Checklist for Residential Care Facilities on the Prevention, Detection and Control of Influenza-like illness and Influenza Outbreaks
2018/2019

Public Health Medicine Communicable Disease Group

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1 This checklist is an aide-memoire. It is recommended to read it in conjunction with the Public Health Guidelines on the Prevention and Management of Influenza Outbreaks in Residential Care Facilities in Ireland 2018/2019. Available at http://www.hpsc.ie/A-Z/Respiratory/Influenza/SeasonalInfluenza/Guidance/
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Glossary of Terms

CIPCN=Community Infection Prevention and Control Nurse
DPH=Director of Public Health
GP=General Practitioner
HSE=Health Service Executive
ILI=Influenza-like illness
MOH=Medical Officer of Health
OCT=Outbreak Control Team
PPE=Personal Protective Equipment
RCF=Residential Care Facility
SI=Statutory Instrument
Checklist for Residential Care Facilities (RCFs) on the Prevention, Detection and Control of Influenza-like illness and Influenza Outbreaks

Planning and education

1. All RCFs should appoint a staff member to lead on the development and implementation of an influenza prevention programme and on infection prevention and control policies/guidelines and protocols.

2. All RCF should develop written policies/guidelines which cover
   a. Immunisation of residents and staff
   b. Standard and Transmission Based Precautions including Droplet and Contact Precautions
   c. Outbreak management. This will include contingency plans for staff shortages (due to illness during the outbreak), ensuring sufficient supplies e.g. personal protective equipment (PPE) and restriction of visitor access, with appropriate signage around transmission reduction and restriction issues

3. All RCFs should ensure education and training in influenza prevention is provided to all new staff at induction and that regular re-training is provided to all staff on an ongoing basis.

4. Topics to include in the influenza education programme are
   a. Facts on influenza immunisation
   b. Standard and Transmission Based Precautions including Droplet and Contact Precautions
   c. Symptoms and signs of influenza infection
   d. Exclusion criteria for ill staff

5. All RCFs should routinely audit the implementation of the influenza prevention and control programme.

6. All RCFs should nominate a person to act as liaison with Public Health and the Community Infection Prevention and Control Nurse (CICPN) where available (for HSE facilities only) in the event of an outbreak.

Antiviral access

At the start of the influenza season, it is recommended that each RCF has procedures in place to ensure ready quick access to antiviral medications (Tamiflu) through the normal channels/pharmacy provider in the event of an influenza outbreak.
Influenza vaccination

Residents
1. It is the responsibility of the RCF management to ensure that all residents are vaccinated with influenza vaccine (unless there is a medical contraindication), at the beginning of each influenza season in late September or early October. Residents, not previously vaccinated, should also be vaccinated during an influenza outbreak.
2. All new unvaccinated residents or respite admissions during the influenza season should receive influenza vaccine, ideally at least two weeks before admission or else as soon as possible after admission.
3. Pneumococcal vaccination is also recommended for all residents aged 65 years and older and all residents who are in the recommended risk groups as per the Immunisation Guidelines for Ireland, 2013 (updated November 2017). Pneumococcal vaccine is not required annually (See Immunisation Guidelines, Updated July 2018).
5. Obtain resident’s or substitute decision maker’s consent for influenza and pneumococcal vaccine on admission to RCF.
6. The vaccination status of all residents should be recorded annually and vaccination coverage (% of residents vaccinated) estimated. This information should be easily accessible to Public Health in the event of an outbreak.

Staff
1. It is the responsibility of the RCF to maximise uptake of influenza vaccine and to ensure that all staff members are offered influenza vaccine, both at the beginning of each influenza season (September/October) and during an influenza outbreak if they are unvaccinated.
2. Prior to and upon employment and then annually each staff member should be assessed regarding their influenza vaccination status.
3. All staff should be encouraged to receive influenza vaccine at the start of each influenza season. Staff vaccinated late in the influenza season will also need vaccination at the start of the next influenza season.
4. The vaccination status of all staff should be recorded annually and vaccination coverage (% of staff vaccinated) estimated. This information should be easily accessible to Public Health in the event of an outbreak.
5. RCF management should provide feedback to staff on influenza vaccine coverage rates.
6. Ill staff should not attend for work. A written staff exclusion policy should be developed by each healthcare facility.

Visitors

Visitors of residents should be advised of the importance of receiving influenza vaccine, both for their own protection and for the protection of residents (usually relatives) who may have a suboptimal response to their own influenza vaccinations.
Each residential care facility should have resident and staff vaccination policies for influenza and pneumococcal infections.

All healthcare workers and residents of residential care facilities should be offered annual influenza vaccination.

The effectiveness of current influenza vaccines in the elderly population is often diminished. Increasing immunisation rates among healthcare workers and elderly caregivers and the development of more effective vaccines for the elderly is likely to significantly improve influenza prevention in this population.

Detection of an outbreak

1. Management at the RCF should have a process in place to monitor residents and staff for influenza-like illness (ILI) (See Appendix A). It is also important to monitor staff absenteeism rates for unusual patterns i.e. more than expected staff absent from work.
2. RCF staff should suspect an outbreak of influenza if an increase in respiratory or influenza-like illness is noted during routine illness monitoring (i.e. three or more cases in a 72 hour period) (See Appendix A).
3. If an outbreak of influenza-like illness is suspected, it is advisable that combined nose and throat swabs to check for influenza are taken from the initial patients and sent to the laboratory either locally or to the National Virus Reference Laboratory (NVRL) dependent on local arrangements. In an outbreak situation, combined nose and throat swabs should be collected.
4. RCF may seek advice from the local laboratory regarding access to viral swabs.
5. Adverse effects (e.g. prolonged isolation in a room) of being diagnosed as a case of influenza during an outbreak make it imperative that cases are assessed thoroughly and diagnosed in a timely manner.

Clinical manifestation of influenza in the elderly

The often subtle clinical manifestations of influenza in frail elderly patients may not be recognised initially leading to delayed diagnosis and delaying timely administration of antiviral treatment. In older adults, influenza symptoms may initially be very subtle and difficult to recognise. Instead, elderly patients may present only with cough, fatigue and confusion. While younger adults and children may have fevers as high as 104°F (40°C), the fever response may be more blunted in older adults and in nursing home elderly, influenza often fails to produce fever over 99°F (37.2°C). Elderly patients are also more susceptible to pulmonary complications from influenza. Influenza may present in the elderly patient as an exacerbation of an underlying condition such as chronic pulmonary and cardiovascular disease, Asthma, Diabetes Mellitus etc. If an increased number of residents become unwell over a short period of time with respiratory illness, influenza should be suspected.
Reporting and Notification of an Outbreak

1. RCF staff should inform the local medical team/attending GP(s) for the facility of suspected cases of influenza so that an appropriate diagnosis can be made. If cases are confirmed as meeting the diagnosis of ILI or influenza, the GP confirming the suspected outbreak should then notify the local Director of Public Health/Medical Officer of Health (DPH/MOH) or Public Health Specialist on Call at the local Department of Public Health (under the Infectious Diseases Regulations) who will provide advice and support on control measures and the management of the outbreak. This is in accordance with the amended Infectious Disease Regulations (SI 707: 2003). In HSE residential care facilities, RCF staff should also inform the HSE Community Infection Prevention and Control Nurse (CIPCN) (where available in HSE facilities only) of all influenza and ILI outbreaks and the CIPCN (HSE facilities only) will also provide advice and support to the facility. Management at the RCF should ensure that all relevant contact numbers are readily available at all times.

2. Management at the RCF should nominate a person to act as liaison with Public Health and the CIPCN.

Implementation of infection control measures

RCF staff must ensure that Standard and Transmission Based Precautions i.e. Droplet and Contact Precautions are implemented promptly if influenza or respiratory infection is suspected in any resident.

For more specific details on Standard and Transmission Based Precautions i.e. Droplet and Contact Precautions including additional precautions for aerosol generating procedures in relation to influenza, refer to Infection Prevention and Control for Patients with Suspected or Confirmed Influenza Virus in Healthcare Settings for detailed information available at: http://www.hpsc.ie/A-Z/Respiratory/Influenza/SeasonalInfluenza/Infectioncontroladvice/
Key points for influenza control

1. Reinforce implementation of Standard Precautions especially hand hygiene, respiratory hygiene and cough etiquette, vaccination and antiviral treatment and chemoprophylaxis for non-symptomatic patients.

2. Implement additional Transmission Based Precautions including Droplet and Contact Precautions (where applicable) for at least 7 days after symptom onset or as instructed by the OCT (See Duration of Transmission Based Precautions on P.8).

3. Establish the diagnosis early in the outbreak by taking combined viral nose and throat swabs from ill residents.

4. Use single rooms when available or else cohort ill residents.

5. Mask residents (with surgical mask if tolerated) when transported out of their room.

6. Prolonged duration of viral shedding (i.e. for several weeks) has been observed in immunocompromised patients; hence the duration of precautions cannot be defined for residents who are immunocompromised. Discuss with the consultant microbiologist/virologist.

7. Exclusion of symptomatic staff: All staff should be aware about what to do if they become ill. Ill staff (including those that are vaccinated or taking antiviral medication) should stay away from work for at least 5 days and until they are well enough to return. A written staff exclusion policy should be developed by each healthcare facility. Staff should be advised to practice good respiratory hygiene/cough etiquette and hand hygiene on return to work. Staff should be advised to practice good respiratory hygiene/cough etiquette and hand hygiene on return to work.

8. Exclusion of symptomatic visitors.

Duration of Transmission Based Precautions i.e. Droplet Precautions and Contact Precautions (where applicable)

International recommendations in relation to the duration of Droplet and Contact Precautions for cases of Influenza vary from country to country. In the UK and Scotland the exact duration of precautions is not specified. Australian guidelines recommend discontinuing precautions 5 days from onset of symptoms whereas the CDC (USA) recommends continuing precautions for at least 7 days post symptom onset.

Droplet and Contact Precautions should be continued for as long as residents remain symptomatic or are considered infectious. Treating clinicians should always be consulted before discontinuing precautions taking into consideration individual resident risk factors including the age of the resident, the presence of existing comorbidities, immunosuppression and the presence and severity of symptoms.

As a guide to assist healthcare workers, current Irish guidelines suggest following the CDC recommendation to maintain transmission based precautions for at least 7 days. Refer to [http://www.hpsc.ie/A-Z/Respiratory/Influenza/SeasonalInfluenza/Infectioncontroladvice/](http://www.hpsc.ie/A-Z/Respiratory/Influenza/SeasonalInfluenza/Infectioncontroladvice/)
However, clinical judgment should be exercised in each instance and the time frame may be shortened in situations where residents are healthy.

In relation to infected staff, all staff should be aware about what to do if they become ill. Ill staff (including those that are vaccinated or taking antiviral medication) should stay away from work for at least 5 days and until they are well enough to return. A written staff exclusion policy should be developed by each healthcare facility. Staff should be advised to practice good respiratory hygiene/cough etiquette and hand hygiene on return to work.

**See Appendix B for Standard and Transmission Based Precautions.**

**Risk Assessment and Outbreak Management**

1. On notification of an outbreak, the local Department of Public Health will liaise with the RCF and undertake a risk assessment to verify the extent and seriousness of the outbreak. To assist the risk assessment the RCF will be required to provide the following information:

   a. The total number of staff and residents
   b. The number of ill residents
   c. The number of ill staff including recent absenteeism rate
   d. The pattern of illness in terms of the date of onset of symptoms, type of symptoms and severity of illness i.e. number hospitalised, number dead
   e. If any relatives or visitors of residents were ill with similar illness
   f. If there is a working diagnosis for the illness
   g. The layout of the facility (location of cases) and which infection prevention and control measures have already been implemented e.g. visitor restrictions, cessation of new admissions, staff exclusion etc.
   h. If viral swabs have been taken for influenza or other respiratory pathogens
   i. If antivirals have been initiated as treatment and/or chemoprophylaxis, and if so, provide the number of staff and residents that received treatment/chemoprophylaxis
   j. The vaccination status of both residents and staff, including the numbers vaccinated prior to and during the outbreak.

2. Following the risk assessment, Public Health will decide whether or not to convene an outbreak control team (OCT). An OCT will be convened if deemed necessary.

3. If an OCT is not deemed necessary, Public Health and the local CIPCN, where one is available (HSE facilities only) will provide advice and support to the RCF on the management of the outbreak including infection prevention and control measures e.g. Standard and Transmission-Based Precautions (i.e. Droplet and Contact Precautions), antiviral treatment and
chemoprophylaxis and vaccination. Additional support may be provided in the event an OCT is convened.

4. The RCF will also notify Public Health and the CIPCN on a daily basis in relation to the status of cases (residents and staff), new cases, implementation of control measures, difficulties encountered etc. This will continue until the outbreak is declared over.

5. Following the risk assessment, Public Health may recommend antiviral treatment and chemoprophylaxis. This should be prescribed by the patient’s physician.

**Influenza vaccination during an outbreak**

1. During influenza outbreaks, influenza vaccine should be offered (unless contraindicated) to all unvaccinated residents, staff members and recommended for unvaccinated visitors and volunteers. It takes approximately 2 weeks for a protective immune response to develop.

2. Vaccination of staff may take place on the facility as per local arrangements in accordance with best practice. Alternatively staff members may visit their GP for the vaccine.

3. It is the responsibility of the RCF to ensure that all unvaccinated residents are vaccinated on admission and during an influenza outbreak (if they are unvaccinated) and that this information is recorded.

4. It is the responsibility of the RCF to maximise uptake of influenza vaccine and to offer vaccine to all unvaccinated staff members during an influenza outbreak.

**Steps to remember**

1. Early identification of a suspected outbreak of influenza-like illness or influenza to be verified by the attending GP.

2. The diagnosing GP should notify the local Director of Public Health (MOH) or Public Health Specialist on call who will provide advice and support on control measures and the management of the outbreak. This is in accordance with the amended Infectious Disease Regulations (SI 707: 2003).

3. In HSE residential care facilities, RCF staff should also inform the HSE Community Infection Prevention and Control Nurse (CIPCN) where available (HSE facilities only) of all ILI and influenza outbreaks and the CIPCN will also provide advice and support to the facility.

4. The RCF should nominate a person to act as liaison with Public Health and the CIPCN.

5. Implementation of Standard Precautions and Transmission Based Precautions i.e. Droplet and Contact Precautions (where applicable) for symptomatic cases. Other control measures should be implemented as advised e.g. vaccination and use of antiviral drugs for treatment and chemoprophylaxis.

6. Public Health will undertake a risk assessment and will establish an outbreak control team (OCT) if required. They will provide advice and support on control measures and the management of the outbreak e.g. Standard, and Transmission
Based Precautions i.e. Droplet and Contact Precautions, antiviral treatment and chemoprophylaxis, vaccination.

See Appendix C: Sample poster on respiratory hygiene/cough etiquette

See Appendix D: Summary table with key measures for the prevention and control of outbreaks of seasonal influenza in long-term care facilities
Appendix A: Monitoring of influenza-like illness and influenza including reporting

Surveillance (monitoring for illness) is an essential component of any effective infection prevention and control programme. Influenza outbreaks may still occur among highly vaccinated residents of RCF and staff of such facilities should be prepared to monitor residents and personnel each year for influenza-like illness (ILI)/influenza symptoms and promptly initiate measures to control the spread of influenza within facilities where outbreaks are detected. Monitoring for ILI/influenza infections should occur year round and particularly between weeks 40 and 20 (influenza season: beginning of October to the end of May), however influenza outbreaks can occur at anytime of the year even during the summer. All staff should be aware of the early signs and symptoms of influenza-like illness.

Clinical manifestation of influenza in the elderly

The often subtle clinical manifestations of influenza in frail elderly patients may not be recognised initially impeding timely administration of antiviral treatment. In older adults, influenza symptoms may initially be very subtle and difficult to recognise. Instead, elderly patients may present only with cough, fatigue and confusion. While younger adults and children may have fevers as high as 104°F (40°C), the fever response may be more blunted in older adults and in nursing home elderly, influenza often fails to produce fever over 99°F (37.2°C). Elderly patients are also more susceptible to pulmonary complications from influenza. Influenza may present in the elderly patient as an exacerbation of an underlying condition such as chronic pulmonary and cardiovascular disease, Asthma, Diabetes Mellitus etc. If an increased number of residents become unwell over a short period of time with respiratory illness, influenza should be suspected.

Influenza-like illness (ILI) as per current definition in Ireland

Sudden onset of symptoms

And

At least one of the following four systemic symptoms:

• Fever or feverishness
• Malaise
• Headache
• Myalgia (muscle pains)

And

At least one of the following three respiratory symptoms:

• Cough
• Sore throat
• Shortness of breath
Management of RCF should have a process in place to monitor staff and residents for ILI.
It is also important to monitor staff absenteeism rates for unusual patterns i.e. more than expected staff absent from work.

**Definition of an ILI or influenza or respiratory disease outbreak**

The following is the current definition for an outbreak of:
1. Influenza-like illness (ILI) or
2. Laboratory confirmed influenza (influenza A and B virus) or
3. Probable or possible influenza (influenza A and B virus) or
4. Acute respiratory illness

**Definition of an influenza/ILI outbreak**
Three² or more cases of influenza-like illness (ILI) or influenza or respiratory illness within the same 72 hour period in the RCF which meet the same clinical case definition and where an epidemiological link can be established.

**NOTE:** Please contact the local Department of Public Health to discuss if necessary

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² Investigation of lower numbers of cases can be undertaken if considered appropriate following public health risk assessment.
Appendix B: Standard and Transmission Based Precautions

Standard Precautions

Standard Precautions are a group of routine infection prevention and control measures that should be practiced at all times by all staff in all settings regardless of suspected, confirmed or infectious status. Their importance should be reinforced during an outbreak. Standard Precautions require all healthcare workers to assume that all blood, body fluids, secretions and excretions (except sweat), non-intact skin and mucous membranes are potential sources of infection.

The key elements of Standard Precautions are

- Hand hygiene
- Occupational Health
- Personal protective equipment (PPE)
- Respiratory hygiene and cough etiquette
- Management of spillages of blood and body fluids
- Management of needlestick/sharps injuries and blood and body fluid exposures
- Management of laundry and linen
- Environmental hygiene
- Safe management of resident-care equipment and medical devices
- Management of healthcare waste and sharps
- Resident placement, movement and transfer
- Safe injection practices
- Infection control practices for lumbar punctures.

Respiratory hygiene/cough etiquette

Respiratory hygiene/cough etiquette is a new component of Standard Precautions. This strategy applies at all times (i.e. not just during an outbreak) to any person with signs of illness including cough, congestion, rhinorhoea or the increased production of respiratory sections when entering or while resident in the healthcare facility.

The elements of respiratory hygiene/cough etiquette include

1. Source control measures e.g. covering the nose/mouth with a tissue when coughing and prompt disposal of used tissue, using surgical masks on coughing patients when tolerated and appropriate
2. Education of healthcare staff in the RCF, patients and visitors of measures outlined in 1 above
3. Posted visual signs in language(s) appropriate to the population served with instructions to patients and accompanying family members or friends to inform staff if they have respiratory symptoms and of measures outlined in 1 above
4. Hand hygiene after contact with respiratory secretions and
5. Spatial separation, ideally >3 feet (1 metre), of persons with respiratory infections in common waiting areas when possible
Covering sneezes and coughs and placing masks on coughing patients are proven means of source containment that prevent infected persons from dispersing respiratory secretions into the air. Coughing/sneezing etiquette is as follows:

1. Residents and staff should be encouraged to practice good respiratory hygiene which involves covering the mouth/nose when sneezing and coughing and using tissues to contain respiratory secretions.
2. Tissues should be disposed of immediately in the general waste and the hands thoroughly washed with soap and water or cleaned with alcohol-based hand cleaner.
3. If an ill resident is coughing persistently, the use of a surgical mask (if tolerated) may assist in preventing the dispersal of infected droplets.

See Appendix C for sample poster on Respiratory Hygiene/Cough Etiquette.

Additional infection prevention and control precautions

Transmission Based Precautions are additional infection prevention and control measures that are recommended when Standard Precautions alone are not enough to prevent the spread of infectious diseases such as influenza, pulmonary tuberculosis, and chicken pox.

Unlike Standard Precautions that apply to all residents, Transmission Based Precautions only apply to particular clients based on either a suspected or confirmed infection or disease e.g. influenza.

There are three categories of Transmission Based Precautions:
- Droplet Precautions
- Contact Precautions
- Airborne Precautions

More than one set of precautions may be required for infections spread by multiple routes.

Droplet Precautions

Droplet Precautions are used in addition to Standard Precautions to prevent and control infections spread over short distances, less than 3 feet (1 metre) by large droplets (≥5µm in size). Droplet transmission occurs when large droplets from the respiratory tract of an infected person are spread directly on to a mucosal surface (e.g. eyes, nose, and mouth) of another person. Respiratory droplets are shed when a person is coughing, sneezing or talking and during certain healthcare procedures such as suctioning and endotracheal intubation.
Contact Precautions

Contact Precautions are used in addition to Standard Precautions to prevent and control infections that are transmitted by direct contact with the resident or indirectly through contact with the resident’s immediate care environment.

Residents aged ≥5 years: **Droplet Precautions** in addition to **Standard Precautions** are required to prevent transmission of Influenza in healthcare facilities.

Residents aged <5 years: **Droplet**, **Contact** and **Standard Precautions** are required to prevent transmission of Influenza in healthcare facilities.

For more specific details on Standard, Droplet, Contact and additional precautions for aerosol generating procedures in relation to influenza, refer to **Infection Prevention and Control for Patients with Suspected or Confirmed Influenza Virus in Healthcare Settings** for detailed information, available at: [http://www.hpsc.ie/A-Z/Respiratory/Influenza/SeasonalInfluenza/Infectioncontroladvice/](http://www.hpsc.ie/A-Z/Respiratory/Influenza/SeasonalInfluenza/Infectioncontroladvice/)

All RCFs must have local guidelines and an education programme in place for Standard and Transmission Based Precautions.

Infection control measures

In the outbreak situation, infection control measures should be tailored for the specific situation. This is done in conjunction with infection prevention and control staff, Public Health staff and the medical director/officer of the RCF. In addition, all staff at the RCF should be notified of the outbreak and management should ensure that all resources (gloves, goggles, masks, liquid soap, paper towels, alcohol gel/rub, tissues etc) are available as required.

Additional considerations include

1. If an outbreak is confined to one unit, all residents from that unit should be encouraged to avoid contact with residents in the other units in the facility
2. Limiting social activities and restricting all residents to their units as much as possible
3. Considering rescheduling of non-urgent medical appointments made prior to the outbreak

Admissions, transfers, visitors

1. When a resident is transferred to hospital from a RCF experiencing an outbreak, the RCF should advise the ambulance staff and the hospital infection prevention and control specialist in advance and provide details of
the outbreak. This will ensure that appropriate infection control measures are in place when the resident arrives at the hospital.

2. Admissions of new residents to RCF during an outbreak are generally not recommended.

3. Non-urgent resident transfers (from anywhere in the RCF) to another RCF are not recommended.

4. Post a visitor restriction sign at all entrances of the RCF indicating that there is an outbreak in the RCF.

5. Limit visitors as much as possible:
   a. Exclude all children or anyone with ILI symptoms regardless of age
   b. Advise visitors to:
      • Use alcohol hand gel/rub on their hands on entry and exit to the facility
      • Visit only one resident and exit the RCF immediately after the visit

The RCF should ensure that surgical masks are available for visitors with respiratory symptoms who might inadvertently enter the RCF. These visitors should be excluded except in exceptional circumstances and at the discretion of the person-in-charge of the residential care facility.

**Staff**

1. In the context of a suspected ILI/influenza outbreak, monitor staff and volunteer absenteeism due to respiratory symptoms consistent with influenza. Staff experiencing influenza-like symptoms or fever should not work in any healthcare setting including a RCF.

2. All staff should be aware about what to do if they become ill. Ill staff (including those that are vaccinated or taking antiviral medication) should stay away from work for at least 5 days and until they are well enough to return. A written staff exclusion policy should be developed by each healthcare facility. Staff should be advised to practice good respiratory hygiene/cough etiquette and hand hygiene on return to work.

3. Staff should be advised to practice good respiratory hygiene/cough etiquette and hand hygiene on return to work.

4. Attempts should be made to minimise movement of staff between floors/units of the facility especially if some units are unaffected. Discuss the possibility of one staff member (or group of staff) looking after ill residents and others looking after well residents.

5. During an outbreak, it is recommended that only vaccinated staff should be working in the affected unit. **It is strongly recommended that all staff should be vaccinated against influenza unless there are contraindications.**

6. Asymptomatic vaccinated staff members are not restricted from working at other facilities.

7. Unvaccinated asymptomatic staff should wait one incubation period (3 days) from the last day that they worked at the outbreak facility/unit prior to working in a non-outbreak facility to ensure that they are not incubating influenza.
Appendix C: Sample poster on respiratory hygiene/cough etiquette

Coughing and Sneezing

- Turn your head away from others
- Use a tissue to cover your nose and mouth
- Drop your tissue into a waste bin
- No tissues? Use your sleeve
- Clean your hands after discarding tissue using soap and water or alcohol gel for at least 15 seconds

These steps will help prevent the spread of colds, flu and other respiratory infections
## Summary Table (page 1 of 2)

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<td>Training and education</td>
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<td>Provision of supplies</td>
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<td><strong>Vaccination of residents</strong></td>
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<td>Offer catch-up vaccination to new unvaccinated residents</td>
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<td>Offer to previously unvaccinated residents</td>
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<td></td>
<td><strong>Vaccination of staff</strong></td>
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<tr>
<td></td>
<td></td>
<td>Maximise update prior to influenza season</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Named staff member responsible for coordination</td>
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<tr>
<td></td>
<td></td>
<td>Record vaccination status in staff records</td>
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<tr>
<td></td>
<td></td>
<td>Feedback on vaccination coverage</td>
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<td></td>
<td><strong>Standard precautions</strong></td>
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<td></td>
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<td>Standard infection control procedures</td>
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<td></td>
<td></td>
<td>Should be practised by all staff at all times</td>
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<tr>
<td></td>
<td><strong>Surveillance</strong></td>
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<td></td>
<td></td>
<td>Awareness of influenza signs and symptoms</td>
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<td>Throughout the year but particularly October to May</td>
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<tr>
<td></td>
<td><strong>Early recognition</strong></td>
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<tr>
<td></td>
<td>Case definition</td>
<td>Case definition (Appendices B &amp; C)</td>
</tr>
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<td></td>
<td></td>
<td>In the elderly, presentation may be atypical and without fever</td>
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<tr>
<td></td>
<td>Outbreak definition</td>
<td>Action threshold for outbreak control measures</td>
</tr>
<tr>
<td></td>
<td></td>
<td>≥ 3 epidemiologically-linked cases within 72 hours</td>
</tr>
<tr>
<td></td>
<td>Communication of suspected outbreak</td>
<td>Notification of senior staff, management, medical staff and public health</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Staff to be aware of upward notification chain</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Contact GP/medical team</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Notify public health locally</td>
</tr>
<tr>
<td></td>
<td>Formation of outbreak control team (OCT)</td>
<td>OCT may be convened following risk assessment</td>
</tr>
<tr>
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<td></td>
<td>Coordination with Public Health locally</td>
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<tr>
<td></td>
<td>Testing</td>
<td>Viral swabbing</td>
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<td></td>
<td>Awareness of local provision of viral swabs</td>
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<td>Coordination with Public Health and local laboratory/NVRL</td>
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<th>Domain</th>
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<tr>
<td>Initial actions</td>
<td>Daily case list</td>
<td>Daily list of affected residents and staff communicated to Public Health (depending on local arrangements)</td>
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<td>Initial actions</td>
<td>Active daily surveillance</td>
<td>Daily temperature and symptom review of residents and staff to identify new cases</td>
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<td>Initial actions</td>
<td>Vaccination</td>
<td>Offer to unvaccinated residents and staff (but not as a control measure)</td>
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<td>Standard transmission-based precautions</td>
<td>Standard precautions should be in place already but heightened. Transmission-based precautions (droplet, airborne, and contact) should be implemented as appropriate (see p10-p14)</td>
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<td>Resident placement</td>
<td>Single room isolation/Cohorting</td>
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<td>Respiratory hygiene</td>
<td>Cover mouth and nose for coughing/sneezing. Adequate supplies of tissues and disposal bins Hand hygiene after respiratory hygiene Masks for residents transported out of isolation area</td>
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<td>Hand hygiene</td>
<td>Five critical points in resident case:</td>
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<td>Hand hygiene</td>
<td>• Before patient contact</td>
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<td>Hand hygiene</td>
<td>• Before aseptic task</td>
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</tr>
<tr>
<td>Hand hygiene</td>
<td>• After body fluid exposure risk</td>
<td></td>
</tr>
<tr>
<td>Hand hygiene</td>
<td>• After patient contact</td>
<td></td>
</tr>
<tr>
<td>Hand hygiene</td>
<td>• After contact with patient’s surroundings</td>
<td></td>
</tr>
<tr>
<td>Hand hygiene after PPE removal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal protective equipment</td>
<td>Gloves, aprons, gowns, face protection</td>
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<tr>
<td>Aerosol generating procedures</td>
<td>Highest level of respiratory protection (FFP2/3) available if performing a high-risk AGP</td>
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<td>Environmental control measures</td>
<td>Resident environment cleaning and disinfection Resident care equipment Laundry Eating utensils and crockery</td>
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<td>Transfers restricted</td>
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<td>Restricted communal activities</td>
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<td>Containment measures</td>
<td>Visitor restrictions</td>
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<tr>
<td>Treatment</td>
<td>Recommended on an individual basis following clinical assessment (see p30 &amp; p31)</td>
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<tr>
<td>Prophylaxis</td>
<td>Decision for residents based on risk assessment, clinical judgement and outbreak severity (see p30-p33) Consider for HCWs if unvaccinated and in seasons when vaccine mismatched with circulating strain and where evidence exists for complex ongoing chains of transmission involving patients and staff</td>
<td></td>
</tr>
<tr>
<td>Use of antivirals</td>
<td></td>
<td></td>
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<tr>
<td>Post outbreak</td>
<td>Declaration of end of outbreak</td>
<td>As advised by Public Health (see p34)</td>
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Checklist for Residential Care Facilities on the Prevention, Detection and Control of Influenza-like illness and Influenza Outbreaks 2018/2019

Public Health Medicine Communicable Disease Group

<table>
<thead>
<tr>
<th>Version</th>
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<th>Reviewer</th>
<th>Comment</th>
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1 This checklist is an aide-memoire. It is recommended to read it in conjunction with the Public Health Guidelines on the Prevention and Management of Influenza Outbreaks in Residential Care Facilities in Ireland 2018/2019. Available at http://www.hpsc.ie/A-Z/Respiratory/Influenza/SeasonalInfluenza/Guidance/
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Glossary of Terms

**CIPCN** = Community Infection Prevention and Control Nurse
**DPH** = Director of Public Health
**GP** = General Practitioner
**HSE** = Health Service Executive
**ILI** = Influenza-like illness
**MOH** = Medical Officer of Health
**OCT** = Outbreak Control Team
**PPE** = Personal Protective Equipment
**RCF** = Residential Care Facility
**SI** = Statutory Instrument
Checklist for Residential Care Facilities (RCFs) on the Prevention, Detection and Control of Influenza-like illness and Influenza Outbreaks

Planning and education

1. All RCFs should appoint a staff member to lead on the development and implementation of an influenza prevention programme and on infection prevention and control policies/guidelines and protocols.
2. All RCF should develop written policies/guidelines which cover
   a. Immunisation of residents and staff
   b. Standard and Transmission Based Precautions including Droplet and Contact Precautions
   c. Outbreak management. This will include contingency plans for staff shortages (due to illness during the outbreak), ensuring sufficient supplies e.g. personal protective equipment (PPE) and restriction of visitor access, with appropriate signage around transmission reduction and restriction issues
3. All RCFs should ensure education and training in influenza prevention is provided to all new staff at induction and that regular re-training is provided to all staff on an ongoing basis.
4. Topics to include in the influenza education programme are
   a. Facts on influenza immunisation
   b. Standard and Transmission Based Precautions including Droplet and Contact Precautions
   c. Symptoms and signs of influenza infection
   d. Exclusion criteria for ill staff
5. All RCFs should routinely audit the implementation of the influenza prevention and control programme.
6. All RCFs should nominate a person to act as liaison with Public Health and the Community Infection Prevention and Control Nurse (CIPCN) where available (for HSE facilities only) in the event of an outbreak.

Antiviral access

At the start of the influenza season, it is recommended that each RCF has procedures in place to ensure ready quick access to antiviral medications (Tamiflu) through the normal channels/pharmacy provider in the event of an influenza outbreak.
Influenza vaccination

Residents

1. It is the responsibility of the RCF management to ensure that all residents are vaccinated with influenza vaccine (unless there is a medical contraindication), at the beginning of each influenza season in late September or early October. Residents, not previously vaccinated, should also be vaccinated during an influenza outbreak.

2. All new unvaccinated residents or respite admissions during the influenza season should receive influenza vaccine, ideally at least two weeks before admission or else as soon as possible after admission.

3. Pneumococcal vaccination is also recommended for all residents aged 65 years and older and all residents who are in the recommended risk groups as per the Immunisation Guidelines for Ireland, 2013 (updated November 2017). Pneumococcal vaccine is not required annually (See Immunisation Guidelines, Updated July 2018).


5. Obtain resident's or substitute decision maker's consent for influenza and pneumococcal vaccine on admission to RCF.

6. The vaccination status of all residents should be recorded annually and vaccination coverage (% of residents vaccinated) estimated. This information should be easily accessible to Public Health in the event of an outbreak.

Staff

1. It is the responsibility of the RCF to maximise uptake of influenza vaccine and to ensure that all staff members are offered influenza vaccine, both at the beginning of each influenza season (September/October) and during an influenza outbreak if they are unvaccinated.

2. Prior to and upon employment and then annually each staff member should be assessed regarding their influenza vaccination status.

3. All staff should be encouraged to receive influenza vaccine at the start of each influenza season. Staff vaccinated late in the influenza season will also need vaccination at the start of the next influenza season.

4. The vaccination status of all staff should be recorded annually and vaccination coverage (% of staff vaccinated) estimated. This information should be easily accessible to Public Health in the event of an outbreak.

5. RCF management should provide feedback to staff on influenza vaccine coverage rates.

6. Ill staff should not attend for work. A written staff exclusion policy should be developed by each healthcare facility.

Visitors

Visitors of residents should be advised of the importance of receiving influenza vaccine, both for their own protection and for the protection of residents (usually relatives) who may have a suboptimal response to their own influenza vaccinations.
Each residential care facility should have resident and staff vaccination policies for influenza and pneumococcal infections.

All healthcare workers and residents of residential care facilities should be offered annual influenza vaccination.

The effectiveness of current influenza vaccines in the elderly population is often diminished. Increasing immunisation rates among healthcare workers and elderly caregivers and the development of more effective vaccines for the elderly is likely to significantly improve influenza prevention in this population.

Detection of an outbreak

1. Management at the RCF should have a process in place to monitor residents and staff for influenza-like illness (ILI) (See Appendix A). It is also important to monitor staff absenteeism rates for unusual patterns i.e. more than expected staff absent from work.

2. RCF staff should suspect an outbreak of influenza if an increase in respiratory or influenza-like illness is noted during routine illness monitoring (i.e. three or more cases in a 72 hour period) (See Appendix A).

3. If an outbreak of influenza-like illness is suspected, it is advisable that combined nose and throat swabs to check for influenza are taken from the initial patients and sent to the laboratory either locally or to the National Virus Reference Laboratory (NVRL) dependent on local arrangements. In an outbreak situation, combined nose and throat swabs should be collected.

4. RCF may seek advice from the local laboratory regarding access to viral swabs.

5. Adverse effects (e.g. prolonged isolation in a room) of being diagnosed as a case of influenza during an outbreak make it imperative that cases are assessed thoroughly and diagnosed in a timely manner.

Clinical manifestation of influenza in the elderly

The often subtle clinical manifestations of influenza in frail elderly patients may not be recognised initially leading to delayed diagnosis and delaying timely administration of antiviral treatment. In older adults, influenza symptoms may initially be very subtle and difficult to recognise. Instead, elderly patients may present only with cough, fatigue and confusion. While younger adults and children may have fevers as high as 104°F (40°C), the fever response may be more blunted in older adults and in nursing home elderly, influenza often fails to produce fever over 99°F (37.2°C). Elderly patients are also more susceptible to pulmonary complications from influenza. Influenza may present in the elderly patient as an exacerbation of an underlying condition such as chronic pulmonary and cardiovascular disease, Asthma, Diabetes Mellitus etc. If an increased number of residents become unwell over a short period of time with respiratory illness, influenza should be suspected.
Reporting and Notification of an Outbreak

1. RCF staff should inform the local medical team/attending GP(s) for the facility of suspected cases of influenza so that an appropriate diagnosis can be made. If cases are confirmed as meeting the diagnosis of ILI or influenza, the GP confirming the suspected outbreak should then notify the local Director of Public Health/Medical Officer of Health (DPH/MOH) or Public Health Specialist on Call at the local Department of Public Health (under the Infectious Diseases Regulations) who will provide advice and support on control measures and the management of the outbreak. This is in accordance with the amended *Infectious Disease Regulations (SI 707: 2003)*. In HSE residential care facilities, RCF staff should also inform the HSE Community Infection Prevention and Control Nurse (CIPCN) (where available in HSE facilities only) of all influenza and ILI outbreaks and the CIPCN (HSE facilities only) will also provide advice and support to the facility. Management at the RCF should ensure that all relevant contact numbers are readily available at all times.

2. Management at the RCF should nominate a person to act as liaison with Public Health and the CIPCN.

Implementation of infection control measures

RCF staff must ensure that Standard and Transmission Based Precautions i.e. Droplet and Contact Precautions are implemented promptly if influenza or respiratory infection is suspected in any resident.

For more specific details on Standard and Transmission Based Precautions i.e. Droplet and Contact Precautions including additional precautions for aerosol generating procedures in relation to influenza, refer to *Infection Prevention and Control for Patients with Suspected or Confirmed Influenza Virus in Healthcare Settings* for detailed information available at: [http://www.hpsc.ie/A-Z/Respiratory/Influenza/SeasonalInfluenza/Infectioncontroladvice/](http://www.hpsc.ie/A-Z/Respiratory/Influenza/SeasonalInfluenza/Infectioncontroladvice/)
Key points for influenza control

1. Reinforce implementation of Standard Precautions especially hand hygiene, respiratory hygiene and cough etiquette, vaccination and antiviral treatment and chemoprophylaxis for non-symptomatic patients.

2. Implement additional Transmission Based Precautions including Droplet and Contact Precautions (where applicable) for at least 7 days after symptom onset or as instructed by the OCT (See Duration of Transmission Based Precautions on P.8).

3. Establish the diagnosis early in the outbreak by taking combined viral nose and throat swabs from ill residents.

4. Use single rooms when available or else cohort ill residents.

5. Mask residents (with surgical mask if tolerated) when transported out of their room.

6. Prolonged duration of viral shedding (i.e. for several weeks) has been observed in immunocompromised patients; hence the duration of precautions cannot be defined for residents who are immunocompromised. Discuss with the consultant microbiologist/virologist.

7. Exclusion of symptomatic staff: All staff should be aware about what to do if they become ill. Ill staff (including those that are vaccinated or taking antiviral medication) should stay away from work for at least 5 days and until they are well enough to return. A written staff exclusion policy should be developed by each healthcare facility. Staff should be advised to practice good respiratory hygiene/cough etiquette and hand hygiene on return to work.

8. Exclusion of symptomatic visitors.

Duration of Transmission Based Precautions i.e. Droplet Precautions and Contact Precautions (where applicable)

International recommendations in relation to the duration of Droplet and Contact Precautions for cases of Influenza vary from country to country. In the UK and Scotland the exact duration of precautions is not specified. Australian guidelines recommend discontinuing precautions 5 days from onset of symptoms whereas the CDC (USA) recommends continuing precautions for at least 7 days post symptom onset.

Droplet and Contact Precautions should be continued for as long as residents remain symptomatic or are considered infectious. Treating clinicians should always be consulted before discontinuing precautions taking into consideration individual resident risk factors including the age of the resident, the presence of existing comorbidities, immunosuppression and the presence and severity of symptoms.

As a guide to assist healthcare workers, current Irish guidelines suggest following the CDC recommendation to maintain transmission based precautions for at least 7 days. Refer to [http://www.hpsc.ie/A-Z/Respiratory/Influenza/SeasonallInfluenza/Infectioncontroladvice/](http://www.hpsc.ie/A-Z/Respiratory/Influenza/SeasonallInfluenza/Infectioncontroladvice/)
However, clinical judgment should be exercised in each instance and the time frame may be shortened in situations where residents are healthy.

In relation to infected staff, all staff should be aware about what to do if they become ill. Ill staff (including those that are vaccinated or taking antiviral medication) should stay away from work for at least 5 days and until they are well enough to return. A written staff exclusion policy should be developed by each healthcare facility. Staff should be advised to practice good respiratory hygiene/cough etiquette and hand hygiene on return to work.

**See Appendix B for Standard and Transmission Based Precautions.**

**Risk Assessment and Outbreak Management**

1. On notification of an outbreak, the local Department of Public Health will liaise with the RCF and undertake a risk assessment to verify the extent and seriousness of the outbreak. To assist the risk assessment the RCF will be required to provide the following information:

   a. The total number of staff and residents
   b. The number of ill residents
   c. The number of ill staff including recent absenteeism rate
   d. The pattern of illness in terms of the date of onset of symptoms, type of symptoms and severity of illness i.e. number hospitalised, number dead
   e. If any relatives or visitors of residents were ill with similar illness
   f. If there is a working diagnosis for the illness
   g. The layout of the facility (location of cases) and which infection prevention and control measures have already been implemented e.g. visitor restrictions, cessation of new admissions, staff exclusion etc.
   h. If viral swabs have been taken for influenza or other respiratory pathogens
   i. If antivirals have been initiated as treatment and/or chemoprophylaxis, and if so, provide the number of staff and residents that received treatment/chemoprophylaxis
   j. The vaccination status of both residents and staff, including the numbers vaccinated prior to and during the outbreak.

2. Following the risk assessment, Public Health will decide whether or not to convene an outbreak control team (OCT). An OCT will be convened if deemed necessary.

3. If an OCT is not deemed necessary, Public Health and the local CIPCN, where one is available (HSE facilities only) will provide advice and support to the RCF on the management of the outbreak including infection prevention and control measures e.g. Standard and Transmission-Based Precautions (i.e. Droplet and Contact Precautions), antiviral treatment and chemoprophylaxis and vaccination. Additional support may be provided in the event an OCT is convened.
4. The RCF will also notify Public Health and the CIPC N on a daily basis in relation to the status of cases (residents and staff), new cases, implementation of control measures, difficulties encountered etc. This will continue until the outbreak is declared over.

5. Following the risk assessment, Public Health may recommend antiviral treatment and chemoprophylaxis. This should be prescribed by the patient’s physician.

**Influenza vaccination during an outbreak**

1. During influenza outbreaks, influenza vaccine should be offered (unless contraindicated) to all unvaccinated residents, staff members and recommended for unvaccinated visitors and volunteers. It takes approximately 2 weeks for a protective immune response to develop.

2. Vaccination of staff may take place on the facility as per local arrangements in accordance with best practice. Alternatively staff members may visit their GP for the vaccine.

3. It is the responsibility of the RCF to ensure that all unvaccinated residents are vaccinated on admission and during an influenza outbreak (if they are unvaccinated) and that this information is recorded.

4. It is the responsibility of the RCF to maximise uptake of influenza vaccine and to offer vaccine to all unvaccinated staff members during an influenza outbreak.

**Steps to remember**

1. Early identification of a suspected outbreak of influenza-like illness or influenza to be verified by the attending GP.

2. The diagnosing GP should notify the local Director of Public Health (MOH) or Public Health Specialist on call who will provide advice and support on control measures and the management of the outbreak. This is in accordance with the amended Infectious Disease Regulations (S1 707: 2003).

3. In HSE residential care facilities, RCF staff should also inform the HSE Community Infection Prevention and Control Nurse (CIPCN) where available (HSE facilities only) of all ILI and influenza outbreaks and the CIPCN will also provide advice and support to the facility.

4. The RCF should nominate a person to act as liaison with Public Health and the CIPCN.

5. Implementation of Standard Precautions and Transmission Based Precautions i.e. Droplet and Contact Precautions (where applicable) for symptomatic cases. Other control measures should be implemented as advised e.g. vaccination and use of antiviral drugs for treatment and chemoprophylaxis.

6. Public Health will undertake a risk assessment and will establish an outbreak control team (OCT) if required. They will provide advice and support on control measures and the management of the outbreak e.g. Standard, and Transmission Based Precautions i.e. Droplet and Contact Precautions, antiviral treatment and chemoprophylaxis, vaccination.
See Appendix C: Sample poster on respiratory hygiene/cough etiquette

See Appendix D: Summary table with key measures for the prevention and control of outbreaks of seasonal influenza in long-term care facilities
Appendix A: Monitoring of influenza-like illness and influenza including reporting

Surveillance (monitoring for illness) is an essential component of any effective infection prevention and control programme. Influenza outbreaks may still occur among highly vaccinated residents of RCF and staff of such facilities should be prepared to monitor residents and personnel each year for influenza-like illness (ILI)/influenza symptoms and promptly initiate measures to control the spread of influenza within facilities where outbreaks are detected. Monitoring for ILI/influenza infections should occur year round and particularly between weeks 40 and 20 (influenza season: beginning of October to the end of May), however influenza outbreaks can occur at anytime of the year even during the summer. All staff should be aware of the early signs and symptoms of influenza-like illness.

Clinical manifestation of influenza in the elderly

The often subtle clinical manifestations of influenza in frail elderly patients may not be recognised initially impeding timely administration of antiviral treatment. In older adults, influenza symptoms may initially be very subtle and difficult to recognise. Instead, elderly patients may present only with cough, fatigue and confusion. While younger adults and children may have fevers as high as 104°F (40°C), the fever response may be more blunted in older adults and in nursing home elderly, influenza often fails to produce fever over 99°F (37.2°C). Elderly patients are also more susceptible to pulmonary complications from influenza. Influenza may present in the elderly patient as an exacerbation of an underlying condition such as chronic pulmonary and cardiovascular disease, Asthma, Diabetes Mellitus etc. If an increased number of residents become unwell over a short period of time with respiratory illness, influenza should be suspected.

Influenza-like illness (ILI) as per current definition in Ireland

Sudden onset of symptoms

And

At least one of the following four systemic symptoms:

- Fever or feverishness
- Malaise
- Headache
- Myalgia (muscle pains)

And

At least one of the following three respiratory symptoms:

- Cough
- Sore throat
- Shortness of breath
Management of RCF should have a process in place to monitor staff and residents for ILI. It is also important to monitor staff absenteeism rates for unusual patterns i.e. more than expected staff absent from work.

**Definition of an ILI or influenza or respiratory disease outbreak**

The following is the current definition for an outbreak of:
1. Influenza-like illness (ILI) or
2. Laboratory confirmed influenza (influenza A and B virus) or
3. Probable or possible influenza (influenza A and B virus) or
4. Acute respiratory illness

**Definition of an influenza/ILI outbreak**

Three $^2$ or more cases of influenza-like illness (ILI) or influenza or respiratory illness within the same 72 hour period in the RCF which meet the same clinical case definition and where an epidemiological link can be established.

**NOTE:** Please contact the local Department of Public Health to discuss if necessary

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$^2$ Investigation of lower numbers of cases can be undertaken if considered appropriate following public health risk assessment.
Appendix B: Standard and Transmission Based Precautions

Standard Precautions

Standard Precautions are a group of routine infection prevention and control measures that should be practiced at all times by all staff in all settings regardless of suspected, confirmed or infectious status. Their importance should be reinforced during an outbreak. Standard Precautions require all healthcare workers to assume that all blood, body fluids, secretions and excretions (except sweat), non-intact skin and mucous membranes are potential sources of infection.

The key elements of Standard Precautions are

- Hand hygiene
- Occupational Health
- Personal protective equipment (PPE)
- Respiratory hygiene and cough etiquette
- Management of spillages of blood and body fluids
- Management of needlestick/sharps injuries and blood and body fluid exposures
- Management of laundry and linen
- Environmental hygiene
- Safe management of resident-care equipment and medical devices
- Management of healthcare waste and sharps
- Resident placement, movement and transfer
- Safe injection practices
- Infection control practices for lumbar punctures.

Respiratory hygiene/cough etiquette

Respiratory hygiene/cough etiquette is a new component of Standard Precautions. This strategy applies at all times (i.e. not just during an outbreak) to any person with signs of illness including cough, congestion, rhinorrhea or the increased production of respiratory sections when entering or while resident in the healthcare facility.

The elements of respiratory hygiene/cough etiquette include

1. Source control measures e.g. covering the nose/mouth with a tissue when coughing and prompt disposal of used tissue, using surgical masks on coughing patients when tolerated and appropriate
2. Education of healthcare staff in the RCF, patients and visitors of measures outlined in 1 above
3. Posted visual signs in language(s) appropriate to the population served with instructions to patients and accompanying family members or friends to inform staff if they have respiratory symptoms and of measures outlined in 1 above
4. Hand hygiene after contact with respiratory secretions and
5. Spatial separation, ideally >3 feet (1 metre), of persons with respiratory infections in common waiting areas when possible
Covering sneezes and coughs and placing masks on coughing patients are proven means of source containment that prevent infected persons from dispersing respiratory secretions into the air. Coughing/sneezing etiquette is as follows:

1. Residents and staff should be encouraged to practice good respiratory hygiene which involves covering the mouth/nose when sneezing and coughing and using tissues to contain respiratory secretions.
2. Tissues should be disposed of immediately in the general waste and the hands thoroughly washed with soap and water or cleaned with alcohol-based hand cleaner.
3. If an ill resident is coughing persistently, the use of a surgical mask (if tolerated) may assist in preventing the dispersal of infected droplets.

See Appendix C for sample poster on Respiratory Hygiene/Cough Etiquette.

Additional infection prevention and control precautions

Transmission Based Precautions are additional infection prevention and control measures that are recommended when Standard Precautions alone are not enough to prevent the spread of infectious diseases such as influenza, pulmonary tuberculosis, and chicken pox.

Unlike Standard Precautions that apply to all residents, Transmission Based Precautions only apply to particular clients based on either a suspected or confirmed infection or disease e.g. influenza.

There are three categories of Transmission Based Precautions:
- Droplet Precautions
- Contact Precautions
- Airborne Precautions

More than one set of precautions may be required for infections spread by multiple routes.

Droplet Precautions

Droplet Precautions are used in addition to Standard Precautions to prevent and control infections spread over short distances, less than 3 feet (1 metre) by large droplets (≥5µm in size). Droplet transmission occurs when large droplets from the respiratory tract of an infected person are spread directly on to a mucosal surface (e.g. eyes, nose, and mouth) of another person. Respiratory droplets are shed when a person is coughing, sneezing or talking and during certain healthcare procedures such as suctioning and endotracheal intubation.
Contact Precautions

Contact Precautions are used in addition to Standard Precautions to prevent and control infections that are transmitted by direct contact with the resident or indirectly through contact with the resident’s immediate care environment.

Residents aged ≥5 years: Droplet Precautions in addition to Standard Precautions are required to prevent transmission of Influenza in healthcare facilities.

Residents aged <5 years: Droplet, Contact and Standard Precautions are required to prevent transmission of Influenza in healthcare facilities.

For more specific details on Standard, Droplet, Contact and additional precautions for aerosol generating procedures in relation to influenza, refer to Infection Prevention and Control for Patients with Suspected or Confirmed Influenza Virus in Healthcare Settings for detailed information, available at: http://www.hpsc.ie/A-Z/Respiratory/Influenza/SeasonalInfluenza/Infectioncontroladvice/

All RCFs must have local guidelines and an education programme in place for Standard and Transmission Based Precautions.

Infection control measures

In the outbreak situation, infection control measures should be tailored for the specific situation. This is done in conjunction with infection prevention and control staff, Public Health staff and the medical director/officer of the RCF. In addition, all staff at the RCF should be notified of the outbreak and management should ensure that all resources (gloves, goggles, masks, liquid soap, paper towels, alcohol gel/rub, tissues etc) are available as required.

Additional considerations include

1. If an outbreak is confined to one unit, all residents from that unit should be encouraged to avoid contact with residents in the other units in the facility
2. Limiting social activities and restricting all residents to their units as much as possible
3. Considering rescheduling of non-urgent medical appointments made prior to the outbreak

Admissions, transfers, visitors

1. When a resident is transferred to hospital from a RCF experiencing an outbreak, the RCF should advise the ambulance staff and the hospital infection prevention and control specialist in advance and provide details of
the outbreak. This will ensure that appropriate infection control measures are in place when the resident arrives at the hospital.

2. Admissions of new residents to RCF during an outbreak are generally not recommended.

3. Non-urgent resident transfers (from anywhere in the RCF) to another RCF are not recommended.

4. Post a visitor restriction sign at all entrances of the RCF indicating that there is an outbreak in the RCF.

5. Limit visitors as much as possible:
   a. Exclude all children or anyone with ILI symptoms regardless of age
   b. Advise visitors to:
      - Use alcohol hand gel/rub on their hands on entry and exit to the facility
      - Visit only one resident and exit the RCF immediately after the visit

The RCF should ensure that surgical masks are available for visitors with respiratory symptoms who might inadvertently enter the RCF. These visitors should be excluded except in exceptional circumstances and at the discretion of the person-in-charge of the residential care facility.

**Staff**

1. In the context of a suspected ILI/influenza outbreak, monitor staff and volunteer absenteeism due to respiratory symptoms consistent with influenza. Staff experiencing influenza-like symptoms or fever should not work in any healthcare setting including a RCF.

2. All staff should be aware about what to do if they become ill. Ill staff (including those that are vaccinated or taking antiviral medication) should stay away from work for at least 5 days and until they are well enough to return. A written staff exclusion policy should be developed by each healthcare facility. Staff should be advised to practice good respiratory hygiene/cough etiquette and hand hygiene on return to work.

3. Staff should be advised to practice good respiratory hygiene/cough etiquette and hand hygiene on return to work.

4. Attempts should be made to minimise movement of staff between floors/units of the facility especially if some units are unaffected. Discuss the possibility of one staff member (or group of staff) looking after ill residents and others looking after well residents.

5. During an outbreak, it is recommended that only vaccinated staff should be working in the affected unit. **It is strongly recommended that all staff should be vaccinated against influenza unless there are contraindications.**

6. Asymptomatic vaccinated staff members are not restricted from working at other facilities.

7. Unvaccinated asymptomatic staff should wait one incubation period (3 days) from the last day that they worked at the outbreak facility/unit prior to working in a non-outbreak facility to ensure that they are not incubating influenza.
Appendix C: Sample poster on respiratory hygiene/cough etiquette

Coughing and Sneezing

- Turn your head away from others
- Use a tissue to cover your nose and mouth
- Drop your tissue into a waste bin
- No tissues? Use your sleeve
- Clean your hands after discarding tissue using soap and water or alcohol gel for at least 15 seconds

These steps will help prevent the spread of colds, flu and other respiratory infections
### Summary Table (page 1 of 2)

<table>
<thead>
<tr>
<th>Domain</th>
<th>Action</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning and administration</td>
<td>Written policies</td>
<td>Immunisation policies</td>
</tr>
<tr>
<td></td>
<td>Standard and transmission based precautions</td>
<td>Standard and transmission based precautions including droplet and contact precautions</td>
</tr>
<tr>
<td></td>
<td>Written outbreak management plan</td>
<td>Written outbreak management plan</td>
</tr>
<tr>
<td>LTCF Lead (named person)</td>
<td>To oversee development, implementation and</td>
<td>To oversee development, implementation and review of policies and protocols</td>
</tr>
<tr>
<td></td>
<td>review of policies and protocols</td>
<td></td>
</tr>
<tr>
<td>Training and education</td>
<td>For all staff</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ongoing training</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Measures to improve compliance</td>
<td></td>
</tr>
<tr>
<td>Provision of supplies</td>
<td>Hand hygiene supplies, PPE, cleaning and</td>
<td>Hand hygiene supplies, PPE, cleaning and disinfecting material</td>
</tr>
<tr>
<td></td>
<td>disinfecting material</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Arrangements with pharmacy for supply and</td>
<td>Arrangements with pharmacy for supply and timely provision of antivirals</td>
</tr>
<tr>
<td></td>
<td>timely provision of antivirals</td>
<td></td>
</tr>
<tr>
<td>Vaccination of residents</td>
<td>Influenza vaccination - residents</td>
<td>Offer to all residents prior to season</td>
</tr>
<tr>
<td></td>
<td>Provide catch-up vaccination to new</td>
<td>Offer catch-up vaccination to new unvaccinated residents</td>
</tr>
<tr>
<td></td>
<td>unvaccinated residents</td>
<td>Offer catch-up vaccination to new unvaccinated residents</td>
</tr>
<tr>
<td></td>
<td>Document in care records</td>
<td>Document in care records</td>
</tr>
<tr>
<td></td>
<td>Pneumococcal vaccination</td>
<td>Offer to previously unvaccinated residents</td>
</tr>
<tr>
<td>Vaccination of staff</td>
<td>Influenza vaccination - staff</td>
<td>Maximise update prior to influenza season</td>
</tr>
<tr>
<td></td>
<td>Named staff member responsible for</td>
<td>Named staff member responsible for coordination</td>
</tr>
<tr>
<td></td>
<td>coordination</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Record vaccination status in staff records</td>
<td>Record vaccination status in staff records</td>
</tr>
<tr>
<td></td>
<td>Feedback on vaccination coverage</td>
<td>Feedback on vaccination coverage</td>
</tr>
<tr>
<td>Standard precautions</td>
<td>Standard infection control procedures</td>
<td>Should be practised by all staff at all times</td>
</tr>
<tr>
<td>Surveillance</td>
<td>Awareness of influenza signs and symptoms</td>
<td>Throughout the year but particularly October to May</td>
</tr>
<tr>
<td>Case definition</td>
<td>Case definition (Appendices B &amp; C)</td>
<td>In the elderly, presentation may be atypical and without fever</td>
</tr>
<tr>
<td>Outbreak definition</td>
<td>Action threshold for outbreak control</td>
<td>≥ 3 epidemiologically-linked cases within 72 hours</td>
</tr>
<tr>
<td></td>
<td>measures</td>
<td></td>
</tr>
<tr>
<td>Communication of suspected</td>
<td>Notification of senior staff, management,</td>
<td>Staff to be aware of upward notification chain</td>
</tr>
<tr>
<td>outbreak</td>
<td>medical staff and public health</td>
<td>Contact GP/medical team</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Notify public health locally</td>
</tr>
<tr>
<td>Formation of outbreak control</td>
<td>OCT may be convened following risk</td>
<td>Coordination with Public Health locally</td>
</tr>
<tr>
<td>team (OCT)</td>
<td>assessment</td>
<td></td>
</tr>
<tr>
<td>Testing</td>
<td>Viral swabbing</td>
<td>Awareness of local provision of viral swabs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coordination with Public Health and local laboratory/NVRL</td>
</tr>
</tbody>
</table>
### Domain

<table>
<thead>
<tr>
<th>Action</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily case list</td>
<td>Daily list of affected residents and staff communicated to Public Health (depending on local arrangements)</td>
</tr>
<tr>
<td>Vaccination</td>
<td>Offer to unvaccinated residents and staff (but not as a control measure)</td>
</tr>
<tr>
<td>Respiratory hygiene</td>
<td>Adequate supplies of tissues and disposable bins</td>
</tr>
<tr>
<td>Hand hygiene</td>
<td>Masks for residents transported out of isolation area</td>
</tr>
<tr>
<td>Personal protective equipment</td>
<td>Gloves, aprons, gowns, face protection</td>
</tr>
<tr>
<td>Aerosol generating procedures</td>
<td>Highest level of respiratory protection (FFP2/3) available if performing a high-risk AGP</td>
</tr>
<tr>
<td>Resident care equipment</td>
<td>Laundry, eating utensils and crockery</td>
</tr>
<tr>
<td>Laundry</td>
<td>Eating utensils and crockery</td>
</tr>
<tr>
<td>Environmental control measures</td>
<td>Cleaning and disinfection of resident environment, equipment and staff quarters</td>
</tr>
<tr>
<td>Containment measures</td>
<td>Visitor restrictions, transfer restrictions</td>
</tr>
<tr>
<td>Treatment</td>
<td>Recommended on an individual basis following clinical assessment (see p30 &amp; p31)</td>
</tr>
<tr>
<td>Prophylaxis</td>
<td>Consider for HCWs if unvaccinated and in seasons when vaccine mismatched with circulating strain, and where evidence exists for complex ongoing chains of transmission involving patients and staff</td>
</tr>
<tr>
<td>Use of antiviral drugs</td>
<td>Recommended for residents hospitalized with severe disease and for residents and staff in close contact with a resident hospitalized with severe disease</td>
</tr>
</tbody>
</table>

### Containment measures

- **Respiratory hygiene**
  - Cover mouth and nose for coughing/sneezing.
  - Adequate supplies of tissues and disposable bins.
  - Hand hygiene after respiratory hygiene

- **Transmission-based precautions**
  - Standard precautions should be in place already but heightened. Transmission-based precautions (droplet, airborne, and contact) should be implemented as appropriate.

- **Infection control measures**
  - Standard transmission-based precautions should be in place already but heightened. Transmission-based precautions (droplet, airborne, and contact) should be implemented as appropriate (see p10-p14).

### Infection control measures

- **Hand hygiene**
  - Hand hygiene before patient contact
  - Hand hygiene before aseptic task
  - Hand hygiene after body fluid exposure risk
  - Hand hygiene after patient contact
  - Hand hygiene after patient contact with patient's surroundings

- **Personal protective equipment**
  - Gloves, aprons, gowns, face protection
  - Masks for residents transported out of isolation area

- **Aerosol generating procedures**
  - Highest level of respiratory protection (FFP2/3) available if performing a high-risk AGP

- **Resident care equipment**
  - Laundry, eating utensils and crockery

- **Environmental control measures**
  - Cleaning and disinfection of resident environment, equipment and staff quarters

- **Containment measures**
  - Visitor restrictions, transfer restrictions

- **Treatment**
  - Recommended on an individual basis following clinical assessment (see p30 & p31)

- **Prophylaxis**
  - Consider for HCWs if unvaccinated and in seasons when vaccine mismatched with circulating strain, and where evidence exists for complex ongoing chains of transmission involving patients and staff

- **Use of antiviral drugs**
  - Recommended for residents hospitalized with severe disease and for residents and staff in close contact with a resident hospitalized with severe disease

### Summary Table (page 2 of 2)

<table>
<thead>
<tr>
<th>Action</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial actions</td>
<td>Daily case list, vaccination, respiratory hygiene, hand hygiene, personal protective equipment, preventive measures for aerosol generating procedures, resident care equipment, environmental control measures, containment measures, treatment, prophylaxis, use of antiviral drugs</td>
</tr>
</tbody>
</table>

### During an outbreak

- **Respiratory hygiene**
  - Cover mouth and nose for coughing/sneezing.
  - Adequate supplies of tissues and disposable bins.
  - Hand hygiene after respiratory hygiene

- **Transmission-based precautions**
  - Standard precautions should be in place already but heightened. Transmission-based precautions (droplet, airborne, and contact) should be implemented as appropriate.

- **Infection control measures**
  - Standard transmission-based precautions should be in place already but heightened. Transmission-based precautions (droplet, airborne, and contact) should be implemented as appropriate (see p10-p14).

### Infection control measures

- **Hand hygiene**
  - Hand hygiene before patient contact
  - Hand hygiene before aseptic task
  - Hand hygiene after body fluid exposure risk
  - Hand hygiene after patient contact
  - Hand hygiene after patient contact with patient's surroundings

- **Personal protective equipment**
  - Gloves, aprons, gowns, face protection
  - Masks for residents transported out of isolation area

- **Aerosol generating procedures**
  - Highest level of respiratory protection (FFP2/3) available if performing a high-risk AGP

- **Resident care equipment**
  - Laundry, eating utensils and crockery

- **Environmental control measures**
  - Cleaning and disinfection of resident environment, equipment and staff quarters

- **Containment measures**
  - Visitor restrictions, transfer restrictions

- **Treatment**
  - Recommended on an individual basis following clinical assessment (see p30 & p31)

- **Prophylaxis**
  - Consider for HCWs if unvaccinated and in seasons when vaccine mismatched with circulating strain, and where evidence exists for complex ongoing chains of transmission involving patients and staff

- **Use of antiviral drugs**
  - Recommended for residents hospitalized with severe disease and for residents and staff in close contact with a resident hospitalized with severe disease

### Post-outbreak

- **Declaration of end of outbreak**
  - As advised by Public Health

- **Final evaluation**
  - Review of management of outbreak and lessons learned

- **Coordination with Public Health and OCT if this was convened**
  - As advised by Public Health