appetite.3,10

About influenza
• Influenza, commonly known as ‘the flu’, is a highly contagious respiratory illness.17
• Influenza is transmitted easily from person-to-person via droplets and small particles produced when infected people cough or sneeze and hand contact with contaminated surfaces.18
• Influenza is characterised by a sudden onset of high fever, cough (usually dry), headache, muscle and joint pain, severe malaise (feeling unwell) and sore throat.18
• Throughout most regions of Australia, influenza outbreaks occur between late autumn and early spring.19

Incidence (new cases) & prevention of influenza
• In Australia, influenza outbreaks generally occur seasonally and can vary from mild and sporadic, to serious epidemics.19
• Influenza can affect anyone, including fit and healthy people. However influenza most commonly afflicts infants/children and the elderly.20
• Those at highest risk of serious outcomes from influenza include older Australians aged 65 years and over, Aboriginal and Torres Strait Islander people aged 15 years and over, pregnant women, very young infants and anyone with ongoing medical conditions such as cardiovascular or respiratory problems, diabetes, kidney disease or any condition that affects their immune system.21,22
• For these at-risk people, infection can lead to severe complications, including acute bronchitis, pneumonia, or worsening of their existing medical condition, which may lead to hospitalisation or even be life-threatening.21,22
• Influenza may precipitate heart attacks in people with existing coronary artery disease.23
• An estimated 3,000 influenza-related deaths in older Australians occur each year.24
• An estimated 13,500 influenza-related hospitalisations occur each year.24
• Vaccination is the most effective defence against influenza.18
• The Australian Government recommends annual influenza vaccination for anyone aged 6 months or older who wish to reduce the likelihood of influenza infection.22
• Other preventative methods to help stop the spread of influenza include:
  - Frequent hand-washing, especially after coughing, sneezing or blowing one’s nose;
  - Covering the face when coughing or sneezing, and throwing used tissues in a rubbish bin; and
  - Staying at home until fully recovered.17

About shingles
• Shingles is caused by the reactivation of the virus that causes chickenpox (herpes zoster virus).25
• Once you have had chickenpox, the virus lies dormant in the body and can reactivate as shingles later in life.26
• Symptoms of shingles include an outbreak of a rash or blisters on the skin in a band on one side of the body that can be very painful and debilitating, and can lead to chronic pain. These symptoms may be accompanied with headache, fever and tingling.26
• Shingles can be transmitted to individuals who haven’t had chickenpox through direct contact with the open sores. This will then develop into chickenpox, not shingles.

Incidence (new cases) & prevention of shingles
• Shingles usually appears in adulthood and many years after the initial chickenpox illness.
• 100 Australians who are older than 50, are thought to have had shingles at some stage.
• It is estimated that by 85 years of age, about one in every two Australians will have experienced an episode of shingles.
• In Australia, the burden of illness from shingles is high, with the incidence and severity increasing for seniors and those with weakened immune systems.
• With more than 95 per cent of Australian adults over 30 exposed to the chickenpox virus, the majority of the population is at risk of developing shingles. Although the risk increases markedly from age 50, even in otherwise healthy adults.
• Although there is no cure, shingles can be treated with an antiviral medication. There are also ways to minimise the discomfort associated with the symptoms of shingles, including pain killers.
• A common yet little known complication of shingles is postherpetic neuralgia (PHN), a debilitating form of nerve damage pain.
• Vaccine protects against chickenpox, which in turn may protect against shingles.
• Australian immunisation guidelines recommend that older Australians are vaccinated against shingles.

About pertussis
• Pertussis, more commonly known as whooping cough, is a highly contagious respiratory infection caused by the bacterium Bordetella pertussis.
• Pertussis is spread by air-borne respiratory droplets when an infected person coughs or sneezes.
• The first symptoms of pertussis replicate those of a common cold, with a runny nose, sneezing, tiredness, followed by the characteristic cough, however this may be absent in older children and adults.

Incidence (new cases) & prevention of pertussis
• In Australia, pertussis epidemics occur every 3 to 4 years.
• In 2012, 55 per cent of notified cases were adults aged 20 years and over, and deaths due to pertussis have been reported in Australia in people aged >65 years.
• Australians aged 65 years and over are considered at risk of developing pertussis.
• Immunisation is the most effective way to control pertussis.
• Immunisation against pertussis is recommended to any adult wishing to reduce the likelihood of falling ill with pertussis as part of the National Immunisation Program Schedule.

Value judgements in the elderly
• The saying “pneumonia is the old man’s friend” can be translated to mean that pneumonia is a welcome ending to life, that old people should die, and that treating pneumonia will prevent death. There are ethical implications of making such a value judgement about life and the right to life and self-determination.
• Value judgements and ageism come into play with health care for the elderly, yet this is not explicitly addressed when making decisions about health care. There is an inherent bias towards valuing health care for younger people more than for older people, and to view the elderly as a burden on the health system. They may, as such, be denied care, or given less care compared to younger people.32
• Pain demonstrates these points. The prevalence of pain increases with age33, the neglect of which can lead of to lack of management and therefore an unnecessary decline in quality of life.34
• Often, pain is mistakenly considered as a natural or expected consequence of ageing. However pain is the consequence of chronic and acute conditions that the elderly are susceptible to,35 many of which are vaccine-preventable.
• The prevalence of persistent pain in the elderly is estimated to be between 49 to 84 per cent in residential aged care facilities in Australia.36
• A study undertaken in aged-care facilities in New South Wales reported 28 per cent of residents had pain at the time of interview, yet many were not provided with analgesia.37
• Research has identified knowledge deficits and incorrect beliefs among nurses with regard to pain assessment and management in the elderly.38

Value Judgements about the elderly can affect vaccination programs, with less support and attention given to the implementation of elderly vaccination programs. This could explain the gap in immunisation uptake of recommended vaccines in children and the elderly.

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References

12. Harrison C, Brit H. Recent change in pneumococcal vaccination status of older people

Byte from BEACH No: 2013;2 Sydney. FMRC, University of Sydney, 2013.


