VIRAL RESPIRATORY ILLNESS OUTBREAK PROTOCOL AND TOOLKIT

FOR RESIDENTIAL CARE AND MENTAL HEALTH AND SUBSTANCE USE FACILITIES

Version
September 2016

This document is produced by the Respiratory Outbreak Protocol Working Group on behalf of the Fraser Health Respiratory Illness Planning Committee. Its purpose is to provide guidance, useful tools and consultation for the prevention, detection and management of viral respiratory illnesses and outbreaks.

This Protocol and Toolkit is intended for Residential Care Facilities only, whether regulated under the Hospital Act or the Community Care and Assisted Living Act. This Protocol and Toolkit is not intended for use in Assisted Living or Hospice settings. Assisted Living sites have a separate Toolkit.

For Communities of Care, a viral Respiratory Illness in one area may affect individuals in other areas of the Community. Contact your Infection Prevention and Control Consultant if concerned about potential for spread of viral Respiratory Illness from one area to another within your Community of Care.

*For full use of the internal hyperlinks in this document (eg. from the single page protocol to a tool in the toolkit and back), you will need to right click on the adobe toolbar and select *NEXT VIEW and PREVIOUS VIEW from the PAGE NAVIGATION TOOLS

The current Fraser Health Respiratory Outbreak Protocol for Residential Care Facilities is found at www.fraserhealth.ca – HEALTH PROFESSIONALS – PROFESSIONAL RESOURCES - RESIDENTIAL CARE PROVIDERS– RESPIRATORY OUTBREAKS
Viral Respiratory Illness **CASE Definition**

- **New or Worse COUGH**

  Though no single sign or symptom of illness or even a combination of signs and symptoms is diagnostic for influenza or allows accurate distinction of influenza from other viral respiratory infections, **NEW OR WORSE COUGH** is the single best clinical symptom for recognizing influenza and other potentially serious viral respiratory infections in residential care facilities (residents and staff) (**Tool 14**)

**Suspect Viral Respiratory Illness **OUTBREAK** Definition**

- **2 or more people with new or worse cough in a neighbourhood, floor or other specified area within a 7-day period (staff and/or residents)** (**Tool 14**)

**Your Public Health Outbreak Management **CONTACT** (**Tool 2a**)

- **For all Residential Care Facilities in the Fraser Health Authority area with 15 or more residents, including:**
  - Fraser Health-operated Residential Care Facilities
  - Contracted and Private Pay Residential Care Facilities
  - Mental Health and Substance Use Residential Facilities

  ➔ **WEEKDAYS:** 0830-1630 **CALL** 604-507-5471 and **FAX** 604-507-5439 your CD Nursing Team (**Tool 7**)

  ➔ **WEEKENDS/STAT HOLIDAYS:** **CALL** the Medical Health Officer on call through the Fraser Health Public Health Answering Service at 604-527-4806. If consultation is needed on weekends and holidays, please try to call between 0830 and 1630 whenever possible. However, if it is essential to call outside these times, the on-call Medical Health Officer is available

  ➔ **EVENING/OVERNIGHT:** **CONTACT** the CD Nursing Team or Medical Health Officer on call as above, promptly on the NEXT day (i.e. CD Nursing Team if next day is a regular business day; Medical Health Officer on call if next day is a Saturday, Sunday or Stat holiday)
PROTOCOL

This Protocol consists of 5 single page Checklists and a Flowchart
Each of the Checklists links to relevant Tools in the Toolkit
(using NEXT VIEW and PREVIOUS VIEW from the Adobe PAGE NAVIGATION TOOLS)

- **PRE-SEASON PLANNING, PREPARATION AND PREVENTION CHECKLIST**
  - This CHECKLIST assists you to ensure appropriate steps have been taken to:
    - Prevent an outbreak due to INFLUENZA or OTHER RESPIRATORY VIRUS; and
    - Be ready to manage an INFLUENZA or OTHER RESPIRATORY VIRUS outbreak should one occur

- **OUTBREAK DETECTION AND CONSULTATION CHECKLIST**
  - This CHECKLIST assists you to:
    - Detect a Suspect Viral Respiratory Outbreak;
    - Initiate Initial Response;
    - Initiate Laboratory Testing; and
    - Report and Consult PROMPTLY regarding SUSPECT OUTBREAK

- **VIRAL RESPIRATORY OUTBREAK CONTROL MEASURES CHECKLISTS**
  - This section includes a FLOW CHART to guide in the use of the one-page CHECKLISTS to assist you in control measures for managing Viral Respiratory Illness Outbreaks
  - There is a CHECKLIST for each of the following 3 Scenarios:
    - **Scenario A**: INFLUENZA A and/or INFLUENZA B OUTBREAK (Suspect or Laboratory-confirmed)
    - **Scenario B**: NON-INFLUENZA RESPIRATORY OUTBREAK that is characterized by predominately SERIOUS ILLNESS
    - **Scenario C**: NON-INFLUENZA RESPIRATORY OUTBREAK that is characterized by predominately MILD ILLNESS

TOOLKIT

The Toolkit is a collection of tools designed to assist in using the Protocol. These Tools are referenced in the Checklists. Some of the tools are references to materials that are on reliable and generally routinely updated websites including, but not limited to Fraser Health, the BC Centre for Disease Control, HealthLinkBC, the Office of the Provincial Health Officer, PICNet BC and the Public Health Agency of Canada

Additional tools may be added and existing tools amended from time to time. Tools have Tool Numbers, not page numbers. This allows easy changes to the tools as needed

Three additional resources accompany the Protocol and Toolkit on-line

1. Recommendation for Easy Use (electronic or paper versions)
2. Large Print versions of the CHECKLISTS
3. Updates – Any updates to the Protocol or Toolkit are listed on the Seasonal Updates link at www.fraserhealth.ca - PROFESSIONALS – RESIDENTIAL CARE PROVIDERS – RESPIRATORY section. Notices will be sent to Residential Care Facilities in Fraser Health if and when updates are posted
Table of Contents

Protocol

- **PRE-SEASON PLANNING, PREPARATION AND PREVENTION CHECKLIST**
- **OUTBREAK DETECTION AND CONSULTATION CHECKLIST**
- **VIRAL RESPIRATORY OUTBREAK CONTROL MEASURES CHECKLISTS**
  - Flowchart
  - Scenario A: INFLUENZA A and/or INFLUENZA B OUTBREAK (Suspect or Laboratory-confirmed)
  - Scenario B: NON-INFLUENZA VIRAL RESPIRATORY OUTBREAK that is characterized by predominately SERIOUS ILLNESS
  - Scenario C: NON-INFLUENZA VIRAL RESPIRATORY OUTBREAK that is characterized by predominately MILD ILLNESS

Toolkit

Tool 1: Outbreak Prevention and Management Team
Tool 2: Contacts and Consultants
  Tool 2a: Public Health (PH) Outbreak Management Contact
  Tool 2b: Infection Prevention and Control Consultant
Tool 3: Pre-Printed Order Template
Tool 4: Peer Nurse Immunizer Program Resources/Immunizer Information
Tool 5: Source Controls: Ways to Minimize the Risk of Viral Respiratory Illness in your Facility
Tool 6: Facility Respiratory Outbreak Resource Kit
Tool 7: Template for List of Important Contact Numbers
Tool 8: Information on Influenza Vaccines, Treatment and Prophylaxis – Resources
Tool 9: Obtaining and Transporting Influenza and Pneumococcal Vaccine (including ‘Cold-Chain’ Guide)
Tool 10: Ordering Nasal Swab Collection Kits (“Six-Packs”) from BCCDC Laboratory
Tool 11: Signage for Use throughout the Respiratory Virus Season
Tool 12: Hand Hygiene
Tool 13: Routine Practices (Standard Precautions)
Tool 14: Suspect Viral Respiratory Illness Case Definition and Control Measures for Single or Sporadic Cases
Tool 15: Droplet/Contact Precautions
Tool 16: Removal of Personal Protective Equipment (PPE)
Tool 17: Staff Influenza Immunization and Anti-Influenza Prophylaxis List
Tool 18: Sample Staff Influenza Immunization Record
Tool 19: Resident Influenza Immunization and Anti-Influenza Prophylaxis List
Tool 20: Facility Influenza-Readiness Report
Tool 21: Suspect Viral Respiratory OUTBREAK Definition and Initial Response
Tool 22: BCCDC Nasal Swab Laboratory Testing Form (Sample)
Tool 23a: Swab Kits, Taking Nasal Swabs and PRE-PAID Shipping Information
Tool 23b: Transportation of nasal swabs under Transportation of Dangerous Goods
Tool 24: Suspect Outbreak Reporting—Things to Report on the First Day and for the Duration of the Outbreak
Tool 25: Definition of Completely Separate Areas of Facility – Guidance for Implementation of Control Measures
Tool 26: Daily Surveillance and Reporting
Tool 27: Resident Illness Report and Tracking Form
Tool 28: Staff Illness Report and Tracking Form
Tool 29: Helpful Information about Common Respiratory Viruses
Tool 30: Management of ill Residents
  Tool 30a: Scenario A
  Tool 30b: Scenario B
  Tool 30c: Scenario C

Tool 31: Preventive Measures for well, unaffected Residents
  Tool 31a: Scenario A
  Tool 31b: Scenario B
  Tool 31c: Scenario C

Tool 32: Flowchart for Anti-Influenza Medication as Treatment or Prophylaxis for Residents

Tool 33: Control Measures for ill Staff
  Tool 33a: Scenario A
  Tool 33b: Scenario B
  Tool 33c: Scenario C

Tool 34: Preventive Measures for well, unaffected Staff
  Tool 34a: Scenario A
  Tool 34b: Scenario B
  Tool 34c: Scenario C

Tool 35: Flowchart for Anti-Influenza Medication as Prophylaxis for Non-Immunized, Well Staff (Scenario A only)

Tool 36: Letter to Physician for Prophylaxis or Early Treatment of Non-Immunized Staff (Scenario A only)

Tool 37: Other Measures and Restrictions (Scenario A and/or B as indicated)

Tool 38: Transfer Form

Tool 39: Enhanced Cleaning

Tool 40: Disinfectant Selection Guide

Tool 41: Dosing and other Information for Physicians and Pharmacy about Anti-Influenza Medications
  Tool 41a: Anti-Influenza Medication Indications and Formulations:
    Oseltamivir, Zanamivir and Amantadine (Scenario A only)
  Tool 41b: Prescribing Oseltamivir (Tamiflu®) -- Scenario A only
  Tool 41c: Prescribing Zanamivir (Relenza®) -- Scenario A only
  Tool 41d: Neuraminidase Inhibitor Treatment and Prophylaxis Summary Table:
    Oseltamivir and Zanamivir (Scenario A only)
  Tool 41e: Prescribing Amantadine (Symmetrel® or generic) – Scenario A Only
  Tool 41f: Amantadine Recommended Dosage for Prophylaxis (Prevention)— Scenario A only

Tool 42: Problem Solving if Outbreak is NOT Stopping
  Tool 42a: Scenario A
  Tool 42b: Scenarios B and C

Tool 43: Declaring Outbreak Over
  Tool 43a: Scenario A
  Tool 43b: Scenario B
  Tool 43c: Scenario C
VIRAL RESPIRATORY ILLNESS OUTBREAK

PROTOCOL

- **PRE-SEASON PLANNING, PREPARATION AND PREVENTION CHECKLIST**

- **OUTBREAK DETECTION AND CONSULTATION CHECKLIST**

- **VIRAL RESPIRATORY OUTBREAK CONTROL MEASURES CHECKLISTS**
  - **Flowchart** for selection of Control Measures
  - **Scenario A**: INFLUENZA A and/or INFLUENZA B OUTBREAK (Suspect or Laboratory-confirmed)
  - **Scenario B**: NON-INFLUENZA VIRAL RESPIRATORY OUTBREAK that is characterized by predominately SERIOUS ILLNESS
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PRE-SEASON PLANNING, PREPARATION AND PREVENTION CHECKLIST

AUGUST/ SEPTEMBER

☐ DESIGNATE the Outbreak Prevention and Management Team for your Facility and ‘Prepare’ (Tool 1)
☐ RECORD contact information for your Public Health Outbreak Management Contact (Tool 2a)
☐ RECORD contact information for your Infection Prevention and Control Consultant (Tool 2b)
☐ UPDATE Physician Pre-printed Orders for influenza immunization, pneumococcal immunization (if needed), serum creatinine level (if needed) and anti-influenza medications against influenza [oseltamivir (Tamiflu®) for all Influenza A and B outbreaks unless oseltamivir resistance is detected] (Tool 3)
☐ PROVIDE YOUR PHARMACY with residents’ weights, ages, gender and serum creatinine levels for calculation of anti-influenza medication doses (Tools 3, 19, 41)
☐ REVIEW Nurse Immunizer status and requirements regarding nurse immunizer for staff immunization-including Peer Nurse Immunizer Program (Tool 4)
☐ REVIEW SOURCE CONTROLS: Engineering and Administrative (Tool 5)

SEPTEMBER

☐ ASSEMBLE your Respiratory Outbreak Resource Kit (Tool 6)
☐ REVIEW Infection Prevention and Control supplies needed in preparation for respiratory virus season including Personal Protective Equipment (PPE) (Tool 6)
☐ MAKE A LIST of important contact numbers. A template is provided (Tool 7)
☐ PROVIDE information on Influenza vaccines, treatment and prophylaxis within your facility (Tool 8)
☐ PICK UP INFLUENZA VACCINE when it is available using the cold-chain method (Tool 9)
☐ ORDER AND PICK UP PNEUMOCOCCAL VACCINE as required (Tool 9)
☐ ORDER NASAL SWAB COLLECTION KITS from the BCCDC LABORATORY: Use the order form found ‘on-line’ at www.bccdc.ca/PHSALaboratories/OrderForm, indicate the number of swab kits needed and e-mail a scanned copy to kitorders@hssbc.ca (Tool 10)
☐ Obtain secondary packaging per TDG (Tool 23b)

OCTOBER/NOVEMBER/DECEMBER

☐ POST appropriate preventive signage (Tool 11)
☐ CHECK WITH PHARMACY re: readiness to start anti-influenza medications if needed (Tools 3, 41)
☐ REVIEW AND PROMOTE HAND HYGIENE (Tool 12)
☐ ENSURE USE OF ROUTINE PRACTICES at all times (Tool 13), including proper use of PPE (Tool 6)
☐ BE READY TO IMPLEMENT Control Measures for a SINGLE case of viral respiratory illness (including proper use of PPE) (Tools 14, 15, 16)
☐ VACCINATE staff, volunteers and students, and check that contract workers are vaccinated (start date as advised by public health--usually as soon as possible after vaccine available). Review and follow the Fraser Health Influenza Control Policy (http://www.fraserhealth.ca/professionals/resources/influenza/influenza) (Tools 17, 18)
☐ MAKE A LIST of staff/volunteers/students who have had the current season’s recommended influenza vaccines (Tool 17)
☐ VACCINATE residents as soon as feasible after influenza vaccine is made available to you (Tool 19)
☐ MAINTAIN A LIST OF RESIDENTS who have had this season’s influenza vaccine (Tool 19)
☐ MAINTAIN A LIST OF RESIDENTS who have had pneumococcal vaccine, as recommended (Tool 19)
☐ ENCOURAGE visitors and others to be immunized as recommended against influenza (Tool 8)
☐ REVIEW vaccination status for new residents on admission, including those admitted for respite care

REMAINDER OF SEASON

☐ COMPLETE your annual record of immunization rates of both staff and residents (Tool 17, 19)
☐ COMPLETE FACILITY INFLUENZA READYNESS REPORT- FAX to local Health Unit by December 31st each year (Tool 20)
☐ STAY READY throughout the Respiratory Outbreak season (October through May)

Note: Active Influenza Season is declared annually by the Provincial Health Officer
OUTBREAK DETECTION AND CONSULTATION CHECKLIST

☐ INITIATE THE FOLLOWING DETECTION AND ACTION STEPS promptly when there are 2 or more people with new or worse cough in a neighbourhood, floor or other specified area within a 7-day period (staff and/or residents) (Tool 21)

☐ ISOLATE symptomatic residents on Droplet/Contact Precautions (Tools 15, 16)

☐ TAKE SPECIMENS FOR LAB TESTING when there are 2 or more people with new or worse cough in a unit or area within a 7-day period (staff and/or residents). COLLECT NASAL SWAB SPECIMENS for testing from up to 6 people (Tool 23) with new or worse cough that started within the last 48 hours. Use gloves, mask and eye protection when taking nasal swabs (Tools 15, 16)

☐ FOLLOW INSTRUCTIONS below to ensure quality specimens and fastest possible turnaround time

⇒ For Nasal Swab specimens (Tools 22, 23a 23b)
  ☐ Complete one BCCDC Nasal Swab Respiratory Outbreak Laboratory Form (Tool 22)
  ☐ Include the name and phone number of the person to whom you want the laboratory to provide the results from the swab(s). Be sure to include an after-hours number as results are often called to you in the evening. Be sure the person who will take the call from the lab will know what to do with the result
  ☐ Notify the Virus Isolation Lab by Faxing completed Lab form to BCCDC at 604-707-2605
  ☐ Fill out a BCCDC Virus Culture Requisition for each swab, mark it as “URGENT OUTBREAK-ASSOCIATED” and send it with the swab(s) (Tool 23a)
  ☐ Package and send according to (tool 23b) TDG
  ☐ Call Dynamex Courier at 604-432-7700, bill to Acct #23270 and specify the “ON & GONE” delivery mode to the BCCDC Virus Isolation Lab, 655 West 12th Avenue, Vancouver, BC

☐ RECORD specimens taken on the Resident and/or Staff Illness Report (Tools 17, 19)

☐ REPORT TO your Outbreak Management Contact (Tools 2a, 24, 25) when there are 2 or more people with new or worse cough in a unit or area within a 7-day period (staff and/or residents):
  For all Residential Care Facilities in the Fraser Health Authority area with 15 or more residents
  • Fraser Health-operated Residential Care Facilities
  • Contracted and Private Pay Residential Care Facilities
  • Mental Health and Substance Use Residential Facilities

⇒ WEEKDAYS: Between 0830 and 1630, CALL and FAX your local CD Nursing Team (Tool 7)

⇒ WEEKENDS/STAT HOLIDAYS: Between 8:30 am and 4:30 pm, CALL the Medical Health Officer on call through the Fraser Health Public Health Answering Service at 604-527-4806. If consultation is needed on weekends and holidays, please try to call between 0830 and 1630 whenever possible. However, if it is essential to call outside these times, the on-call Medical Health Officer is available

⇒ EVENING/OVERNIGHT: CONTACT the CD Nursing Team or Medical Health Officer as above, promptly on the NEXT day (i.e. CD Nursing Team if next day is a regular business day; Medical Health Officer on call if next day is a Saturday, Sunday or Stat holiday)

☐ INITIATE DAILY SURVEILLANCE (Tool 26)

☐ COMPLETE the Staff and Resident Respiratory Illness Reports daily (Tools 27, 28) and FAX to your Public Health Outbreak Management Contact each weekday
  o Use a different sheet for each neighbourhood, floor or other specified area
  o For influenza, Staff and Resident Illness forms need to be updated each day
  If the outbreak is assessed to be due to a virus other than influenza, your Public Health Outbreak Management Contact will advise you regarding daily reporting of illness. Your Infection Prevention and Control Consultant (IPCC) (Tool 2b) will contact you and provide support on control measures

☐ IMPLEMENT the appropriate OUTBREAK CONTROL MEASURES (SCENARIO A, B or C) in consultation with your Public Health Outbreak Management Contact (Tool 2a, Scenarios A, B and C)

☐ DESIGNATE a staff member and back-up to be responsible for daily outbreak tracking and updates

☐ ORDER a replacement swab kit. Use the order form at www.bccdc.ca/PHSALaboratories/OrderForm and e-mail a scanned copy to kitorders@hssbc.ca (Tool 10)
FLOWCHART FOR OUTBREAK CONTROL MEASURES

CONTROL MEASURE CHECKLISTS FOR OUTBREAK MANAGEMENT - The recommended Control Measures and Reporting Expectations vary with the nature of the outbreak and are organized and presented as:

- **A FLOW CHART with definitions:** for assistance in selection of the best CHECKLIST for control measures (Scenario A, B or C)
- **SCENARIO A--SEASONAL INFLUENZA OUTBREAK IN WHICH INFLUENZA IS KNOWN OR SUSPECTED AS CAUSE.** [For Seasonal Influenza B, Seasonal Influenza A/H3N2,Seasonal Influenza A/H1 sensitive to Oseltamivir and Influenza A/H1 OsR (oseltamivir resistant)]
- **SCENARIO B--NON-INFLUENZA OUTBREAK CHARACTERIZED BY PREDOMINATELY SERIOUS ILLNESS** and
- **SCENARIO C--NON-INFLUENZA OUTBREAK CHARACTERIZED BY PREDOMINATELY MILD ILLNESS**

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Though no single, simple protocol will cover all respiratory outbreaks optimally, the checklists provide rational approaches to influenza and non-influenza viral respiratory outbreak management

**WARNING:** For each of the Outbreak Scenarios it is critically important to remain vigilant in surveillance in case the situation changes; for example, more than one virus may be causing illness in the same setting, additional laboratory testing may be indicated, a resident may have developed complications or a bacterial infection and need medical assessment, etc.

These checklists are provided as guides for the management of respiratory virus outbreaks. The checklists **DO NOT** substitute for:

- Consultation regarding Outbreak Management (as needed) with your Facility Medical Director, your Public Health Outbreak Management Contact and your Infection Prevention and Control Consultant) (Tool 2a, 2b )
- Consultation with your Facility Medical Director or with the Resident’s Physician when warranted due to a specific resident’s condition

**REMEMBER!** Respiratory viruses are smarter than these checklists (and the people who draft them)! So, be alert for indications to consult, send more samples for testing and/or modify your outbreak management strategy

For helpful Information about Common Respiratory Viruses, including Influenza see **Tool 29**
FLOWCHART AND DEFINITIONS FOR RESPIRATORY OUTBREAK CONTROL MEASURES

2 or more people with new or worse cough in a neighbourhood, floor or specified area within a 7-day period (staff and/or residents)

1. Put Control Measures in place for individual ill residents (Tool 14)
2. Initiate Laboratory Testing (Tool 22 and 23)
3. Report Suspect Outbreak (Tool 2, 24, and 25)
4. Implement Scenario A, B or C Control Measures in consultation with your Outbreak Management Contact

In consultation, is outbreak considered highly likely to be due to influenza?

NO

• Implement Scenario B Control Measure if predominantly SERIOUS illness, or
• Implement Scenario C Control Measures if predominantly MILD illness

YES

Test(s) positive for Influenza

Influenza Outbreak Control Measures Scenario A

NO

YES

Implement or Maintain Scenario A Outbreak Control Measures

1. Implement or Maintain Scenario B (Serious Illness) Control Measures unless predominately MILD illness
2. If predominately MILD illness, Implement or Maintain Scenario C (MILD illness) Control Measures
3. Continue surveillance

If OUTBREAK MANAGEMENT is not going as expected (eg. unexpected increase in new cases or change in nature/pattern of illness), REVIEW with your Public Health Outbreak Management Contact regarding:
1. How Control Measures are being implemented
2. The possibility of more than one virus involved
3. Any indication for additional testing
4. Re-assessment of the most appropriate Control Measures
5. Any additional recommendations

DEFINITIONS

Non-Influenza Respiratory Outbreak characterized by predominately SERIOUS Illness (Scenario B Outbreak Checklist)
- Illness is more than “a bad cold” in many or most of those affected
- Illness may be remarkable in its suddenness and accompanying extreme fatigue (prostration)
- Affected individuals generally are not up and about while ill
- Eating and drinking are likely to be affected
- Symptoms may persist
- There are complications such as pneumonia (viral or secondary bacterial), heart failure or sepsicaemia in residents or staff for whom pre-existing frailty or underlying chronic illness is not a satisfactory explanation for such complications
- Illness may be prolonged, with cases taking longer than expected to recover

Non-Influenza Respiratory Outbreak characterized by predominately MILD Illness (Scenario C Outbreak Checklist)
- Illness is mild and “common cold-like” in most of those affected
- From onset (or within a day or two), activity levels, including eating and drinking, are not markedly different than usual
- Note: There may be individual exceptions due to underlying pre-existing illness that makes certain individuals very susceptible to complications from any respiratory infection
MANAGEMENT OF ILL RESIDENTS/PATIENTS: Isolate in their rooms as much as possible with droplet/contact precautions (Tool 15) through their infectious period (5 days from onset) (Tool 30a). Provide meals in rooms. Regular trays may be used. Treat with an anti-influenza medication, as recommended and as per pre-printed orders (Tools 3, 30a, 32, 41a-f). Ensure that staff and visitors use personal protective equipment (PPE) when within 2 metres of an ill resident (Tools 15, 16). Follow standard protocols for laundry, utensils, garbage and medical waste. If resident is to be transferred to an acute care facility, inform BC Ambulance (at time of booking) and the receiving institution of your outbreak (using CommuniCARE for ER) (Tool 38). Resident should wear a mask (if tolerated) for transfer. Anyone accompanying the resident should wear a mask, eye protection and gloves.

PREVENTIVE MEASURES FOR WELL RESIDENTS/PATIENTS: Increase surveillance to twice daily. Promote hand hygiene and respiratory etiquette. Implement anti-influenza prophylaxis, if recommended (Tools 2a, 31a, 32, 41a-f)

CONTROL MEASURES FOR ILL HEALTH CARE WORKERS: Exclude from the workplace until well enough to work AND whichever is sooner of either their symptoms are completely gone OR they are 5 days from symptom onset. Ill staff should notify facilities where they have worked in the previous week. Use respiratory etiquette and hand hygiene on return to work (Tool 33a)

PREVENTIVE MEASURES FOR WELL HEALTH CARE WORKERS: Encourage vigilance in self-assessment for signs and symptoms of viral respiratory illness. EXCLUDE health care workers not protected by vaccination unless they are taking anti-influenza prophylaxis (Tool 34a, 35). Those who need prophylaxis should be given a copy of a Letter to Physician to take to their doctor (Tool 36). Well Health Care Workers not protected by vaccination cannot work in an unaffected area of the facility or in another health care setting until symptom-free for 72 hours after last working in the outbreak setting (Tool 34a)

IMMUNIZATION: Adhere to Fraser Health Influenza Control Policy. Promote immunization for all staff and residents (Tool 8)

EDUCATION: Teach staff and volunteers about early signs and symptoms of influenza, how to prevent spread of influenza and how to educate residents, their families and other visitors. Model and encourage recommended hand hygiene practices and respiratory etiquette. Post educational signs promoting hand hygiene and respiratory etiquette (Tools 8, 11, 12)

CONSIDERATIONS regarding MOVING IN AND TRANSFERS: Restrict transfers of residents into or out of affected areas of the facility (Tool 37). Review how people and things move in and around facility. Depending on the extent of the outbreak and the physical layout of the building, restrictions might be applied to a neighbourhood, floor, other specified area or whole facility (Tool 25). Restrictions will generally be in place until the outbreak is declared over (Tool 43). If transfers are required, ensure that receiving site and those involved in transport are aware of your outbreak (Tools 37, 38). When Influenza outbreak control measures are in place, discuss return of residents and new moves into facility with your Infection Prevention and Control Consultant (IPCC), who will review with the Medical Health Officer. Benefits of moving back to or newly into Residential Care may outweigh potential risks (Tool 2b, 37) incoming residents or decision-makers should be aware of the outbreak and understand both the rationale and potential benefits of the move. The incoming resident’s physician should be included in the discussion

IMPLEMENTATION OF OTHER CONTROL MEASURES: Social activities involving groups of residents in the facility should be suspended. However, where feasible, within an affected area under outbreak control measures, consider cohorting residents for group activities (well with well, ill with ill). Visitors should visit only one resident. Non-immunized visitors, including family, must put on a mask on entering the facility and avoid visiting at all if unwell. (Tool 37)

POSTING OF OUTBREAK SIGNAGE: Use posters to advise visitors of the outbreak and precautions to use (Tools 11, 12)

UTILIZATION OF COHORTING: Assign groups of staff to work in either affected or unaffected areas, but not both, or with either ill or well residents. If this is not possible, staff should work first in unaffected areas or with well residents, using PPE and with hand hygiene between residents or areas (without inappropriate delay in care of ill residents) (Tools 15, 16, 37)

ADHERENCE TO INFECTION PREVENTION AND CONTROL PRACTICES: Remind staff and visitors to use hand hygiene before and after contact with each resident. Post signs requiring droplet/contact precautions with ill residents and use of PPE (gloves, gowns, masks and eye protection) appropriately (Tools 11, 12, 15, 16)

REVIEW OF CONTROL MEASURES: Your Infection Prevention and Control Consultant (IPCC) will contact you (Tool 2b, 27) for an update on the Influenza Outbreak (Tool 7) and review control measures. Adhere to Fraser Health Influenza Control Policy. Introduce enhanced cleaning regimens, including more frequent disinfection of commonly touched surfaces or items such as handrails, elevator buttons, door handles (Tools 39, 40). Provide for safe disposal of contaminated items such as tissues. Ensure resident has a garbage can for used tissues. Clean/disinfect equipment between use for different residents or areas using a hospital grade cleaner with a disinfectant (Tool 31a). Provide for safe disposal of contaminated items such as tissues. Ensure resident has a garbage can for used tissues. Clean/disinfect equipment between use for different residents or areas using a hospital grade cleaner with a disinfectant (Tool 31a). Provide for safe disposal of contaminated items such as tissues. Ensure resident has a garbage can for used tissues.

NOTIFICATION OF INFLUENZA OUTBREAK: (Tool 7)
- Community Care Facility Licensing (if a licensed facility) or FH Residential Care Contracts and Services (if operating under Hospital Act)
- Any facility/institution that received a resident from you (include transfers up to two days before onset of illness in the first case) (Tool 37)
- BC Ambulance, HandyDART and other similar transportation suppliers, oxygen services, laboratory services, and other service providers of any outbreak control measures that may affect their provision of services if called to your facility
- Your ACCESS Coordinator (or equivalent placement service such as Centralized Referral Coordinator for Mental Health Facilities) regarding any restrictions on moves into your facility or transfers

DAILY REPORTING: Update the Resident and Staff Illness Reporting forms each day (adding new information, especially note any recent admissions or hospitalizations). (Tools 27, 28) and FAX each weekday to your Public Health Contact (Tool 2a). For weekends and stats, FAX on the next business day. Ensure that weekend staffs are aware and up-to-date!

ONGOING SURVEILLANCE: Remain alert for possible new cases. Daily surveillance of residents for symptoms is advised. When there is a community outbreak or an outbreak in your facility, twice daily surveillance is recommended

TREATMENT AND PROPHYLAXIS: Start treatment and/or prophylaxis as advised by your Public Health Outbreak Management Contact (in consultation with your Facility Medical Director, if applicable) (Tools 3, 30a, 31a, 32, 35, 36, 41a-f)

REVIEW OF PROBLEM-SOLVING with your Public Health Outbreak Management Contact (Tools 2a, 42a) if outbreak management is not progressing as expected, and of INFECTION CONTROL MEASURES with your IPCC (Tools 2b, 42a)

CALLING OUTBREAK OVER: Consult with your Public Health Outbreak Management Contact (Tool 2a). An Influenza outbreak will usually be declared over on the 6th day after onset of illness in the most recent case (i.e. after 5 full days with no new cases) and 3 days (72 hours) after the last time a staff member with symptoms worked in the facility (Tool 43a)
MANAGEMENT OF ILL RESIDENTS/PATIENTS: Isolate in their rooms as much as possible with droplet/contact precautions (Tool 19) while infectious (Tools 29, 30b). Provide meals in rooms while isolated. Regular trays may be used. Ensure that staff and visitors use appropriate infection prevention and control measures when giving care or visiting (Tool 15, 16).

PREVENTIVE MEASURES FOR WELL RESIDENTS/PATIENTS: Promote hand hygiene and respiratory etiquette (Tool 31b).

CONTROL MEASURES FOR ILL HEALTH CARE WORKERS: Recommend that ill staff stay away from work until well enough to work AND whichever is sooner of either their acute symptoms are gone OR they are 5 days from symptom onset. Practice good respiratory etiquette and hand hygiene on return to work (Tool 33b).

PREVENTIVE MEASURES FOR WELL HEALTH CARE WORKERS: Encourage vigilance in self-assessment for signs and symptoms of viral respiratory illness (Tool 34b). When influenza is not known or suspected to be causing the outbreak, there is no policy to exclude well health care workers not immunized against influenza from working in your facility or other health care settings. However, any such health care workers who develop signs or symptoms of respiratory illness should be off work as for ill health care workers (above) and should notify immediately any facility in which they have worked in the previous week.

EDUCATION: Inform staff and volunteers of the early signs of the specific disease, how to prevent its spread and how to educate residents, their families and other visitors (including respiratory etiquette and hand hygiene) (Tools 11, 12, 29).

CONSIDERATIONS regarding MOVING IN AND TRANSFERS: Recognize that this may be affected by the severity of illness, facility layout and facility ability to place new residents suitably. Generally, limit transfers of residents out of the facility to those that are deemed to be necessary before outbreak is declared over. Receiving facilities should be aware of the outbreak and able to isolate the individual through an incubation period. With transfers, inform those who will be involved in transport of your outbreak (Tool 37, 38). When outbreak control measures are in place, discuss return of residents and new moves into facility with your Infection Prevention and Control Consultant (IPCC) as benefits of moving back to or into a home in Residential Care may outweigh potential risks (Tool 2b, 37). Incoming residents or their decision-makers should be aware of the outbreak and in agreement regarding the move in. Ideally, the incoming resident’s physician should be included in this discussion. When making a decision, consider any health conditions that may place the incoming resident at increased risk of complications if infected. Also consider and adhere to control measures to limit potential risk to Outbreak Management from the moving in of a resident who is potentially susceptible to the virus causing the outbreak.

IMPLEMENTATION OF OTHER CONTROL MEASURES: Review group activities involving residents in the facility. Consider the potential infection control benefits of canceling or modifying group activities and weigh these against the importance of the group activities to resident well-being. As feasible, within an affected area under outbreak control measures, consider cohorting residents for group activities (well with well, ill with ill). Actions will depend on the situation, severity and rapidity of spread of infection and the nature of the group activity. During the outbreak, visitors should limit visiting to only one resident.

POSTING OF OUTBREAK SIGNAGE: Use viral respiratory outbreak alert posters to advise visitors of the outbreak and precautions to use. DO NOT USE signage that is specifically for influenza as this causes confusion (Tools 11,12).

UTILIZATION OF COHORTING: Assign groups of staff to work in either affected or unaffected areas, but not both or with either ill or well residents. If this is not possible, staff should work first in unaffected areas or with well residents (without inappropriate delay in care of ill residents) with recommended infection control practice and hand hygiene between residents or areas (Tools 15, 16, 37).

ADHERENCE TO INFECTION PREVENTION AND CONTROL PRACTICES: Remind staff and visitors to use hand hygiene before and after contact with each resident and post signs noting infection control practices (Tools 11, 12, 15, 16).

ENHANCEMENT OF HOUSEKEEPING AND CLEANING OF EQUIPMENT: Introduce enhanced cleaning regimens, including more frequent disinfection of commonly touched surfaces/items (eg. handrails, elevator buttons, door handles) and safe disposal of contaminated items (eg. tissues). Clean/disinfect equipment between use for different residents or areas (Tools 39, 40).

NOTIFICATION OF:

- Community Care Facility Licensing (if a licensed facility) or FH Residential Care Contracts and Services (if operating under Hospital Act)
- Any facility or institution that may have received a resident from you (include transfers up to two days before onset of illness in the first case in your outbreak). Note the respiratory pathogen causing outbreak, if known. Note that the outbreak is NOT thought to be influenza. Inform if significant change in determination of cause of outbreak.
- BC Ambulance, HandyDART and other similar transportation suppliers, oxygen services, laboratory services and other service providers of any outbreak control measures that may affect their provision of services.
- Your ACCESS Coordinator (or equivalent placement service such as Centralized Referral Coordinator for Mental Health Facilities) regarding restrictions on moves into your facility or transfers, only if any restrictions are recommended.

DAILY REPORTING: Update the Resident and Staff Illness Reporting forms each day (just adding in new information) (Tool 27, 28). FAX to your Infection Prevention and Control Consultant (Tool 2b) ONLY IF REQUESTED at 604-851-3041 (Abbotsford).

ONGOING SURVEILLANCE: Remain alert for possible new cases. Generally, it will not be necessary to do additional testing for virus identification once the causative agent has been identified. However, in addition to the potential for bacterial infection as a complication in those affected by the viral illness, another virus may also be causing illness. At times, respiratory viruses, alone or in combination, may cause outbreaks that result in more serious illness than might be expected and/or are prolonged and/or have very high attack rates. If a significant difference in pattern or severity of illness is noted during an outbreak (eg. new cases are affected differently than early cases), additional viral testing may be valuable and should be reviewed with your Infection Prevention and Control Consultant (Tool 2b) and Facility Medical Director or other clinician consulting in management of the outbreak. Alert your Outbreak Management Contact (Tool 2a) if additional testing is positive for Influenza. Remain alert to the potential for secondary bacterial infections (Tool 42b).

CALLING OUTBREAK OVER: Consult with your Infection Prevention and Control Consultant (IPCC) (Tool 2b) to consider declaring the outbreak over, usually between the 8th and 14th day after onset of illness in the last case (Tool 43b). This may vary depending on the virus or viruses causing the outbreak. (Tool 29)

Your Infection Prevention and Control Consultant is available for consultation throughout your Scenario B Outbreak and will inform the Medical Health Officer when the Outbreak is declared OVER.
SCENARIO C Outbreak Control Measures CHECKLIST (MILD RESPIRATORY ILLNESS)

Non-Influenza respiratory virus outbreak that is characterized by predominately MILD illness

- **MANAGEMENT OF ILL RESIDENTS/PATIENTS**: Isolate in their rooms as much as is reasonable on droplet/contact precautions during acute illness [fever (if present), coughing and sneezing] (Tool 30c). Provide meals in rooms while isolated. Regular trays may be used. As always, follow Routine Practices (Tool 13). Use of Personal Protective Equipment (PPE) for provision of care within 2 metres of residents in the acute stage of illness is recommended (Tools 15, 16).

- **PREVENTIVE MEASURES FOR WELL (UNAFFECTED) RESIDENTS/PATIENTS**: Promote hand hygiene and respiratory etiquette (Tools 12, 31c).

- **MANAGEMENT OF ILL HEALTH CARE WORKERS**: Recommend that ill staff be off work during the acute stage of their illness. Practice good respiratory etiquette and hand hygiene on return to work (Tools 12, 33c).

- **PREVENTIVE MEASURES FOR WELL HEALTH CARE WORKERS**: Encourage vigilance in self-assessment for signs and symptoms of viral respiratory illness (Tool 34c). When influenza is not known or suspected to be causing the outbreak, there is no policy to exclude well health care workers not immunized against influenza from working in your facility or other health care settings. However, any such workers who develop signs or symptoms of respiratory illness should be off work as above and should notify immediately any facility in which they have worked in the previous week.

- **EDUCATION**: Inform staff and volunteers of the early signs of the specific disease, how to prevent its spread and how to educate residents, their families and other visitors (including respiratory etiquette and hand hygiene) (Tools 11, 12, 29).

- **CONSIDERATIONS regarding MOVING IN OR TRANSFERS**: Generally, proceed with return of residents or new moves in as usual. However, even when the outbreak is mild ‘common-cold like’ illness, the facility should consider making incoming residents and/or their decision-makers aware of the outbreak before moving back to, or newly into the facility. Ideally, the incoming resident’s physician should also be aware. Consider isolation for incoming residents with pre-existing conditions that make them particularly vulnerable to viral illnesses that normally cause only mild illness in others. If transfers are required, inform the receiving facility or institution of your outbreak of mild respiratory illness.

- **IMPLEMENTATION OF OTHER RESTRICTIONS**: Review group activities involving residents in the facility. Consider the potential infection control benefits of canceling or modifying group activities and weigh these against the importance of the group activities to resident well-being. Generally, continue with most group activities, excluding only those residents/patients who are acutely ill and being managed in their rooms. As feasible, within an affected area, consider cohorting residents for group activities (well with well, ill with ill). Visitors should visit only one resident or, at least, avoid visiting a well resident after visiting an acutely ill resident.

- **ADHERENCE TO INFECTION PREVENTION AND CONTROL PRACTICES**: Staff and visitors should be reminded to practice hand hygiene before and after contact with each resident (Tool 12).

- **POSTING OF OUTBREAK SIGNAGE**: Decide if there is value to be gained from the use of viral respiratory outbreak alert posters to advise visitors of the outbreak and precautions to use. DO NOT USE signage that is specifically for influenza as this causes confusion (Tools 11, 12).

- **ENHANCEMENT OF HOUSEKEEPING AND CLEANING OF EQUIPMENT**: More frequent cleaning regimens should be used, including more frequent disinfection of commonly touched surfaces or items such as handrails, elevator buttons, door handles and safe disposal of contaminated items such as tissues (Tools 39, 40). Equipment should be cleaned/disinfected between use for different residents or areas (Tool 39).

- **NOTIFICATION OF**:  
  - Your Occupational Health Nurse (as applicable for your setting)  
  - Community Care Facility Licensing (if a licensed facility) or FH Residential Care Contracts and Services (if operating under Hospital Act)  
  - Your ACCESS Coordinator (or equivalent bed booking services) of restrictions on moving in or transfers, only if any restrictions are recommended (Tool 39).

- **DAILY REPORTING**: Use the daily reporting forms (Tools 27, 28) for monitoring in your facility as a useful tool to assess the course of your outbreak and effectiveness of management. Daily FAXing of Staff and Resident Illness Reporting forms to Public Health or your Infection Prevention and Control Consultant is not expected.

- **ONGOING SURVEILLANCE**: Remain alert for possible new cases. Generally, it will not be necessary to do additional testing for virus identification. However, in addition to the potential for bacterial infection as a complication in those affected by the viral illness, another virus may also cause illness. At times, respiratory viruses, alone or in combination, may cause outbreaks that have more serious illness than might be expected and/or are prolonged and/or have very high attack rates. **If a significant difference in pattern or severity of illness is noted during an outbreak** (for example, new cases are affected differently than early cases), review with your Infection Prevention and Control Consultant and Facility Medical Director or other clinician consulting in management of the outbreak because additional viral testing and a switch to respiratory outbreak control measures for Scenario B (predominately SERIOUS illness) should be considered (Tool 42b) and your Outbreak Management Contact alerted (Tool 2a).

- **CALLING OUTBREAK OVER**: In consultation with your Infection Prevention and Control Consultant (IPCC), you will decide when the outbreak is over. Generally, consider the outbreak over on the 8th to 14th day after onset of illness in the last case (Tool 43c). This may vary depending on knowledge of the virus or viruses causing the outbreak (Tool 29). Without the help of an anti-influenza agent like that used for an influenza outbreak, it is difficult to specify an exact case-free interval to be used to call the outbreak over. You may have sporadic cases for some period of time after the outbreak settles. Generally, Respiratory Outbreak Notifications (RIONs) are not used for Scenario C outbreaks.

**NOTE:**  
1. Even when predominately MILD illness, some frail residents may develop complications due to underlying illness.  
2. It will not be unusual for intermittent cases or clusters to occur for some time. If you are concerned in such instances, consult with your Infection Prevention and Control Consultant (Tool 2b).  
3. Two or more new cases identified after the outbreak was considered over should be investigated as a new suspect outbreak

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**SCENARIO C Outbreak Control Measures)**

**VIRAL RESPIRATORY OUTBREAK PROTOCOL AND TOOLKIT FOR RESIDENTIAL CARE AND MENTAL HEALTH AND SUBSTANCE USE FACILITIES**

**VERSION: SEPTEMBER 2016**
VIRAL RESPIRATORY ILLNESS OUTBREAK

TOOLKIT

TOOLS 1 to 43
Tool 1: Outbreak Prevention and Management Team
(adapted from PICNet BC Reference for Respiratory Outbreak Prevention and Control Guidelines, June 2007)

Organizational Leadership for infection prevention and control should be established and maintained in all health care settings, including residential care facilities, to ensure effective and efficient outbreak prevention and management. Residential care facilities will find that formation of an Outbreak Prevention and Management Team is the best way to prevent, prepare for and manage viral respiratory or gastrointestinal outbreaks. Specific members of the Outbreak Prevention and Management Team are designated to:

- Know the Outbreak Prevention and Management Protocols well
- Link with your Infection Prevention and Control Consultant (Tool 2b) to better understand the FH Infection Prevention and Control Manual, Infection Prevention and Control measures to prevent or manage viral outbreaks and the role of the Infection Prevention and Control Consultant when an outbreak is declared (http://www.fraserhealth.ca/professionals/residential-care-providers/infection_control_manual/)
- Communicate with the Public Health Outbreak Management Contact (Tool 2a) when questions arise, especially when the Suspect Outbreak definition is met
- Ensure that actions recommended in the Protocols are used in the facility

Individuals should be designated to perform these functions such that there is coverage at all times, including after normal work hours, on weekends and on holidays

Outbreak Prevention and Management Team (OPMT)

Individuals responsible for prevention and control efforts should review the strategic Pre-Season Planning, Preparation and Prevention CHECKLIST to update facility policies and practices and take all recommended preparative steps, especially:

- Prevention strategies
- Strategies to increase resident, staff and facility resilience to viral outbreaks
- Surveillance steps to be able to recognize a suspect outbreak and promptly take the appropriate actions, including collecting and submitting laboratory specimens, contacting your Outbreak Management Contact (Tool 2a) and promptly introducing all indicated control measures
- Working with your Infection Prevention and Control Consultant on day to day prevention and control practices and special consultation as needed in the event of an outbreak (Tool 2b)

Though the number and designations of members of an OPMT may vary with the type and size of a facility, the following list is useful to consider in building an effective Respiratory Outbreak Prevention and Management Team:

- Facility Medical Director
- Administrator
- Director of Nursing or Director of Residential Care
- Person in your facility who has responsibility for Infection Prevention and Control
- Housekeeping/Laundry Supervisor
- Food Services Supervisor
- Pharmacist or other representative from the Pharmacy that supplies the facility
- Front-Line Staff Member
- Union Representative
- Person who will be involved in Communications

Clear definitions, communication and assumption of specific roles and responsibilities are particularly important for effective Outbreak Prevention and Management
Tool 2: Contacts and Consultants

REPORT EVERY SUSPECT viral RESPIRATORY ILLNESS OUTBREAK to your OUTBREAK MANAGEMENT CONTACT ASAP

If your facility outbreak is classified as a suspect or lab confirmed INFLUENZA outbreak (Scenario A), you report DAILY to your Public Health Outbreak Management Contact (OMC) who supports you in outbreak management until the outbreak is declared over. In addition, your Infection Prevention and Control Consultant (IPCC) will contact you to support in infection control measures.

If your facility outbreak is classified as caused by a respiratory virus other than influenza (Scenario B or C), your Infection Prevention and Control Consultant (IPCC) will contact you and support in outbreak management until the outbreak is over.

Tool 2a: Public Health (PH) Outbreak Management Contact

A Public Health Outbreak Management Contact is available for all residential care facilities with 15 or more residents within the Fraser Health area. All suspect Respiratory Illness Outbreaks (Tool 14) must be reported PROMPTLY to your Outbreak Management Contact. Delays in reporting of even an extra day, generally lead to a longer outbreak with more people affected. Your PH Outbreak Management Contact will take your report of a suspect outbreak and work with you, in consultation with the Medical Health Officer (MHO), to ensure appropriate steps are taken to identify the cause of the outbreak and bring it under control quickly. The MHO will notify others by means of the Respiratory Illness Outbreak Notification (RION) list if due to Influenza (Scenario A) or other respiratory virus causing predominately SERIOUS illness (Scenario B).

During regular work hours, Monday through Friday, your PH Outbreak Management Contact will be a CD Nursing Team (Tool 7). After hours and weekends and holidays, your PH Outbreak Management Contact will be the Medical Health Officer on-call.

For all Residential Care Facilities in the Fraser Health Authority area with 15 or more residents, including:

- Fraser Health-operated Residential Care Facilities
- Contracted and Private Pay Residential Care Facilities
- Mental Health and Substance Use Residential Facilities

➤ WEEKDAYS: From 0830-1630, CALL 604-507-5471 and FAX 604-507-5439 your CD Nursing Team (Tool 7)
➤ WEEKENDS/STAT HOLIDAYS: CALL the Medical Health Officer on call through the Fraser Health Public Health Answering Service at 604-527-4806.

If consultation is needed on weekends and holidays, please try to call between 0830 and 1630 whenever possible. However, if it is essential to call outside these times, the on-call Medical Health Officer is available.

➤ EVENING/OVERNIGHT: CONTACT the CD Nursing Team or Medical Health Officer as above, promptly on the NEXT day (i.e. CD Nursing Team if next day is a regular business day; Medical Health Officer on call if next day is a Saturday, Sunday or Stat holiday)

Tool 2b: Infection Prevention and Control Consultant (IPCC)

When a viral Respiratory Illness Outbreak is declared (Scenario A, B or C) your Infection Prevention and Control Consultant (IPCC) will contact you to assist with the specific control measures that have been determined by you and your PH Outbreak Management CONTACT. If necessary, your IPCC will visit your facility to support in outbreak management.

To reach your IPCC, see contact information below:

For Fraser Health-operated Residential Care Facilities with 15 or more residents

➤ WEEKDAYS: From 0800 to 1600, CALL your IPCC at: 604-364-3986 (Abbotsford, Langley, Mission, Burnaby, New Westminster, Tri-cities and Maple Ridge) or 604-807-0405 (Surrey, White Rock, Delta, Chilliwack and Hope)

For Contracted Residential Care Facilities with 15 or more residents

➤ WEEKDAYS: From 0800 to 1600, CALL your IPCC at 604-507-5471

For Mental Health and Substance Use Residential Care Facilities with 15 or more residents

➤ WEEKDAYS: From 0800 to 1600, CALL your IPCC at 604-369-5194

Infection Prevention and Control Consultant FAX number is 604-851-3041 (Abbotsford)
Tool 3: Pre-Printed Order Template

This Pre-Printed Order Template is an example of enabling orders for each resident to cover standard recommendations regarding viral respiratory illness prevention and management for quality care prior to and throughout the respiratory virus season. Every resident should have a completed pre-printed order by the end of September each year to cover the items in the TEMPLATE. These are to be reviewed annually and signed by the Medical Director for the facility or the personal medical or nurse practitioner for the resident (according to practice at your site).

- This TEMPLATE is provided to assist in development of pre-printed orders appropriate for your facility and has pre-printed orders for influenza preparedness, prevention and response (including immunization, treatment and prophylaxis). This template has been developed so you have a comprehensive and tested sample from which to work to develop your pre-printed orders or against which to compare your existing pre-printed orders. Many facilities utilize a single order to cover all items in the Pre-Printed Order template, including those that are only used in an outbreak situation on the recommendation of the Medical Health Officer. In such situations, the physician still must review all items in the Order and clearly note any exceptions.

- For FH-operated facilities served by the Lower Mainland Pharmacy, USE the Pre-Printed Routine Orders and the Pre-Printed Influenza Outbreak Orders

- Appropriate dosage of important anti-influenza medications is based on calculated Creatinine Clearance (caCrCl) or estimated Glomerular Filtration Rate (eGFR) (Tool 41). A Serum Creatinine done within the previous 12 months is included on the pre-printed order template because it is necessary to calculate dosage if kidney function is impaired. Serum creatinine can also be done when an outbreak is recognized rather than in advance (for those who do not have a recent test result on file). Note: The Fraser Health Medication Quality and Safety Committee considered this issue in 2011 and supported a serum creatinine at least once per 12 months as a useful quality and safety precaution in terms of overall medication use by individuals living in residential care.

- This template also contains a reminder that a single dose of pneumococcal vaccine is indicated at age 65 years. If there is no acceptable record of having received pneumococcal vaccine, a dose should be given on moving into residential care. If a resident has received a dose of pneumococcal vaccine and has any of the health conditions listed on the template, a one-time revaccination at 5 years after the initial dose is recommended.

You may choose any format that works for you to design your pre-printed seasonal orders as long as it meets the requirements of the regulatory bodies for a valid pre-printed order. The need for anti-influenza medication doses to be adjusted based on renal function is built into the protocol. Your pharmacy will calculate the doses.

A joint statement from the College of Registered Nurses of BC (CRNBC) and the College of Physicians and Surgeons of BC (CPSBC) includes the following statements:

- Physicians are authorized to give orders to registered nurses. Orders must be patient-specific; these can include instructions that are pre-printed. Pre-printed orders set out the usual care for a particular patient group or patient problem. They are made patient-specific by the ordering physician adding the name of the patient, making any necessary changes to the pre-printed order to reflect the needs of the individual patient, signing and dating the order. Standing orders are no longer permitted.

- Orders that refer to another document (eg. protocol, clinical practice guideline) are permitted under the Nurses (Registered) and Nurse Practitioners Regulation. The College of Registered Nurses of British Columbia (CRNBC) and the College of Physicians and Surgeons of British Columbia (CPSBC) believe that such references should be placed on the patient’s chart. If this is not possible, the order must clearly identify the name and version of the document being referenced.

This statement is available at:
### MANDATORY ORDERS: PRECEDED BY BULLET •
### OPTIONAL ORDERS: CHECK APPROPRIATE BOXES
CROSS OFF and INITIAL IF NOT APPLICABLE

#### Drug and Food Allergies:

<table>
<thead>
<tr>
<th>MRP Pneumococcal Vaccine Records</th>
<th>Year Given</th>
<th>Given, but Year Unknown</th>
<th>Not known if Ever Given</th>
<th>Not Given</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial dose</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Once Only Re-vaccination

#### INFLUENZA SEASON PROTOCOL

<table>
<thead>
<tr>
<th>INDICATION</th>
<th>MD ORDER FOR MEDICATION OR TEST</th>
<th>PLEASE CHECK □</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza Prevention</td>
<td>Annual influenza vaccination¹</td>
<td>□ YES □ No</td>
</tr>
<tr>
<td>Pneumococcal Pneumonia Prevention¹</td>
<td>Pneumococcal polysaccharide vaccination: Given at age 65 or on admission, whichever comes first</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Once only revaccination at 5 years is indicated for anybody with one or more of: chronic disease of the kidneys or liver, asplenia, sickle cell disease, or poor immune system function due to disease (eg. HIV, lymphoma, Hodgkin’s, Multiple Myeloma) or because of therapy (eg. high-dose systemic steroid drugs to prevent transplant rejection)</td>
<td></td>
</tr>
<tr>
<td>Influenza Outbreak Preparation¹</td>
<td>Serum Creatinine level for calculation of estimated Creatinine Clearance (for residents not known to have impaired renal function, a result within the past 12 months as of the start of the viral illness season is acceptable)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nasal swab for viral testing (to determine cause of outbreak)</td>
<td></td>
</tr>
<tr>
<td>Influenza Outbreak Response¹</td>
<td>Antiviral Treatment²,⁴ of Cases (if can be done within timeframe for benefit) and Antiviral Prophylaxis²,⁴ of Well Residents</td>
<td></td>
</tr>
<tr>
<td>Influenza A (sensitive to oseltamivir) and Influenza B Outbreak²</td>
<td>OSELTAMIVIR²,⁴ For symptomatic patients: Oseltamivir treatment x 5 days</td>
<td>□ YES □ No</td>
</tr>
<tr>
<td></td>
<td>For patients without new or worse cough: Oseltamivir prophylaxis until outbreak over</td>
<td></td>
</tr>
<tr>
<td>Influenza A (sensitive to oseltamivir) and Influenza B Outbreak² AND</td>
<td>ZANAMIVIR²,⁴ (Note: Zanamivir can only be used for patients who can use a dishhaler)</td>
<td>□ YES □ No</td>
</tr>
<tr>
<td>Influenza (resistant to oseltamivir) IF recommended by public health)</td>
<td>For symptomatic patients IF advised by Public Health due to resistance to Oseltamivir: Zanamivir treatment x 5 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>For patients without new or worse cough IF advised by Public Health due to resistance to Oseltamivir: Zanamivir prophylaxis until outbreak over</td>
<td></td>
</tr>
<tr>
<td>Influenza A Oseltamivir – Resistant (OsR) Outbreak² only (OsR such as some Influenza A/H1 strains)</td>
<td>AMANTADINE²,⁴ For patients without new or worse cough IF advised by Public Health due to resistance to Oseltamivir: Amantadine prophylaxis until outbreak over</td>
<td>□ YES □ No</td>
</tr>
</tbody>
</table>

¹ As per Fraser Health Viral Respiratory Outbreak Protocol  
² Use on recommendation of Fraser Health Medical Health Officer  
³ There may be some restriction of use recommended  
⁴ Recommended doses summarized in the Viral RI Outbreak Protocol and Toolkit

**DATE:**  
**MD SIGNATURE:**  
**IF “NO” TO ANY OF THE OUTBREAK RESPONSE ORDERS, INDICATE REASON AND PROVIDE CONTACT NUMBER**
Tool 4: Peer Nurse Immunizer Information

Staff working in smaller community sites may have some difficulty accessing acute care sites to be vaccinated against influenza. The Peer Nurse Immunizer Program offers an option for you to vaccinate staff on location at your facility site. The Colleges mandate the requirements for their members for giving vaccine without an order. Information on the requirements is on the Peer Nurse immunizer page on the Fraser Health internet site. A comprehensive online learning program is available from the BC Centre for Disease Control.

For ALL facilities: For information and educational resources for HEALTH CARE PROVIDERS ABOUT IMMUNIZATION POLICY, PROGRAM AND CLINICS, please see: http://www.fraserhealth.ca/professionals/resources/influenza/

Peer Nurse Immunizers are your co-workers working with you on your unit or on a unit within your site. They will offer you a convenient and easy way to get your flu shot this year. Their role is to promote the uptake of flu vaccine within their site, through information, a positive attitude, and provision of the Influenza Vaccine to their Peers.

The Peer Nurse Immunizers will determine, in collaboration with their managers, ways in which to provide influenza vaccine to their peers. This could include static clinics, roving clinics, staff meetings, and ad hoc at the request of the staff member.

The Peer Nurse Immunizer must provide immunizations according to the established standards for vaccine storage, handling, and administration.

Peer Nurse Immunizer information and links available on the Fraser Health website: http://www.fraserhealth.ca/professionals/resources/influenza/information-for-peer-nurse-immunizers

Community Pharmacies may provide immunization on site. If your community pharmacy is immunizing on site, please ensure that arrangements are made well enough in advance that timing for immunization will be in keeping with Public Health recommendations. In general, residents are recommended to receive vaccine as soon as supplies are available.

Information relating to the qualifications for those who can provide influenza vaccinations without a doctor’s order may be found at the following sites:

- Registered Nurses
  https://crnbc.ca/Standards/FAQs/Pages/ClientCare.aspx?subcategory=Scope%20of%20Practice&xprOpenPopup=1
- Licensed Practical Nurses
  https://clpnbc.org/Practice-Support-Learning/Immunization-Education.aspx
- Registered Psychiatric Nurses
  https://www.crpnbc.ca/?s=immunization&submit.x=15&submit.y=10
- Nurse Practitioners
  https://crnbc.ca/Standards/NPScopePractice/Pages/Default.aspx
- Pharmacists
  http://www.bcpharmacy.ca/administration-of-injections-program
- BCCDC Requirements
  http://www.bccdc.ca/imm-vac/ForHealthProfessionals/ImmunizationCourses/ImmsCompCourse.htm
Tool 5: Source Controls--Ways to Minimize the Risk of Viral Respiratory Illness in your Facility

**Source Controls** can help all who reside, visit or work in your facility to be less likely to be affected by respiratory viruses. Collaboration with workplace health, safety groups and building engineers has led to a framework that includes three tiers or levels of controls: Engineering controls, Administrative controls and Personal Protective Equipment (PPE) controls. Early fall is a good time to review Source Controls

**Engineering Controls**

Engineering controls remove or reduce a hazard by applying methods of minimization, isolation or ventilation. **Practical engineering controls** include, but are not limited to:

- Hand hygiene (hand washing facilities and alcohol-based hand rub dispensers)
- 2 metre spacing in multi-bed rooms
- Curtains or other partitions, especially if 2 metre spacing is not possible; and
- Maintenance of air temperature and relative humidity within the recommended range

([The dry indoor air so common throughout the respiratory virus season can increase the ease of virus spread and potential for exposure to cause illness. In accordance with Health Canada guidelines for thermal comfort and American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) Standard 55-2004, a relative humidity range of 30-60% and a temperature range of 20-24°C are recommended. The recommended ranges vary by season.])

**Administrative Controls**

Administrative controls are decisions for the facility that promote resilience, provide protection, reduce the likelihood of viruses being brought into the facility by ill workers or visitors and interrupt transmission when viruses are introduced to the facility. Administrative controls also include surveillance, early recognition and timely introduction of appropriate control measures when there is illness in the facility. **Practical administrative controls** include, but are not limited to:

- Compliance with the Fraser Health Influenza Control Policy ([Tools 8, 17, 18](http://www.fraserhealth.ca/professionals/resources/influenza/influenza))
- An immunization program for residents and staff (education, promotion and provision) that may also include volunteers and visitors. Influenza immunization is recommended (as per the Influenza Control Policy) for students involved in resident care during the 'respiratory virus season'
- **Passive and active screening** of visitors, volunteers and service providers [signage, limitations, personal protective equipment (as and when indicated) and appropriate restrictions]. **Passive screening** relies on general education and signage, leaving responsibility with those who have signs or symptoms of illness to report illness and follow advice. **Active screening** requires measures to actively screen those coming into the facility and may be recommended by your Outbreak Management Contact in certain situations such as high levels of an influenza virus in the surrounding community (especially if not covered by the seasonal vaccine) or by some other virus circulating in the community that puts residents at significant risk
- **Staff self-assessment** for signs and symptoms of viral respiratory illness or **active screening** for staff if recommended by your Outbreak Management Contact due to certain situations such as a virus circulating in the community that puts residents at significant risk
- **Enhanced screening of residents** for signs and symptoms of respiratory illness
- **Education** on hand hygiene and respiratory etiquette
- **Promoting recommended Vitamin D supplementation of residents**. Consult with your Nurse Educator or Medical Director about Vitamin D supplementation
- **Appropriate use of Routine Practices and, as indicated, Additional Precautions**; and
- **Cleaning and disinfection** of frequently touched objects with special consideration of objects frequently touched by residents who may have difficulty with hand and respiratory hygiene

**Personal Protective Equipment (PPE) Controls**

PPE is an important control, but one that should not be counted on in place of engineering and administrative controls. PPE supplements rather than replaces other important controls. Each type of PPE has specific applications, advantages and limitations. Facilities and staff members should select PPE compatible with the hazard potentially encountered. PPE effectiveness depends on proper use. Improperly used PPE can actually increase risk of exposure. Staff should be fully knowledgeable of the applications, advantages and limitations of the PPE available within the facility
Tool 6: **Facility Respiratory Outbreak Resource Kit**

**Assemble your influenza kit**
- Fraser Health Respiratory Outbreak Protocol for Residential Care and Mental Health and Substance Use Facilities
- List of all staff, volunteers, etc.
- List of all casual staff who may work in facility over the season
- List of residents (updated with new residents over the season)
- List of phone numbers, including after-hours numbers
- Adrenalin (epinephrine) kit for vaccination clinics
- Supply of nasal swab kits
- *Influenza kit kept in a location that is accessible to staff (and ensure that staff knows where it is kept and that they have reviewed its contents)*
- Be sure to have a Facility Protocol outlining responsibilities for receiving telephone reports of lab results, notifying management and implementing outbreak response in evenings and on weekends

**Order nasal swab kits**
- Order nasal swab collection kits from the BCCDC/PHSA LABORATORY: Use the order form found ‘on-line’ at [www.bccdc.ca/PHSALaboratories/OrderForm](http://www.bccdc.ca/PHSALaboratories/OrderForm), indicate the number of swab kits needed and e-mail a scanned copy to kitorders@hssbc.ca (Tool 10)
- Having the nasal swabs on hand can save a day or two when trying to confirm the cause of an outbreak
- Have available secondary packaging according to TDG (tool 23b)

*Be sure you have adequate Infection Prevention and Control supplies on-hand and know how to access extra supplies if needed urgently*
- Hand soap (anti-bacterial soap is not required or recommended)
- Alcohol-based Hand Rub (70-90% ethyl alcohol base)
- Personal Protective Equipment
  - Gowns
  - Gloves
  - Masks (procedure or surgical masks)
  - Goggles or other acceptable eye protection (glasses do not count as eye protection)
- Tissues
- Surface disinfectants (wipes to clean equipment entering/exiting isolation room)
- Low Level Hospital Grade Disinfectants (with a DIN number). See Residential Care Infection Control Manual IC 13 Low Level Disinfection
- Waste-bins
- Preventive Signage (Tool 11)
**Tool 7: Template for List of Important Contact Numbers**

Check your list of PHONE and FAX numbers

- **Public Health Outbreak Management Contact** *(Tool 2a)*
  - CD Nursing Team (phone: 604-507-5471 and fax: 604-507-5439)
  - Medical Health Officer On Call
- **Fraser Health Infection Prevention and Control Consultant** *(Tool 2b)*
- **For Fraser Health Operated facilities**: Central FAX number for Occupational Health
- Community Care Facility Licensing if your facility is licensed
- BCCDC Lab internet address and e-mail for sending Order for Nasal Swab Kits *(Tool 10)*
- BCCDC Laboratory FAX number for sending lab test information *(Tool 10)*
- Courier Service for sending Nasal Swabs for testing *(Tool 23)*
- Others to notify in event of an outbreak if you are calling for service
  - BC Ambulance
  - HandyDART or other Transport services
  - Laboratory serving your facility
  - Pharmacy serving your facility
  - Medical Gas/Oxygen provider
  - Cleaning service
  - Hairdresser, Physiotherapist, Podiatrist, and other service providers

<table>
<thead>
<tr>
<th>NAME</th>
<th>PHONE</th>
<th>FAX</th>
<th>COMMENT</th>
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**Health Units Contact List for Vaccine pick up**

<table>
<thead>
<tr>
<th>Health Units</th>
<th>Address</th>
<th>Phone Number</th>
<th>Fax Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abbotsford Health Unit</td>
<td>104-34194 Marshall Road, Abbotsford, BC V2S 5E4</td>
<td>604-864-3400</td>
<td>604-864-3410</td>
</tr>
<tr>
<td>Agassiz Health Unit</td>
<td>Box 104, 7243 Pioneer Avenue, Agassiz, BC V0M 1A0</td>
<td>604-793-7160</td>
<td>604-793-7161</td>
</tr>
<tr>
<td>Burnaby Health Unit</td>
<td>300-4946 Canada Way, Burnaby, BC V5G 4H7</td>
<td>604-918-7605</td>
<td>604-918-7630</td>
</tr>
<tr>
<td>Chilliwack Health Unit</td>
<td>45470 Menholm Road, Chilliwack, BC V2P 1M2</td>
<td>604-702-4900</td>
<td>604-702-4901</td>
</tr>
<tr>
<td>Cloverdale Health Unit</td>
<td>#205-17700 56th Avenue, Cloverdale, BC V3S 1C7</td>
<td>604-575-5100</td>
<td>604-574-3738</td>
</tr>
<tr>
<td>Guilford Health Unit</td>
<td>100-10233 - 153rd Street, Surrey, BC V3R 0Z7</td>
<td>604-587-4750</td>
<td>604-587-4777</td>
</tr>
<tr>
<td>Hope Health Unit</td>
<td>Box 176, 444 Park Street, Hope, BC V0X 1L0</td>
<td>604-860-7630</td>
<td>604-869-2332</td>
</tr>
<tr>
<td>Langley Health Unit</td>
<td>20389 Fraser Hwy, Langley, BC V3A 7N2</td>
<td>604-539-2900</td>
<td>604-514-8036</td>
</tr>
<tr>
<td>Maple Ridge Health Unit</td>
<td>400-22470 Dewdney Trunk Road, Maple Ridge, BC V2X 5Z6</td>
<td>604-476-7000</td>
<td>604-476-7077</td>
</tr>
<tr>
<td>Mission Health Unit</td>
<td>1st Floor, 7298 Hurd Street, Mission, BC V2V 3H5</td>
<td>604-814-5500</td>
<td>604-814-5517</td>
</tr>
<tr>
<td>New West Health Unit</td>
<td>218 - 610 6th Street, New Westminster, BC V3L 3C2</td>
<td>604-777-6740</td>
<td>604-525-0878</td>
</tr>
<tr>
<td>Newton Health Unit</td>
<td>200-7337 137th Street, Surrey, BC V3W 1A4</td>
<td>604-592-2000</td>
<td>604-501-4814</td>
</tr>
<tr>
<td>North Delta Health Unit</td>
<td>11245-84th Avenue, Delta, BC V4C 2L9</td>
<td>604-507-5400</td>
<td>604-507-4617</td>
</tr>
<tr>
<td>North Surrey Health Unit</td>
<td>220-10362 King George Hwy, Surrey, BC V3T 2W5</td>
<td>604-587-7900</td>
<td>604-582-4811</td>
</tr>
<tr>
<td>South Delta (Satellite)</td>
<td>4470 Clarence Taylor Crescent, Delta, BC V4K 3W3</td>
<td>604-952-3550</td>
<td>604-946-6953</td>
</tr>
<tr>
<td>TriCities Health Unit</td>
<td>200-205 Newport Drive, Port Moody, BC V3H 5C9</td>
<td>604-949-7200</td>
<td>604-949-7211</td>
</tr>
<tr>
<td>White Rock Health Unit</td>
<td>Berkeley Pavilion 15476 Vine Avenue, White Rock, BC V4B 5M2</td>
<td>604-542-4000</td>
<td>604-542-4009</td>
</tr>
</tbody>
</table>
Tool 8: Information on Influenza Vaccines, Treatment and Prophylaxis—Educational Resources on the Internet

- Season-specific information is placed on the Fraser Health internet website
- General information on Influenza Vaccine (and Pneumococcal Vaccine) is available from HealthLinkBC
- The Canadian Communicable Disease Review publishes the Annual Statement on Influenza that is prepared for Canada by the National Advisory Committee on Immunization (NACI)

Fraser Health website

http://www.fraserhealth.ca

PROFESSIONALS-RESIDENTIAL CARE PROVIDERS-OUTBREAK GUIDELINES-RESPIRATORY

For information and educational resources for Health Care Providers about Immunization Policy, Program and Clinics, please see:

http://www.fraserhealth.ca/health-professionals/professional-resources/influenza/

HealthLink BC Files, Index and Homepage links

http://www.healthlinkbc.ca/servicesresources/healthlinkbcfiles/#/healthfiles/toc-i.html
(for INFLUENZA from alphabetic list)

Influenza Vaccine (Files 12 a-e)

https://www.healthlinkbc.ca/healthfiles/pdf/hfile12a.pdf - Why Seniors should get the Seasonal Influenza Vaccine
https://www.healthlinkbc.ca/healthfiles/pdf/hfile12b.pdf - Facts about Seasonal Influenza
https://www.healthlinkbc.ca/healthfiles/pdf/hfile12c.pdf - Influenza Immunization: Myths and Facts
https://www.healthlinkbc.ca/healthfiles/pdf/hfile12d.pdf - Seasonal Influenza Vaccine
https://www.healthlinkbc.ca/healthfiles/pdf/hfile12e.pdf - Live Attenuated Influenza (Flu) Vaccine

Pneumococcal Vaccine


NACI Statement on Influenza at Canada Communicable Disease Review (CCDR) at BCCDC site:

http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/

Tool 9: Obtaining and Transporting Influenza and Pneumococcal Vaccine (including ‘Cold-Chain’ Guide)

Each season, your local Health Unit will provide a similar number of doses of seasonal influenza vaccine as your facility used the previous year. Please inform your local health unit if your need for influenza vaccine will be significantly different than last season.

**Vaccine Supply:**
- **For Fraser Health Operated Facilities**
  - Fraser Health hospital pharmacies order and pick up influenza vaccine from the local health unit to cover staff and resident needs. Occupational Health Nurses (Workplace Health) obtain influenza vaccine for staff through the hospital pharmacy and provide to you.
- **For Contracted and Private Pay Facilities (not FH Operated)**
  - Order and pick up influenza vaccine from your local Health Unit (Tool 7)

**Be sure to:**
- Check that your vaccine refrigerator and ‘minimum-maximum’ thermometer are in good working order.
- Check that you have a large enough suitable, well-insulated cooler with a tightly fitting lid, enough freezer packs and insulating materials.
- Read and adhere to Transport and Storage instructions from the BC Centre for Disease Control (link below and ‘Handle Vaccines with Care’ section copied on following page).
- Note recommendation for monitoring and recording refrigerator temperature twice daily.

**Handle Vaccine with Care: Transport and Storage:**
- Instructions and diagrams for Community Vaccine Providers are available at:
  - [http://www.bccdc.ca/imm-vac/ForHealthProfessionals/coldchain/default.htm](http://www.bccdc.ca/imm-vac/ForHealthProfessionals/coldchain/default.htm)

**See:** Cold Chain Resources for Community Providers
1. Handle Vaccines with Care (copy on following page)
2. Packing an Insulated Cooler (remember to use insulating material between vaccine and ice pack so the vaccine does not freeze)
3. How to Store Vaccines in the Refrigerator
4. What to do if the Temperature is Outside the 2°C to 8°C Range
5. Temperature Form
6. Cold Chain Checklist
HANDLE VACCINES WITH CARE (BCCDC 2013)

Protect the vaccines. Protect your patients

Temperature

☐ Maintain a refrigerator temperature of between 2.0º C to 8.0º C
☐ Check temperature twice daily (am & pm) and record on a Temperature Form
☐ Store bottles of water (if space allows) on the empty refrigerator shelves and in the door
☐ Store ice packs in the freezer
☐ Open the refrigerator door only when necessary
☐ Do not store food, beverages or lab specimens in the refrigerator
☐ Have a refrigerator maintenance check done annually

Transportation

☐ Use a hard-sided insulated cooler with a tight–fitting lid along with frozen ice packs and insulating material to transport vaccines at all times
☐ Refrigerate vaccines as soon as you return to the office

Storage & Handling

☐ Store vaccine on the middle shelves of the fridge, never on the doors or in the crispers
☐ Keep vaccines in their original packaging to protect from light
☐ Use a separate tray in the refrigerator for opened vaccines and keep in original packaging
☐ Use these opened vaccines before opening new vials/packages
☐ Clearly print the opening date on the label of a multi-dose vial. Use a multi-dose vial within 30 days of opening, unless there are specific directions in the product insert for discarding sooner
☐ Do not reconstitute vaccines or pre-fill syringes until ready to administer
☐ Use the correct diluent to reconstitute lyophilized vaccines

Inventory Management

☐ Rotate vaccines according to expiry date (place those with the longest expiry date at the back)
☐ Check for expired products every month
☐ Never use expired vaccine and always return them to the public health unit/office
☐ Keep vaccine stock at a minimum
☐ Order only the quantity of vaccine required for one month until the next scheduled pick-up of vaccines

For more information, see Section VI, Management of Biologicals at:

Tool 10: Ordering Nasal Swab Collection Kits (“Six-Packs”) from BCCDC Public Health Microbiology and Reference Laboratory

To Order Nasal Swab Collection Kits

1. Use the BCCDC Public Health Laboratory order form found on line at:
   - Outbreak kits
   - Influenza-Like Illness Outbreak Kits

2. Complete the Order Form

3. Scan the completed Order Form

4. E-mail the scanned Order Form to kitorders@hssbc.ca or fax to 604-707-2606

If you are having difficulty obtaining your Nasal Swab Collection Kits, please inform your Infection Prevention and Control Consultant for assistance (Tool 2b)

Note:

- Each Influenza-Like Illness Outbreak Kit (Six-Pack) has six nasal swabs (each swab with its own viral transport medium)
- One Influenza-Like Illness Outbreak Kit is usually enough for an outbreak
- Use the same process to Re-Order another Influenza-Like Illness Outbreak Kit (“Six-Pack”) IF you have used the swabs from your initial kit
- Check and record expiry date on the Viral Transport Medium vial when you receive your Influenza-Like Illness Outbreak Kit (“Six-Pack”). If the Viral Transport Medium expires, reorder a new Kit from BCCDC PHSA Laboratories
Tool 11: Signage for Use throughout the Respiratory Virus Season (usually considered as October through May)

Viral Respiratory Illness Infection Prevention and Control Signage

Please print/photocopy and use the signs on the following pages, as required

Public signage
- Attention Visitors
- STOP Clean your Hands (in Chinese, English and Punjabi)

For health care providers
- Is this an RI outbreak poster (for posting in Nursing station)
Attention Visitors

VISITOR RECOMMENDATIONS

• Use Alcohol Based Hand Rub on hands upon entering and leaving the facility, neighborhood and rooms
• Check in at the ‘Welcome Desk’ before your visit
• Do not visit if you are sick
• Visit only one resident
• Flu shot recommended for ALL visitors
Is this a RI Outbreak and what should I do?

Respiratory case definition:
2 or more people with new or worse cough (staff and/or residents)

Outbreak definition:
2 or more people with new or worse cough in a neighbourhood, floor or other specified area within a 7-day period (staff and/or residents)

Reporting:
Internal contact: __________
Public Health
Weekdays: 604-507-5471
After hours: 604-527-4806

What else to do?
Location of toolkit __________
Isolate residents on droplet/contact precautions
Start surveillance forms (both staff & residents)
Initiate enhanced cleaning
Tool 12: **Hand Hygiene**

**Hand Hygiene**

**Alcohol Based Hand Rub**
- Place a loonie sized amount of the product in the palm of hand
- Spread the product to cover all surfaces of both hands, including nail beds
- Rub hands together for 15-20 seconds or until dry
- If hands are visibly soiled, or when caring for residents with diarrhea and dealing with their environment, use soap and water

**Hand Washing with Soap and Water**
- Remove jewelry then wet hands under a steady flow of warm water and apply soap
- Use friction to wash all surfaces of both hands, including web spaces, thumbs, wrists, and the back of the hands, rubbing the nail beds against the opposite palm
- Wash for a minimum of 15-20 seconds
- Rinse thoroughly and dry hands gently with clean paper towel
- Use paper towel to turn off tap
- Discard paper towel
- Ensure your clothing does not touch the sink

Fraser Health Hand Hygiene Information available on the Internet:
http://www.fraserhealth.ca/professionals/residential-care-providers/hand_hygiene/hand-hygiene

See—Clean Your Hands Using Soap and Water:

See—Clean Your Hands Using Alcohol-based Hand Rub:
http://www.fraserhealth.ca/media/Clean%20Your%20Hands%20Alcohol%20Based%20Hand%20Rub%20-%20PS256525.pdf

**Hand Hygiene Clinical Practice Guideline for Residential Care**

**4 Moments of Hand Hygiene PowerPoint Presentation**
http://www.fraserhealth.ca/media/4%20moments%20PPT%20Jan%202013.pdf

**POSTERS: 4 Moments of Hand Hygiene**
**Summary:**
http://www.fraserhealth.ca/media/4%20Moments%20Summary%20PS256500.pdf

**Your 4 Moments:**
http://www.fraserhealth.ca/media/4%20Moments%20for%20Hand%20Hygiene%20PS256496%2011x17.pdf

**Hand Hygiene Pamphlets**
- Included on the following pages;
  - Hand Hygiene Practice (summary pamphlet)
  - STAFF pamphlet
  - PUBLIC pamphlet
Hand hygiene is accepted as the single most important practice to prevent the spread of infections.

**Hand Hygiene** is performed using soap and water or alcohol based hand rub (ABHR). Hand hygiene is indicated:

- When arriving and leaving the work area
- Before Initial Resident / Resident Environment Contact
- Before An Aseptic Task
- After Body Fluid Exposure Risk
- After Patient Contact
- Before and after using gloves
- When moving from a contaminated body site to a clean body site during direct patient care
- After handling contaminated equipment
- After contact with animals
- After smoking and blowing your nose
- Before handling food or drinks
- Before preparing medication
- Whenever in doubt

**Hand hygiene with plain soap and water** is indicated:

- When caring for residents with diarrhea and their environment
- When hands are visibly soiled
- After 5 to 6 applications of an alcohol based hand rub to remove residual emollients

**Alcohol Based Hand Rub (ABHR)**

- Take a loonie size of the product in the palm
- Spread the product to cover all surfaces of both hands including, web spaces, thumbs, wrists and the back of hands
- Rub hands together for 15-20 seconds or until dry

**Hand Hygiene: Plain Soap and Water**

- Wet hands under a steady flow of warm water
- Apply an adequate amount of the appropriate soap, i.e. one pump from the dispenser
- Using friction to wash all surfaces of both hands, including web spaces, thumbs, wrist and the back of the hands
- Rub nail beds against the opposite palm
- Wash for a minimum of 15-20 seconds
- Rinse thoroughly and dry hands gently with clean paper towel
- Use paper towel to turn off taps
- Discard paper towel
Cleaning your hands is the single most important procedure to prevent infection

Remember!

- Direct patient care providers must not wear artificial fingernails or extenders.
- Keep fingernails short (less than 3 mm) and clean to prevent the spread of infection.
- Direct patient care providers must not wear chipped nail polish, as bacteria may become trapped along edges.
- Direct patient care providers must wear a minimum amount of hand jewelry.
- Remove hand jewelry before performing hand hygiene.

For more information:
See the Acute Care Infection Prevention and Control Manual or the Residential Care Infection Prevention and Control Manual. Both are available on FH Pulse.

or

Contact the Infection Control Practitioner in your area (phone numbers are available on the Infection Prevention & Control FH Pulse pages).

Search ‘hand hygiene’ on FH Pulse for additional resources

Contracted care providers and sites please see the “Professionals” drop down menu on www.fraserhealth.ca for more information.

fraserhealth
It’s okay to ask your healthcare worker to clean their hands!

Healthcare workers are busy people and want to do everything to get you well.

Sometimes they may forget to clean their hands in front of you.

Before your healthcare worker begins examining you or providing care — or if you are not sure if he/she has cleaned his/her hands — it’s okay to ask...

“Would you mind cleaning your hands in front of me?”

While you’re receiving care...

We can help you keep your hands clean and reduce the spread of infection.

Remember:
• It’s okay to ask your healthcare provider for alcohol-based hand rub or for soap and a wet cloth.
• It’s also okay to ask your healthcare provider if they’ve washed their hands at any point in your care.
• It’s okay to encourage family and friends to use alcohol-based hand rub when arriving and leaving the hospital and when entering and leaving your room.

Questions?
Your health care provider would be happy to answer any questions you may have.

For more information, visit www.fraserhealth.ca
Tool 13: Routine Practices (Standard Precautions)

The term ‘Routine Practices’ is commonly used in Canada.

From the Public Health Agency of Canada (PHAC)

In this document the term ‘Routine Practices’ will be used, however, some settings may use the term “Standard Precautions” (formerly known as universal precautions). Mitigating or preventing the transmission of respiratory infections is effectively achieved through strict compliance with ‘Routine Practices’ and the use of Additional Precautions as needed.

Routine Practices are infection control practices used by all employees and medical staff at all times in all healthcare settings to prevent exposure to all body substances from all persons.

Included in Routine Practices are:

- Hand Hygiene;
- Continuous use of ‘Respiratory Etiquette’; and
- Personal protective equipment

“According to Routine Practices, staff members should assess their likelihood of being exposed to any body fluids by direct or indirect contact, by splashes, or by fine mist sprays. They should then choose and don the appropriate personal protective equipment (i.e. gloves, surgical mask, and eye protection) prior to entering the space where the exposure may occur.”

See the Fraser Health Residential Care Infection Control Manual

1. Hand Hygiene

Hand hygiene is everybody’s responsibility: Health Care Providers (HCPs), clients, visitors and volunteers. Hand hygiene is the most effective way to prevent the transmission of microorganisms.

Compliance with hand hygiene recommendations requires continuous reinforcement

- Either soap and warm water or alcohol based hand rub (ABHR) is an accepted method of hand hygiene
  - Soap and water is required if hands are visibly soiled
- Residents who are able to participate in self-care should be taught, encouraged and reminded of the importance of hand hygiene before eating or preparing food, after using the toilet or other personal hygiene activities, before leaving their homes for common/public areas and when returning home from public places.

2. Point of Care Risk Assessment

A Point of Care Risk Assessment is the evaluation of the interaction between the HCP, the resident and the environment to determine the potential for exposure to pathogens. Prior to any resident interaction all HCPs have a responsibility to always assess the infectious risk posed to themselves and to others (eg. other residents/visitors/HCPs).

Risk Assessments for any interaction includes:

- The resident’s symptoms and whether they may be consistent with an infectious process
- The type of interaction will occur (eg. direct care vs. bringing something into the room for them)
- The potential for contamination of themselves or any equipment used
- Identification of barriers (eg. PPE) required to prevent transmission
- Whether all secretion/excretions are contained (eg. continence, wounds well covered)
- Whether the person is able to follow instructions (eg. cognitive abilities, mental health condition)
- The setting in which the interaction will take place (eg. single room vs. multi-bed room, vs. outpatient or common area)
Tool 13: *Routine Practices (Standard Precautions) – continued:*

In reality, HCPs do Risk Assessments many times a day for their safety and the safety of others in the healthcare environment. During a viral Respiratory Illness Outbreak, HCPs should be especially vigilant in identifying risk of exposure to Respiratory Viruses, especially when assisting those who are ill.

3. Risk Reduction Strategies
Risk reduction strategies include: engineering measures, client screening, using personal protective equipment (PPE), cleaning of environment, equipment, and laundry, using “single use only” equipment or ensuring proper disinfection and sterilization of reusable equipment, appropriate waste management and safe sharps handling, client placement and using preventative workplace practices such as HCP immunization policies.

4. Education of Health Care Providers, Clients and Families/Visitors/Volunteers
All health care providers should receive general education on facility policies, which includes information regarding the principles of infection prevention and control. Review of hand hygiene, Routine Practices and Additional Precautions and chain of infection should be included and refreshed at intervals. Specific information should be emphasized as it relates to the specific work environment.

   Education for residents and family members should include specific information about their general condition (usually provided by the attending physician), and specific information concerning any infection. If the resident has an infection, this information should include practices necessary to reduce the risk of spread. The HCP should provide education for the resident and family as appropriate for the presenting condition.
Tool 14: Suspect Viral Respiratory Illness Case Definition and Control Measures for Single or Sporadic Cases

Case Definition
Though no single sign or symptom of illness or even a combination of signs and symptoms is diagnostic for influenza or allows accurate distinction of influenza from other viral respiratory infections, NEW OR WORSE COUGH is the single best clinical symptom for recognizing influenza and other potentially serious viral respiratory infections in residential care facilities (residents and staff). In accordance with recommendations from the Provincial Infection Control Network of BC (PICNetBC) Respiratory Guidelines, Fraser Health uses ‘onset of new or worse cough’ as the ‘case definition’ for influenza and other respiratory virus infections.

NOTE: A combination of signs and symptoms consistent with influenza, in the absence of laboratory confirmation, is referred to as Influenza-Like Illness (ILI). ILI is defined as onset of respiratory illness with cough and fever/chills and one or more of sore throat, sore joints, sore muscles or prostration (generally feeling so unwell one has to lie down). ILI is also helpful in identifying illness that is highly suspect for influenza, though fever is often absent in the elderly. A temperature less than 35.6°C or greater 37.4°C in the elderly could be an indication of infection. Also of note, influenza is generally, but not always, characterized by sudden onset, with the transition between being reasonably well and really sick often described as ‘like being hit by a truck’. Use of the ILI definition has on occasion caused confusion and, in the past, occasionally resulted in delay in reporting suspect outbreaks. Consequently, ‘onset of new or worse cough’ is used as the case definition for this Protocol (recognizing that you may also hear references to ILI)

Control Measures for Single (Sporadic) Resident Cases with New or Worse Cough
Control measures for single or sporadic resident cases require clinical judgment. The intent of control measures is to provide an acceptable level of infection control with the least disruption for the ill resident and life in the facility. The measures are NOT intended to inappropriately disrupt the life of a resident or operation of a facility when a single resident has a ‘common cold’, ‘the sniffles’, a new medication-related cough, etc. Consequently, recommended measures for managing a single case with new or worse cough are somewhat different based on whether the illness is MILD or more SERIOUS.

- For a single resident with a new or worse cough and MILD ILLNESS (Illness is mild and “common cold-like” and from onset, or within a day or two, activity levels, including eating and drinking, are not markedly different than usual): Encourage and support respiratory and hand hygiene. If the resident is coughing or sneezing a lot, provision of meals in the room, having the resident avoid group activities and stay in her/his room until feeling better is a good idea. Increased alertness to illness in others is important. Routinely taking nasal swabs for respiratory virus testing for a single resident with mild illness is unlikely to be of benefit in medical management, so is only recommended if the facility medical director, resident’s physician or nurse practitioner has reason to specifically order it.

- For a single resident with a new or worse cough and more SERIOUS ILLNESS (Illness is more than “a bad cold”, may be remarkable in its suddenness and accompanying extreme fatigue/prostration, resident not wanting or not able to be up and about while ill, eating and drinking affected): Encourage and support respiratory and hand hygiene. The resident should be isolated in her/his room and control measures in place for the resident in a manner similar to those for an ill resident during an outbreak (including use of personal protective equipment in care of the resident, enhanced cleaning in the room, visitors to practice good hand hygiene and not visit elsewhere in facility after visiting the ill resident). Increased alertness to illness in others is important. Routinely taking nasal swabs for respiratory virus testing for a single resident, even with more serious illness is unlikely to be of benefit in medical management, so is only recommended if the facility medical director, resident’s physician or nurse practitioner has reason to specifically order it. At present, the only common, seasonal respiratory virus for which there is a specific anti-viral medication for treatment is Influenza and in order to be of significant value, it is best started before a lab result is likely to be available.
Control measures for single (sporadic) Staff cases with new or worse cough

If a staff member has onset of new or worse cough and fever and/or meets the Influenza-like Illness (ILI) case definition (i.e. more serious illness), the staff member should not be in the facility until well enough to work AND whichever is sooner of their symptoms are gone OR they are 5 days from symptom onset. The staff person should not work in any other health care facility during this period.

For milder respiratory illness, individual judgment and facility staff illness practices will determine the threshold for staff with respect to staying home from work when ill. For mild respiratory illness that is likely viral in nature, the staff member should be away from work during the acute stage of illness.

When the staff member is well enough to return to work, hand hygiene and respiratory etiquette practices remain extremely important.
## Tool 15: Droplet/Contact Precautions

**VISITORS REPORT TO THE NURSES’ STATION BEFORE ENTERING ROOM**

### Resident Placement
- Private room preferred when possible
- Maintain a distance of at least 2 metres between residents
- Door may remain open

### Gloves
- Wear gloves when caring for resident or environment
- Remove gloves and perform hand hygiene after completing care of residents and before leaving resident’s bedspace
- Hand Hygiene after removing gloves

### Gowns
- Wear a long sleeved protective gown
- Remove gown before leaving resident’s room or bed space

### Mask/Protective Eye Wear
- Wear procedure mask and protective eyewear for close contact: within 2 metres of the resident

### Hand Hygiene
**Must be done:**
- Before and after any contact with resident
- After touching contaminated articles
- After removing gloves

Wash with soap and water if hands are visibly soiled or caring for residents with diarrhea or dealing with their environment

### Equipment
- Dedicate equipment for resident care
- Disinfect all equipment before removing from resident’s room or bedspace

### Resident Transport
- Limit transport of resident to other areas to essential purposes only
- Resident must wear procedure mask during transport, if able to tolerate
- Notify receiving facilities of isolation precautions
Tool 16: Removal of Personal Protective Equipment (PPE)

How to Remove PPE When Leaving an Isolation Room

In the room

- Undo waist ties of gown
- Remove gloves
- Undo neck ties of gown
- Remove gown from sleeves without touching outside of gown, roll gown and discard in laundry or garbage
- Perform hand hygiene

If wearing a procedure mask - in room

- Remove protective eyewear by straps and place in garbage *
- Perform hand hygiene
- Remove mask
- Perform hand hygiene
- Use paper towel to open door to exit room

If wearing an N95 respirator - in hallway or anteroom

- Remove protective eyewear by straps and place in garbage *
- Perform hand hygiene
- Remove mask
- Perform hand hygiene
- Use paper towel to open door to exit room

* See Work instructions if reusable goggles used for reprocessing instructions

Hand Hygiene

Alcohol Based Hand Rub

- Place a loonie sized amount of the product in the palm of hand
- Spread the product to cover all surfaces of both hands, including nail beds
- Rub hands together for 15-20 seconds or until dry
- If hands are visibly soiled, or when dealing with diarrhea or the environment, use soap and water

Hand Washing with Soap and Water

- Remove jewelry then wet hands under a steady flow of warm water and apply soap
- Use friction to wash all surfaces of both hands, including web spaces, thumbs, wrists, and the back of the hands, rubbing the rub nail beds against the opposite palm
- Wash for a minimum of 15-20 seconds
- Rinse thoroughly and dry hands gently with clean paper towel
- Use paper towel to turn off tap
- Discard paper towel

NOTE: Ensure your clothing does not touch the sink
Tool 17: **Staff Influenza Immunization and Anti-Influenza Prophylaxis List**

The **Provincial INFLUENZA CONTROL POLICY** applies in Fraser Health and can be found at: [http://www.fraserhealth.ca/professionals/resources/influenza/influenza](http://www.fraserhealth.ca/professionals/resources/influenza/influenza)

This **Influenza Control Policy** applies in the BC Health Authorities and provides requirements and guidance regarding Influenza Immunization and other Influenza-related measures for Residential Care Facilities for the purpose of reducing the burden of influenza infection and resultant complications in residents, staff and visitors in residential care. It includes Background, Policy Statement, Scope, Responsibilities, Definitions and Consequences of Non-Compliance along with a Question and Answer Document, Timely Memos and Contact Information. The most current **Provincial Influenza Control Policy** supersedes any earlier versions. The Provincial Health Officer announces each year the beginning of the Influenza Season and date from which the **Influenza Control Policy** takes effect. Consult the **Provincial Influenza Control Policy** annually for updates.

Physicians providing care in Residential Care facilities are included in the **Provincial Influenza Control Policy**. British Columbia also has a provincial **FACILITY INFLUENZA IMMUNIZATION POLICY** that requires all health care settings to have a written staff influenza immunization policy in place. In addition, facilities should have a policy for immunization against other vaccine-preventable diseases. This Policy also includes information about the use of anti-influenza medications for prophylaxis (prevention) in Influenza Outbreak settings (Tool 34a) and situations in which exclusion from work in outbreak settings may occur if not immunized and not on prophylaxis.

The following is taken from the BC **Facility Influenza Immunization Policy** with some supporting information from the **Provincial Infection Control Network of BC (PICNet BC)**.

**Staff**

The definition of staff should include casual and regular staff as well as contracted staff, volunteers and students who will be in the facility during the respiratory virus season.

**Staff Immunizers**

Ensure staff who are to vaccinate other staff have completed the necessary training modules acceptable to their individual licensing body (CRNBC, CRPNBC, CLPNBC). Review current **Peer Nurse Immunizer Program** status and resource information (Tool 4) and **Provincial Influenza Control Policy**

**Immunization Tracking**

All health care settings should maintain annual records of staff member influenza immunization. This should include name, date of birth, position (job), where in the facility they work and date of influenza immunization.

**Annual Immunization**

At the time of hiring or placement, information about the policy for annual influenza immunization should be provided to all persons carrying out activities in the facility. The policy for annual immunization against influenza should be reviewed with all staff members annually.

**Report of Staff Immunization**

Information on staff immunization should be maintained in a confidential manner and include:

- Staff immunization status (including those who are immunized off-site)
- Staff members who may be excluded from work in the event of an influenza outbreak
- Staff members who are eligible for anti-influenza medication for prophylaxis in the event of an influenza outbreak

Staff who report a medical contraindication to influenza vaccine should be provided with information on anti-influenza prophylaxis and early treatment (next page).
Prophylaxis
Recommendations regarding the use of anti-influenza medication for well, unvaccinated staff will be in accordance with the principles of the BC Facility Influenza Immunization Policy, determined on a situation-by-situation basis. Your Outbreak Management Contact will advise on use:

- If recommended, unvaccinated staff obtain anti-influenza prophylaxis by taking a letter (Tool 36) to a physician in order to receive and fill a prescription for scenario A outbreaks
- The type of anti-influenza prophylaxis will be determined by the resistance pattern of the virus and as directed by your Outbreak Management Contact/ Medical Health Officer (Tool 2a)

Facility staff who are pregnant or have any of the conditions that have been identified as putting them at increased risk of severe illness and complications from influenza should consult with their physician about arrangements to be prepared to quickly start on appropriate anti-influenza medication at onset of symptoms compatible with influenza (as soon as possible within the first 48 hours of illness)

Symptom-free, unvaccinated staff should receive the appropriate anti-influenza medication until the outbreak is officially declared over OR until 14 days after being vaccinated, whichever is shorter. Maximum duration on anti-influenza prophylaxis when using oseltamivir should not exceed 8 weeks. Influenza outbreaks in care facilities are generally declared over within 10 to 14 days of implementation of control measures. Staff members who will be using anti-influenza medication will need to obtain a prescription from their physician

Exclusion Policy
The BC Facility Influenza Immunization Policy puts restrictions on the presence of staff (including paid and unpaid workers) in a care facility with an influenza outbreak if the worker is not protected against influenza (vaccine or anti-influenza medication). During an influenza outbreak (only for influenza, not for other viral respiratory outbreaks), there will be restrictions with respect to if and where non-protected well staff may work. What those restrictions are will depend upon:
- Whether or not the staff member is immunized
- When immunization took place
- Whether or not the staff member is taking anti-influenza medication as prophylaxis

NOTE: During an influenza outbreak, wearing a mask is NOT a substitute for taking anti-influenza medication (eg. oseltamivir or zanamivir) for prophylaxis

A non-immunized, well staff member may not work in a facility outbreak setting unless on anti-influenza prophylaxis. Once started on anti-influenza prophylaxis, a non-immunized staff member may return to work in the outbreak area, but should be alert to signs and symptoms of influenza and excluded if these develop

A non-immunized, well staff member may not work in any other healthcare setting until they are symptom-free for 72 hours following the last time they were in an influenza outbreak setting

Current listing of staff in the facility
A current list of staff members working in the facility should be maintained at all times as it may be needed during an outbreak
## INFLUENZA VACCINE

**STAFF INFLUENZA IMMUNIZATION/ANTI-INFLUENZA PROPHYLAXIS LIST (for facility use)**

<table>
<thead>
<tr>
<th>PERSON IN CHARGE OF PREPARING LIST OF STAFF INFLUENZA VACCINATION/ANTI-INFLUENZA PROPHYLAXIS:</th>
<th>TEL:</th>
<th>DATE UPDATED:</th>
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</thead>
<tbody>
<tr>
<td>NAME OF WORKER/ VOLUNTEER/ STUDENT</td>
<td>EMPLOYER (if applicable)</td>
<td>FULL-TIME, PART-TIME, CASUAL, STUDENT, VOLUNTEER</td>
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**Complete only if staff is vaccinated at facility**

- **IS AWARE OF BC AND FH INFLUENZA CONTROL POLICIES AND POTENTIAL EXCLUSION**
- **HAS WRITTEN PRN Rx FOR OSELTAMIVIR(©) OR ZANAMIVIR (Z)**

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**fraserhealth**

**VIRAL RESPIRATORY OUTBREAK PROTOCOL AND TOOLKIT FOR RESIDENTIAL CARE AND MENTAL HEALTH AND SUBSTANCE USE FACILITIES**

**VERSION: SEPTEMBER 2016**
**Tool 18: Staff Influenza Immunization Record**

**STAFF IMMUNIZATION RECORD FOR SEASONAL INFLUENZA**

<table>
<thead>
<tr>
<th>Name</th>
<th>Vaccine</th>
<th>Facility</th>
<th>Date</th>
<th>Given By</th>
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(Repeat for each staff member)
STAFF IMMUNIZATION RECORD FOR SEASONAL INFLUENZA

NAME: ______________________
VACCINE________ FACILITY: _________
DATE: ___________ GIVEN BY: ______

STAFF IMMUNIZATION RECORD FOR SEASONAL INFLUENZA

NAME: ______________________
VACCINE________ FACILITY: _________
DATE: ___________ GIVEN BY: ______

STAFF IMMUNIZATION RECORD FOR SEASONAL INFLUENZA

NAME: ______________________
VACCINE________ FACILITY: _________
DATE: ___________ GIVEN BY: ______

STAFF IMMUNIZATION RECORD FOR SEASONAL INFLUENZA

NAME: ______________________
VACCINE________ FACILITY: _________
DATE: ___________ GIVEN BY: ______

STAFF IMMUNIZATION RECORD FOR SEASONAL INFLUENZA

NAME: ______________________
VACCINE________ FACILITY: _________
DATE: ___________ GIVEN BY: ______

STAFF IMMUNIZATION RECORD FOR SEASONAL INFLUENZA

NAME: ______________________
VACCINE________ FACILITY: _________
DATE: ___________ GIVEN BY: ______
Tool 19: Resident Influenza Immunization and Anti-Influenza Prophylaxis List

Report of Patient/Resident Immunization
Information on patient/resident immunization should be kept in a central location with the following:

- Resident immunization status
- Resident orders for antiviral treatment or prophylaxis in the event of an influenza outbreak

You will be asked for this information if there is an outbreak in your facility

Preparation for Influenza Vaccination of All Residents

- Provide information, answer questions
- Put together a list of names
- Identify anyone with a medical contraindication to influenza vaccine
- Check to see that other immunizations (eg. pneumococcal vaccine) are up to date
- Be sure the physician orders are completed

Encouragement for visitors and others to be vaccinated against influenza before the start of the influenza season

- Provide information, answer questions

Review of anti-influenza medication with your pharmacist in order to

- Provide information, answer questions
- Identify anyone with a medical contraindication to oseltamivir
- Ensure that a recent creatinine level has been done on all residents (within 12 months for people expected to have stable renal function) and the results are with the pharmacist.
  
  **NOTE:** Serum creatinine can also be done when an outbreak is recognized rather than in advance (for those who do not have a recent test result on file). However, the Fraser Health Medication Quality and Safety Committee considered this issue in 2011 and supported a serum creatinine at least once per 12 months as a useful quality and safety precaution in terms of overall medication use by individuals living in residential care.
- Ensure that the estimated creatinine clearance is calculated for each resident who has had a serum creatinine done in the previous 12 months
- Ensure that the dose of oseltamivir is determined for each resident
- Get pre-printed orders for anti-influenza prophylaxis to be used if there is an outbreak of influenza and your Outbreak Management Contact recommends treatment and/or prophylaxis
- Check that your facility’s pharmacy can supply enough oseltamivir for use in an outbreak

Work with your pharmacist so your facility will be ready to give anti-Influenza medication on a few hours notice to all residents for whom it is indicated to prevent influenza

- Oseltamivir treatment as soon as possible, preferably within 4 to 6 hours of recommendation;
- Oseltamivir prophylaxis as soon as possible, ideally within 24 hours of recommendation
- Though the likelihood of an outbreak of oseltamivir-resistant influenza is relatively low, confirm that your pharmacy will be able to respond in a timely manner with amantadine, if recommended
<table>
<thead>
<tr>
<th>RESIDENT NAME</th>
<th>NEIGHBOURHOOD, FLOOR OR OTHER SPECIFIED AREA</th>
<th>INFLUENZA VACCINE NAME</th>
<th>WHICH ARM?</th>
<th>DATE OF VACCINATION</th>
<th>INITIALS OF VACCINATOR</th>
<th>YEAR OF PNEUMO VACCINE</th>
<th>ESTIMATED CREATININE CLEARANCE</th>
<th>DATE SERUM CREATININE LEVEL DONE (WITHIN 1 YEAR IF CLINICALLY STABLE)</th>
<th>OSELTAMIVIR DOSAGE FOR THIS RESIDENT</th>
<th>UP-TO-DATE ORDER FOR PROPHYLACTIC ANTI-INFLUENZA MEDICATIONS ON CHART?</th>
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Tool 20: *Facility Influenza-Readiness Report*

*The Readiness Report* is a provincial requirement and needs to be reported (Faxed) to your local Public Health Unit by November 30th each year. It provides information that is important in terms of assessment of readiness and is also important with respect to quality care.

Public Health is required to collate the information from the Readiness Reports and submit it to the BC Centre for Disease Control for:

- Assessment of province-wide preparedness; and
- A provincial summary report

Consequently, Public Health is expected to follow-up with you if your Readiness Report is not received by the deadline.

The process of completing the Readiness Report is also a useful check for you to ensure that you are ready should you experience an *Influenza Outbreak* in your facility.
**FACILITY INFLUENZA-READINESS REPORT**

*(Please fill in all that applies to your facility)*

<table>
<thead>
<tr>
<th>FACILITY NAME:</th>
<th>DATE COMPLETED:</th>
<th>TEL:</th>
<th>FAX:</th>
<th>NOTES:</th>
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<thead>
<tr>
<th>DIRECTOR OF CARE/MANAGER:</th>
<th>TEL:</th>
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<tr>
<th>DIRECTOR OF CARE/MANAGER ALTERNATE:</th>
<th>TEL:</th>
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<tr>
<th>MEDICAL DIRECTOR:</th>
<th>TEL:</th>
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<tr>
<th>MEDICAL DIRECTOR ALTERNATE:</th>
<th>TEL:</th>
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**FH VIRAL RESPIRATORY OUTBREAK PROTOCOL AND TOOLKIT AVAILABLE:**

- [ ] YES
- [ ] NO

**NASAL SWAB KIT AVAILABLE?**

- [ ] YES
- [ ] NO

**DOES YOUR FACILITY HAVE PRE-PRINTED ORDERS TO:**

- [ ] YES
- [ ] NO

**DELIVER INFLUENZA VACCINE TO RESIDENTS EACH YEAR?**

- [ ] YES
- [ ] NO

**START OUTBREAK MEASURES, INCLUDING ANTI-INFLUENZA MEDICATIONS?**

- [ ] YES
- [ ] NO

**OFFER PNEUMOCOCCAL VACCINE TO ALL ELIGIBLE RESIDENTS UPON ADMISSION?**

- [ ] YES
- [ ] NO

**DOES YOUR FACILITY HAVE AN ‘OUTBREAK PREVENTION AND MANAGEMENT TEAM’?**

- [ ] YES
- [ ] NO

---

### Staff and Others

* (Do not count people who will not be at the facility at all between November and the end of May)

<table>
<thead>
<tr>
<th>NO. OF PEOPLE</th>
<th>NO. VACCINATED AGAINST INFLUENZA SEASONAL</th>
<th>NO. WITH MEDICAL CONTRAINDICATION TO INFLUENZA VACCINE DOCUMENTED</th>
<th>NO. WITH MEDICAL CONTRAINDICATION TO OSELTAMIVIR DOCUMENTED</th>
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<td>YES</td>
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<td>NO</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**REGULAR STAFF**

**VOLUNTEERS**

**CONTRACT WORKERS**

(not Facility or FH employees)

---

### Neighbourhoods, Floors or other Specified Areas in Facility

*(Note: Completely separate = no sharing of people or things with other areas)*

<table>
<thead>
<tr>
<th>NAME OF NEIGHBOURHOOD OR OTHER SPECIFIED AREA</th>
<th>CAN THIS AREA BE MADE COMPLETELY SEPARATE?</th>
<th>NO. OF RESIDENTS IN THIS AREA VACCINATED AGAINST INFLUENZA THIS SEASON</th>
<th>NO. OF RESIDENTS IN THIS AREA WITH UP-TO-DATE ESTIMATED CREATININE CLEARANCE</th>
<th>NO. OF RESIDENTS IN THIS AREA WITH OSELTAMIVIR DOSE CALCULATED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Floor</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

**TOTAL FOR ALL NEIGHBOURHOODS/AREAS:**

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Tool 21: Suspect Viral Respiratory Outbreak Definition and Initial Response

Suspect Viral Respiratory Outbreak Definition
Two or more people with new or worse cough in a neighbourhood, floor or other specified area within a 7-day period (staff or residents)

Initial Response
Residents:
Check residents for new or worse cough
- Using the Illness Reporting forms, list those who are sick, the day each first became sick, and the date each was vaccinated against influenza
- Use a different sheet for each neighbourhood, floor or other specified area
- If two or more people (staff AND/OR residents) have new or worse cough in a neighbourhood, floor or other specified area within a 7-day period, initiate droplet/contact precautions (Tools 15, 16), prepare to take specimens and notify your Public Health Outbreak Management Contact as soon as possible (Tool 2)

Staff:
Report how many staff members have, or recently had, a new or worse cough
- Using the Illness Reporting forms, list each person, the day that she/he first developed symptoms, and when she/he was vaccinated
- Staff who are coughing (new or worse cough) should:
  - Report to supervisor; and
  - Go home
- If an ill staff member is willing, a nasal swab collected before going home may provide information of value in understanding and managing the outbreak
- If influenza is suspected, an ill staff member should stay home until symptoms are gone OR until 5 days from symptom onset, whichever is sooner
Tool 22: BCCDC Nasal Swab Laboratory Testing Form (Sample)

FRASER HEALTH AREA NASAL SWAB RESPIRATORY ILLNESS OUTBREAK LAB FORM

Before shipping, FAX this completed form to BCCDC at 604-707-2605, Attention: Virus Isolation Lab. Then enclose this completed form and completed requisition(s) with the nasal swabs(s) and ship to:

BCCDC Laboratory Services
Virus Isolation Laboratory
655 West 12th Avenue
Vancouver BC V5Z 4R4

Test Results will be phoned and sent to:
NAME: AFTER HOURS CONTACT NAME:
POSITION: TELEPHONE: AFTER HOURS TELEPHONE NUMBER:
NAME OF FACILITY: ADDRESS OF FACILITY:

PHONE NO. FOR PUBLIC HEALTH OR INFECTION CONTROL CONTACT: DATE OF COLLECTION
YY MM DD

Test only patients who are within 48 hours of onset of symptoms

<table>
<thead>
<tr>
<th>PATIENT NAME</th>
<th>SWAB SITE</th>
<th>BCCDC LAB NO.</th>
<th>R-MIX</th>
<th>TUBE CULT</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>2.</td>
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<tr>
<td>3.</td>
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<tr>
<td>4.</td>
<td></td>
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<tr>
<td>5.</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>6.</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

See Tool 23 for details on specimen collection and shipping.

For BCCDC Lab Use Only:
TEST RESULTS PHONED TO:
TIME AND DATE OF CALL:
NAME OF CALLER:

The Influenza-Like Illness (ILI) Outbreak Laboratory Requisition Form for Nasal Swab Testing may be found at:
Tool 23a: Taking Nasal Swabs & PRE-PAID Shipping Information

For initial testing, take Nasal Swabs on no more than 6 residents

☐ Use Nasals Swabs from your BC Centre for Disease Control (BCCDC) ILI Specimen Outbreak Collection Kit

Use the swabs from the kit labelled “Influenza-Like Illness Specimen Outbreak Kit” that you ordered as part of your Pre-Season Preparation (Tool 10). These kits, provided by the BCCDC, contain six swabs with transport media, biohazard bags, and a copy of the Laboratory Form. These kits are sometimes called “Six-Packs”

☐ Collect Nasal Swab Specimens (collect within 48 hours of onset of symptoms)

1. Wear gloves, mask and eye protection when collecting the nasal swab. Collecting a nasal swab is not considered an aerosol generating medical procedure (AGMP). Droplet/contact precautions are recommended. An N-95 respirator is NOT indicated. You can watch a video if you want at: http://www.youtube.com/watch?v=kKl78e-u2Pc

2. Take up to 6 Nasal Swab Specimens. It is usually NOT recommended to take additional Nasal Swab Specimens during the outbreak

3. Call Dynamex courier: 604-432-7700 for Delivery directly to BCCDC Lab. Bill to BCCDC Account No. 23270

4. Check expiry date on the specimen container (transport medium). If it has recently expired (within the past few months) and no other swabs are available within the day, use the expired container. Inform your Public Health Outbreak Management Contact and try to obtain new swab kits ASAP (eg. borrow from another residential care facility or ask your Public Health Outbreak Management Contact if any kits are available for pick-up from your Health Unit). Your Outbreak Management Contact may ask you to swab the ill residents with a new swab if still within the time likely to be able to find the virus

5. Write the name of the person to contact at your facility and your facility phone number on the Outbreak Laboratory Form going with the swabs. The lab will phone results to you at your facility. Be sure to include an ‘after hours’ phone number as results will often be reported between 5 pm and 9:30 pm

6. Mark the swab requisition(s) “URGENT - OUTBREAK ASSOCIATED”

7. FAX the completed Outbreak Lab Form to the BCCDC Lab (604-707-2605)

8. Ensure individual requisitions for each sample are sent with the swabs

9. Remember to put the date the swabs were taken on the Resident Illness Reporting form (Tool 27)

☐ Complete the Accompanying Documentation

- Send one Respiratory Illness Outbreak Laboratory Form for each outbreak (maximum 6 nasal swabs)
  Submission of a complete Outbreak Laboratory Form with the nasal swabs ensures that they are processed promptly and the findings reported with the highest priority
- Send one BCCDC Virus Isolation Requisition for each nasal swab taken:
  - Under Examination Desired, enter “Respiratory Outbreak – Testing for Influenza”
  - Under Return Address, enter the full name and billing address of the facility (or physician) to whom the final report will be sent
Under **Copy Report To**, enter the name and address of your CD Nursing Team, 11245 – 84th Ave, Delta BC V4C2L9 and, if desired, the name and billing number of the person’s physician.

- **Transport Nasal Swabs**

  Assemble the swabs and ship them together with the Outbreak Lab Form and Virus Isolation Requisition(s) and packaged according to Transporation of Dangerous Goods requirements ([tool 23b](#)). Include an ice pack if possible. **Send by: Dynamex: 604-432-7700. Specify as “ON & GONE” delivery mode. Bill to BCCDC Account # 23270 (See Detection/Consultation)**

- **Designate Person to Receive Report of Results from BCCDC Laboratory**

  Lab results are promptly phoned from the lab to YOU, using the phone number you provided on the requisition. **Results may be phoned in the evening.** Lab testing methods and choice of lab testing panels vary depending on the time in the season, respiratory virus activity in the community and in care facilities. Saturday testing and reporting is provided as needed during the respiratory virus season. Sending nasal swab specimens to the lab as early in the day as possible increases the likelihood of a quick response (usually evening of day sent if sent early in the day OR next testing day if sent late in the day)

- **Order a new Kit to replace the swabs you used**

  Use the order form found ‘on-line’ at: [http://www.bccdc.ca/resource-gallery/Documents/Statistics%20and%20Research/Statistics%20and%20Reports/Labs/BCPHMRLOrderForm.pdf](http://www.bccdc.ca/resource-gallery/Documents/Statistics%20and%20Research/Statistics%20and%20Reports/Labs/BCPHMRLOrderForm.pdf) indicate the number of swab kits needed and e-mail a scanned copy to kitorders@hssbc.ca ([Tool 10](#))
Specimens known or suspected to contain pathogens must be packaged and transported in accordance with Government of Canada Transportation of Dangerous Goods Regulation: https://www.tc.gc.ca/eng/tdg/clear-part2-339.htm

In order to meet TDG requirements, facilities will need to obtain correct packaging supplies and have a TDG trained employee package outbreak specimens.

1. Education
   a. Training requirements are outlined in Part 6 of the TDG Regulations: http://www.tc.gc.ca/eng/tdg/clear-part6-121.htm

   As per Part 6 of the TDG regulations, a person who packages TDG specimens must be adequately trained and hold a training certificate. The training certificate is valid for a three-year period and employers are required to keep training records for a total of 5 years after the date of issue of the TDG Certificate.
   b. TDG on-line courses can be sourced from the following providers
      - St. John's on-line course: https://bc.sjatraining.ca/TDG.php?gclid=CPuWnOqr80CFZSEFgoqOHUK8g
      - Work Site Safety: https://worksitesafety.ca/product/tdg-online-training/
      - iHazmat: http://ihazmat.com/search-courses/?search-type=courses&course-category=77&course-type=Online

2. Packaging
   a. Packaging requirements can be found on the TDG website for Type 1B packages: https://www.tc.gc.ca/eng/tdg/moc-infectious-type1b-471.html

   Viral outbreak specimens will generally fall under Category B of Infectious substance and can be shipped under UN3373 with a shipping label of “Biological Substance, Category B”
   b. Packaging containers that meet Type 1B TDG packages can be obtained from vendors listed on the TDG website: https://www.tc.gc.ca/eng/tdg/moc-infectious-suppliersab-140.html
   c. Sample packaging instructions can be found on
   d. A Shipping Document must be completed and accompany the package during transport. Information on Shipping Document requirements can be found on the TDG Bulletin: Shipping Documents: https://www.tc.gc.ca/eng/tdg/page-1288.html

A sample shipping document for Type 1B package is on page 57.
- Copies of the Shipping Document must be kept for 2 years by the facility
- A 24-hour facility number without breaking the telephone connection must be made available on the Shipping Document. For facilities that are unable to provide this may register with CANUTEC, which provides a 24 hour free telephone service. Information can be found on the CANUTEC website: http://wwwapps.tc.gc.ca/saf-sec-sur/3/SRC-CRS/CANUTEC/index.aspx?lang=0
3. Transport – Inform transporting courier/personnel that shipment is a TDG package for ground transport

Sample instructions from BCCDC and TDG Shipping Bulletin are posted below:

<table>
<thead>
<tr>
<th>SAMPLE PACKING INSTRUCTIONS (From BCCDC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>To ensure the safety of our staff, leaking or improperly packaged samples, may not be processed.</td>
</tr>
<tr>
<td>Note: these instructions are based on IATA packing instructions 650.</td>
</tr>
<tr>
<td>1. Use the container (primary container) provided in the collection kit or as indicated in this guide. See individual sections for specific collection and labeling instructions. If capped, ensure it is fully closed to prevent leakage.</td>
</tr>
<tr>
<td>2. Place the securely sealed primary container into plastic ‘biohazard bag’ (secondary container). Wrap the primary container or place enough absorbent material (this is not supplied with collection kits, e.g. paper towel, clean gauze or tissue paper) in the bag to totally absorb sample should the primary container leak or break (Figure 1).</td>
</tr>
<tr>
<td>One sample per biohazard bag is preferred, but multiple samples of the same container type may be placed in the bag if coming from the same patient. Cushioning should be provided to prevent breakage.</td>
</tr>
<tr>
<td>3. If breakage occurs, this will likely contaminate all other samples grouped together in one biohazard bag. Ensure that the patient name and additional identifier is on each container to allow matching to its corresponding requisition.</td>
</tr>
</tbody>
</table>

![Figure 1](image1.png)

![Figure 2](image2.png)

4. Fill out the correct BC Public Health Microbiology & Reference Laboratory requisition and individual sections for instructions and insert it into the side pouch of the biohazard bag. Do not place it inside with the sample (in case of leaks). Fold the requisition so that the front is visible and place it in the pouch so that the requisition can be read (Figure 2). |

5. Place the secondary container inside a third (outer) package for protection from physical damage and water while in transit. This may be a plastic cooler, a fiberboard box or other container that is designed, constructed, filled and closed so that under normal conditions of handling and transport, there will be no discharge, emission or escape of the dangerous goods that could constitute a danger to public safety. Multiple secondary containers may be included. When possible, please group samples by collection kit type. Health Units use waterproof containers to transport samples to PHSA Laboratories, BC Public Health Microbiology & Reference Laboratory via courier.
How do I identify a Type 1B packaging?

The marking required on the outer packaging of a Type 1B container is specified in section 5.3 of the CAN/CGSB-43.125 standard. The marking includes:

- the text "TC-125-1B"; and
- the name and address or symbol of the packaging manufacturer.

A Type 1B container is a triple packaging system consisting of:

(a) water-tight primary receptacle(s);
(b) a water-tight secondary packaging;
(c) absorbent material; and
(d) an outer packaging.

**Notes:**

- Either the primary receptacle or secondary packaging must be capable of passing the 95 kPa pressure test when it contains a liquid.
- All components are tested together as a system.

![Diagram of Type 1B packaging](image_url)

Figure 2: Example of Type 1B packaging (images provided by Soft.T.Risk)
Sample Shipping Document for Ground Transport of Category 1B Packages
Biological Substances, Class 6.2, UN3373

<table>
<thead>
<tr>
<th>Shipper (Consignor)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td></td>
</tr>
<tr>
<td>Street Address</td>
<td></td>
</tr>
<tr>
<td>City</td>
<td></td>
</tr>
<tr>
<td>Phone Number</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Destination (Consignee)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td></td>
</tr>
<tr>
<td>Street Address</td>
<td></td>
</tr>
<tr>
<td>City</td>
<td></td>
</tr>
<tr>
<td>Phone Number</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Related Dangerous Goods</th>
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</tr>
</thead>
<tbody>
<tr>
<td>UN Number</td>
<td>UN3373</td>
</tr>
<tr>
<td>Shipping Name</td>
<td>Biological Substance</td>
</tr>
<tr>
<td>Class</td>
<td>6.2</td>
</tr>
<tr>
<td>Packing Group</td>
<td>Category B</td>
</tr>
<tr>
<td>Total Quantity</td>
<td></td>
</tr>
</tbody>
</table>

24-Hour Number
(Facility 24-hour number without breaking connection/direct voice contact or CANUTEC number)

Date Prepared

Declaration and Signature of Person Packaging Samples:

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, are properly classified and packaged, have dangerous goods safety marks properly affixed or displayed on them, and are in all respects in proper condition for transport according to the Transportation of Dangerous Goods Regulations.

(Shipper’s name & Signature)

*Keep a photocopy of this document on site and readily available. Copies must be retained for 2 years post shipment.*
Tool 24: Suspect Outbreak Reporting—Things to Report on the First Day and for the Duration of the Outbreak

Please DO NOT DELAY in reporting your Suspect Outbreak to your Public Health Outbreak Management Contact (Tool 2).

Delayed reporting and delayed initiation of control measures are associated with:

- Higher attack rates
- Increased frustration in management and
- Longer duration of the outbreak

**Things to report on the first day**

- Facility Name and Location
- Name and Contact Information for person from your facility who will be the contact for your Public Health Outbreak Management Contact. **Include name and contact information for regular work hours AND name and contact information for after-hours** (evenings, weekends and holidays)
- Number of residents and number of staff with new or worse cough and the dates of onset of symptoms
- Date of onset of illness in first resident case and/or staff case
- Information about any laboratory specimens taken (number, date, names of residents, status)
- General layout of facility, including number of floors, common areas that are used by residents from more than one specific area, staff dedicated to affected area or serve other areas as well
- Movement of people and things throughout your facility
- If the affected area or areas in your facility are completely separate (Tool 25), can be made completely separate and can be maintained as completely separate throughout the outbreak
- Per cent of residents and staff vaccinated against influenza (this is information you will have entered on your Facility Readiness Report (Tool 20) that you complete each fall in time to submit by December 31st). This information may need to be reviewed/updated if there has been a change in staff or residents from the time it was initially completed.
- Any complications experienced by affected residents (eg. pneumonia, congestive heart failure, hospitalization) and any deaths of affected residents
- Whether illness in affected individuals is predominately MILD or SERIOUS in nature
- What control measures you have already put in place
- If you have a copy of the Fraser Health Viral Respiratory Illness Outbreak Protocol on hand and if it is available at the affected site(s) in your facility
Tool 25: *Definition of Completely Separate Areas of Facility—Guidance for Implementation of Control Measures*

**Completely separate areas means**

- Physically separate
- No movement of people (staff, visitors, service providers, others) between or through the areas
- No movement of things (equipment, books, recreational material, wheelchairs, meal carts, etc.) between the areas. Be aware of routine activities such as someone continuing rounds with a library cart going from affected to unaffected areas

*If all this is true,* then Control Measures are **usually** put in place in the completely separate area only. Completely separate unaffected areas are exempt from outbreak control as long as complete separation can be maintained and monitoring for onset of new or worse cough is increased for the unaffected areas.

*If any of this is not true,* all areas that are not completely separate from the affected area should initiate and maintain outbreak control measures.

**NOTE:** *It is important to recognize that not all situations are the same. Decisions regarding areas under Control Measures are determined in consultation with your Public Health Outbreak Management Contact and will be made on an individual basis after assessment of your situation.*
**Tool 26: Daily Surveillance and Reporting: Things to watch for and report after the first day until the end of the outbreak**

**Daily Surveillance**
- Look for new cases of new or worse cough in residents. All residents should be monitored at twice daily for new or worse cough or other symptoms of Influenza-Like Illness (ILI)
- During a facility outbreak and in the event of a local community or community-of-care outbreak of influenza, monitoring should be increased to twice daily in unaffected areas as well
- Ask about new cases of cough in staff members and note if any staff members have submitted a nasal swab specimen for testing
- Take additional nasal swab specimens for viral testing on new cases only if the situation changes and additional testing is recommended by your Public Health Outbreak Management Contact
- Re-order nasal swab testing kits (‘Six-Packs’) as needed

**Daily Reporting**
- Every day, update your Illness Reporting forms (just add new information onto the same sheet; start a new sheet whenever the old one is full)
- Update signs and symptoms if there are NEW symptoms in ill residents (i.e., change a “No” to a “Yes”, but DO NOT change when symptoms resolve, leave as “Yes”). Also update if change in hospitalization or death.
- Record new cases, date of onset of first symptoms, when vaccinated, and date of swab (if swabbed). Record the swab result when reported as either ‘Negative’ or which virus it is positive for (i.e., A, B, or RSV)
- Use a separate sheet for each area of facility (neighbourhood, floor or other specified area)
- Use a staff illness report form for staff and a resident illness report form for residents
  - If your facility outbreak is a Suspect or Laboratory Confirmed INFLUENZA outbreak (Scenario A), you will report DAILY on weekdays to your Public Health Outbreak Management Contact (Public Health Nurse) until the outbreak is declared over. Update the Resident and Staff Illness Reporting forms each day (just adding in new information) (Tool 27, 28). FAX your completed Resident and Staff Illness Reporting forms each weekday (for weekends and stats, FAX next business day). Report any problems or questions you have to your Public Health Outbreak Management Contact (Public Health Nurse on weekdays and Medical Health Officer on weekends and holidays) (Tool 2a)
  - If your facility outbreak is determined to be caused by a virus other than influenza and characterized by predominately SERIOUS Illness (Scenario B), your outbreak management will be supported by your Infection Prevention and Control Consultant (Tool 2b). Update the Resident and Staff Illness Reporting forms each day (just adding in new information) and refer to these throughout the outbreak (Tool 27, 28). There is no need to FAX daily reporting forms for a Scenario B outbreak unless requested by your Infection Prevention and Control Consultant. If you are concerned that your outbreak is not responding to control measures or there are changes in the pattern of illness such as increased severity, consult promptly with your Infection Prevention and Control Consultant (weekdays 0830-1630) or contact your Public Health Outbreak Management Contact (evenings, weekends and holidays) (Tool 2a)
  - If your facility outbreak is determined to be caused by a virus other than influenza and characterized by predominately MILD Illness (Scenario C), use the daily reporting forms for monitoring in your facility as a useful tool to assess the course of your outbreak and effectiveness of management. Daily reporting of Staff and Resident Illness to Public Health or your Infection Prevention and Control Practitioner is not expected. Your Infection Prevention and Control Consultant is available for consultation (Tool 2b). If you are concerned that your outbreak is not responding to control measures or there are changes in the pattern of illness such as increased severity, consult promptly with your Infection Prevention and Control Consultant (weekdays 0830-1630) or contact your Outbreak Management Contact (evenings, weekends and holidays) (Tool 2a)
### Resident Illness Report and Tracking Form

**RESIDENT RESPIRATORY ILLNESS REPORT**

(Residents with new or worse cough in an outbreak)

*Update Daily for your use for all viral Respiratory Illness Outbreaks*

*For Influenza Outbreaks (Laboratory-Confirmed or Highly Suspect), FAX Each Weekday to your Public Health Contact*

*If Outbreak is determined to be due to a virus other than Influenza and is causing predominately SERIOUS illness (Scenario B) or MILD illness (Scenario C), Update the Tracking Form Daily for your use. FAX to your Infection Prevention and Control Consultant (IPCC) ONLY if requested (604-851-3041 Abbotsford)*

<table>
<thead>
<tr>
<th>FACILITY NAME:</th>
<th>NEIGHBOURHOODS, FLOORS OR OTHER AREAS AFFECTED:</th>
<th>DATE PUBLIC HEALTH OUTBREAK MANAGEMENT CONTACT NOTIFIED:</th>
</tr>
</thead>
<tbody>
<tr>
<td>TELEPHONE (DIRECT TO A PERSON):</td>
<td>AFTER HOURS CONTACT NUMBER (DIRECT TO A PERSON):</td>
<td>TIME PUBLIC HEALTH OUTBREAK MANAGEMENT CONTACT NOTIFIED:</td>
</tr>
<tr>
<td>FAX:</td>
<td>EMAIL:</td>
<td></td>
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</table>

**FORM COMPLETED BY:**

**DATE OF FIRST REPORT:**

**DATE OF UPDATE 1:**

**DATE OF UPDATE 2:**

**DATE OF UPDATE 3:**

**DATE OF UPDATE 5:**

**DATE OF UPDATE 6:**

**DATE OF UPDATE 7:**

**DATE OF UPDATE 8:**

**DATE OF UPDATE 9:**

**DATE OF UPDATE 10:**

**DATE OF UPDATE 11:**

**DATE OF UPDATE 12:**

**DATE OUTBREAK DECLARED:**

**DATE OUTBREAK DECLARED OVER:**

<table>
<thead>
<tr>
<th>Name of Resident (Surname, Initial)</th>
<th>CARE CARD NUMBER (PHN)</th>
<th>Sex</th>
<th>Age</th>
<th>New or Worse Cough</th>
<th>Fever</th>
<th>Sore Throat</th>
<th>Joint Pain or Muscle Ache</th>
<th>Extreme Fatigue</th>
<th>Other Signs or Symptoms (eg. Runny Nose) Please Specify or put NONE for no other Signs or Symptoms</th>
<th>Date First Onset Symptoms</th>
<th>Date Swab Test Taken</th>
<th>Nasal swab test Result: NEGATIVE or NAME OF VIRUS FOUND</th>
<th>Date of Last Influenza Vacc’n</th>
<th>Date Anti-Influenza Medication For Treatment Started</th>
<th>Date Resident Admitted to Hospital</th>
<th>Date of Resident’s Death</th>
<th>Place of Resident’s Death—Facility (F) Hospital (H)</th>
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</tbody>
</table>
### Staff Illness Report and Tracking Form

**STAFF RESPIRATORY ILLNESS REPORT**  
(Staff with new or worse cough in an outbreak)

**Update Daily and for Suspect or Confirmed INFLUENZA, FAX Each Weekday to your Public Health Nurse**

*If Outbreak is determined to be due to a virus other than Influenza and is causing predominately SERIOUS Illness (Scenario B) or MILD Illness (Scenario C), Update the Tracking Form Daily for your use. FAX to your Infection Prevention and Control Consultant (IPCC) ONLY if requested (604-851-3041 Abbotsford)*

<table>
<thead>
<tr>
<th>FACILITY NAME:</th>
<th>NEIGHBOURHOODS, FLOORS OR OTHER AREAS AFFECTED:</th>
<th>DATE PUBLIC HEALTH OUTBREAK MANAGEMENT CONTACT NOTIFIED:</th>
</tr>
</thead>
<tbody>
<tr>
<td>TELEPHONE (DIRECT TO A PERSON):</td>
<td>AFTER HOURS CONTACT NUMBER (DIRECT TO A PERSON):</td>
<td>TIME PUBLIC HEALTH OUTBREAK MANAGEMENT CONTACT NOTIFIED:</td>
</tr>
<tr>
<td>FAX:</td>
<td>EMAIL:</td>
<td></td>
</tr>
</tbody>
</table>

**FORM COMPLETED BY:**

<table>
<thead>
<tr>
<th>DATE OF FIRST REPORT:</th>
<th>DATE OF UPDATE 1:</th>
<th>DATE OF UPDATE 5:</th>
<th>DATE OF UPDATE 9:</th>
<th>DATE OUTBREAK DECLARED:</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATE OF UPDATE 2:</td>
<td>DATE OF UPDATE 6:</td>
<td>DATE OF UPDATE 10:</td>
<td>DATE OF UPDATE 11:</td>
<td>DATE OUTBREAK DECLARED OVER:</td>
</tr>
<tr>
<td>DATE OF UPDATE 3:</td>
<td>DATE OF UPDATE 7:</td>
<td>DATE OF UPDATE 12:</td>
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</tr>
</tbody>
</table>

**Name of Staff Member**  
(Surname, First Name)

<table>
<thead>
<tr>
<th>New or Worse Cough</th>
<th>Fever</th>
<th>Sore Throat</th>
<th>Joint Pain or Muscle Ache</th>
<th>Extreme Fatigue</th>
<th>Other Signs or Symptoms (eg. Runny Nose) Please Specify or put NONE for no other Signs or Symptoms</th>
<th>Date First Onset Symptoms</th>
<th>Date Swab Test Taken</th>
<th>Nasal swab test Result:</th>
<th>Date of Last Influenza Vacc’n</th>
<th>DATE LAST WORKED AT FACILITY</th>
<th>DATE RETURNED TO WORK AT FACILITY</th>
<th>DOES STAFF MEMBER WORK AT ANOTHER FACILITY?</th>
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<tr>
<td>Y/N</td>
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<td>Y/N</td>
<td>Other Signs or Symptoms (eg. Runny Nose) Please Specify or put NONE for no other Signs or Symptoms</td>
<td>Date First Onset Symptoms</td>
<td>Date Swab Test Taken</td>
<td>Nasal swab test Result:</td>
<td>Date of Last Influenza Vacc’n</td>
<td>DATE LAST WORKED AT FACILITY</td>
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<td>DOES STAFF MEMBER WORK AT ANOTHER FACILITY?</td>
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## Tool 29: Helpful Information about Common Respiratory Viruses

<table>
<thead>
<tr>
<th>Virus</th>
<th>Epidemiology</th>
<th>Incubation Period</th>
<th>Symptoms</th>
<th>Infectious Period (Communicability)</th>
<th>Prophylaxis and treatment</th>
</tr>
</thead>
</table>
| **Influenza A** (in Northern Hemisphere) | Between October and March  
Causes mild to severe symptoms  
Causes infection in all age groups  
Can infect animals and humans  
Causes most outbreaks | 1-4 days (average = 3 days) | Acute onset of cough, fever*, headache, muscle aches, sore throat, prostration and exhaustion.  
Cough is often severe and may last longer than other symptoms | Probably 3-5 days from clinical onset in adults (Average = 4 days); up to 7 days in young children  
Asymptomatic people may be infectious | Yearly vaccine (for Influenza A and B)  
Anti-influenza medications for prophylaxis and treatment:  
- Neuraminidase inhibitors for Influenza A and B (Oseltamivir or Zanamivir)  
- Amantadine (for some A only) |
| **Influenza B** (in Northern Hemisphere) | Between October and March  
Causes milder infection  
Mostly affects children  
Can cause outbreaks | | Gastrointestinal symptoms may occur in children  
Duration 2-7 days (Average = 4 days) | Probably 3-5 days from clinical onset in adults (Average = 4 days); up to 7 days in young children  
Asymptomatic people may be infectious | |
| **Parainfluenza virus** Types 1, 2, 3 and 4 | Entire year (little seasonal pattern)  
Predominately causes infection and outbreaks in young children and the elderly | 2-6 days | Fever, cough, wheezing  
Croup | From shortly prior to clinical onset and for duration of active disease | **Symptomatic treatment only** |
| **Respiratory Syncytial virus** (RSV) | Usually late winter and early spring  
Predominately causes infection and outbreaks in young children and the elderly | Usually 4-6 days, range 2-8 days | Fever, cough, wheezing  
Bronchiolitis in children  
Pneumonia in adults | From a day or so before clinical onset and usually for 3-8 days. However, viral shedding may persist for several weeks or longer after symptoms have subsided, especially in children | **Symptomatic treatment only. Exception is Ribavirin for very ill children with cardiac or lung disease only.** |
| **Adenovirus** | Usually fall and winter  
Causes infection in all ages | Usually 4-5 days, range 2-14 days for respiratory disease | Conjunctivitis, sore throat, fever, and other respiratory symptoms | From up to a week prior to clinical onset and for duration of active disease  
Viral shedding may persist for a long period of time | **Symptomatic treatment only** |
<table>
<thead>
<tr>
<th>Virus</th>
<th>Epidemiology</th>
<th>Incubation Period</th>
<th>Symptoms</th>
<th>Infectious Period (Communicability)</th>
<th>Prophylaxis and treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other common respiratory viruses, such as: • Rhinovirus • **Coronavirus • ***Human Metapneumovirus • Echovirus, Coxsachievirus and other Enteroviruses</td>
<td>Throughout the year with peaks in the spring and fall</td>
<td>Usually 2-3 days, but may be longer</td>
<td>‘Common cold’ type illness: Sneezing, runny nose, cough, sore throat, sinus congestion, malaise, headache, myalgia (muscle aches) and/or low grade fever</td>
<td>Viral shedding usually most abundant during the first 2-3 days of clinical illness. Shedding usually ceases by 7-10 days, but may continue for up to 3 weeks</td>
<td>Generally, symptomatic treatment only</td>
</tr>
</tbody>
</table>

* Fever may not occur in the elderly or immuno-compromised  
** Non-SARS Coronaviruses (eg. Coronavirus 229E, OC43 and B814) are not infrequently the cause of respiratory outbreaks, usually characterized by predominately MILD illness  
*** Human Metapneumovirus has been associated with SERIOUS illness in the elderly. Reports suggest this is especially likely to occur when more than one virus is causing illness in the same outbreak (eg. Human metapneumovirus and a parainfluenza virus or other combination)  

Adapted from PICNetBC 2011 – Respiratory Outbreak Guidelines  
Available at: [http://www.picnet.ca/](http://www.picnet.ca/) Guidelines and Toolkits Tab  
Management of ill Residents

Management of ill Residents during an Influenza Outbreak (Scenario A)

Isolate residents with new or worse cough in their rooms as much as possible with droplet/contact precautions (Tool 15) through their infectious period (5 days from onset). Provide meals in rooms, regular trays can be used. Ensure that staff and visitors use Personal Protective Equipment (PPE) when within 2 metres of an ill resident (as indicated on droplet/contact precautions sign). Provide education regarding the use of PPE to ensure it is used properly. Follow standard protocols for laundry, utensils, garbage and medical waste. Increase cleaning to 2 times per day.

If residents need to be transferred to acute care facilities complete and send the Community CARE Transfer Form (Tool 38). Inform the BC Ambulance Service at time of booking and the receiving institution of your outbreak. The resident being transferred should wear a mask for the transfer (if can tolerate a mask). Anyone accompanying the resident should wear a mask, eye protection and gloves during transport.

Treatment

For outbreaks of influenza only: IF started within 48 hours of symptom onset, treatment may be helpful with influenza A and influenza B. Initiate treatment in accordance with facility protocol and pre-printed orders (Tools 3, 32). (Note: In Facility Influenza Outbreaks, your Medical Health Officer may recommend providing anti-influenza treatment to residents with severe illness even if started later than 48 hours after symptom onset—perhaps up to 96 hours after symptom onset). Unless resistance to oseltamivir is identified, treatment is oseltamivir 75 mg twice daily for 5 days (dose adjusted by your Pharmacy based on estimate of kidney function). Consult with Facility Medical Director or resident’s physician if need for medical assessment. If the influenza virus is resistant to oseltamivir (OsR), your Public Health (PH) Outbreak Management Contact will make recommendations.

Prophylaxis following treatment (generally NOT recommended)

For outbreaks caused by a single type of influenza virus only: In situations in which well residents are using anti-influenza medications for prophylaxis (prevention), residents who have received anti-influenza medications for treatment of cough illness during the influenza outbreak will stop using the medications at the end of the recommended 5-day treatment course, regardless of whether they were lab-confirmed or not. Treated residents will NOT switch to the use of anti-influenza medication for prophylaxis after their treatment is finished (Tool 32: FLOWCHART 32-1).

If a non-influenza respiratory virus is known to be, or highly suspected to be, causing illness in the same facility during an influenza outbreak: Your Medical Director or PH Outbreak Management contact may recommend that residents who were ill with suspected influenza, but NOT laboratory confirmed, continue on the prophylactic dose of anti-influenza medication until the outbreak is declared over. This may be done due to uncertainty as to whether the ill resident was initially ill due to the influenza or the other virus also causing illness during the outbreak. This will be recommended ONLY if influenza is still considered to be circulating in the facility (Tool 32: FLOWCHART 32-2).

If more than one Influenza virus is causing illness during an outbreak (eg. Influenza A and Influenza B): In such situations, your Medical Director or PH Outbreak Management Contact may recommend that all ill residents who have been treated with a 5-day treatment course of anti-influenza medication, including those who have been laboratory confirmed as having had influenza and have completed a 5 day course of treatment, continue on the prophylactic dose of the anti-influenza medication until the mixed influenza virus outbreak is declared over (Tool 32: FLOWCHART 32-3).

If more than one Influenza virus is causing illness during an outbreak and one is an oseltamivir resistant (OsR) strain: If an unusual situation like this occurs, there will be consultation about the wisdom of using or not using anti-influenza medications. Your PH Outbreak Management Contact will be in touch with your Facility Medical Director to discuss and decide on the most appropriate approach.

Influenza Immunization following recovery

Unless there is a medical contraindication to influenza immunization, when recovered, any resident who was not previously vaccinated against influenza should be vaccinated with influenza vaccine if the influenza season is not yet over (due to potential for infection by a different influenza virus).
Tool 30b: Management of ill Residents in a Facility during a NON-INFLUENZA RESPIRATORY OUTBREAK that is characterized by predominately SERIOUS ILLNESS (Scenario B)

Isolate ill residents in their rooms on droplet/contact precautions (Tool 15) while infectious. Provide tray service meals in rooms. Ensure that staff and visitors use appropriate infection control measures when giving care or visiting at any time during the ill resident’s infectious period.

The infectious period will vary depending on the virus. Infectious period may also vary for some viruses depending on the resident and factors such as age and immune system status. Tool 29 lists approximate infectious periods for respiratory viruses that may be detected in care facility outbreaks. Sometimes the virus causing the outbreak is not identified though will still likely be one of the common, seasonal respiratory viruses.

If the virus causing the outbreak is not identified, decisions on how long to keep the resident isolated is somewhat arbitrary. It is reasonable to continue isolation with meals in the room and recommended hand hygiene and use of infection prevention and control practices by those visiting or providing care for 5 to 7 days or until acute symptoms are gone, whichever is shorter. Hand hygiene and respiratory etiquette should be practiced by staff and visitors and the resident encouraged and/or assisted to do so as much as possible.

Individual resident treatment is generally symptomatic only--Consult with your Facility Medical Director or the resident’s family physician (as per practice in your facility) if complications develop.

Scenario B control measures are intended to provide reasonable infection prevention and control interventions with minimum disruption of facility life and activity. Scenario B control measures should not negatively impact residents moving into or back to their home in residential care.

Tool 30c: Management of ill Residents in a Facility during a NON-INFLUENZA RESPIRATORY OUTBREAK that is characterized by predominately MILD ILLNESS (Scenario C)

Isolate ill residents in their rooms as much as is reasonable during acute illness [fever (if present), coughing and sneezing]. Provide tray service meals while isolated. As always, follow Routine Practices (Tool 13). Use of Personal Protective Equipment (PPE) for provision of care within 2 metres of residents in the acute stage of illness is recommended (Tools 15, 16). Staff and visitors should be reminded to practice hand hygiene before and after contact with each resident.

This less stringent practice is not to suggest that mild, ‘common cold-like’ illness is not easily spread. Rather, the viruses that cause ‘common-cold-like’ illness generally spread very easily and may have spread widely very quickly. However, it recognizes that it may be very difficult, and perhaps even detrimental, to try to keep residents in their rooms for the acute stage of illness if they are not so ill that their illness keeps them in bed, if they are up and about on their own and if they will not or cannot voluntarily comply with requests to stay in their rooms. With an acute influenza infection or when illness is due to a non-influenza virus, but is predominately serious in nature, it is more important, but also generally easier, to keep acutely ill residents in their rooms for the recommended period.

Individual resident treatment is generally symptomatic only--Consult with your Facility Medical Director or the resident’s family physician (as per practice in your facility) if complications develop.

Scenario C control measures are intended to provide reasonable infection prevention and control interventions with minimum disruption of facility life and activity. Scenario C control measures should not negatively impact residents moving into or back to their home in residential care.
Tool 31: Preventive Measures for well, unaffected Residents

Tool 31a: Preventive Measures for well, unaffected Residents in a Facility during an Influenza Outbreak (Scenario A)

**Surveillance**
Surveillance of well residents for onset of new or worse cough should be increased to **twice daily** through the course of the outbreak

**Hand Hygiene, Respiratory Etiquette**
Well residents should be encouraged and assisted to practice Hand Hygiene and Respiratory Etiquette as much as possible

**Prophylaxis**
Use of anti-influenza medication for prophylaxis of well residents for an Influenza A or B outbreak will be determined on a situation-by-situation basis and your Public Health Outbreak Management Contact will advise on the recommended use of prophylaxis. Dosages will have been calculated at the start of the season by your Pharmacy. Anti-influenza prophylaxis for well residents should be implemented as soon as possible, when recommended (Tool 32). Studies have shown a relationship between the time from the start of an influenza outbreak to initiation of prophylaxis AND the duration of the outbreak—generally, the quicker anti-influenza prophylaxis is initiated, the sooner the outbreak will be over. When anti-influenza prophylaxis is started promptly, along with other recommended outbreak management measures, new cases are usually few, the number of new cases decreases quickly and usually no new cases are seen after just a few days on prophylaxis. Indeed, if new cases are appearing after 72 hours of the introduction of control measures including anti-influenza prophylaxis, consult with your Public Health Outbreak Management Contact to review your situation (Tool 2a)

**Immunization**
Residents who are not vaccinated against influenza should be vaccinated (unless there is a medical contraindication to vaccination or the influenza season is considered to be almost over)

**Cohorting**
A well room-mate can remain in the same room with the ill resident because she/he has already been exposed to the outbreak pathogen and could be infectious

**Vitamin D supplementation**
Some studies suggest that adequate Vitamin D supplementation may increase residents’ ability to better resist virus infection. Supplementation is more likely to be beneficial if started before the respiratory virus season and maintained year round
Tool 31b: Preventive Measures for well, unaffected Residents in a Facility during a NON-INFLUENZA RESPIRATORY OUTBREAK that is characterized by predominately SERIOUS ILLNESS (Scenario B)

Well residents should be encouraged and assisted to practice Hand Hygiene and Respiratory Etiquette as much as possible. There is no anti-viral recommended for prophylaxis (prevention) in well residents.

Several studies indicate that adequate Vitamin D supplementation may increase residents’ ability to better resist virus infection. Supplementation is more likely to be beneficial if started before the respiratory virus season and maintained year round.

Tool 31c: Preventive Measures for well, unaffected Residents in a Facility during a NON-INFLUENZA RESPIRATORY OUTBREAK that is characterized by predominately MILD ILLNESS (Scenario C)

Well residents should be encouraged and assisted to practice Hand Hygiene and Respiratory Etiquette as much as possible. There is no anti-viral recommended for prophylaxis (prevention) in well residents.

Several studies indicate that adequate Vitamin D supplementation may increase residents’ ability to better resist virus infection. Supplementation is more likely to be beneficial if started before the respiratory virus season and maintained year round.
Tool 32: *FLOWCHARTS* to guide in the use of Anti-Influenza Medication as Treatment and Prophylaxis for:

- **Uncomplicated Influenza Outbreak**
  - **FLOWCHART FOR:** Treatment for ill residents and Prophylaxis for well residents in Outbreaks caused by a single Influenza Virus type – Influenza A or Influenza B

- **Complicated Influenza Outbreaks**
  - **FLOWCHART FOR:** Prophylaxis following treatment for recovering residents who were not laboratory confirmed as having Influenza, when a non-influenza virus (Coronavirus, Respiratory Syncytial Virus, Human Metapneumovirus or other respiratory virus) is also causing illness DURING an Influenza outbreak
  
- **FLOWCHART FOR:** Prophylaxis following treatment for recovering residents when MORE THAN ONE Influenza Virus type is causing illness in the same Influenza outbreak (eg. Influenza A and Influenza B both identified during the same outbreak)

*For use in consultation with your Public Health Outbreak Management Contact, Facility Medical Director and/or Resident’s Physician as indicated in Flowcharts

*SITUATION-SPECIFIC decisions may be made that are appropriate for the situation, but may differ from the general approach suggested in the following FLOWCHARTS*
FLOWCHART 32-1:
For use in the common situation in which a single Influenza Virus type is believed to be causing the Outbreak (an Influenza A or an Influenza B virus)

Influenza Outbreak declared and Scenario A Control Measures initiated

Does resident have a new or worse cough?

YES

*Is the ill resident within 48 hours of symptom onset?

YES

Begin 5-day treatment with oseltamivir

NO

prophylaxis after treatment completed

NO

Previously well resident develops new or worse cough while on prophylaxis

YES

Start on oseltamivir for PROPHYLAXIS (prevention)

NO

Whether treated or not, NO oseltamivir prophylaxis

YES

1. Consider resident as an influenza case
2. If very ill, and between 48 and 96 hours of symptom onset, begin 5-day treatment with oseltamivir
3. If very ill, promptly inform Resident’s Physician and your Public Health Outbreak Management Contact

NO

1. Switch to oseltamivir treatment dose
2. If onset more than 4 days after start of prophylaxis, take nasal swab and send as outbreak-related -- with note requesting all respiratory virus testing
3. Promptly inform your Public Health Outbreak Management Contact
4. Alert Facility Medical Director or Resident’s Physician if concern about nature of illness

Continue oseltamivir prophylaxis until outbreak declared over

If any concern about reaction to oseltamivir, consult with your Outbreak Management Contact, Resident’s Physician or Facility Medical Director
FLOWCHART 32-2:

For use in a situation in which an Influenza outbreak is being managed with Scenario A control measures (including oseltamivir prophylaxis and treatment) in place, but before the outbreak is declared over, residents on prophylaxis develop new or worse cough AND testing confirms a non-influenza virus is also causing illness during the influenza outbreak

**Scenario A**

Flowchart:

1. An ill resident has completed a 5-day course of oseltamivir treatment
2. Was the ill resident laboratory-confirmed to have influenza?
   - **YES**
     - No oseltamivir prophylaxis after 5-day treatment is completed
     - **Note:** This resident may be susceptible to the non-influenza virus also circulating in the facility
   - **NO**
     - In general, no oseltamivir prophylaxis after 5-day treatment is completed
     - **Note:** The appearance of another virus while the facility is still on influenza outbreak control measures is often NOT associated with ongoing circulation of the influenza virus, especially if control measures, including oseltamivir prophylaxis have been in place for a few days
     - If there is concern (or laboratory evidence) that influenza virus is continuing to circulate and cause illness at the same time as a non-influenza virus, consult with your Public Health Outbreak Management Contact. Oseltamivir prophylaxis after treatment MAY be recommended if there is uncertainty about whether the resident treated for influenza actually had influenza. If started, prophylaxis should continue until the influenza outbreak is declared OVER

In this situation, your Public Health Outbreak Management Contact will work with you to decide when to declare the influenza outbreak over and switch from Scenario A (INFLUENZA) control measures to either Scenario B (SERIOUS ILLNESS) or Scenario C (MILD ILLNESS) control measures
FLOWCHART 32-3:

For use in a situation in which two different Influenza Viruses are believed to be causing illness during the same facility outbreak

Though not common, every few years a facility will experience an outbreak caused by an influenza virus (usually an Influenza A virus) and, at the same time or before the outbreak is declared over, will receive laboratory confirmation of residents becoming ill with a different influenza virus (usually an Influenza B virus)

Influenza Outbreak declared and Scenario A Control Measures are in place

The ill Resident is considered to be a case (laboratory-confirmed) OR Due to new or worse cough considered to be outbreak-related

Resident NOT symptomatic: NOT considered to be a CASE

Treated with oseltamivir for 5 days

Not treated because unable to start treatment within 48 or 96 hours (as per FLOWCHART 32-1)

UNLESS advised otherwise by your Public Health Outbreak Management Contact:

1. START on oseltamivir prophylaxis after treatment completed, and
2. CONTINUE until mixed influenza virus outbreak declared OVER

UNLESS advised otherwise by your Public Health Outbreak Management Contact:

1. START on oseltamivir prophylaxis after ACUTE symptoms have resolved, and
2. CONTINUE until mixed influenza virus outbreak declared OVER

CONTINUE oseltamivir prophylaxis until mixed influenza virus outbreak declared over (generally the 8th day following onset of symptoms in the last case)
Tool 33: **Control Measures for ill Staff**

Tool 33a: **Control Measures for ill Staff during an Influenza Outbreak (Scenario A)**

**Staff with New or Worse Cough or Influenza-Like Illness (ILI)**

Staff with onset of new or worse cough should report to their supervisor promptly.

**Isolation**

- For influenza, stay at home (excluded from work) until well enough to work **AND** whichever is sooner of either their symptoms are completely gone **OR** they are 5 days from symptom onset.

**Immunization after recovery**

- Unvaccinated staff who have recovered from a respiratory illness can still benefit from influenza vaccination, even if they had influenza, as it is not uncommon to have two or more strains of influenza circulate in the community each season.

**Return to Work**

- For influenza, staff may return to work when well enough to work **AND** whichever is sooner of symptoms completely gone **OR** 5 days since onset of symptoms; and
- Use hand hygiene and respiratory etiquette on return to work.
Tool 33b: Control Measures for ill Staff during a NON-INFLUENZA RESPIRATORY OUTBREAK that is characterized by predominately SERIOUS ILLNESS (Scenario B)

Staff with onset of new or worse cough should report to their supervisor promptly

**Isolation**
- Stay at home until well enough to return to work AND whichever is sooner of acute symptoms gone OR 5 days from symptom onset

**Immunization after recovery**
- Unvaccinated staff who have recovered from a non-influenza viral respiratory illness can still benefit from influenza vaccination

**Return to Work**
- Staff who are well enough to return to work AND whichever is sooner of either their acute symptoms are gone OR they are 5 days from symptom onset may return to work; and
- Use good hand hygiene and respiratory etiquette on return to work

Tool 33c: Control Measures for ill Staff during NON-INFLUENZA RESPIRATORY OUTBREAK that is characterized by predominately MILD ILLNESS (Scenario C)

Staff with onset of new or worse cough should report to their supervisor promptly

**Isolation**
- Stay at home during acute stage of illness

**Immunization after recovery**
- Unvaccinated staff who have recovered from a non-influenza viral respiratory illness can still benefit from influenza vaccination

**Return to Work**
- Consider return to work when acute stage of illness has passed
- Use good hand hygiene and respiratory etiquette on return to work
Tool 34: Preventive Measures for well, unaffected Staff
Tool 34a: Preventive Measures for well, unaffected Staff during an Influenza Outbreak (Scenario A)

Expectations regarding preventive measures for unaffected staff members (including contracted staff, volunteers and students) during an influenza outbreak are contained in the Provincial Influenza Control Policy and the BC Facility Influenza Immunization Policy and its Question & Answer document.

Direct links to the specific documents are:

For an influenza outbreak, your Public Health Outbreak Management Contact will advise regarding exclusion and prophylaxis.

Staff immunized 14 or more days prior:
- No restrictions on working in outbreak setting or other health care settings
- Hand hygiene and respiratory etiquette important, as always
- Adherence to recommended infection prevention and control practices during outbreak
- Extra vigilance in self-assessment (watch for signs and symptoms) and reporting at first signs of new cough or other signs and symptoms compatible with Influenza-Like Illness (ILI)
- Staff members who are pregnant or have other health conditions that put them at higher risk of complications from Influenza infection may want to consult with their physician. In some situations arrangements for early anti-influenza treatment at first sign of Influenza-Like Illness may be recommended

Unvaccinated Staff or Staff immunized less than 14 days prior and taking the recommended anti-influenza medication as prophylaxis:
- No restrictions on working in outbreak setting
- Exclude from work in any other health care setting, including unaffected areas of same facility, until they are 3 days (72 hours) symptom-free since the last time in the Influenza outbreak setting even though on anti-influenza prophylaxis
- Hand hygiene and respiratory etiquette important, as always
- Adherence to recommended infection prevention and control practices during outbreak
- Extra vigilance in self-assessment (watch for signs and symptoms) and reporting at first signs of new cough or other signs and symptoms compatible with Influenza-Like Illness (ILI)
- If not vaccinated, offer influenza vaccine

Unvaccinated Staff or Staff immunized less than 14 days prior and NOT taking the recommended anti-influenza medication as prophylaxis:
- Exclude from the outbreak setting (until 14 days after day of immunization)
- Exclude from work in any other health care setting, including unaffected areas of same facility, until they are 3 days (72 hours) symptom-free since the last time in the Influenza outbreak setting
- Hand hygiene and respiratory etiquette important, as always
- Extra vigilance in self-assessment (watch for signs and symptoms) and reporting at first signs of new cough or other signs and symptoms compatible with Influenza-Like Illness (ILI)
- If not vaccinated, offer influenza vaccine
- Staff members who are pregnant or have other health conditions that put them at higher risk of complications from Influenza infection may want to consult with their physician. In some situations arrangements for early anti-influenza treatment at first sign of Influenza-Like Illness may be recommended
Unusual situations—Management as recommended by your Public Health Outbreak Management Contact

In some situations (e.g., influenza vaccine not yet available, very low rates of immunization coverage, inability to provide acceptable resident care due to staff shortage related to illness or potential exclusion), special considerations may be required and will be worked out in consultation between Facility Administration, the Facility Medical Director and Public Health Outbreak Management Contact.
Tool 34b: Preventive Measures for well, unaffected Staff during a NON-INFLUENZA RESPIRATORY OUTBREAK that is characterized by predominately SERIOUS ILLNESS (Scenario B)

Staff without Cough

- Staff should, if at all possible, work in either affected or unaffected areas, but not both
- Staff should if, at all possible, work with either ill or with well residents, but not both
- If the above are not possible, staff should work first in unaffected areas or with well residents, with strict hand hygiene between areas or residents. Obviously, this should not result in inappropriate delays in the care of ill residents
- There are no restrictions on well staff working in the outbreak facility or any other facility
- Hand hygiene and respiratory etiquette important, as always
- Adherence to recommended infection prevention and control practices during outbreak
- Extra vigilance in self-assessment (watch for signs and symptoms) and reporting at first signs of new cough or other signs and symptoms compatible with Influenza-Like Illness (ILI). Well staff should be aware of signs and symptoms of viral respiratory illness and report and stay home if such signs or symptoms develop, returning to work when well enough to work AND whichever is sooner of acute symptoms are gone OR 5 days since onset of symptoms

Tool 34c: Preventive Measures for well, unaffected Staff during a NON-INFLUENZA RESPIRATORY OUTBREAK that is characterized by predominately MILD ILLNESS (Scenario C)

Staff without Cough

- Staff should, if at all possible, work in either affected or unaffected areas, but not both
- Staff should, if at all possible, work with either ill or with well residents, but not both
- If the above are not possible, staff should work first in unaffected areas or with well residents, with strict hand hygiene between areas or residents. Obviously, this should not result in inappropriate delays in the care of ill residents
- There are no restrictions on well staff working in the outbreak facility or any other facility
- Well staff should be aware of signs and symptoms of viral respiratory illness and report and stay home if such signs or symptoms develop. Return to work should be considered when the acute stage of illness has passed
Tool 35: Flowchart as a guide for use of anti-influenza medications in situations in which your Public Health Outbreak Management Contact has recommended prophylaxis for non-immunized, well (unaffected) staff (Scenario A only)

The Facility Will

Consult facility staff Immunization records

Immunized Staff
Staff immunized more than 14 days prior to onset of the outbreak are free to work without restriction if symptom free

Non-Immunized Staff
Offer influenza vaccine to all non-immunized staff without medical contraindication to the vaccine (as per the BCCDC vaccine product information)

EXCLUDE

From Non-Outbreak Setting
- All staff not immunized prior to the outbreak who work in other facilities even if on appropriate anti-influenza medication, excluded for 3 days after last working day in the outbreak setting
- If respiratory illness develops during this time, exclude for 5 days after onset of illness or until symptoms resolved, whichever is sooner

From Outbreak Settings
All non-immunized staff until outbreak is over UNLESS

Immunized During Outbreak
Excluded for 14 days post-vaccination if not on appropriate anti-influenza medication

Taking Anti-Influenza Medication
May return to work but continue to take anti-influenza medication until outbreak is over or for 14 days post-vaccination, whichever is sooner
Tool 36: Letter to Physician for Non-Immunized Staff Member Requiring Anti-Influenza Medication for Prophylaxis in order to Continue Working during an Influenza Outbreak (Scenario A)

Versions of a ‘Letter to Physician for Staff Member requiring Anti-influenza Prophylaxis for an Influenza Outbreak’ are on the following 2 pages. Please select, photocopy and use as required

Oseltamivir (Tamiflu®) is the medication of choice for treatment or prophylaxis (as indicated) in Influenza outbreaks in care facilities UNLESS the causative influenza virus is an oseltamivir-resistant Influenza A/H1. Zanamivir (Relenza®) is an acceptable alternative.

For oseltamivir-resistant Influenza A/H1, the anti-influenza medication of choice for treatment or prophylaxis for staff is Zanamivir (Relenza®)

Process:
- Choose the appropriate letter from the templates on the next 2 pages
  - For Influenza A or B NOT RESISTANT to Oseltamivir or
  - For Influenza A/H1 RESISTANT to Oseltamivir
- Fill in the date AND the name of the staff member
- Provide the letter to the Staff Member to give to the Physician who will be asked to prescribe the anti-influenza medication

Notes:
Prophylaxis (prevention):
- Prophylaxis is indicated for well staff members who have not been immunized at least 14 days prior to the onset of the outbreak and will continue to work in the facility during the outbreak. The staff member is to use the medication for prophylaxis (prevention) UNTIL whichever of the following is shorter
  - the outbreak is declared over
    For seasonal Influenza, usually the 6th day after the onset of illness in the last resident case identified AND 3 days (72 hours) after the last time that a staff member with symptoms worked in the facility
  - or
  - 14 days have elapsed since the staff member was immunized against influenza with the recommended influenza vaccine for the current season

Treatment:
- To be beneficial, anti-influenza treatment should begin within 48 hours of onset of symptoms. If a staff member develops new or worse cough or Influenza-Like Illness while on prophylaxis, the staff member should consult with the physician immediately. Calling ahead is important so that appropriate precautions can be taken to reduce risk of exposing others.
- Updated guidance on the use of antivirals is available from the Association of Medical Microbiology and Infectious Disease Canada, www.ammi.ca/guidelines
Type of Outbreak: Influenza A or B NOT RESISTANT to Oseltamivir

Date: __________________________

Re: Influenza Antiviral Prophylaxis for __________________________

This person has been advised to take anti-influenza medication to protect against getting influenza because of an outbreak of influenza at her/his place of work. If no contraindication, please prescribe oseltamivir as the medication of choice. Zanamivir (Relenza®) is an acceptable alternative. Amantadine is not recommended for prophylaxis or treatment of influenza sensitive to oseltamivir. See product monographs for detailed prescribing information.

PLEASE MARK THE PRESCRIPTION “FOR PREVENTION DURING AN INFLUENZA OUTBREAK”

S/he may return to work in the outbreak setting after starting to take the antiviral for prevention, and in order to continue working in the facility, must take the antiviral until either the outbreak is over (usually 6th day after the onset of illness in the last resident case identified AND 3 days (72 hrs) after the last time that a staff member with symptoms worked in the facility), OR until 14 days after influenza vaccination, whichever interval is shorter. If this person has a valid medical contraindication to the use of these antiviral medications, s/he must provide documentation of this to the employer.

To contact the MHO in your area during working hours, call 604-587-3828 or 1-877-342-6467

FOR INFLUENZA A or B THAT IS NOT RESISTANT TO OSELTAMIVIR

PREVENTION FOR BOTH INFLUENZA A AND B: Based on prescribing information, the recommended dose of Oseltamivir for prophylaxis is 75 mg once daily for individuals 13 years of age and older. For individuals with compromised renal function, oseltamivir dosing is adjusted based on estimated creatinine clearance: for estimated CrCl of >30-60 mL/min, the dose for prophylaxis is reduced to 30 mg once daily. With estimated CrCL of 10 to 30 mL/min, the dose for prophylaxis is reduced to 30 mg every other day. Recommendations for individuals with estimated CrCL less than 10 mL/min or on renal dialysis are found in the Roche product monograph.

Cautions and Contraindications: Avoid use in pregnancy and lactation unless potential benefits outweigh potential risks to the fetus. Safety with hepatic impairment is not established. Probenecid doubles the active metabolite of oseltamivir, but no dose adjustment is required.

TREATMENT FOR BOTH INFLUENZA A AND B (To be beneficial, anti-influenza treatment should begin within 48 hours of onset of symptoms): The recommended dose of Oseltamivir for treatment is 75 mg twice daily for 5 days. For individuals with compromised renal function and estimated CrCl of >30-60 mL/min, the dose for treatment is reduced to 30 mg twice daily. With estimated CrCL of 10 to 30 mL/min, the dose for treatment is reduced to 30 mg once daily. Recommendations for individuals with estimated CrCL less than 10 mL/min or on renal dialysis are found in the Roche product monograph.

Cautions and Contraindications: as above for oseltamivir for prevention

PRESCRIBING OSELTAMIVIR (TAMIFLU®) Product monograph may be found at: http://www.rochecanada.com/content/dam/roche_canada/en_CA/documents/Research/ClinicalTrialsForms/Products/ConsumerInformation/MonographsandPublicAdvisories/Tamiflu/Tamiflu_PM_E.pdf

Additional information is available from the Association of Medical Microbiology and Infectious Diseases Canada (AMMI) at: www.ammi.ca/guidelines
Type of Outbreak: Influenza A/H1 RESISTANT to Oseltamivir

Date: __________________________

Re: Influenza Antiviral Prophylaxis for __________________________

This person has been advised to take antiviral medication to protect against getting influenza because of an outbreak of influenza at her/his place of work. If no contraindication, please prescribe zanamivir (Relenza®) as prophylaxis. Amantadine is an option for oseltamivir-resistant Influenza A/H1, but is not recommended unless there is an absolute contraindication to the use of zanamivir. See product monographs for detailed prescribing information.

PLEASE MARK THE PRESCRIPTION “FOR PREVENTION DURING AN INFLUENZA OUTBREAK” S/he may return to work in the outbreak setting after starting to take the antiviral for prevention, and in order to continue working in the facility, must take the antiviral until either the outbreak is over (usually 6th day after the onset of illness in the last resident case identified AND 3 days (72 hrs) after the last time that a staff member with symptoms worked in the facility), OR until 14 days after influenza vaccination, whichever interval is shorter. If this person has a valid medical contraindication to the use of this antiviral medication (see below), s/he must provide documentation of this to the employer.

To contact the MHO in your area during working hours, call 604-587-3828 or 1-877-342-6467

FOR INFLUENZA A/H1 THAT IS RESISTANT TO OSELTAMIVIR

PREVENTION FOR OSELTAMIVIR-RESISTANT INFLUENZA A/H1: Zanamivir is administered as a powder by inhalation via a Diskhaler® that is provided with the medication—Two inhalations of 5 mg each (total of 10 mg) once daily. No dosage adjustment is required for the elderly or for impaired renal function. 

Cautions and Contraindications: Zanamivir should be used with caution during pregnancy or lactation and only if the potential benefit justifies the potential risk to the fetus or nursing infant. As the drug is inhaled, little is systemically absorbed; however, there are no adequate and well-controlled studies of zanamivir in pregnant or lactating women. Insufficient data are currently available regarding possible toxic effects on the fetus. It is not known whether zanamivir is excreted in human milk.

Zanamivir is generally not recommended in individuals with severe underlying chronic pulmonary disease or severe asthma because of the risk of serious bronchospasm and decline in respiratory function. If a decision is made to prescribe zanamivir for such an individual, this should be done only under conditions of careful monitoring of respiratory function.

Individuals who use inhaled bronchodilators should be advised to do so before taking zanamivir.

Zanamivir is contraindicated in persons with known hypersensitivity to zanamivir or the inhalation powder's components, including lactose, which contains milk protein. Rarely, allergic-like reactions, including facial and oropharyngeal edema, bronchospasm, laryngospasm, urticaria, serious skin rashes and anaphylaxis, have been reported. Zanamivir should be discontinued and immediate medical attention sought if these reactions occur.

TREATMENT FOR OSELTAMIVIR-RESISTANT INFLUENZA A/H1 (To be beneficial, anti-influenza treatment should begin within 48 hours of onset of symptoms): Zanamivir is administered as a powder by inhalation via a Diskhaler® that is provided with the medication — Two inhalations of 5 mg each (total of 10 mg) twice daily. No dosage adjustment is required for the elderly or for impaired renal function.

Cautions and Contraindications: as above for zanamivir for prevention.

PRESCRIBING ZANAMIVIR (RELENZA®) Product Monograph may be found at:


Additional information is available from the Association of Medical Microbiology and Infectious Diseases Canada (AMMI): www.ammi.ca/guidelines
Tool 37: Other Measures and Restrictions

The measures and restrictions contained in this section should be maintained until the Outbreak is declared over unless modified following consultation with your Public Health Outbreak Management Contact or your Infection Prevention and Control Consultant (Tool 2).

Restriction of Movements and Activities within the Facility

- Post signs at the entrance(s) and other strategic locations around your facility
  - Initiate Passive Screening for respiratory symptoms by Posting “Attention Visitors” signage (Tool 11) and reminding visitors
    - Not to visit if unwell
    - To limit visiting to one resident
    - To follow Infection Prevention and Control recommendations including the use of Personal Protective Equipment, as indicated
    - To practice hand hygiene and respiratory etiquette at all times
  - Initiate Active Screening (having visitors report to the welcome desk before visiting) if recommended by your Public Health Outbreak Management Contact or Infection Prevention and Control Consultant
  - USE signage that is specific for INFLUENZA only when using Scenario A control measures (Influenza known or suspected as the cause of the outbreak)

- Movement of people entering and within the facility
  - Temporarily suspend social activities of groups of residents in the facility. However, where feasible, consider cohorting as below so that many of the activities can continue in a modified manner—well with well and ill with ill (when well enough to participate)
  - Families and visitors should be alerted that the facility is experiencing an outbreak of influenza.
  - Those who do visit should:
    - Visit only one person
    - Enter and leave directly
    - Perform hand hygiene using soap and water or Alcohol-Based Hand Rub (ABHR) before and after visiting
    - If giving direct care, use personal protective equipment as directed by staff and as explained in droplet/contact signage (Tools 15, 16)

- Restrict the potential for movement of virus around your facility
  - Equipment must be cleaned/disinfected between use on different residents (using a hospital grade low level disinfectant): See SOP IC13: 0600 Low Level Disinfection

Cohorting

- Residents
  - A well room-mate can remain in the room with the ill resident because she/he has already been exposed to the outbreak virus and could be incubating illness or even already infectious, though not yet symptomatic
  - Where feasible, within an affected area under outbreak control measures, consider cohorting residents for group activities: well with well and ill with ill (ill with ill when well enough to participate). For those who are ill, choose activities appropriate for those who are recovering, but may still be infectious. For those who are well, watch for signs or symptoms suggestive of onset of illness in order to prevent unnecessary spread of illness

- Staff
  - Staff should, if at all possible, work in either affected or unaffected areas, but not both
  - Staff should, if at all possible, work with either ill or well residents, but not both
  - If the above are not possible, staff should work first in unaffected areas or with well residents, following recommended infection prevention and control practices including hand hygiene between areas or residents. NOTE: Attempts to cohort should not inappropriately delay needed care for ill residents (or any residents)
Considerations regarding Resident Moves in and out of the Facility during an Outbreak

Depending upon the extent of the outbreak and the physical layout of the building, restrictions that are recommended might be applied to one neighbourhood, floor, other specified area or the entire facility.

Transfers out of the Facility (to Hospital or to another Care Facility)

- If a resident needs to be transferred to Acute Care or to another Care Facility from an area under outbreak control measures, NOTIFY the receiving Hospital or Care Facility that your facility has an outbreak (and, if known, what virus/viruses are causing the outbreak).
- If you have already transferred a resident to Acute Care or to another Care Facility during the outbreak, NOTIFY the receiving Hospital or Care Facility that your facility has an outbreak (and, if known, what virus/viruses are causing the outbreak). Include any transfers up to 2 days before onset of symptoms in the first affected person (first case).
- Consult with your Infection Prevention and Control Consultant if considering any ‘elective’ (scheduled) resident transfers to Hospital or to another Care Facility (Tool 2b).
- Notify BC Ambulance of outbreak when calling for transfer.
- If transferring to an Acute Care Hospital, be sure to Complete and Send the CommuniCARE Transfer Form as per guidelines for its use (Tool 38).

PRINCIPLES regarding New Moves into or Moves back to one’s home in the Facility

1. If resident was in the facility and considered to have been an ‘outbreak case’, generally accept the return to the facility.
2. Decisions about New Moves into or Moves back to one’s home in Residential Care reflect a balance of considerations that aim to protect the health and safety of residents, while respecting a normal preference to reside at home and recognizing that there are risks associated with moving in, but also with delaying a move in or prolonging time in hospital while awaiting return to the home facility.
3. In all cases, decisions about a move should include:
   - The resident and/or decision maker of the resident, to be aware of the risks and benefits associated with the decision.
   - The discharging or most responsible physician, knowledgeable about the resident’s health status.
   - The receiving residential care facility physician and facility medical director (where applicable).
   - Involvement of the IPCC depending on the Scenario.

4. For ALL scenarios (A, B and C), please keep ALL vacancies ‘OPEN FOR MATCHING’ throughout the outbreak.

PROCEDURE for New Moves into the Facility while outbreak control measures are in place

Scenario A: Influenza

- Restrictions on neighborhoods/floors/areas within facilities are carefully considered based on the features of the influenza outbreak features and facility infrastructure. Transfers into an area under restriction are exceptions to these restrictions.
- Consult with your Infection Prevention and Control Consultant who will review with you and consult with the Medical Health Officer as required.
- Generally, if the new resident is immunized against influenza and the outbreak is controlled and in countdown of days with no new cases, it is reasonable that the move in will be supported. Use of anti-influenza prophylaxis until the outbreak is declared over is advised. Consider isolation for incoming residents who have pre-existing conditions that make them particularly vulnerable to influenza or other viral respiratory illnesses.
- For moves back to a facility, consistent use of the CommuniCARE Transfer Form (Tool 38) will also facilitate ongoing discussion about appropriateness of return to the facility.
FLOWCHART 37-1: Scenario A (Influenza)
Moves into or back to residential care while INFLUENZA outbreak control measures still in place (Scenario A)

Please keep ALL vacancies ‘OPEN FOR MATCHING’ throughout the INFLUENZA outbreak. Though it may not be appropriate for residents to move into or back to the facility at certain stages of an outbreak, based on a careful risk-benefit assessment and with certain measures specified for the incoming resident, it may well be possible to safely accommodate a new or returning resident and do so in a manner that is not only in the best interests of that resident, but also safe for other residents.

A ‘Match’ by ‘Residential Access’ for a person to newly move into your facility (from hospital or from community)

Communication from ‘Acute Access’ that a resident is ready to return to her/his home in your facility

Your Infection Prevention and Control Consultant (Tool 2b) will:
- Be informed by ‘Residential or Acute Access’ of the pending ‘match’ or ‘return’,
- Contact you and review feasibility and steps that may be needed for ‘match’ or ‘return’ to be possible, and
- Discuss with the Medical Health Officer, if necessary

Recommendation received, reviewed and decision to proceed with new move into or move back to facility

YES

- Review with the discharging physician and the newly matched or returning resident’s physician or nurse practitioner
- Inform Resident and/or Substitute Decision-maker
- Ensure that all recommendations from the Medical Health Officer and Infection Prevention and Control Consultant are in place as recommended (eg. placement, precautions, prophylaxis, surveillance, activities)

NO

Continue discussion and evaluation with your Infection Prevention and Control Consultant until able to support the move or until the outbreak declared over

FOR TRANSFERS within your facility, consult your Infection Prevention and Control Consultant (Tool 2b). This includes moving a resident to or from an area WITH a declared INFLUENZA outbreak to or from a completely separate (Tool 25) area/neighbourhood WITHOUT a declared INFLUENZA outbreak.
PROCEDURE for New Moves into the Facility while outbreak control measures are in place (Scenarios B and C)

Scenario B: Not influenza, characterized by predominately SERIOUS illness
- Generally, proceed with moves in, transfers back to or transfers out of the facility.
- If considering move-ins into a multi-bed room with affected resident consult with your Infection Prevention and Control Consultant and resident’s physician.

Scenario C: Not influenza, characterized by predominately MILD illness (‘Common Cold-like’)
- Generally, proceed with moves in or transfers in or out as usual.

As Your Facility Gets Closer to the End of the Outbreak

Remain on the alert for possible new cases of cough
If staff or residents are coming down with new or worse cough after a period with no new cases, or there are changes in severity or pattern of illness review surveillance and control measures. Consult with your Infection Prevention and Control Consultant (Tool 2b) and call your Public Health Outbreak Management Contact (Tool 2a). Additional testing may be indicated if there is suspicion that a different virus might be causing the new infections.
Tool 38: CommuniCARE Transfer Form - Resident Transfer to the Emergency Room

**Guidelines for Use:** The CommuniCARE Transfer Form is to be used by RN/RPN/LPN to provide information about a resident being transferred from residential care to the emergency room (ER). It is a method of communicating essential information about a resident’s condition to ensure that care requirements are safely met. As part of the CommuniCARE process, there is regular communication between the facility and the hospital--emergency or inpatient areas.

**The Transfer Form MUST indicate if there is an OUTBREAK of any kind in your Facility**

**General Considerations**
- A completed CommuniCARE Form is to be sent with each resident being transferred to an ER
- All notations are to be made in blue or black ink using a ballpoint pen
- An RN/RPN/LPN can complete the CommuniCARE Transfer Form
- After the form is completed, take a photocopy for the resident’s record and send the original with the resident to the receiving hospital site
- The CommuniCARE Form (both the original and copy) is a permanent part of the Health Record

**Specific Guidelines**

Place a label or addressograph with client identification information in the upper right hand corner of the form. If a label is unavailable, record the client’s last name, first name and birth date (DDMMYYYY) PHN and LTC#

- Label / Addressograph

Record the facility name and location
- Sending Site

Record the name of the receiving ER
- Transfer To

Record the resident’s contact person’s name and phone number
- Contact Person

Record the reason(s) the resident is being transferred to the ER. (i.e. resident’s condition or situation). Outline the steps of deterioration or improvement (eg. fell and has suspected broken hip)
- Reason for Transfer
- Recent Illness History
- Recommended Action

Record all pertinent or relevant medical diagnoses and conditions affecting the provision of resident care (eg. left-sided neglect, Diabetes X20 years)
- Other Relevant Medical History
- MOST Advanced Care Plan

Attach a copy of the Medical Orders for Scope of Treatment (MOST) form and place √ in the box to indicate this was done
- MAR

Attach current MAR (Medication Administration Record) and place a √ in box to indicate this was done. If there is no current MAR, leave the box blank
- Allergies

Record all known allergies to food, environmental substances and medications. Record the type of reaction to each allergen (eg. skin rash, hives, anaphylactic reaction)
- Usual Cognitive Status

Place a √ in the box to identify usual cognitive status
- Behaviour

Place a √ in the box to identify behaviour concerns: verbal/physical triggers, interventions
- Infection Control

Place a √ in the box to identify known infectious diseases (eg. MRSA/VRE)
- Diet

Specify diet type, texture, Feeds self, Degree of assistance required
- Continence

Place a √ to identify continence and last bowel movement/time voided
- Physical Status

Place a √ in the box to identify appropriate mobility and aids
- Personal Effects

Place a √ in the box to identify if personal effects are being sent with resident
**FH Users** may access the transfer form using this link on the Intranet:

```
http://fhpulse/clinical_programs/residential_care_assisted_living_and_specialized_populations/Residential%20and%20Assisted%20Living%20Documents/1%20RC%20To%20Z%20Listing/C/NUXX105077B_ResidentCareFacilitytoER_Combined.pdf
```

**External Users (contracted sites)** may access the transfer form through the password protected Extranet using this link:

```
https://extranet.fraserhealth.ca/sites/ResidentialContractsandServices/CommuniCARE/NUXX105077B_ResidentCareFacilitytoER_Combined.pdf
```
**Tool 39: Enhanced Cleaning**

**Cleaning**
Cleaning is the physical removal of foreign material such as dust, soil and/or organic material including blood, secretions, excretions and microorganisms. Cleaning is accomplished with water, detergents and mechanical action.

**Enhanced Cleaning**
Enhanced Cleaning is increased cleaning of objects and surfaces that people touch with their hands to at least 2 times per day.

Commonly touched things and surfaces include: taps, toilet handles, doorknobs, railings, thermostats, phones, light switches, tables, chairs, rails, walkers, blood pressure cuffs, stethoscopes, otoscopes, canister lids, clipboards, PDA’s, pens, keyboards, etc.

- See **Tools 11 and 12** for Respiratory Illness Infection Prevention and Control Signage and for Hand Hygiene information.

**Disinfection**
Disinfection is the inactivation of disease-producing microorganisms.

**Consult the Disinfectant Selection Guide**
See **Tool 40** for information about disinfectants or access the BCCDC Guidelines at:

## Enhanced Cleaning Guidelines for RI Outbreaks

<table>
<thead>
<tr>
<th>Frequently Touched Surfaces</th>
<th>Check off as completed</th>
</tr>
</thead>
</table>

### Cleaning agent to be used:

1. **Nursing Station:**
   - (a) Counters
   - (b) Chairs
   - (c) Light Switches
   - (d) Telephone(s)
   - (e) Keyboard(s)
   - (f) Nurse Call Monitoring System

2. **Medication Rooms:**
   - (a) Door (i.e., where hands commonly touch to push open)
   - (b) Door knob on entry and exit
   - (c) Counters
   - (d) Light switches
   - (g) Sink

3. **Clean Utility/Storage Room:**
   - (a) Door and knob on entry and exit
   - (b) Sink and counter

4. **Dirty Utility/Storage Room:**
   - (a) Door and knob on entry and exit
   - (b) Sink and counter

5. **Staff washroom(s):**
   - (a) Sink basin and faucet
   - (b) Toilet (lever/flush, horizontal surfaces, seat)
   - (c) Floor
   - (d) Soap dispenser
   - (e) Paper towel dispenser
   - (f) Light switch
   - (g) Door and handles on entry and exit

6. **Staff Meeting Room(s):**
   - (a) Door and knob on entry and exit
   - (b) Telephone

7. **Resident Common Areas:**
   - (a) Chairs and end tables
   - (b) Kitchenette
<table>
<thead>
<tr>
<th>Frequently Touched Surfaces</th>
<th>Check off as completed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cleaning agent to be used:</strong></td>
<td></td>
</tr>
</tbody>
</table>

8. Hallways:

(a) Mobile Lifts
(b) Resident Doors and Handles
(c) Elevator buttons
(d) Key pads
(e) Handrails

9. Resident Room Surfaces to be cleaned:

(a) Light Switches
(b) Bedrails
(c) Bedside tables
(d) Over-bed light
(e) Over bed tables including framework
(f) Bedside Chairs
(g) Wheelchair and/or Walker
(h) TV Controller
(i) Call button/pull chord
(j) Telephone

10. Lavatory surfaces:

(a) Light Switch
(b) Safety – pull up bars
(c) Faucets, sink, counter
(d) Commode/toilet (lever/flush, horizontal surfaces, seat)
(e) Door
(f) Floor

11. Shelves and items handled regularly

12. Dedicated Laundry Hamper

---

Employee Signature: ______________________ Date: __________

Time it took to complete: _____________

Supervisor Signature: ____________________ Date: ___________
Tool 40: *Disinfectant Selection Guide*

### Classes of Organisms Ranked in Order of Susceptibility to Disinfectants

<table>
<thead>
<tr>
<th>Least Susceptible</th>
<th>Most Susceptible</th>
</tr>
</thead>
</table>
| **Bacteria with Spores** *(B. subtiles, C. tetani, C. difficile, C. botulinum)*  
Protozoa with Cysts *(Giardia lablia, Cryptosporidium parvum)* |
| **Mycobacteria** *(M. tuberculosis, M. avium-intracellulare, M. cheloneae)*  
**Non-Enveloped Viruses** *(Coxsachievirus, poliovirus, rhinovirus, Norwalk-like Virus, hepatitis A virus)* |
| **Fungi** *(Candida species, Cryptococcus species, Aspergillus species, Dermatophytes)* |
| **Vegetative Bacteria** *(Staphylococcus aureus, Salmonella typhi, Pseudomonas aeruginosa, coliforms)*  
**Enveloped Viruses** *(Herpes simplex, varicella-zoster virus, cytomegalovirus, measles virus, mumps virus, rubella virus, influenza virus, respiratory syncytial virus, hepatitis B & C viruses, hantavirus and human immunodeficiency virus)* |

**Disinfection Guidelines are posted on the PICNET Website at:**
https://www.picnet.ca/guidelines/residential-care/

**NOTES:**
- Be sure that the disinfectant product has a DIN number
- Check manufacturers information to ensure that product is effective against organisms in question
- Follow product instructions for dilution and contact time
- Unless otherwise stated on the product, use a detergent to clean surface of all visible debris prior to application of the disinfectant
Tool 41: **Dosing and other information for Physicians and Pharmacy about Anti-Influenza Medications**

- **41a:** Anti-Influenza Medication Indications and Formulations: Prescribing Oseltamivir, Zanamivir and Amantadine -- Scenario A only
- **41b:** Prescribing Oseltamivir (Tamiflu®) -- Scenario A only
- **41c:** Prescribing Zanamivir (Relenza®) -- Scenario A only
- **41d:** Neuraminidase Inhibitor Treatment and Prophylaxis Summary Table: Oseltamivir and Zanamivir -- Scenario A only
- **41e:** Prescribing Amantadine (Symmetrel® or generic) -- Scenario A and Influenza A/H1 Oseltamivir-Resistant (OsR) Influenza only
- **41f:** Amantadine Recommended Dosage for Prophylaxis (Prevention) -- Scenario A and Influenza A/H1 Oseltamivir-Resistant (OsR) Influenza only

**NOTE:**

1. Appropriate dosage of important anti-influenza medications is based on calculated Creatinine Clearance (caCrCl) or estimated Glomerular Filtration Rate (eGFR) as estimates of Kidney Function. Your pharmacy or laboratory performs these calculations based on a Serum Creatinine level. Normally you will order a Serum Creatinine in preparation for the respiratory virus season unless there is already one on file that was done within the previous 12 months.

2. If you choose not to arrange for Serum Creatinine for those who do not have a result available from within the past 12 months, blood can be drawn and the test done promptly when an outbreak is recognized (rather than in advance).

3. In the absence of known kidney disease, an unadjusted dose of oseltamivir may be used for the duration of the outbreak OR a serum creatinine may be ordered and the caCrCl or eGFR calculated.

4. If amantadine is the anti-influenza medication required (only in very specific situations and on the recommendation of your Outbreak Management Contact), each resident gets the same initial loading dose, but subsequent doses must be adjusted in accordance with recommendations for different levels of creatinine clearance.

5. Calculated Creatinine Clearance (caCrCl) and estimated Glomerular Filtration Rate (eGFR) are sometimes used interchangeably. Either is considered acceptable. However, the eGFR may tend to overestimate creatinine clearance and, consequently, level of kidney function in some situations. This is especially likely in older individuals who are frail (lower body weight influences the caCrCl, but not the eGFR). Generally, this is not considered to be an issue with oseltamivir, but should be a consideration in the unusual situation in which amantadine might be recommended. If zanamivir is recommended and used, there is no requirement to adjust doses based on estimated kidney function.

**Reference:** Glomerular Filtration Rate Equations Overestimate Creatinine Clearance In Older Individuals Enrolled in the Baltimore Longitudinal Study on Aging: Impact on Renal Drug Dosing; *Pharmacotherapy* 2013:33(9):912-921
## Tool 41a: Anti-Influenza Medication Indications and Formulations: Prescribing Oseltamivir, Zanamivir and Amantadine (Scenario A only)

### Antiviral (Anti-Influenza) Drugs Currently Approved for Use in Canada

<table>
<thead>
<tr>
<th>Drug</th>
<th>Trade Name &amp; Manufacturer</th>
<th>Class</th>
<th>Indications</th>
<th>Formulation(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oseltamivir</td>
<td>Tamiflu®, Hoffmann-La Roche Inc.</td>
<td>Neuraminidase Inhibitor</td>
<td>Treatment of influenza A and B in persons 1 year of age and older who have been symptomatic for no more than 2 days</td>
<td>Capsules (30 mg, 45 mg and 75 mg): 10 capsules per blister pack</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Prevention of influenza A and B in persons 1 year of age and older following close contact with an infected individual</td>
<td>Powder for oral suspension (12 mg/ml when reconstituted): 900 mg per bottle (volume of 75 ml in a 100-ml glass bottle)</td>
</tr>
<tr>
<td>Zanamivir</td>
<td>Relenza®, GlaxoSmithKline</td>
<td>Neuraminidase Inhibitor</td>
<td>Treatment of influenza A and B in persons 7 years of age and older who have been symptomatic for no more than 2 days. Prevention of influenza A and B in persons 7 years of age and older (in United States, approval for prophylaxis is for persons 5 years of age and older)</td>
<td>ROTADISK® consisting of a circular foil disk with four blisters each containing 5mg of zanamivir. A DISKHALER® inhalation device is provided to administer the medication (through inhalation). One box contains 5 disks, which is equivalent to one treatment course</td>
</tr>
</tbody>
</table>
| Amantadine   | Symmetrel® syrup, Bristol Myers Squibb  
Generic amantadine manufacturers: Dominion Pharmacal, GenPharm, Medican Pharma, Pharmel, Pharmascience | M2 Ion Channel Blockers (Cyclic Amines or Adamantanes) | Treatment of influenza A in persons 1 year of age and older  
Prevention of influenza A in persons 1 year of age and older | Capsules (100 mg/capsule): bottles of 100 capsules  
Syrup (10 mg/ml): bottles of 500 ml |

*a [Adapted from Annex E of Canadian Pandemic Influenza Plan for Health Care Sector]

* Links to product monographs:

Tool 41b: Prescribing Oseltamivir (Tamiflu®) -- Scenario A only

Since 2010, the NACI Annual Statement on Influenza Vaccination has not included a section on use of antivirals. For Influenza Prevention and Treatment Dosages of oseltamivir, see pages 15-16 of the July 2014 product monograph from Roche (the manufacturer) for Tamiflu® (oselatamivir), available at: [link]

ELDERLY RESIDENTS:
Safety has been demonstrated in elderly residents of nursing homes who took TAMIFLU for the prevention of influenza. Many of these individuals had cardiac and/or respiratory disease, and most had received vaccine that season. No Dose Adjustment is required for elderly patients with normal renal function. Dose Adjustment is required when the calculated Creatinine Clearance (CrCl) is

60 mL/min or less or an individual requires renal dialysis (See dose recommendations below--as per Fraser Health Influenza Treatment/Prophylaxis Pre-Printed Orders - effective 10 September 2014)

TREATMENT FOR INFLUENZA A or INFLUENZA B:
Oseltamivir, 75 mg TWICE DAILY for 5 days (capsule or suspension) for adults (residents)

EXCEPT where:
- CrCl is 31 to 60 mL/min: Dose adjusted to 75 mg oseltamivir DAILY for 5 days OR 30 mg oseltamivir TWICE DAILY for 5 days (as 30 mg capsule or suspension)
- CrCl is 10 to 30 mL/min: Dose adjusted to 30 mg oseltamivir DAILY for 5 days as 30 mg capsule or suspension
- CrCl is less than 10 mL/min and not on dialysis: Dose of 75 mg ONE DOSE ONLY as capsule or suspension

Recommendations for individuals on renal dialysis are:
- For individuals on High flux intermittent haemodialysis: An initial dose of 75 mg orally, followed by 75 mg orally administered after each haemodialysis session over a period of 5 days (NOTE: Oseltamivir is significantly cleared via haemodialysis)
- For individuals on peritoneal dialysis: A SINGLE dose of 30 mg orally administered prior to the start of peritoneal dialysis as 30 mg capsule or suspension

Cautions and Contraindications: No dose adjustment is required in adult patients with hepatic impairment. Avoid use in pregnancy and lactation unless potential benefits outweigh potential risks to the fetus. Probenecid doubles the active metabolite of oseltamivir, but no dose adjustment is required

PROPHYLAXIS (PREVENTION) FOR INFLUENZA A or INFLUENZA B: Oseltamivir, 75 mg DAILY (capsule or suspension) for adults (residents), EXCEPT where:
- CrCl is 31 to 60 mL/min: Dose adjusted to 30 mg oseltamivir DAILY as 30 mg capsule or suspension
- CrCl is 10 to 30 mL/min: Dose adjusted to 30 mg oseltamivir EVERY OTHER DAY as 30 mg capsule or suspension
- CrCl is less than 10 mL/min and not on dialysis: No data for use. Consult with Physician or Clinical Pharmacist. A dose of 30 mg PO ONE DOSE ONLY given at or near the start of the outbreak is an option

Recommendations for individuals on renal dialysis are:
- For individuals on High flux intermittent haemodialysis: Consult with Physician or Clinical Pharmacist. An initial dose of 30 mg orally as 30 mg capsule or suspension, followed by 30 mg after alternate (every second) haemodialysis session for the duration of the outbreak is an option
- For individuals on peritoneal dialysis: An initial dose of 30 mg orally as initial dose followed by 30 mg ONCE WEEKLY as 30 mg capsule or suspension

Cautions and Contraindications: as noted above for oseltamivir for treatment
Tool 41c: Prescribing Zanamivir (Relenza®) -- Scenario A only

Since 2010, the NACI Annual Statement on Influenza Vaccination has not included a section on use of antivirals. For Influenza Prevention and Treatment Dosages of zanamivir, see the May 2012 product monograph from GlaxoSmithKline (the manufacturer) for Relenza® (zanamivir), available at: http://www.gsk.ca/english/docs-pdf/product-monographs/relenza.pdf (See dose recommendations below -- as per Fraser Health Influenza Treatment/Prophylaxis Pre-Printed Orders - effective 10 September 2014)

TREATMENT FOR INFLUENZA A or INFLUENZA B: Zanamivir is administered as a powder by inhalation via a diskhaler that is provided with the medication — Two inhalations of 5 mg each (total of 10 mg) twice daily (Q12 H). No dosage adjustment is required for elderly residents or for impaired renal function

Cautions and Contraindications: Zanamivir should not be used in pregnancy, especially during the first trimester, unless the possible benefit to the patient is thought to outweigh any possible risk to the foetus. It is not known if zanamivir is excreted in human breast milk. However, because many drugs are excreted in human milk, caution should be exercised when administered to a nursing mother.

Difficulty with the inhalation method of administration is a limiting factor in the use of zanamivir in the elderly. Difficulty with inhalation is greatest for individuals who are not oriented to person, place or time and are totally dependent in activities of daily living. Individualized supervision and encouragement improve the likelihood of compliance. Generally, zanamivir is safe and well tolerated. However, zanamivir is generally not recommended in individuals with severe underlying chronic pulmonary disease or severe asthma because of the risk of serious bronchospasm and decline in respiratory function. If a decision is made to prescribe zanamivir for such an individual, this should be done only under conditions of careful monitoring of respiratory function.

Individuals who use inhaled bronchodilators should be advised to do so before taking zanamivir.

Zanamivir is contraindicated in persons with known hypersensitivity to zanamivir or the inhalation powder’s components, including lactose, which contains milk protein. Rarely, allergic-like reactions, including facial and oropharyngeal edema, bronchospasm, laryngospasm, urticaria, serious skin rashes and anaphylaxis, have been reported. Zanamivir should be discontinued and immediate medical attention sought if these reactions occur.

PROPHYLAXIS (PREVENTION) FOR INFLUENZA A or INFLUENZA B: Zanamivir is administered as a powder by inhalation via a Diskhaler® that is provided with the medication—Two inhalations of 5 mg each (total of 10 mg) once daily. No dosage adjustment is required for elderly residents or for impaired renal function.

Cautions and Contraindications: as above for zanamivir for treatment.
### Tool 41d: Neuraminidase Inhibitor Treatment and Prophylaxis Summary

#### Table: Oseltamivir and Zanamivir -- Scenario A only

<table>
<thead>
<tr>
<th>Adults</th>
<th>Oseltamivir (Tamiflu®)</th>
<th>Zanamivir (Relenza®)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PO (capsule or suspension)</td>
<td>Inhalation 5mg per blister</td>
</tr>
<tr>
<td><strong>Treatment</strong></td>
<td><strong>Prophylaxis</strong></td>
<td><strong>Treatment</strong></td>
</tr>
<tr>
<td>Cr Clearance of &gt;60 mL/min</td>
<td><strong>Treatment:</strong> 75 mg PO TWICE DAILY for 5 days</td>
<td><strong>Prophylaxis:</strong> 75 mg PO DAILY</td>
</tr>
<tr>
<td>Cr Clearance of &gt;60 mL/min</td>
<td><strong>Prophylaxis:</strong> 75 mg PO DAILY</td>
<td>No dosage adjustment necessary</td>
</tr>
<tr>
<td><strong>Renal Impairment (Adult)</strong></td>
<td><strong>Treatment:</strong> 75 mg PO DAILY for 5 days</td>
<td><strong>Prophylaxis:</strong> 30 mg PO DAILY</td>
</tr>
<tr>
<td>Cr Clearance of 31-60 mL/min</td>
<td><strong>Prophylaxis:</strong> 30 mg PO DAILY</td>
<td>No dosage adjustment necessary</td>
</tr>
<tr>
<td>Cr Clearance of 10-30 mL/min</td>
<td><strong>Treatment:</strong> 30 mg PO DAILY for 5 days</td>
<td><strong>Prophylaxis:</strong> 30 mg PO every other day</td>
</tr>
<tr>
<td>Cr Clearance of less than 10 mL/min and not on dialysis</td>
<td><strong>Treatment:</strong> 75 mg PO x ONE dose ONLY</td>
<td><strong>Prophylaxis:</strong> Consult with Physician or Clinical Pharmacist. A dose of 30 mg (ONE dose ONLY) given at or near the start of the outbreak is an option</td>
</tr>
<tr>
<td>High-Flux Intermittent Haemodialysis</td>
<td><strong>Prophylaxis:</strong> No dosage adjustment necessary</td>
<td>No dosage adjustment necessary</td>
</tr>
<tr>
<td>Peritoneal Dialysis</td>
<td><strong>Treatment:</strong> 75 mg PO x 1 as initial dose, followed by 75 mg PO after each dialysis session</td>
<td><strong>Prophylaxis:</strong> Consult with Physician or Clinical Pharmacist. An initial dose of 30 mg orally followed by 30 mg after alternate (every second) haemodialysis session for the duration of the outbreak is an option</td>
</tr>
<tr>
<td>Continuous renal replacement therapy (CRRT)</td>
<td><strong>Treatment:</strong> 30 mg PO x 1 dose</td>
<td><strong>Prophylaxis:</strong> 30 mg PO x 1 as initial dose, followed by 30 mg PO once WEEKLY</td>
</tr>
<tr>
<td><strong>Note</strong></td>
<td>Duration of prophylaxis is determined by the circumstances. Standard post-exposure prophylaxis is given for 10 days. For outbreak control, prophylaxis is continued until the outbreak is over, usually 10-14 days</td>
<td></td>
</tr>
<tr>
<td>Pre-exposure prophylaxis generally continues for the duration of exposure. Pre-exposure prophylaxis is an off-label use for oseltamivir and an off-label use for zanamivir if used longer than 28 days</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Tool 41e: Prescribing Amantadine (Symmetrel® or generic) -- Scenario A and Influenza A/H1 Oseltamivir-Resistant (OsR) Influenza only**

Though amantadine is no longer routinely recommended for treatment or prophylaxis in Influenza Outbreaks in Residential Care Facilities, its use may be considered for those who cannot use zanamivir for treatment or prophylaxis in care facility outbreaks of oseltamivir-resistant Influenza A/H1N1.

Since 2010, the NACI Annual Statement on Influenza Vaccination has not included a section on use of antivirals. In the rare situation in which the use of amantadine as an anti-influenza medication is indicated, use of liquid amantadine and the once daily dosing schedule is STRONGLY recommended. The recommendation is based on experience in previous years and due to more consistent dosing schedules, reduced likelihood of medication errors and lower potential for adverse events. For Influenza Prevention Dosages of amantadine in Residential Care, see Tool 41f or Table 3 in the NACI Statement on Influenza Vaccination for 2005-2006 CCDR 31; ACS-6 available at: http://publications.gc.ca/collections/Collection/HP3-2-31-6.pdf

or the article on which this dosing schedule is based at:
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2094769/


Also, for amantadine use in frail, elderly individuals, the estimated creatinine clearance using caCrCl (Cockcroft-Gault formula) is preferred over the use of the eGFR estimate (Tool 41 NOTE)

**TREATMENT FOR INFLUENZA A/H1 OsR ONLY:** Amantadine is not the medication of choice for treatment of oseltamivir-resistant Influenza A/H1N1. Zanamivir is the medication of choice. If the individual cannot use zanamivir, amantadine may be considered. **However, to reduce risk of development of amantadine-resistance during the care facility outbreak, any individual treated with amantadine should be isolated during the 5-day treatment and for 2 days after completion**

*Cautions and Contraindications:* Serious side effects (eg. marked behavioral changes, delirium, hallucinations, agitation, seizures) have been associated with high plasma drug concentrations. These have been observed most often among persons who have renal insufficiency, seizure disorders, or certain psychiatric disorders, and among elderly persons who have been taking amantadine as prophylaxis at a dose of 200 mg/day. Agitation resulting in increased potential for falls is a concern in care facility populations. Lowering the dosage in those age 65 years and better and in those with a seizure disorder (as recommended in the appended dosing information) is effective in reducing the severity of such side effects

**PREVENTION FOR INFLUENZA A/H1 OsR ONLY:** Amantadine dosing is dependent on age, history of seizures and renal function as assessed by the calculated Creatinine Clearance (CrCl). Detailed dosing information is appended

*Cautions and Contraindications:* as above for amantadine for treatment
**Tool 41f: Amantadine Recommended Dosage for Prophylaxis (Prevention)**

**Scenario A and Influenza A/H1 Oseltamivir-Resistant (OsR) Influenza only**

*Amantadine Table for Prophylaxis (Prevention)*

Only when recommended by the Medical Health Officer for Oseltamivir-resistant Influenza A/H1

Amantadine dosing as per NACI Statement on Influenza Vaccination for 2005-2006 CCDR 31; ACS-6

The Daily Liquid Dosing Schedule is HIGHLY RECOMMENDED as the SCHEDULE OF CHOICE for elderly residents in residential care

**RECOMMENDED:** Amantadine solution is noted as the easier and preferred formulation for use in care facilities

<table>
<thead>
<tr>
<th>Calculated Creatinine clearance</th>
<th>Initial dose (day 1)</th>
<th>Subsequent doses (starting day 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>80 mL/min or more</td>
<td>100mg</td>
<td>100 mg DAILY (10 mL)</td>
</tr>
<tr>
<td>60-79 mL/min</td>
<td>100mg</td>
<td>75 mg DAILY (7.5 mL)</td>
</tr>
<tr>
<td>40-59 mL/min</td>
<td>100mg</td>
<td>50 mg DAILY (5 mL)</td>
</tr>
<tr>
<td>20-39 mL/min</td>
<td>100mg</td>
<td>25 mg DAILY (2.5 mL)</td>
</tr>
<tr>
<td>10-19 mL/min</td>
<td>100mg</td>
<td>No DAILY dose; If outbreak continues, repeat 100 mg dose EVERY 7 DAYS during outbreak</td>
</tr>
</tbody>
</table>

* Table reproduced with permission of McGeer et al (99) and the Canadian Journal of Infectious Diseases.

Daily dosing increments set at 2.5 mL to permit the use of medicine cups marked at 2.5 mL

**Calculation of estimated creatinine clearance (CrCl):**

Male: CrCl mL /min = (140 - age) x weight (kg) / Serum creatinine (µmol /L x 0.81)  
Female: CrCl mL /min = 0.85 x CrCl (male)

**GENERAL Amantadine hydrochloride prophylactic dosage by age and renal status**

### Age

**Dose**

#### No renal impairment

- Adults age 64 years or less: 200 mg once daily, or divided twice daily
- Adults age 65 years or better: 100 mg once daily

#### Renal impairment (as indicated by estimated creatinine clearance (CrCl) in mL/min/1.73m²)

<table>
<thead>
<tr>
<th>Calculated CrCl</th>
<th>Dosage for those age 10 to 64 years</th>
<th>Dosage for those age 65 years or better</th>
</tr>
</thead>
<tbody>
<tr>
<td>80 mL/min or more</td>
<td>100 mg twice daily</td>
<td>Day 1 dose then 100 mg DAILY</td>
</tr>
<tr>
<td>60-79 mL/min</td>
<td>Alternating daily doses of 200 mg and 100 mg</td>
<td>Day 1 dose then Alternating DAILY doses of 50 mg &amp; 100 mg</td>
</tr>
<tr>
<td>40-59 mL/min</td>
<td>100 mg once daily</td>
<td>Day 1 dose then 100 mg EVERY 2 DAYS</td>
</tr>
<tr>
<td>30-39 mL/min</td>
<td>200 mg twice weekly</td>
<td>Day 1 dose then 100 mg TWICE WEEKLY</td>
</tr>
<tr>
<td>20-29 mL/min</td>
<td>100 mg three times weekly</td>
<td>Day 1 dose then 50 mg THREE TIMES WEEKLY</td>
</tr>
<tr>
<td>10-19 mL/min</td>
<td>Alternating weekly doses of 200 mg and 100 mg</td>
<td>Day 1 dose then Alternating WEEKLY DOSES of 50 mg one week and 100 mg the next week</td>
</tr>
</tbody>
</table>

a. Reduction of maximum daily dosage to 100 mg/day is recommended for people with a seizure disorder because they may be at risk for more frequent seizures when the dosage is 200 mg/day  
b. This reduced dosage is recommended to minimize the risk of toxic effects, because renal function generally declines with age and side effects have been reported more frequently in the elderly.
Tool 42: Problem Solving if Outbreak is NOT Stopping

Tool 42a: Problem Solving for Scenario A: INFLUENZA A and/or INFLUENZA B OUTBREAK (Suspect or Laboratory-confirmed)

It takes 1-3 days from the time a person is infected with influenza virus until she/he starts showing signs and symptoms. Therefore, for an influenza outbreak in which anti-influenza medication is initiated promptly as early treatment for ill residents and prophylaxis for well residents, the number of new cases should drop right off after a few days of influenza outbreak control measures.

If new cases keep appearing 4-5 days after outbreak control measures were started, there may be a problem with the outbreak control or it is possible that there is more than one virus causing illness in your facility. Additional laboratory testing may detect other serious respiratory viruses or bacteria. Consult with your Public Health Outbreak Management Contact (Tool 2a) about further testing. Only take additional nasal swab specimens if advised by your Public Health Outbreak Management Contact. This is suggested so that the laboratory is not overwhelmed and so important information about the reason for additional testing can be provided to the laboratory.

Consult with your Infection Prevention and Control Consultant (Tool 2b) about adequacy of control measures and their implementation.

Things to watch out for in Influenza outbreaks

- More than one strain of influenza can be involved in an outbreak of influenza
- More than one respiratory virus can be involved in an outbreak of respiratory illness
- RSV & other viruses can cause serious illness that may be difficult or impossible to distinguish clinically from influenza, but does not respond to anti-influenza medications and usually will be identified by testing of nasal swab specimens, and
- People with influenza and other viral respiratory infections are more likely to get bacterial infections such as pneumococcal pneumonia

Problem solving if an outbreak isn’t stopping: Questions to consider

- If influenza is involved in the outbreak, are ALL residents appropriately vaccinated against influenza AND taking anti-influenza medication (if, and as recommended)?
- If influenza is involved in the outbreak, are ALL staff members and volunteers and regular visitors either vaccinated against influenza OR on anti-influenza medication (if and as recommended)? [For the purposes of influenza control, staff also includes people who work in the facility, but are not employees of the facility (eg. physicians, nurse practitioners, contracted cleaning, kitchen or other staff, lab technicians, hairdressers, physiotherapists, podiatrists, activity coordinators and others)]
- Is there any possibility the influenza virus causing the outbreak is resistant to the anti influenza medication being used?
- Are potentially infectious people with cough moving about in the facility (eg. ill staff members returning to work too soon; ill visitors coming into the facility)?
- Is any equipment being used for sick and well residents without being washed and disinfected in between?
- Is personal protective equipment not being changed when going from care of sick residents to care of well residents?
- Are there lapses in hand hygiene?
- Is it possible that another virus, in addition to influenza, is causing illness?
- If another virus is contributing to illness, is it one that requires a higher level disinfectant (eg. a non-enveloped virus)?
Tool 42b: Problem Solving for Scenario B: NON-INFLUENZA RESPIRATORY OUTBREAK that is characterized by predominately SERIOUS ILLNESS

or

Problem Solving for Scenario C: NON-INFLUENZA RESPIRATORY OUTBREAK that is characterized by predominately MILD ILLNESS

Since there are no anti-viral medications recommended for the common viral respiratory outbreaks experienced in residential care facilities other than for influenza, it almost always takes longer for an outbreak caused by a virus other than influenza to come under control. Still, after 4-5 days under outbreak control measures the number of new cases appearing should begin to drop off. If not, there may be a problem with the outbreak control measures. Inform your Infection Prevention and Control Consultant (Tool 2b).

If there is an increase in the frequency of new cases, inform your Infection Prevention and Control Consultant (Tool 2b). It is possible that another virus has been introduced and is causing illness in your facility. Additional laboratory testing may detect other serious respiratory viruses (including influenza) or perhaps a bacterial infection. Especially if illness in the new cases is different and predominately SERIOUS in nature, consult with your Public Health Outbreak Management Contact (Tool 2a) about further testing.

Only take additional nasal swab specimens if advised by your Public Health Outbreak Management Contact. This is suggested so that the laboratory is not overwhelmed and so important information about the reason for additional testing can be provided to the laboratory.

Problem solving if an outbreak isn’t stopping

- Are potentially infectious people with cough moving about in the facility (eg. ill staff members returning to work too soon; ill visitors coming into the facility)?
- Is any equipment being used for sick and well residents without being washed and disinfected in between?
- Is personal protective equipment not being changed properly when going from care of sick residents to care of well residents?
- Are there lapses in hand hygiene?
- Is it possible that the virus causing the outbreak needs a higher level disinfectant (eg. a non-enveloped virus)?
Tool 43: **Declaring the Outbreak OVER**

**Tool 43a: Declaring an Influenza Outbreak OVER (Scenario A)**

**Scenario A: INFLUENZA A and/or INFLUENZA B OUTBREAK**
(Suspect or Laboratory-confirmed)

FOR A SEASONAL INFLUENZA A OR B OUTBREAK, OUTBREAK CONTROL MEASURES INCLUDING ANTI-INFLUENZA PROPHYLAXIS SHOULD REMAIN IN PLACE UNTIL THE OUTBREAK IS DECLARED OVER

AN INFLUENZA OUTBREAK WILL GENERALLY BE DECLARED OVER ON THE 6TH DAY AFTER THE ONSET OF SYMPTOMS IN THE LAST RESIDENT CASE AND 3 DAYS (72 hours) AFTER THE LAST TIME A STAFF MEMBER WITH SYMPTOMS WORKED IN THE FACILITY WHICHEVER HAPPENS LAST

RATIONALE: A person with Influenza usually sheds virus for 3-5 days. If this virus infects someone else, it usually takes 1-3 days to show symptoms. 3-5 days shedding + 1-3 days for a newly infected person to show symptoms = 4 to 8 days*

With the use of anti-influenza prophylaxis as part of Influenza Outbreak management, it is very rare to see a case of influenza more than 6 full days after the day of onset of illness in the last case. Consequently, based on experience and monitoring each season in the Fraser Health Authority and experience in the Vancouver Coastal Health Authority, Influenza A and B Outbreaks will generally be declared over after 5 full days with no new cases*

For example, if the last case of illness is on January 1, the facility should complete their review of residents and staff illness on the morning of January 7. If there are no new cases, facilities should consult with, and will be advised on outbreak control measures and declaring the outbreak over by the Public Health Outbreak Management Contact (Tool 2a)

<table>
<thead>
<tr>
<th>Onset of illness in last case</th>
<th>Day 1 with no new cases</th>
<th>Day 2 with no new cases</th>
<th>Day 3 with no new cases</th>
<th>Day 4 with no new cases</th>
<th>Day 5 with no new cases</th>
<th>Day 6 with no new cases OUTBREAK DECLARED OVER</th>
</tr>
</thead>
</table>

The MHO (Tool 2a) via the Respiratory Illness Outbreak (RION) notification e-mail will inform Fraser Health Residential Care, Assisted Living and Specialized Populations (RCALSP) Contracts and Services and Community Care Facility Licensing that the Influenza Outbreak has been declared over and that Outbreak Control Measures have been terminated

*This formula allows earlier declaration of an outbreak OVER than some formulae for declaring residential care facility outbreaks OVER. For practical purposes with influenza outbreaks, especially if anti-influenza medication is being used for early treatment and prophylaxis, declaring the OUTBREAK OVER on the 6th day after onset of illness in the last case has been used and found to be a very practical and effective approach. The time between onset of illness in the last case and declaring the outbreak over may be extended if the influenza virus is resistant to commonly used anti-influenza medications. Viral Respiratory Illness cases are not uncommon later in the course of an influenza outbreak, but are usually due to a virus other than influenza.

**VIRAL RESPIRATORY OUTBREAK PROTOCOL AND TOOLKIT FOR RESIDENTIAL CARE AND MENTAL HEALTH AND SUBSTANCE USE FACILITIES**

**VERSION: SEPTEMBER 2016**
**Tool 43b: Declaring a Non-Influenza Outbreak characterized by predominately SERIOUS Illness OVER (Scenario B)**

Consider the outbreak over by the 8th to 14th day after onset of illness in the most recent resident case or 3 days (72 hours) after the last time a staff member with symptoms worked in the facility, whichever happens last. This may vary depending on knowledge of the virus or viruses causing the outbreak (Tool 29). Without the help of an anti-influenza agent like that used for an influenza outbreak, it is difficult to specify an exact case-free interval to be used to call the outbreak over. The outbreak curve (graph of your outbreak) will be helpful in deciding when the outbreak virus has stopped spreading in the facility. It will not be unusual to see sporadic cases for some period of time after the outbreak seems to be settling.

For outbreaks of respiratory illness caused by viruses that are not influenza, and are characterized by predominately SERIOUS illness, facilities should consult with, and will be advised on outbreak control measures and declaring the outbreak over by your Infection Prevention and Control Consultant (Tool 2b).

The MHO (Tool 2a) via the Respiratory Illness Outbreak (RION) notification e-mail will inform Fraser Health Residential Care, Assisted Living and Specialized Populations (RCALSP) Contracts and Services and Community Care Facility Licensing that the outbreak has been declared over and that Outbreak Control Measures have been terminated.

**Tool 43c: Declaring a Non-Influenza Outbreak characterized by predominately MILD Illness OVER (Scenario C)**

Consider the outbreak over by the 8th to 14th day after onset of illness in the most recent resident case or 3 days (72 hours) after the last time a staff member with symptoms worked in the facility, whichever happens last. This may vary depending on knowledge of the virus or viruses causing the outbreak (Tool 29). Without the help of an anti-influenza agent like that used for an influenza outbreak, it is difficult to specify an exact case-free interval to be used to call the outbreak over. It will not be unusual to see sporadic cases for some period of time after the outbreak settles.

For outbreaks of respiratory illness caused by viruses that are not influenza, and are characterized by predominately MILD illness, facilities should decide when they assess the outbreak to be over and inform their Infection Prevention and Control Consultant (Tool 2b).

A Respiratory Illness Outbreak (RION) notification e-mail is NOT used for respiratory illness Outbreaks characterized by predominately MILD illness (Scenario C).