# Influenza Outbreak Prevention and Control in Long Term Care Facilities

## Resources Document

### 2011/2012

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1. Influenza Vaccine for 2011/2012

This year’s influenza vaccine strains are unchanged from last year: A/Perth/16/2009 (H3N2)-like virus, A/California/7/2009 (H1N1)-like virus, and B/Brisbane/60/2008-like virus.

There are some changes in the vaccine products this year that will affect long term care facilities. Three different vaccine products will be distributed on Vancouver Island:

- **Fluviral®** (GSK) is a split-virus inactivated vaccine and contains thimerosal as a preservative. It comes packaged in a multi-dose vial without syringes. It can be used for adults and children six months of age and older.

- **Agriflu®** (Novartis) is a surface antigen, inactivated subunit vaccine. It is thimerosal free, and supplied in single dose prefilled syringes. A needle is not included with the syringe. It is authorized for use in adults and children six months of age or older.

- **Fluad®** (Novartis) is an MF59 adjuvanted vaccine approved for use in elderly ≥ 65 years of age. The adjuvant consists of an oil-in-water emulsion containing squalene, polysorbate 80, sorbitan trioleate and citrate buffer. This vaccine is packaged pre-mixed with adjuvant in a single-dose pre-filled syringe. A needle is not included with the syringe.

The following summarizes which vaccine should be administered to residents and staff:

- Residents who are **65 years of age and older** should receive **Fluad®**
- Residents who are **64 years of age or younger** may receive either **Fluviral®** or **Agriflu®** (depending on which is supplied to your facility)
- **Staff** should receive either **Fluviral®** or **Agriflu®** (depending on which is supplied to your facility)

For VIHA Amalgamate LTC facilities, **Fluad** will not be supplied, and staff and residents should receive either **Fluviral** or **Agriflu** (depending on which is supplied to your facility)

Because **Fluad®** and **Agriflu®** are supplied in single dose vials, they requires approximately six times more space than an equivalent number of **Fluviral®** doses. Facilities should be aware of this when planning for transport and storage of their vaccine supply.

Because **Agriflu®** is thimerosal free, it should be used in anyone over 6 months of age with a severe thimerosal allergy for whom influenza vaccine is indicated.

2. Tasks to Complete in the Month Before the Beginning of the Influenza Season

- Consent for health care is implied on admission to the facility, and as with administration of any medication, a conversation regarding the influenza vaccine and prophylaxis should take place between the resident and/or designated representative, and the nurse.
- Identify residents who have not had a serum creatinine in the previous 12 months, and/or are suspected of renal impairment. For these residents, order a serum creatinine and weight in order to calculate the current creatinine clearance.
- Obtain doctor’s orders for vaccinations, anaphylaxis treatment and antiviral prophylaxis (Oseltamivir®) for all current residents and any new admissions during the influenza season (e.g. November to April).
- Order vaccine for the facility and ensure that vaccine from the 2010-2011 season has been discarded.
- Report any residents with symptoms of influenza to the appropriate person for your facility (i.e., Director of Care, Infection Control)
- Conduct in-service training for employees regarding:
  - Signs and symptoms of influenza.
  - The importance of getting vaccination. **Staff must be made aware of the consequences of choosing not to be immunized.** In the event of an outbreak, this includes exclusion from work and/or the requirement that they take an antiviral medication (see exclusion procedures for Influenza A and B...
outbreaks). Oseltamivir® is not provided free to staff by the Ministry of Health. In advance of the influenza season, health care facilities should prepare a list of staff who may be excluded on medical grounds from work in the event of an influenza outbreak. Additionally, these persons should be assessed for eligibility for antiviral medication prior to the influenza season and this information should be kept on hand at the facility for timely implementation of an antiviral medication program if an outbreak occurs.

- The importance of reporting respiratory illness appropriately.

3. Tasks to Complete Two to Four Weeks Before Influenza Season

☑ Obtain informed consent for employee vaccination.
☑ Vaccinate residents and employees.
- Check for allergies to vaccine components.
- Oculo-respiratory syndrome (ORS) was first reported in 2000/2001, beginning within 24 hours of influenza vaccination. Most people who had ORS can be safely revaccinated. Severe oculo-respiratory syndrome after a previous dose of influenza vaccine is considered a contraindication to seasonal influenza vaccine. Severe ORS is defined as symptoms of wheezing, chest tightness/discomfort, difficulty breathing or severe throat constriction/difficulty swallowing following receipt of influenza vaccine. Persons who have had ORS should discuss the benefits and risk of immunization with their physician in order to decide about being re-vaccinated.

☑ Defer vaccination of those with acute febrile illness until symptoms resolve
☑ Document resident vaccination in the resident’s medical record and on an Influenza Vaccine Line List.
☑ Prepare a list of residents who have not been vaccinated so they may be easily identified if an outbreak occurs.

☑ All health care facilities must maintain annual records of staff influenza vaccination status (see attached). This includes name, date of birth, position (job), where in the facility they work and date of influenza vaccination. Staff immunized at an off-site clinic or by their family physician must provide written documentation, including the date influenza vaccine was received. Staff who report a medical contraindication to influenza vaccination should provide medical documentation. With appropriate documentation, “contraindication” should be indicated for that staff member on the facility staff immunization record.

☑ All facilities must provide their local health unit with influenza vaccination coverage data for residents and staff. Only summary data is required, not individual records (see attached form: Report of Seasonal Influenza Immunization 2011-2012 Season).

☑ Familiarize yourself with the management of an outbreak. Check to see if influenza is present in the community. Know the definition of an outbreak in your region.

4. During Influenza Season - Management of Single Cases and Outbreaks

Definitions:

a) Case of influenza-like illness (ILI):
New or worsening cough and fever and one or more of: sore throat, arthralgia (sore joints), myalgia (sore muscles), runny nose, headache, prostration.

*fever: Temperature >38° or fever that is abnormal for that individual. Temperature <35.6° or >37.4° may be indicative of health conditions or medical therapy such as the use of anti-inflammatory medications, use of corticosteroids, etc. Temperature > 38° may not always be present in infected elderly persons.

b) ILI Outbreak:
Within a Long Term Care Facility, or a geographic area of an acute care setting (e.g., floor, unit) the occurrence of:
Two or more cases of ILI in residents, patients, clients or staff within 7 days.
5. Management of Single Cases of ILI Among Residents
   a) Restrict the resident to their room and from group activities for five days from onset of symptoms, or until symptoms resolve, whichever is longer. Note: this recommendation is based on the known infectivity of individuals with influenza (five to seven days after onset of symptoms). Arrange for tray service to deliver meals to the resident’s room.

   b) When providing care for a resident with known or suspected influenza infection, routine practices as well as Droplet and Contact precautions should be used (e.g. hand hygiene, gloves, surgical mask and eye protection, and gowns if there is a risk of splashes). Ensure an adequate supply of equipment is available for care providers.

   Residents who are not in single room accommodation should be managed in their bed space using Droplet and Contact Precautions with privacy curtains drawn in addition to routine practices.

   Aerosol generating medical procedures (AGMP) should be avoided, if possible, in patients with a respiratory infection. Use of an N95 respirator is required for providing care to patients with suspected or known airborne transmitted illnesses (e.g. TB) or performing AGMPs on people with SARS or other emerging infections. Influenza AH1N1 2009 is no longer considered an emerging infection and use of an N95 respirator is not required for any care provided to people with influenza including those with influenza A H1N1.

   c) If influenza is suspected, check with the physician to see if antivirals should be given in the first 48 hours for treatment.

   d) Contact housekeeping to arrange for enhanced cleaning.

   e) Other actions to take in the facility:
      ♦ Offer influenza vaccine to any unvaccinated residents and staff.
      ♦ Observe roommates of a case and others in the facility for symptoms.
      ♦ If a resident case is not in a single occupancy room, move any unvaccinated residents from the room where possible.
      ♦ Reassign unvaccinated employees to duties not requiring patient care, or send home.

6. Management of Outbreaks of Influenza-Like Illness
   a) Contact Medical Director, Manager and Infection Control or Public Health.

   b) Outbreaks are to be reported within 24 hours. Affiliate facilities report to Vancouver Island Health Authority (VIHA) Public Health, Communicable Disease Program as follows:
      ♦ South Island: 1-866-665-6626
      ♦ Central Island: 1-866-770-7798
      ♦ North Island: 1-877-887-8835

   c) Amalgamate facilities under the VIHA umbrella report outbreaks to their Infection Control Practitioner. A contact list for VIHA Infection Control Practitioners can be found on the VIHA website at https://intranet.viha.ca/departments/infection_prevention/Pages/ContactUs.aspx

   d) Publicly funded Assisted Living residences should contact the Home & Community Care Assisted Living Case Manager and other contacts on their facility notification list, such as support staff supervisors/managers, and the Office of the Assisted Living Registrar (if applicable).

   e) List names of symptomatic residents and staff on the appropriate Outbreak Tracking Forms. Provide regular updates on outbreak to Infection Control/Communicable Disease contact. (Frequency and format of reporting will vary depending on the practitioner.), Observe for respiratory infection among staff ill during the past week.

   f) Continue single-case management (as per Section 3A).

   g) Stop new admissions.

   h) Readmissions are allowed in consultation with Public Health (Affiliates) or Infection Control (Amalgamates); try to return these patients to unaffected units.
i) Verify immunization status of all residents. Consult with Medical Director about administering antiviral prophylaxis for residents and vaccinating all unvaccinated residents. Neuraminidase inhibitors (e.g. Oseltamivir®) are the recommended choice for treatment or prophylaxis of Influenza A or B infection in residents of long term care facilities.

j) Exclude any staff with influenza-like illness (ILI) for at least five days after the onset of symptoms OR until acute symptoms completely resolve whichever is longer.

k) Verify immunization status of all staff. Non-immunized staff are subject to exclusion from work until the outbreak is declared over by the local Medical Health Officer. Antiviral medication (Oseltamivir) should be recommended to all non-immunized staff. However, Oseltamivir is not provided free to staff by the Ministry of Health Services. Facilities may choose to refer staff to their family physician to obtain a prescription.

l) An exception to exclusion of non-immunized staff may be made if the non-immunized staff member takes antiviral medication as prescribed and the antiviral medication is continued until the outbreak is declared over. These workers must be alert to the symptoms and signs of influenza, particularly within the first 48 hours after starting antiviral prophylaxis and should be excluded from the patient care environment if these develop.

m) Staff who were not immunized prior to an outbreak of influenza, but who are immunized during the outbreak may return to work in the outbreak setting after 14 days have elapsed since vaccination or when the outbreak is declared over by the local Medical Health Officer. Staff can return to work if antiviral medication is taken for 14 days after the date of their influenza immunization or until the outbreak has been declared over, whichever is sooner. These workers must be alerted to the symptoms and signs of influenza, particularly within the first 48 hours after starting antiviral prophylaxis and should be excluded from the patient care environment if these develop.

n) Non-immunized, excluded staff must not have developed ILI symptoms and must wait one incubation period (three days) from the last day they worked at the outbreak facility prior to working in a non-outbreak facility. This is because they may be incubating influenza. If ILI symptoms develop, staff must be excluded for at least five days after ILI onset or until acute symptoms completely resolve whichever is longer.

o) Post signs alerting visitors to the outbreak. Restrict students and volunteers, and limit visits to ill residents. Visitors such as family members who still wish to visit residents should not visit anyone else in the facility. They must be informed of the outbreak and preferably be immunized.

p) Nurses and nursing assistants should work with the same group of residents as consistently as possible.

q) Document a summary of the outbreak and distribute to Infection Control/Quality Committee.

7. Laboratory Testing

a) Nasopharyngeal swabs, not washes, are now the recommended technique for the diagnosis of influenza in residents of long term care facilities. Testing is best performed within 72 hours of onset of symptoms, but the lab will accept specimens from seriously ill patients taken after the 72 hour period.

b) LifeLabs laboratories will not do the microbiology on these specimens. Please send specimens directly to VIHA labs for fastest processing.

c) “Influenza-like-illness Outbreak kits” (6 swabs/kit) and instructions on how to handle specimens are available for all facilities from the VIHA microbiology laboratory during an outbreak situation. Outbreak testing kits will be released to facilities in consultation with Infection Control/Communicable Disease. Infection Control/Communicable Disease staff will contact the VIHA microbiology lab directly to request kits.

d) There is no cost to any facility for the “Outbreak kits” however, they will be released only in the event of an outbreak. Delivery by taxi may be arranged through the hospital laboratory at no charge to the facility.
8. Use of Oseltamivir® for Prevention of Influenza

In general, prophylaxis is only indicated for use during outbreaks in long-term care facilities: for residents and unvaccinated staff. Prophylaxis will continue until the outbreak is declared over. Healthcare workers who require prophylaxis should attend their family physician to receive a prescription.

Neuraminidase inhibitors (Oseltamivir® and Zanamivir®) remain the recommended drugs of choice for treatment or prophylaxis against influenza A or B for the 2010/11 season. Due to persisting resistance to Amantadine® among the majority of circulating influenza strains, it is not recommended for treatment or prophylaxis at this time.

Treatment Dosage of Oseltamivir® for individuals 13 years and older:

Begin treatment within 48 hours of onset of influenza symptoms only
1. Renal function normal or CrCl >30ml/min: 75 mg po twice daily x 5 days
2. Impaired renal function (CrCl 10-30 ml/min): 75 mg po once daily x 5 days

Prophylaxis Dosage of Oseltamivir® for individuals 13 years and older:

Begin prophylaxis within 48 hours of exposure
1. Renal function normal or CrCl > 30 ml/min: 75 mg po once daily until prophylaxis no longer required
2. Impaired renal function (CrCl 10-30 ml/min): 75 mg po on alternate days or 30 mg po daily until no longer required.

Oseltamivir is available in 75 mg capsules as well as a powder that can be reconstituted into an oral suspension at 12 mg/mL.

A current creatinine clearance is not required prior to prescription of Oseltamivir® when there is no suspicion of renal failure. However, there may be concerns about renal function among frail residents. To facilitate prompt ordering of Oseltamivir® prophylaxis during an influenza outbreak, please ensure that a creatinine clearance is ordered for residents, unless there is a creatinine clearance on record that was performed during the past year and/or no reason to suspect an impairment in renal function.