Prevention and Management of Influenza Outbreaks in Residential Care Facilities
Chapter 1: Influenza

- Acute highly infectious viral infection
- Symptoms develop rapidly
- Initial symptoms may be similar to other respiratory infections
- Uncomplicated influenza usually resolves after 3-7 days
Chapter 1: Influenza (cont)

- Influenza can lead to secondary bacterial infections
- Two major types (A and B) effect humans. Both types undergo changes in their surface antigens giving rise to new strains
- Vaccine targeting A and B strains is available annually
- Occurs in seasonal epidemics
Laboratory confirmed influenza in Australia, 2007
Age distribution of laboratory-confirmed influenza in Australia, 2007
Australia Post absenteeism 2007 and impact of flu season
Chapter 1: Influenza (cont)

- Symptoms
  - Sudden onset of fever (>38°C) PLUS
  - Cough and other respiratory symptom (shortness of breath) PLUS
  - One or more systemic symptom (fatigue, muscle soreness, headache)
  - Onset of increased in confusion may also occur in the elderly
Chapter 1: Influenza (cont)

- **Transmission**
  - Spread by droplets
  - Symptoms occur 1-3 days after exposure
  - Infectious 1 day prior to symptoms
  - Infection 3-5 days
Chapter 1: Influenza (cont)

- **Prevention**
  - Vaccination
  - Hand hygiene
  - Personal hygiene (sneeze and cough etiquette)
  - Early recognition
  - Early response
  - Antiviral prophylaxis
Chapter 1: Influenza (cont)

- People at increased risk of complications:
  - Those aged 65 years and over
  - Those with conditions predisposing to severe influenza (cardiac disease, chronic respiratory conditions)
  - Those with chronic illness (diabetes, renal failure, impaired immunity)
  - Pregnant women
  - Residents of long term care facilities
  - Homeless people
Chapter 1: Influenza (cont)

- Legislation:
  - Responsibilities for reporting and managing outbreaks of infectious diseases (*Public Health Act 2005*)
  - Responsibilities in relation to infection control by adopting standard and additional precautions for infections (*Infection Control Guidelines for the prevention of transmission of infectious disease in the health care setting*)
  - Responsibilities under the *Aged Care Act 1997*
Chapter 2: Intervention and Roles

- Vaccination of residents and staff
- Application of appropriate infection control practices
- Outbreak recognition and management
- Policy development and planning
Chapter 2: Intervention and Roles (cont)

- Role of the public health unit:
  - Advocate for vaccination of residents and staff
  - Provide information and advice to support the development of an influenza outbreak management plan
  - Assist in the investigation and confirmation of a suspected outbreak and the management of a confirmed outbreak
  - Be accessible to RCF so as to establish a good two way communication process
Chapter 3: Vaccination

- Annual influenza vaccine is recommended for all residents, staff, and regular visitors
  - Residents (target 100%)
  - Staff (target 90%)
- Keep vaccine records for residents and staff
- Provide vaccination clinics if necessary
Pneumococcal vaccination is recommended for eligible residents.

During an influenza outbreak, vaccination should be offered to unvaccinated staff, residents, and any necessary visitors to the facility.
Chapter 4: Infection Control

- Ensure infection control programs are in place
- Provide annual in-service education for staff
- Develop infection control policies including an outbreak contingency plan
- Develop policies and protocols to support influenza outbreak preparedness and response
Chapter 4: Infection Control (cont)

- **Under usual operating conditions:**
  - Hand hygiene and personal hygiene (sneeze and cough etiquette)
  - Education of staff, residents and volunteers, and opportunistic education of visitors
Chapter 4: Infection Control (cont)

- **During an Outbreak:**
  - Increase personal protective measures
  - Isolation of residents
  - Restricted opportunities for transmission, including exclusion of infectious staff
  - Environmental measures
  - Control of movements
Chapter 5: Influenza Outbreak Recognition

- **Case of Influenza Like Illness (ILI):**
  - Sudden onset of fever (>38°C) PLUS
  - Cough and other respiratory symptom (shortness of breath) PLUS
  - One or more systemic symptom (fatigue, muscle soreness, headache)
Chapter 5: Influenza Outbreak Recognition (cont)

- **Confirmed case of influenza:**
  - Case ILI with a positive laboratory test result for influenza

- **Potential influenza outbreak alert:**
  - Three of more cases of ILI in residents or staff of the facility within a period of 72 hours
Chapter 5: Influenza Outbreak Recognition (cont)

- Influenza outbreak:
  - Three or more epidemiologically linked cases of ILI in residents or staff of the facility within a period of 72 hours PLUS
  - At least one case having a positive laboratory test OR
  - At least two having a positive point of care test
Chapter 5: Influenza Outbreak Management

- **Actions:**
  - Implement general infection control measures
  - Arrange testing of cases, if not already done
  - Collate information
  - Notify the public health unit
  - Declare an influenza outbreak
Chapter 5: Influenza Outbreak Management (cont)

- **Actions (cont)**
  - Establish and Outbreak Management Team (OMT)
  - Call an OMT meeting to manage outbreak
  - Monitor the outbreak
  - Declare the outbreak over
  - Complete documentation
  - Review the outbreak and debrief
Chapter 6: Antiviral medication

- There is a potential role for antiviral medications in the management of influenza outbreaks, as an adjunct to other control measures.
- Use of antivirals requires forward planning and consultation with GPs, OMT and PHU.
- When used for prophylaxis, antivirals are recommended for use for ALL asymptomatic residents and unvaccinated staff as directed. Patchy use is likely to reduce the effectiveness and risk developing resistance to the antiviral drug.
Chapter 6: Antiviral medication (cont)

- Prophylaxis for Residents:
  - Uninfected residents should receive antiviral drugs asap after an outbreak is declared and preferably within 24 hours
  - Uninfected residents should receive antiviral drugs regardless of vaccination status
  - Residents with impaired renal function should have their dosage adjusted
Chapter 6: Antiviral medication (cont)

- **Prophylaxis for Residents (cont):**
  - Antiviral prophylaxis should be continued for 10 days or until the outbreak is declared over.
  - If residents develop respiratory symptoms the antiviral dose should be changed to the treatment dose.
  - Contact between residents taking prophylaxis and treatment antiviral should be restricted.
Chapter 6: Antiviral medication (cont)

- Prophylaxis for staff
  - All unvaccinated staff should receive antiviral drugs asap after an outbreak is declared and preferably within 24 hours.
  - Unvaccinated staff should also be offered vaccination and continue to take antivirals for 14 days
  - Antiviral prophylaxis should be continued for 10 days or until the outbreak is declared over
Chapter 6: Antiviral medication (cont)

- Prophylaxis for staff (cont)
  - Staff who decline vaccination or antiviral drugs should be excluded
  - Immunocompromised vaccinated staff may benefit from antiviral prophylaxis
  - Staff who develop symptoms of ILI within 48 hours of starting antiviral prophylaxis should be excluded
Chapter 6: Antiviral medication (cont)

Treatment
- Treatment decisions are the responsibility of attending GP
- Antiviral treatment for influenza must be started within 48 hours of onset of symptoms
- May decrease the rate of complications
- The earlier the treatment is started the more effective it is
Chapter 7: Policy Preparation

Policies should address:

- Procedures for surveillance, early recognition of infectious conditions
- Staffing plans to address absenteeism and adequate nurse to patient ratio
- Policy on the use of antivirals for treatment and prophylaxis
- Obtaining consent for prophylaxis with antivirals
Chapter 7: Policy Preparation

- Policies (cont)
  - Standing orders signed by GPs for antiviral prophylaxis
  - Processes to rapidly access specimen kits
  - Ensuring staff are competent in technique for collecting specimens
  - Establishing lines of communication between RCF, PHU and labs
Chapter 7: Policy Preparation

- Policies (cont)
  - Ongoing effective communication with residents, visitors and staff
  - Annual review of policies relating to outbreak prevention and control
Chapter 8: Contacts

- Do you know who to call to notify a suspected outbreak of influenza?