OUTBREAK MANAGEMENT GUIDE

Prepared by: Niagara Region Public Health
Infectious Disease program and
Environmental Health division
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Disclaimer

This guide does not constitute legal advice. It is intended to assist and guide health care providers in outbreak management and the implementation of effective infection prevention and control measures.

This guide should be read in conjunction with all applicable legislation, including, but not limited to, the Long-Term Care Homes Act, 2007, the Health Protection and Promotion Act and the regulations and orders made under these acts.

Resources are continually being updated and Niagara Region Public Health had made every effort to provide the most current information available at this time. Website links provided may change over time. Please ensure the websites and web-published documents you are referring to are the most current available.

Public Health Contact Information

Niagara Region Public Health staff (Managers, Public Health Nurses and Public Health Inspectors) can assist in the investigation, confirmation and management of an outbreak (respiratory or gastroenteritis).

Qualified public health personnel are available 24 hours a day, 7 days a week.

If you suspect an outbreak in your facility, contact Niagara Region Public Health at 905-688-8248 ext. 7330 or 1-888-505-6074 during business hours.

For after-hours call the dispatch number at 905-984-3690.
Acronyms

ABHR        Alcohol-Based Hand Rub
ARI         Acute Respiratory Infection
CDI         Clostridium difficile Infection
DONPC       Director of Nursing and Personal Care
ES          Environmental Services
HACCP       Hazard Analysis Critical Control Point
HAI         Health Care Associated Infections
HCRF        Healthcare and Residential Facilities Regulation
HCW         Health Care Worker
HH          Hand Hygiene
HPPA        Health Protection and Promotion Act, 1990
ICP         Infection Prevention and Control Professional
IPAC        Infection Prevention and Control
LTCH        Long-Term Care Home
LTCHA       Long-Term Care Homes Act, 2007
MOHLTC      Ministry of Health and Long-Term Care
NACI        National Advisory Committee on Immunization
NRPH        Niagara Region Public health
OHA         Ontario Hospital Association
OHSA        Occupational Health and Safety Act, 1990
OMT         Outbreak Management Team
O. Reg. 79/10 Ontario Regulation 79/10 (under the LTCHA)
PIDAC       Provincial Infectious Diseases Advisory Committee
PHAC        Public Health Agency of Canada
PHI         Public Health Inspector
PHN         Public Health Nurse
PHO         Public Health Ontario
PHOL        Public Health Ontario Laboratory
PPE         Personal Protective Equipment
PTAC        Provincial Transfer Authorization Centre
RICN        Regional Infection Control Network
SDM         Substitute Decision-Maker
TIV         Trivalent Inactivated Influenza Vaccine
Preamble

This revised Outbreak Management Guide replaces the October 2012 guide. This guide summarises several resources including:

1. Guide to the Control of Respiratory Infection Outbreaks in Long-Term Care Homes, 2014
2. Control of Gastroenteritis Outbreaks in Long Term Care Homes – A Guide for Long-Term Care Homes and Public Health Unit Staff, October 2013
3. Provincial Infectious Disease Advisory Committee (PIDAC) Best Practice Documents

Due to the extent of the revisions made between 2012 and the current versions of both documents, individual changes will not be highlighted within the text.

Definition of ‘staff’ for non-Long-Term Care Home Facilities

The definition of staff used in this document is taken from the Long-Term Care Homes Act, 2007, and this legislation applies only to long-term care homes.

It is recommended that facilities other than long-term care homes (e.g. retirement homes) adopt a broader definition of staff to increase prevention and protection opportunities. The recommended definition for staff is taken from PIDAC’s Routine Practices and Additional Precautions in All Health Care Settings, November 2012. They define ‘staff’ as follows:

“[All] persons, except volunteers, who carry on activities in the [facility], including but not limited to employees (permanent, temporary), students, attending physicians and both health care and non-health care contract workers and any other staff, including persons with admitting/clinic privileges (MD, Mid-wives, staff of Hearing Aid Centres); maintenance workers (e.g. janitorial, repair, etc.) or other workers who carry on activities in resident care areas or come into contact with residents (e.g. hairdressers, chiropodists) should follow the same direction as that intended for ‘staff’, as defined above.”
This inclusive use of ‘staff’ also aligns with the definition used by the Ontario Hospital Association for its Communicable Diseases Surveillance Protocols (accessible here: http://www.oha.com/services/healthsafety/pages/communicabledisease surveillancesurveillanceprotocols.aspx), which enforces its protocols on the following parties:

“[All] persons carrying on activities in the hospital, including but not limited to employees, physicians, nurses, contract workers, students, post-graduate medical trainees, researchers and volunteers.”
**Introduction**

Respiratory and gastroenteritis outbreaks occur in LTCH throughout the year but are more common from the fall to early spring. These can lead to substantial morbidity and mortality and are disruptive and costly.

Early detection together with the timely implementation of outbreak control can effectively minimize transmission of infection, thereby preventing or more quickly bringing an outbreak under control.

**Purpose of the Guide**

The purpose of this guide is to assist LTCHs and other health care settings with the prevention, detection and management of respiratory and gastroenteritis outbreaks which arise from the transmission of common pathogens.

The recommendations in this guide have been developed specifically for implementation in LTCHs. Recommendations regarding outbreak control can however be implemented, in principle, in other institutional settings, including complex continuing care or retirement homes, among others. Attention should be given to the guiding infection control principles.

The recommendations contained in this guide are based on current evidence and best practice at the time of writing.

It is also important to note that the recommendations contained in this document are intended to protect the health of the resident/patient populations, as required under the HPPA. Recommendations are made in the interest of the resident populations at risk. LTCH licensees are also required to fully respect and promote the individual resident rights set out in the Residents' Bill of Rights in s. 3 under the LTCHA. The LTCH and NRPH should work together to ensure that residents' rights under the LTCHA are fully respected and promoted, while implementing outbreak control measures that are protective to the resident populations and that are appropriate and proportional to the risk profile of the outbreak. Users of this document should also ensure that they are complying with any other legislation or regulations relevant to their workplace(s) that may not be addressed within this guide.

**Special Circumstances**

During an outbreak caused by new, emerging pathogens, (e.g. MERS-CoV, avian influenza A (H7N9)) LTCHs should follow recommendations developed specific to that
emerging pathogen. This information will be available from the MOHLTC’s Emergency Management Branch online at http://www.health.gov.on.ca/en/public/programs/emu/.

During an influenza pandemic, recommendations for management and control may be altered and LTCHs should use guidance documents specific to pandemic outbreak management. This information will be available from the MOHLTC’s Emergency Management Branch online at http://www.health.gov.on.ca/en/public/programs/emu/pan_flu/.

Out of Scope

Outbreaks caused by organisms that are spread via other mechanisms, e.g., airborne, require additional outbreak control measures and are out of scope for this document. As well, management of outbreaks caused by less common bacterial pathogens (e.g. Legionella and Tuberculosis) and fungal respiratory pathogens (e.g. Aspergillus), are out of scope for this document.
Respiratory Outbreaks

Prevention and Preparation

This section focuses on practices aimed at preventing outbreaks as well as those practices that ensure LTCHs are prepared to manage outbreaks. This section includes specific recommendations in the areas of immunization, education and the development of surveillance and outbreak control policies and procedures.

Prevention

Immunization

Effective infection prevention and control (IPAC) efforts for preventing respiratory infections are comprised of numerous strategies, the main strategy being seasonal influenza immunization of residents and staff. The MOHLTC supports annual influenza immunization as the primary strategy to minimize the impact of influenza on residents of LTCHs in Ontario.

Influenza and pneumococcal immunization of LTCH residents, along with appropriate infection prevention and control practices, reduces the impact of these vaccine-preventable diseases. Residents who provide informed consent (or, if the resident is incapable, informed consent is provided by the resident’s substitute decision maker) should receive annual influenza vaccination, unless contraindicated. The Canadian Immunization Guide indicates that one dose of polysaccharide pneumococcal vaccine is recommended for all adults 65 years of age and older, and for adults less than 65 years of age in LTCHs or who have conditions putting them at increased risk of pneumococcal disease (The Canadian Immunization Guide). Individuals with unknown immunization histories for pneumococcal vaccine should receive the vaccine.

LTCHs must have a resident and staff immunization program in place which should include policy for influenza and pneumococcal disease. Pursuant to s.229 (10) of Ontario Regulation 79/10 under the LTCHA, LTCHs are responsible for offering residents immunization against influenza, pneumococcus, tetanus and diphtheria in accordance with the publicly funded immunization schedules posted
on the MOHLTC website. LTCHs should ensure their immunization policies are updated and clearly communicated each year.

Immunization: LTCHs Roles and Responsibilities

Pursuant to s.229 (10) of Ontario Regulation 79/10 under the LTCHA, LTCHs should:

- Ensure that all staff members are provided with information annually regarding the influenza vaccine and the home’s immunization and exclusion policies.
- Promote and implement accessible influenza vaccination clinics.
- Keep an updated record of all staff influenza immunizations.
- Advise outside agencies that provide staff to the LTCH of the home’s immunization/exclusion policy.
- Develop a staffing contingency plan based on immunization rates in their own home.
- Ensure that consenting residents receive annual influenza vaccination.
- Ensure that residents have been offered immunization against pneumococcus, tetanus, and diphtheria.

Influenza Immunization

“Vaccination is recognized as the cornerstone for preventing or attenuating influenza for those at high risk of serious illness or death from influenza infection and its complications. Health care workers (HCWs) and their employers should actively promote, implement and comply with influenza immunization recommendations in order to decrease the risk of infection and complications among the vulnerable populations for whom they care”. For immunization recommendations, please refer to the current season’s NACI statement on seasonal influenza vaccine.

“HCWs involved in direct resident care should consider it their responsibility to provide the highest standard of care, which includes undergoing annual influenza vaccination. In the absence of contraindications, refusal of HCWs who have direct patient (resident) contact to be immunized against influenza implies failure in their duty of care to their patients”.

LTCH immunization policies should address influenza immunization requirements for residents, staff, volunteers, private pay caregivers and visitors who conduct activities within the home. Each home should have policies and
procedures related to annual staff immunization as well as resident influenza and pneumococcal immunization.

**Medical contraindications to influenza vaccination**

There are few valid medical contraindications to the influenza vaccination. Egg allergy is no longer considered a contraindication for trivalent inactivated influenza vaccine (TIV). After careful review, NACI concludes that egg-allergic individuals may be vaccinated against influenza using TIV, without a prior influenza vaccine skin test and irrespective of a past severe reaction to egg, with the following conditions: those with mild reactions such as hives, or those who tolerate eggs in baked goods may be vaccinated in regular vaccination clinics, while those who have suffered from anaphylaxis with respiratory or cardiovascular symptoms should be vaccinated in a medical clinic, allergy office or hospital where appropriate expertise is present. These individuals should always be kept under observation for 30 minutes. Medical contraindications must be documented as a reason for not receiving influenza vaccination.

**Role of the LTCH regarding visitor immunization status**

Visitors, including family members/substitute decision-makers (SDMs) and friends to the home, should be encouraged to receive their annual influenza immunization. However, it is not the responsibility of the home to verify the immunization status of visitors and family members/SDMs beyond providing information on the importance and role of vaccination and where they may get vaccinated.

**Influenza vaccine administration**

Availability of on-site vaccination clinics for all staff is recommended to provide optimal access to immunization services. Staff can, of course, also obtain their seasonal influenza immunization from their regular care provider or other source in the community. All staff members who receive the influenza vaccine from a source other than the LTCH must provide proof of influenza immunization.
Proof of Immunization

Only the following should be accepted as proof of influenza immunization:

- A personal immunization record (e.g., Ontario Yellow Card) documenting receipt of the current season’s influenza vaccine
- A record of immunization from a health care provider (e.g., pharmacist, physician or public health unit immunization clinic) documenting receipt of the current season’s influenza vaccine
- Note: for persons that work in multiple LTCHs or health care facilities, it is prudent to retain proof of immunization obtained for other LTCHs or institutions

If documentation is not available, the LTCH should consider the staff member unimmunized, and the employer must offer influenza immunization to the individual.

Staff Exclusion Policy

LTCHs should have an exclusion policy for staff and volunteers who choose not to be immunized and/or take antiviral drugs. Staff with influenza, an ARI, and staff that have not been immunized and are not taking antiviral prophylaxis, should be excluded from work. This measure is reasonable to protect vulnerable patients/residents during an outbreak.

Notification Procedures for Staff Illness

In accordance with the OHSA and its regulations, the following are required steps for communicating staff illness:

1) Reporting to the LTCH’s Infection Prevention and Control – IPAC/ICP/designate

Should clinical staff become aware of any case(s) or cluster(s) of respiratory infection in residents and/or staff, or if daily ARI surveillance identifies such cases, the LTCH’s ICP or designate must be promptly notified. Should occupational health and safety (OHS) become aware of a case or cluster of respiratory infections in staff, they must notify the ICP or designate.
2) Reporting to Occupational Health and Safety

Should staff develop any symptoms of respiratory infection, they must report their condition to OHS or delegate.

Should IPAC staff become aware of a case or cluster of respiratory infections in staff, they will notify OHS.

3) Reporting to the Ministry of Labour

An employer must provide written notice within 4 days of being advised that a worker has an occupational illness, including an occupationally-acquired infection, or has filed a claim with the WSIB with respect to an occupational illness, to:
- the Ministry of Labour,
- the joint health and safety committee (or health and safety representative), and
- the trade union, if any.

4) Reporting to the Workplace Safety and Insurance Board

Any instances of occupationally-acquired infection shall be reported to the WSIB within 72 hours of the LTCH receiving notification of said illness.

**Influenza immunization of residents**

Immunity after influenza immunization usually lasts less than one year. However, in the elderly, antibody levels may fall below protective levels in four to six months. To ensure that protection lasts throughout the influenza season, the recommended time for influenza immunization is from October to mid-November unless otherwise advised by NRPH. If the resident is admitted after the LTCH’s fall influenza immunization program, but before the influenza season is over, vaccination must be offered, unless the person has already received the current season’s influenza vaccine.

Prior to, or upon admission, each resident should be assessed regarding immunization and medical status. If the influenza immunization status of a resident is not available or if it is unknown, the resident should be considered unvaccinated and immunization should be offered. A resident or their substitute
decision-maker (SDM) may refuse any treatment/medication. Refusal (and reason for refusal) should be documented in the resident’s health record. The immunization record of the resident, including their influenza immunization status, should be retained in a readily accessible part of their health record. Upon transfer to another LTCH, Acute Care or Chronic Care facility, the residents’ recent immunization status should be shared with the receiving health care facility.

Consent for Vaccination and Antiviral Medication

Informed consent from the resident/SDM must be obtained for influenza and pneumococcal vaccines, and antiviral drugs for influenza prophylaxis in the event of an influenza outbreak.

Pneumococcal Immunization

There is considerable overlap in the indications for the influenza and pneumococcal vaccines. Consequently, the LTCHs annual influenza immunization program presents an excellent opportunity to immunize residents who have not yet received one dose of pneumococcal polysaccharide vaccine.

The pneumococcal vaccine may be administered concurrently with influenza vaccine, but at a separate anatomic site, using a separate needle and syringe.

Education

The ongoing education of staff, volunteers, residents, residents’ families and visitors about infection and outbreak prevention and related strategies is part of a robust infection prevention and control (IPAC) program.

The OHSA and associated Regulations for Health Care and Residential Facilities (HCRF) (O. Reg. 67/93) require annual review of health and safety, and may include infection prevention and control, immunization and other related topics.
At the time of hiring/placement, during staff/volunteer orientation and as appropriate annually thereafter, educational information about influenza as well as policy information related to influenza should be provided.

**Education for all Staff and Volunteers**

Education/orientation programs for all staff and volunteers (as applicable) should include information on:

- The effectiveness, benefits and risks of influenza immunization.
- Information about respiratory virus (including influenza) morbidity, mortality, transmission, as well as:
  - Prevention of influenza, and the requirement for annual influenza vaccination
  - Mechanisms to reduce disease transmission, for example respiratory etiquette and hand hygiene
- Respiratory infection outbreak management and exclusion policies of the home:
  - A review of policies related to staff and visitor illness recommendations (persons experiencing symptoms of respiratory illness should not be working/visiting the home).
  - A review of influenza immunization and exclusion policies for staff.
  - A review of influenza immunization policies and recommendations for family members and visitors (i.e. those experiencing symptoms of respiratory illness should not be visiting the LTCH).
  - Respiratory etiquette.
- A review of IPAC core competencies and resources:
  - Routine Practices and Additional Precautions, including use of personal protective equipment (PPE),
  - Cleaning and disinfecting requirements and environmental cleaning, as per PIDAC documents.
  - Just Clean Your Hands, including your Four Moments for Hand Hygiene (HH).
  - Chain of transmission: modes of infection transmission.
**Education of Residents, Residents’ Families, Private Pay Caregivers and Visitors**

Topics to include in education programs for all residents, residents’ families, private pay caregivers, and visitors:

- A review of influenza immunization policies and recommendations for residents’ families, private pay caregivers, and visitors (i.e. those experiencing symptoms of respiratory illness should not be visiting the LTCH).
- Respiratory etiquette:
  - All individuals are advised to practice respiratory etiquette when coughing or sneezing:
    - I. Turn head away from others;
    - II. Cover the nose and mouth with tissue; or sneeze into your sleeve;
    - III. Discard tissues immediately after use into waste; and
    - IV. Perform hand hygiene (HH) immediately after disposal of tissues.

These are minimum requirements for education; the LTCH can provide more information, at their discretion.

**Policy and Procedure Preparation**

Each home should have a comprehensive set of policies and procedures related to respiratory infection outbreaks. The LTCH may seek to provide education for their staff in conjunction with NRPH as well as the LTCH IPAC committee.

Policies and procedures should address the following topics:

**Education and related policies and procedures:**

- Annual review of IPAC policy.
- Annual review of policies and procedures related to outbreak prevention and control.

**Outbreak-related policies and procedures:**

- Procedures for surveillance, early recognition of potential transmission of infectious conditions, and management of an outbreak including the composition and mandate of the OMT.
Immunization-related policies and procedures:

- Annual staff immunization.
- Resident influenza and pneumococcal immunization.
- Annual reporting of staff and resident immunization to the local MOH.

A policy and procedure on exclusion:

- Staff exclusion policies, including refusal of immunization and refusal of antiviral medication in the event of an influenza outbreak.
- Staff exclusion policies in regards to other respiratory virus outbreaks (e.g. when ill with any ARI)

Staffing plans and related policies and procedures:

- A staffing contingency plan addressing varying levels of available staff during outbreaks due to illness, refusal or inability to immunize, unwillingness or contraindication to antiviral agents.
- A staffing plan to address adequate staff to patient ratios: as workload increases during an outbreak, staffing plans need to address continued provision of care and full implementation of infection control measures.

Antiviral use related policies and procedures:

- A policy on antiviral use, including: appropriate use, obtaining informed consent from residents or substitute decision-makers, obtaining medical directive signed by Medical Director for antiviral prophylaxis, payment and reimbursement processes, as well as indications for oseltamivir (Tamiflu™) and zanamivir (Relenza™).
- A policy on staff antiviral use.

Specimen collection, laboratory testing and related policies and procedures:

- Process to rapidly access specimen kits, testing facilities, and results of laboratory tests in the event of a suspected outbreak.
- Policy requiring availability of staff with competencies related to correct technique for the collection of nasopharyngeal specimens.
Communication related policies and procedures:

- A policy related to communication requirements and processes between the home, NRPH, laboratory, and other regulators (e.g. MOL, WSIB, JHSC, trade union), as appropriate and ensuring staff on all shifts are aware of these requirements and processes.
- A policy related to ongoing and effective communication with residents, families of residents, staff and the media.
Surveillance

Definition and Goal

Surveillance is an essential component of any effective IPAC program. LTCHs are required to have an ongoing surveillance program to detect the presence of infections in residents. A well-functioning respiratory infection surveillance system provides the means to establish the endemic, or baseline rate of respiratory infections in a health care setting. Moreover, surveillance can assist in the detection of respiratory infection outbreaks in LTCHs by identifying significant deviations from the baseline rate. Pursuant to s. 229 (7) of O. Reg. 79/10 under the Long-Term Care Homes Act, 2007, licensees of LTCHs are required to implement the PIDAC “Best Practices for Surveillance of Health Care Associated Infections in Patient and Resident Populations” protocol given to them by the Director under the LTCHA, currently the Director of the Performance Improvement and Compliance Branch of the MOHLTC.

Definition

Surveillance is defined as “the ongoing systematic collection, analysis, interpretation and evaluation of health data closely integrated with timely dissemination of this data to those who need it”. There are two key aspects of surveillance systems: surveillance is an organized, ongoing exercise and surveillance systems go beyond the collection of information and knowledge gained through surveillance must reach those who can use it to direct resources where needed to improve health.

Goal of Surveillance

An important goal of surveillance is to ensure early identification of symptoms in residents and staff that precede a potential outbreak or an outbreak in its early stages so that control measures can be implemented as soon as possible.
### Analysis

The ICP or designate reviews the surveillance data for both staff and residents and consults with NRPH to determine whether the findings meet the criteria for infection in each resident and staff and if a suspected outbreak exists.


### Reporting

#### LTCH Outbreak Reporting Requirements

Confirmed and suspected outbreaks shall be reported as soon as identified to the Medical Officer of Health by persons required to do so under the HPPA. LTCHs are also responsible for immediately reporting outbreaks of reportable or communicable disease as defined in the HPPA to the Director under the LTCHA (O. Reg. 79/10, s.107(1)5).

### Personnel Requirement

Pursuant to subsection 229 (3) of O. Reg. 79/10 under the Long-Term Care Homes Act, 2007, a designated, trained ICP is responsible to co-ordinate the IPAC program, which includes surveillance and outbreak management activities. In their absence, a competent person (see glossary) must be designated to continue these functions, including on weekends and during holiday periods. Moreover, staff at all levels of the organization should be trained to monitor for signs and symptoms of acute respiratory illness in residents and staff as well as who they should contact with this information.

### Target Groups for Surveillance

Surveillance should be done for both resident and staff populations. Although resource implications may impact the LTCHs ability to conduct year round staff surveillance, this remains an essential component of the infection prevention and control program.
Resident Surveillance

Continuous home-wide surveillance is required to establish baseline levels of infection throughout the year. Suspect outbreaks are recognized when infection rates increase above the baseline. **It is expected that LTCHs will ensure they have the capacity to recognize and respond to infection rate increases above the baseline indicative of outbreaks during off-hours (weekends, holidays) as well. Targeted surveillance for respiratory symptoms should be implemented during influenza season (typically November to April) and when influenza-like illness activity has been reported in the local community, which can start as early as September for some common respiratory viruses, such as rhinoviruses. All staff must be aware of the symptoms of respiratory illness, the criteria for a suspected outbreak and the procedures for reporting to the ICP.**

LTCHs are required to have ongoing surveillance programs to determine the presence of infections. Key features of these programs include:

- A sufficiently sensitive surveillance program to identify sentinel events and trends.
- Analysis of surveillance data by the ICP in order to trigger actions designed to reduce or eliminate disease transmission and influence policy and practice.
- Sharing of surveillance data with administration, IPAC team and NRPH as necessary.

Staff surveillance

Surveillance for ARI among staff should be done throughout the year. All staff should be aware of early signs and symptoms of ARI. Ill staff should be asked to report their respiratory infection to their manager or to Employee Health/Occupational Health and Safety. The manager or Employee Health/Occupational Health designate must promptly inform the ICP of cases/clusters of employees/contract staff who are absent from work with ARI. The information should be reported non-nominally (without using names) to protect the employees’ right to confidentiality, but should include the location of the case.
Under the OHSA, if an employer is advised that a worker has an occupational illness or that a claim in respect of an occupational illness has been filed with the WSIB, the employer must notify a Director of the Ministry of Labour, the joint health and safety committee (or health and safety representative) and the union, if any, within four days of being advised. This notice must be in writing and must contain any prescribed information. Occupational illness includes occupationally-acquired infections of workers.

Non-staff surveillance (includes volunteers, private pay caregivers, and visitors)

- All volunteers, private pay caregivers and visitors who conduct activities within the home should self-screen based on the signage posted and exclude themselves from entering the home when they have respiratory symptoms (i.e., new cough, new shortness of breath, fever).
- Screening tools and policies are to be posted, and followed by all persons entering the LTCH.

Methods of Data Collection for Surveillance

**Daily surveillance is the most effective way to detect respiratory infections.**
There are two methods to conduct daily surveillance: active and passive.

**Passive Surveillance**

Passive surveillance involves the identification of infections by staff whose primary responsibility is resident care, while providing routine daily care or activities. Residents with respiratory and other symptoms should be noted on the daily surveillance form. This form should be easy to use and include patient identification and location, date of onset, a checklist of relevant signs and symptoms, including fever, diagnostic tests and results when available. The completed form should be forwarded to the ICP on a daily basis. Any suspected outbreak should be reported immediately to the ICP. It is important to maintain a high index of suspicion for respiratory infections, especially during influenza season.
Active Surveillance

Active surveillance involves actively seeking out infections on a regular basis by individuals trained in surveillance, usually ICPs. Several strategies may be used including:

- Conducting unit rounds.
- Reviewing unit reports, which may include elevated temperature reports.
- Reviewing physician/staff communication books.
- Reviewing medical and/or nursing progress notes in resident charts.
- Reviewing pharmacy antibiotic utilization records.
- Reviewing laboratory reports.
- Verbal report from unit staff, based on clinical observations.

All available sources of information within the home may contribute to the surveillance activities. The method used by each home should be practical in that setting.
Outbreak Detection and Management

Early recognition of cases signaling outbreaks and swift actions are essential for effective management. Timely specimen collection, communication and the implementation of appropriate control measures have the potential to make significant impact in the course of the outbreak that will benefit both residents and staff.

The steps outlined in the following checklist are the responsibility of the LTCH unless otherwise noted. The roles and responsibilities of NRPH (Medical Officer of Health or designate) should be clarified at the first OMT meeting, to which the public health unit representative(s) is always invited.
### Respiratory Outbreak Management Checklist

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<th>CHECKLIST</th>
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<td>1.</td>
<td>Initiate a list listing of all symptomatic patients/residents/staff using the Public Health line list (see page 28) and fax daily to 905-682-6470</td>
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| 2.    | Implement infection control measures  
• Should be implemented as soon as an outbreak is suspected  
• All staff should be notified quickly of outbreak and supplies (e.g., ABHR, PPE) should be made available.  
• All residents symptomatic should be placed on appropriate additional precautions (droplet/contact) in addition to routine practices as soon as possible after symptoms are identified  
Refer to Outbreak Management Guide for specific respiratory outbreak control measures. | Nurse initial |
| 3. a. | Notify Public Health, Infectious Disease program at 905-688-8248 ext. 7330 or 1-888-505-6074 or after hours 905-984-3690. Have the following information available:  
• Date of onset  
• Symptoms  
• Total # of residents/patients/staff in the home/facility, or unit  
• Total # of residents/patients/staff ill at present  
• Total # of residents/patients/staff immunized against influenza  
• Nasopharyngeal kits available in facility (check expiry date)  
Have the Outbreak Management Guide available for reference | Nurse initial |
| b.    | Obtain an outbreak number from Public Health | Nurse initial |
| c.    | Establish outbreak case definition with Public Health | Nurse initial |
| d.    | Review outbreak control measures with Public Health | Nurse initial |
| e.    | Review nasopharyngeal specimen collection and pick up by Public Health. Contact infectious disease program for pick up. | Nurse initial |
| f.    | Provide public health with the name of the person responsible for the outbreak investigation along with contact information. | Nurse initial |
4. Consider notifying appropriate individuals associated with the LTCH of the outbreak and establish OMT membership. These may or may not be individuals that form the OMT.  
   **Internal**  
   Medical director, nurse practitioners  
   Director of nursing and personal care  
   Administrator  
   Licensee and/or board of directors  
   Chair of IPAC  
   Employee health nurse  
   Families of residents  
   Director of food services/housekeeping/maintenance/volunteer services  
   Resident and family councils  
   Residents/staff/volunteers  
   Other health care providers (e.g., physiotherapists)  
   Other service providers (e.g., salon)  
   **Externally**  
   Community care access centre  
   Staffing agencies

5. Call an initial OMT meeting  
   - Administration of the LTCH should hold an OMT with LTCH representatives from each department and a Public Health representative(s) as soon as possible.  
   - The OMT should meet daily to manage all aspects of the outbreak

6. Communicate the results of laboratory tests  
   Educate staff/volunteers/residents on the infectious agent

7. Monitor the outbreak on an ongoing basis  
   - Identify new cases  
   - Monitor status of ill residents/staff  
   - Update and fax line listings to Public Health daily  
   - Monitor outbreak control measures  
   - Report significant changes in the outbreak (e.g., hospitalizations, deaths, change in clinical picture)

8. Declare the outbreak over  
   The Medical Officer of Health or designate in collaboration with the OMT shall determine when to declare an outbreak over  
   **Note:** the Medical Officer of Health retains the final authority to determine when an outbreak is over.

9. Following the outbreak, LTCH will arrange to meet with Public Health to review:  
   - Course of outbreak  
   - Management of outbreak  
   - What was handled well and improvement for future outbreaks
## Agenda – Outbreak Management Team (OMT) Meeting

### Outbreak # 2246-____ - ____

#### In Attendance:

- [ ] Physician
- [ ] Nurse Practitioner
- [ ] DOC/DRC
- [ ] Administrator
- [ ] ICP
- [ ] Occupational Health
- [ ] Director of Food Services
- [ ] Director of Housekeeping
- [ ] Director of Recreation
- [ ] Media spokesperson
- [ ] Resident representative
- [ ] Community volunteers
- [ ] (family member)
- [ ] Public Health
- [ ] Pharmacist
- [ ] Staff members
- [ ] Board member

#### Date:

#### Actions

<table>
<thead>
<tr>
<th>No.</th>
<th>Task Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Review current line list</td>
</tr>
<tr>
<td>2.</td>
<td>Review symptoms to date</td>
</tr>
<tr>
<td>3.</td>
<td>Review case definition</td>
</tr>
<tr>
<td>4.</td>
<td>Review outbreak location</td>
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<td>5.</td>
<td>Review of specimens collected</td>
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<td>6.</td>
<td>Review laboratory results</td>
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<td>7.</td>
<td>Review of environment</td>
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<td>8.</td>
<td>Review infection Prevention and control measures</td>
</tr>
<tr>
<td>9.</td>
<td>Confirmed Influenza A or B Outbreak Control Measures</td>
</tr>
<tr>
<td>10.</td>
<td>Questions</td>
</tr>
<tr>
<td>11.</td>
<td>Date, time and location of next meeting</td>
</tr>
</tbody>
</table>
## OUTBREAK LINE
### LISTING FORM

**LTCF – Respiratory/Enteric**

<table>
<thead>
<tr>
<th>Case #</th>
<th>Name (Last name, first name)</th>
<th>DOB</th>
<th>Resident (R) or Staff (S)</th>
<th>Location (Unit/Room #)</th>
<th>Date of Onset Y-M-D</th>
<th>Symptoms</th>
<th>Specimen Collection</th>
<th>Vaccination (Y/M/D)</th>
<th>Date Symptoms Resolved Y-M-D</th>
<th>Comments (ie. Treatment, Hospitalization)</th>
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<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>G.I.</td>
<td>U.R.I.</td>
<td>Deceased</td>
<td>Date Coll.</td>
<td>Result</td>
</tr>
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Fax form daily to 905-682-6470, Infectious Disease Program
Completing an Outbreak Line List (Sample)

It is important to complete facility name, outbreak number and date declared on each sheet submitted to ensure they are not mixed in with other outbreaks.

![Image of Outbreak Line List Form]

- **Provided by Public Health**
- **Earliest date symptoms began**
- **Tick all that are appropriate and meet case definition**
- **Date of case’s last influenza and pneumococcal vaccination**
- **Include important additional information**
- **Number in sequence. Do not change without consulting Public Health nurse**
- **Indicate resident or staff**
- **Date specimen collected**
- **Lab will give results to Public Health**
- **Date symptoms ended**

Fax form daily to (905) 682-6470, Infectious Disease Program
Case and Outbreak Definitions

Different respiratory viruses can cause similar acute respiratory symptoms, however each virus and/or outbreak will have unique characteristics.

Outbreak case definitions should be developed for each specific outbreak, each respiratory outbreak requires its own definition. A case definition should be modified if necessary to ensure that the majority of cases are captured by the definition.

Any suspect outbreak should be reported to NRPH.

Confirmed outbreak definition

Confirmed respiratory infection outbreak in a LTCH

- Two cases of ARI within 48 hours, at least one of which must be laboratory confirmed.
  or
- Three cases of ARI (laboratory confirmation not necessary) occurring within 48 hours in a geographic area (e.g., unit, floor)
  or
- More than two units having a case of ARI within 48 hours

Confirmed influenza outbreak in a hospital

- Two or more cases of nosocomially acquired ARI (i.e., influenza) occurring within 48 hours on a specific hospital unit, with at least one case laboratory-confirmed as influenza

Note: laboratory confirmation is not required to be classified as a confirmed institutional respiratory infection outbreak.
Specimen Collection – Nasopharyngeal Swabs

Once the outbreak has been declared, your facility will be assigned an outbreak number that will be used to identify all lab specimens collected for testing.

The outbreak number is:

2246 - 201X - three digit number

(Health Unit - Year - Outbreak Number)

Specimen collection is critical to determining the causative agent in each respiratory outbreak. Ensure that staff is familiar with the procedure for the collection of nasopharyngeal swabs. See “Nasopharyngeal Specimen Collection Technique” attached.

To identify the causative agent:

1) It is best to collect nasopharyngeal specimens as early as possible from the most acutely ill residents and staff, preferably within the first 48 hours of onset of symptoms.
2) If possible, 4 specimens only should be obtained initially. Further specimen collection will be determined based on results and progress of outbreak.
3) Staff obtaining specimens must ensure correct labeling of specimens to ensure testing by Public Health Lab. This includes the name of the case, date of birth, and the outbreak number on the nasopharyngeal specimen vial and requisition form. See: “How to Complete Public Health Lab Test Requisition Form” attached.
4) Nasopharyngeal specimens must be refrigerated after collection until pick up and transport to the lab to ensure optimal results.
5) Notify the Public Health Infectious Disease program that specimens are ready for pick-up.

Note: once a causative organism is identified, no further collections of nasopharyngeal specimens are recommended. For further testing, consult with Public Health.
Nasopharyngeal swab method for respiratory virus detection

The laboratory needs high levels of organism to culture successfully for respiratory viruses such as RSV, influenza A & B virus or parainfluenza virus. A properly taken nasopharyngeal swab will yield high levels of organism.

Ensure the following equipment is available:
- NP Swab kit from Public Health
- Gloves
- Mask
- Eye protection (goggles)

1. Insert nasopharyngeal swab into one nostril.
2. Press the swab tip on the mucosal surface of the mid-inferior turbinate.
3. Briefly rotate the swab once it has been inserted.
4. Leave swab in place for a few seconds to absorb material.
5. Withdraw swab and insert into transport medium.
6. Break swab shaft at scored line to fit in tube well below the cap, and replace cap to vial, closing tightly.
7. Refrigerate the specimen
8. Fill out Public Health Laboratory requisition form completing all sections:
   - Health Card number
   - Agency Name and outbreak number
   - Tests requested: see sample requisition
   - Specimen type and site: Nasopharyngeal Swab
   - Reason for test: to diagnose disease
   - Clinical information: symptoms
9. Contact the Public Health Department, Infectious Disease at 905-688-3762 x7330 for pick up of nasopharyngeal specimens as soon as possible after collection - after hours please call dispatch 905-984-3690

N.B. Rule of thumb to determine when swab is placed properly: Insert swab to one half the distance from the tip of the nose to the tip of the earlobe.
How to complete Public Health Laboratory Test Requisition

1. Resident Health Card
   - Resident FIRST NAME
   - Resident LAST NAME
   - Resident DOB (yy/mm/dd)
   - Resident Gender

2. Facility name, address and phone number

3. Date specimen collected

4. Specimen type

5. Onset date

Outbreak number provided by Niagara Region Public Health

Check appropriate boxes
Outbreak Control Measures

As mentioned in the introduction, the recommendations contained in this document are intended to protect the health of resident populations. LTCH licensees are also required to fully respect and promote the individual resident rights as set out in the Bill of Rights under the LTCHA. The LTCH and NRPH should work together to ensure that residents’ rights under the LTCHA are fully respected and promoted, while implementing outbreak control measures that are protective to the resident populations and that are appropriate and proportional to the risk profile of the outbreak.

When communicating outbreak control measures and recommendations, health unit staff will emphasize the need for adherence to IPAC principles with respect to exceptional visit requests; LTCH staff should be advised to call NRPH on how to proceed, if there are any concerns regarding how to mitigate the infection control risks of a particular request from a resident/resident’s family members/SDM. Examples include a request for allowing children to visit during an outbreak because they don’t have child sized PPE or if a visitor wishes to visit numerous residents.

The LTCH infection control practitioner or the most responsible person should contact NRPH in order to balance the needs of the resident against the risk to the health of the other residents; at this point, a discussion around if/how the request can be accommodated can take place.

When providing outbreak management recommendations, NRPH will have to assess the risk of non-compliance to outbreak control measures on the general resident population. Generally, LTCHs and NRPH will discuss with OMT members the respiratory infection outbreak control measures and decide jointly on appropriate measures to implement. The extent to which outbreak control measures can be implemented, and what is considered reasonable, will vary throughout the course of each outbreak. Examples of reasonable and appropriate measures during the course of an outbreak include:

- limiting visiting hours
- limiting the number of residents with whom the visitor has contact
- requiring anyone providing direct care (including visitors, other residents, etc.) to wear the necessary PPE
- requiring visitors or other residents to wear gowns, masks or other PPE, if they have an ARI and/or are leaving their room and/or are within 2 metres of others who are not wearing PPE;
• posting signs at entrances of LTCHs and/or affected unit/area, discouraging visitors during the outbreak period; and
• notifying persons of the outbreak.

These are fairly significant measures, and presumably lesser measures would be discussed and implemented before admissions would be banned or visitors barred completely from the LTCH.

The following outbreak control measures are recommended by NRPH for all respiratory outbreaks:

(1) **Restriction of symptomatic cases to their room**

- Cases should be encouraged to stay in their room until five days after onset of acute illness or until symptoms have resolved (whichever is shorter).
- Restriction of ill residents to their room is recommended as long as it does not cause the resident undue stress or agitation, alternative control measures can be considered including the use of a surgical mask and compliance with HH, at the discretion of the LTCH in consultation with NRPH.
- Implement droplet and contact precautions (including posting signs).
- Restrict residents to the unit; if ill residents cannot be contained in one geographical area, then the outbreak must be considered facility wide.
- Signs can be found on the [PIDAC website](http://www.pidac.ca).

(2) **Cohorting residents/staff**

- If cases are confined to one unit, all residents from that unit should avoid contact with residents in the remainder of the facility.
- If possible, exposed staff should remain caring for symptomatic cases on a daily basis and avoid transferring to another unit/floor during the outbreak.
- During non-influenza outbreaks, discuss the possibility of one staff member looking after only ill residents and others looking after only well residents.
- Alternatively, discuss the possibility of keeping staff members working on only one unit if possible. Attempts should be made to minimize movement of staff, students, or volunteers between floors/wings especially if some units are unaffected. These measures should not be required during influenza outbreaks where all persons are immunized or on an appropriate antiviral drug.
(3) **Hand Hygiene**
- Hand hygiene stations should be set up at designated areas in the facility (i.e., entrances, outside elevators, patient/resident care areas)
- Hand hygiene should be performed (four moments of HH):
  i) Before initial patient/resident environment contact
  ii) Before invasive/aseptic procedures
  iii) After body fluid exposure risk (contact with blood, body fluids, secretions and excretions)
  iv) After patient/resident environment contact
- Alcohol based hand rubs (ABHR) containing 70% alcohol are the first choice for hand hygiene in clinical situations when hands are not visibly soiled. Using ABHRs is more effective than washing hands (even with an antibacterial soap) when hands are not visibly soiled. When visible soil is present and running water is not immediately available, use moistened towellettes followed by ABHR.
- Residents, staff and volunteers should be instructed in proper hand hygiene to facilitate staff and visitor hand hygiene.
- [PIDAC Best Practices for Hand Hygiene, April 2014](#).

(4) **Personal Protective Equipment**
- The use of surgical masks, gowns, and gloves is recommended for direct patient care of ill residents during an outbreak to prevent transmission of organisms.
- Staff wearing masks, gowns and gloves must remove their PPE before caring for another resident, and when leaving the residents dedicated space/room.
- Visitors do not need to wear gloves or masks if they are visiting only one resident; however, if providing direct patient care to an ill resident they should be encouraged to wear gown, surgical mask and gloves.
- Eye protection/safety glasses, goggles and face shields should be worn when there is a potential for splattering or spraying of blood, body fluids, secretions/excretions, including cough producing aerosol generating procedures while providing direct resident care or within two meters of a coughing resident (i.e., collection of NP swab). Personal eyewear is not sufficient.
- [PIDAC Best Practices for Routine Practices and Additional Precautions, November 2012](#).
(5) **Enhanced Environmental Cleaning/Disinfection**
- Cleaning and disinfection methods will be reviewed by the Public Health Inspector
- Disposable dishes and cutlery are not required
- LTCHs should become familiar with the PIDACs Best Practices for Environmental Cleaning for the Prevention and Control of Infections in All Health Care Settings. This document will assist LTCH staff to assess the cleaning requirements.
- Procedures for assigning responsibility and accountability of routine cleaning of all environmental surfaces and non-critical resident care items should be established.

(6) **Exclusion of Symptomatic Staff, Students and Volunteers**
- Staff, students and volunteers with any respiratory infection symptoms should not return to work/placement for **five days** from the onset of symptoms or until symptoms resolve (whichever is shorter)
- If influenza is suspected or diagnosed, the person must remain off work/placement for 5 days from the onset of symptoms. This includes staff on antiviral medication.

(7) **Visitor Access**
- Well visitors/private pay care givers who choose to visit during the outbreak and **who are not going to be providing direct care to an ill resident** should be asked to:
  i) Perform hand hygiene when entering the LTCH,
  ii) Perform hand hygiene before entering and upon leaving the resident’s room.
  iii) Visit residents only in their rooms and avoid communal areas
  iv) Visit only one resident and leave the LTCH immediately; if multiple residents are in the LTCH but in different locations, it is recommended that the healthy resident(s) (non-outbreak case) be visited first
  v) Not mingle with other residents
- Well visitors who choose to visit during an outbreak and **are going to be providing direct care** to an ill resident should be asked to wear appropriate PPE
- Ill visitors/private caregivers shall not be permitted in the LTCH, unless under extenuating circumstances. Under these circumstances, they should wear the appropriate PPE, perform HH at the appropriate times and finally, they should restrict their visit to the resident
Complete closure of a LTCH to visitation is not permitted unless there is an order issued by the Medical Officer of Health as it may cause residents and visitors emotional hardship.

(8) Communal Meetings and Other Activities
- As much as possible, all social activities should be restricted to each respective unit. The Outbreak Management Team must find a balance between restricting activities to control the spread of infection, and providing therapeutic opportunities from social activities.
- Visitation by outside groups, e.g., entertainers, meetings, community groups, etc., shall not be permitted. Also, visitation of multiple residents shall be restricted.
- Onsite adult and childcare programs may continue provided there is no interaction between residents and participants of the program.
- The OMT should discuss restricting meetings or activities in the entire LTCH if the outbreak spreads to two or more units/floors.
- Discontinue group outings from the affected unit/floor.

(9) Admissions and Returns from Absences
- Generally as an outbreak control measure NRPH advises against admission of new residents to a LTCH or unit/floor experiencing an outbreak.
- An applicant to a LTCH cannot be removed from a waitlist for a LTCH where an outbreak of disease prevents the applicant from moving into the LTCH at the time that the CCAC offers to authorize the applicant’s admission to the LTCH (O.Reg.79/10s.167)

New admissions and return of non-cases
- The admission of new residents and return of residents who have not been line-listed in the outbreak is generally not advised during an outbreak. If required, this recommendation may be altered as the outbreak comes under control.
- Members of the OMT from the LTCH and NRPH should discuss if new admissions and/or return of non-cases are being considered, such as:
  i) What is the current status of the outbreak?
  ii) Does the attending physician at the hospital agree to admission/readmission?
  iii) Is the resident protected from the outbreak pathogen? If the outbreak is due to influenza, is the resident immunized and/or taking antivirals?
iv) Are appropriate accommodations available to the returning resident? Will they return to an outbreak affected area?

v) Has the resident or their substitute decision maker been given information about the return to LTCH?

Return of cases
- Return of residents, including those from hospital who were line-listed and were part of the outbreak, is permitted provided appropriate accommodation and care can be provided.
- If the outbreak is laboratory-confirmed influenza, returning residents should be placed on antiviral prophylaxis medication in line with other residents.

Absences from the LTCH in Excess of the Maximum Allowable Days Due to an Outbreak and Readmissions

A resident who is away from the LTCH on a medical absence will have their bed held for them as long as the length of the medical absence does not exceed 30 days. In the case of a psychiatric absence, the bed will be held for up to 60 days.

If the resident’s medical or psychiatric leave exceeds the maximum length identified above the resident will be discharged by the LTCH; they will then be placed in the re-admission category to return to that home which will give the resident priority for re-admission to the home when the resident is well enough to return. However, in the event that a resident cannot return to the LTCH because of an outbreak of disease in the home, the licensee of the LTCH is not permitted to discharge the resident and the resident will return to the home when the outbreak is declared over (O. Reg. 79/10 s. 146).

(10) Transfer to Hospital, Other Facility or Urgent Appointment
- Prior to transfer of resident to the hospital, designated staff at the outbreak facility should contact the hospital ICP and provide the details of the outbreak to ensure outbreak control measures are in place when the resident arrives at the hospital.
- Inform the ICP whether the resident was or was not on the line list; this will allow the hospital to start discharge planning.
- See appendix 2 for sample transfer letter.

Transfer to another LTCH
- Symptomatic resident transfers (from anywhere in the home) to another LTCH are not recommended during an outbreak.
• OMT should discuss exceptions to this recommendation and make a decision on a case by case basis

(11) Working at Other Facilities
• During non-influenza outbreaks, staff, students, and volunteers should be advised not to work/provide services at any other facility until one incubation period has passed.
• During an influenza outbreak, assuming there is not a significant influenza vaccine drift, staff protected by either immunization or antivirals have no restrictions on their ability to work at other facilities. However, unimmunized staff not receiving prophylactic therapy must wait one incubation period (3 days) from the last day that they worked at the outbreak facility/unit prior to working in a non-outbreak facility, to ensure they are not incubating influenza. However, unimmunized staff on antiviral prophylactic therapy that wish to work at another facility may do so, assuming the following considerations:
  i) They do not have a fever or other symptoms of ARI.
  ii) This does not conflict with the policies of the receiving facility, as these would supersede the general direction provided here.
  iii) This does not conflict with direction provided by the Medical Officer of Health or designate based on information available to them about the epidemiology of the outbreak or other local considerations.
• Staff, students, and volunteers experiencing respiratory symptoms or fever should not work/provide services in any health care setting.
• If there is an identified “drift” or difference between vaccine strain components and circulating strains, in order for all staff to work between facilities, they would be required to start prophylactic antiviral treatment, regardless of immunization status.

(12) Medical Appointments
• Non urgent appointments made before the outbreak may be rescheduled at the discretion of the treating physician, with the consent of the resident/SDM, as long as the resident is not symptomatic
Declare the Outbreak Over

Consider declaring an outbreak over when the outbreak is coming under control. This can be determined by an end in new outbreak-related cases.

The medical officer of health or designate in collaboration with the OMT shall determine when to declare an outbreak over, taking into consideration the etiologic agent and the epidemiology of the outbreak (see Respiratory Associated Organisms chart).

Please note that the medical officer of health retains the final authority to determine if an outbreak is over.

Large LTCHs tend to have some sporadic influenza or respiratory infection cases in non-outbreak situations, as expected during the influenza season when influenza-like-illness is occurring in the community. The OMT needs to differentiate between these sporadic cases and outbreak-associated cases when identifying the last outbreak-related resident and staff case.

To declare an outbreak over, the LTCH must not have had any new cases of infection in either residents or staff, which meet the case definition for the period of time established by the OMT, i.e. the predetermined decision rules that the OMT has decided to use to declare the outbreak over. Commonly these decision rules are based on the period of communicability + the incubation period. However, depending on the organism, this can equate to a very long and disruptive period of time for the residents of a LTCH.

Hence, as a general rule, viral respiratory outbreaks can be declared over if no new cases have occurred in 8 days from the onset of symptoms of the last resident case or 3 days from last day of work of an ill staff, whichever is longer.

This “8 day rule” is based on the period of communicability and the incubation period for influenza and in general applies to many other respiratory viruses associated with respiratory infection outbreaks as well. Consider: if the outbreak were ongoing and the LTCH was performing active surveillance, new cases would be identified within this 8 day period, since 8 days is the outer limit of the period of communicability of influenza (5 days) plus one incubation period (3 days).

If symptoms in the last resident case resolve sooner than 5 days, or if the last case is a staff member who was away from work (according to exclusion policy) throughout their period of communicability, the time until the outbreak can be declared over can be shortened accordingly.
In practice, the time before which an outbreak can be declared over is dependent on:

- The causative organism (contributes to the communicability, incubation period calculation).
- The epidemiology of the outbreak: how aggressive transmission has been, how severe illness has been, mortality profile, the number of hospitalizations, etc.
- Whether the last case was a resident or staff member.

For novel viruses, where the period of infectivity is unknown, the NRPH may consider using two incubation periods to declare the outbreak over.
## Respiratory Outbreak Associated Organisms

<table>
<thead>
<tr>
<th>Organism</th>
<th>Incubation (range)</th>
<th>Shedding/potential infectious period</th>
<th>Comments</th>
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<tbody>
<tr>
<td>Influenza</td>
<td>1-4 days</td>
<td>Usually 5 to 10 days, peak at 24 to 48 hours</td>
<td>The immunocompromised may shed virus for months.</td>
</tr>
<tr>
<td>RSV</td>
<td>3-7 days</td>
<td>Usually 3 to 8 days; up to 3-4 weeks in children and immunocompromised</td>
<td>Acute phase of illness 3 to 10 days.</td>
</tr>
<tr>
<td>Human Metapneumovirus</td>
<td>Not known (4-9 days?)</td>
<td>Shed for 1 to 2 weeks</td>
<td>Similar to RSV; the immunocompromised may shed virus for months.</td>
</tr>
<tr>
<td>Rhinovirus</td>
<td>2-4 days</td>
<td>1 to 3 weeks; peak days 2 to 3 of illness</td>
<td>The immunocompromised may shed virus for months.</td>
</tr>
<tr>
<td>Adenovirus</td>
<td>4-8 days</td>
<td>Days to weeks</td>
<td>The immunocompromised may shed virus for months.</td>
</tr>
<tr>
<td>Parainfluenza Virus</td>
<td>2-6 days</td>
<td>Up to 10 days in children</td>
<td>Shorter duration of shedding in the elderly</td>
</tr>
<tr>
<td>Bocavirus</td>
<td>Not established</td>
<td>Duration of shedding variable: 50% &lt;1 week, 25% over one month (1 record of 402 days)</td>
<td>Not firmly established as a respiratory pathogen. Role in respiratory infection remains under investigation.</td>
</tr>
<tr>
<td>Human Coronaviruses (229E, OC43, HKU1, NL63)</td>
<td>2-5 days</td>
<td>Peak shedding occurs during days 2 to 3 of illness</td>
<td></td>
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<tr>
<td>SARS Coronavirus</td>
<td>2-10 days</td>
<td>Peak shedding and transmission occurs during week 2 of illness. Maximum communicability is less than 21 days.</td>
<td>May be detectable week 3 to months after illness onset.</td>
</tr>
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</table>
Influenza Outbreaks

Vaccination is recognized as the cornerstone for preventing or attenuating the risk of influenza infection for those at high risk of serious illness or death from influenza and its complications. Health care workers and their employers should actively promote, implement and comply with influenza immunization recommendations in order to decrease the risk of infection and complications among the vulnerable populations for whom they care. Antiviral prophylaxis should not replace annual influenza immunization.

Antiviral medication is recommended for the management of institutional outbreaks of influenza A and/or influenza B. Antivirals play a key role in outbreak management and control. Research has shown that antiviral drugs are effective for both the prevention (prophylaxis) and early treatment of influenza infection. The use of antiviral medication, in conjunction with other outbreak control measures, can quickly bring influenza outbreaks in health care facilities under control. While influenza vaccination is adequate to protect healthy adults from illness due to influenza, vaccination provides incomplete protection to the elderly and the immunocompromised. Antiviral medications offer protection that is additive to that of annual influenza immunization in these populations. Antiviral medications are also effective in the prevention of influenza in unvaccinated healthy adults.

Three antiviral drugs are available in Canada for the treatment and prophylaxis of influenza: amantadine, oseltamivir and zanamivir. Amantadine has not been recommended since 2006 for prophylaxis or treatment due to adverse side effects and the emergence of amantadine-resistant influenza A strains.

Clinical decisions regarding the use of medications for influenza treatment and chemoprophylaxis are at the discretion of the attending physician / health care provider.

Antiviral Medication for Prevention (Prophylaxis)

During a public health-confirmed influenza outbreak, antiviral medication for prevention shall be offered to all residents/patients in the outbreak-affected area who are not already ill with influenza, whether previously vaccinated or not, until the outbreak is declared over.
• In addition, all unvaccinated asymptomatic staff who work in the area of the LTCH where the influenza outbreak is occurring should be advised to take prophylactic antiviral medication until the outbreak is declared over.

During a confirmed influenza outbreak, when the circulating strain is not well-matched by the vaccine, antiviral prophylaxis should be offered to all staff, regardless of vaccination status, until the outbreak is declared over. The local public health unit will notify the LTCH when this is necessary.

Antiviral prophylaxis should be initiated as soon as an influenza outbreak is declared. In almost all situations, it is prudent to wait for laboratory confirmation of influenza before initiating prophylaxis and treatment. Once the specimen reaches the appropriate laboratory, test results are usually available within one business day.

Institutions should consult with local public health unit representatives on the outbreak management team when starting antiviral prophylaxis and treatment.

Recommendations regarding influenza antiviral prophylaxis:

• It is reasonable to allow unvaccinated staff to work with residents or patients as soon as they start antiviral prophylaxis. Unless there is a contraindication, consenting staff should also immediately be offered immunization against influenza with the current seasonal influenza vaccine.

• In healthy adults, it takes two weeks to develop antibodies to the influenza virus after receiving the influenza vaccine. Staff who have been vaccinated for less than two weeks at the time the influenza outbreak is declared should take antiviral prophylaxis for two weeks after vaccination or until the outbreak is declared over (whichever comes first). Note: Antiviral medications do not interfere with the immune response to vaccine.

• Staff should be alerted to the symptoms and signs of influenza, particularly within the first 4 days after starting antiviral prophylaxis. Staff illness should immediately be reported to the supervisor, ICP and/or occupational health. Staff reporting signs and symptoms of influenza should be excluded from working in any health care setting if symptoms develop. This information should be shared with the local public health representative.
• Prophylaxis may be discontinued once the outbreak is declared over.
• Prophylaxis may also be given during influenza season in non-outbreak institutional settings to unvaccinated individuals at high-risk of influenza-related complications, at the discretion of the treating physician.
• If a person taking oseltamivir or zanamivir for prophylaxis of influenza develops symptoms of an influenza-like illness, the neuraminidase inhibitor can be continued, however, the neuraminidase inhibitor should be increased to the recommended treatment dose. Consideration should be given to obtaining a nasopharyngeal specimen if the individual has been on antiviral prophylaxis for more than four days (incubation period for influenza) to determine the presence of a resistant strain or another respiratory virus.
• Refer to “Recommended Policy Statement for Influenza Outbreaks” (page 58) and “Summary of Recommendations: Residents and Staff” (page 59).

Antiviral Medication for Treatment

Treatment decisions for the residents/patients are the responsibility of the attending physicians. However, treatment decisions for health care staff that work in the LTCH rest with their health care provider and as such, obtaining prescriptions for antiviral treatment is the responsibility of the staff.

Treatment should be started within 48 hours (or less) of onset of symptoms. Since treatment is only effective when started early, it is recommended that all long-term care homes have pre-authorized orders for antiviral medication for treatment and prophylaxis of residents, barring any contraindications, in the event of an outbreak, to ensure that there are no delays in providing medication.

Recommendations regarding antiviral treatment:

• Antiviral treatment should be started for ill residents/patients (who meet the outbreak case definition), as soon as possible and preferably within 48 hours of symptom onset. As much as possible symptomatic residents should be encouraged to remain in their rooms for the duration of antiviral treatment.
• Once an outbreak has been laboratory-confirmed as influenza, additional laboratory confirmation of each new case is not required in order to initiate antiviral treatment in individuals who meet the outbreak case definition.
When Antiviral Use Does Not Control the Outbreak

As discussed above, it is prudent to wait for laboratory confirmation of the causative agent of an outbreak before initiating antiviral prophylaxis or treatment. If new cases of influenza-like illness continue to occur 72-96 hours after the initiation of antiviral use, one or more of the following may be occurring:

- The new cases could be caused by an agent other than influenza (e.g. RSV);
- There may be adherence issues;
- Resistance to the antiviral medication may have developed in the circulating influenza strain (this is less likely with neuraminidase inhibitors oseltamivir and zanamivir)

In the event that the outbreak is not controlled with antiviral use, the following actions should be taken:

- Nasopharyngeal swabs should be obtained for virus detection from new cases, including staff cases, consultation with NRPH prior to specimen collection.
- NRPH should be consulted regarding continued use of antivirals.
Recommended Policy Statement for Influenza Outbreaks

Policy:

(Name of facility) has an established protocol for staff during a confirmed influenza outbreak that complies with the recommendations of Niagara Region Public Health.

Purpose:

To ensure the residents and workers are protected from possible exposure to and transmission of influenza during an influenza outbreak.

Positive Isolate of Influenza A and/or B

Staff** immunized >2 weeks prior to outbreak

May continue to work as long as not symptomatic with flu like symptoms (may also work between facilities)

Staff not immunized: options

1. Take antivirals AND receive flu vaccine and return to work; antiviral needs to be taken for 2 weeks minimum or until outbreak is declared over, whichever comes first

2. Take flu vaccine only and return to work in 2 weeks or when outbreak is declared over

3. If influenza vaccine is medically contraindicated or refused; take antivirals only and return to work. Antiviral must be taken for the duration of the outbreak.

4. Refuse options 1, 2 and 3 above: must remain off work until outbreak is declared over

Notes:
* if influenza isolates differ than what is contained in the influenza vaccine for the current season, recommendations for vaccinated staff may differ
** If unimmunized staff choose to work at another facility, they must wait one incubation period (i.e. 72 hours) after working the last shift at the outbreak facility
*** Definition of staff: All persons who carry on activities in the long term care facility, including but not limited to employees, volunteers, students, attending physicians, and both health care and non-health care contract workers

Although the Public Health Department would prefer to have facilities voluntarily respond to the above recommendations, here is legislative authority under Section 22 of the Health Protection and Promotion Act to exclude staff from work who wish not to comply with vaccination or antiviral agents.
### Summary of Outbreak Recommendations: Residents and Staff

<table>
<thead>
<tr>
<th>RESIDENTS</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lab confirmed case of Influenza A or B, symptomatic &lt;48 hours</td>
<td>Antiviral treatment dose for 5 days If &gt;48 hours consult with medical advisor</td>
</tr>
<tr>
<td>Symptomatic &lt;48 hours, but not lab confirmed</td>
<td>Antiviral treatment dose for 5 days, then switch to antiviral prophylaxis dose for the duration of the outbreak</td>
</tr>
<tr>
<td>Symptomatic &gt; 48 hours, but not lab confirmed</td>
<td>Consult with Medical Advisor to determine if antivirals are appropriate</td>
</tr>
<tr>
<td>Asymptomatic regardless of their vaccination status</td>
<td>Antiviral prophylaxis for the duration of the outbreak</td>
</tr>
<tr>
<td>Residents on antiviral prophylaxis who become symptomatic</td>
<td>Switch to antiviral treatment dose for 5 days</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STAFF</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff immunized &gt; 2 weeks prior to the outbreak</td>
<td>May continue to work if asymptomatic</td>
</tr>
</tbody>
</table>
| Unimmunized staff or Staff immunized <2 weeks prior to the outbreak | 1. Take antivirals AND receive flu vaccine and return to work; antivirals need to be taken for 2 weeks minimum or until the outbreak is declared over, whichever comes first.  
2. Take flu vaccine only and return to work in 2 weeks, or when outbreak is declared over.  
3. If flu vaccine is medically contraindicated or refused – take antivirals only and return to work. Antiviral must be taken for the duration of the outbreak.  
*Refuse options 1, 2 and 3 must remain off work until the outbreak is declared over |
Appendix 1: Sample letter to health care providers regarding antiviral prophylaxis for staff in LTCHs

Dear Health Care Provider,
__________________________ (staff member’s name) is a LTCH employee who has chosen not to be immunized against influenza this year. In the event of influenza outbreak in the LTCH this employee, in accordance with the home’s exclusion policy, will not be allowed to return to work until the outbreak is declared over by the Medical Officer of Health or designate or unless he/she is taking antiviral prophylaxis for influenza.

Please provide a prescription for the recommended medication for influenza prophylaxis.

Oseltamivir (Tamiflu™)

Zanamivir (Relenza™)

If you have any questions, please contact Niagara Region Public Health, Infectious Disease Program at 905-688-8248 ext. 7330 or 1-888-505-6074.
Appendix 2: Sample Transfer Letter

Please be advised that _______________________________ is being transferred from a facility where there is a suspected OR confirmed influenza outbreak. Please ensure that appropriate isolation precautions are taken upon receipt of this resident.

At the time of transfer, this resident was:

☐ confirmed
☐ suspected
☐ appears free of influenza.

Resident is on antiviral medication __________________________ starting on _______________. Dose of the medication __________________________

Resident’s vaccination status is:

- pneumococcal yes______ no ______
- Influenza yes______ no ______

For further information, contact __________________________, Infection Control Professional at __________________________________________ at ____ - ____- ___________

Name of Infection Control Practitioner

Name of Facility

Phone Number
Gastroenteritis Outbreaks

The recommendations presented are based on the most current, evidence-based literature, clinical knowledge, trends and expert consensus on prevention, detection, management and control of gastroenteritis outbreaks.

Gastroenteritis outbreaks can be caused by bacteria, viruses or parasites contracted through the consumption of contaminated foods or beverages, and through contact with contaminated items of infected persons. Many outbreaks can be prevented or have their impact mitigated through intentional and rapid identification and management of the case to minimize the spread of disease.

LTCHs are responsible for ensuring effective outbreak management, timely detection of cases and communication of these cases to public health. The requirement for communication is stipulated under section 27(2) of the HPPA.

Types of Gastroenteritis Outbreaks

Gastroenteritis outbreaks may result from person-to-person spread or ingestion of contaminated food or water. Contamination of food or water may occur at the source or during their preparation, handling or storage. Indirect transmission may occur through contact with contaminated fomites. The agents responsible for these outbreaks may be viral, bacterial or parasitic in nature.

Outbreaks Caused by Viruses

Viral gastroenteritis is the leading cause of gastroenteritis outbreaks in institutions. In LTCHs, norovirus is the most common cause of such outbreaks. The modes of transmission for norovirus include aerosolization, indirect transmission via contaminated surfaces, person-to-person spread or consumption of contaminated food and beverages. It is important to note that contamination of food most often occurs by an infected food handler. Norovirus affects both residents and staff, especially during the winter months when community incidence is also high. Indicators of a norovirus outbreak include sudden onset of symptoms with a significant proportion of affected persons experiencing nausea, vomiting and diarrhea. Norovirus outbreaks in LTCHs can place increased stress on resources, including increased costs due to higher
demands for health care workers (Zingg et al. 2005). During a viral outbreak, more than 50% of the residents and staff may become ill.

Although there may be a common source such as a food item that is responsible for an outbreak, secondary transmission from person-to-person can readily occur. Infected individuals typically shed millions of viral particles in their feces or vomitus. However, only a few of these particles are needed to cause infection. Norovirus particles can contaminate large portions of the environment in a LTCH and are able to survive for days on a variety of surfaces, making hand hygiene vital to infection prevention and control efforts.

**Outbreaks Caused by Bacteria and Parasites**

Bacteria and parasites are less frequently implicated in gastroenteritis outbreaks. Such outbreaks often arise from a point source such as bacteria-contaminated food or water. The initial attack rate can be high, but the disease usually does not spread beyond those initially infected. Unlike viral transmission, person-to-person transmission of bacteria and parasites is less common. As a result, there is greater success in controlling outbreaks caused by bacteria and parasites. Some bacterial pathogens such as *Shigella*, Verotoxin-producing *Escherichia coli* and *Salmonella typhi* require special considerations. LTCHs should consult with NRPH for further guidance.

For specific infection prevention and control practice information on CDI, please see the PIDAC document, *Annex C: Testing, Surveillance and Management of Clostridium difficile in All Health Care Settings* (current version).

For information on the roles and responsibilities associated with the reporting and management of CDI outbreaks, please see the MOHLTC document *Roles and Responsibilities of Hospitals and Public Health Units for Clostridium difficile Infection (CDI) Reporting and Outbreak Management* (current version)
Prevention and Preparation

Not all gastroenteritis infections and outbreaks in LTCHs are preventable however, 20% of these infections can be prevented through adherence to an IPAC program (Harbath et al, 2003)

Effective IPAC begins with preparation and implantation of outbreak control policies and procedures, the use of infection prevention techniques (routine practices) and the implementation of additional precautions when necessary.

Policy and Procedure Preparation

- **Disease Prevention**: policies should include routine practices and additional precautions; hand hygiene; reducing the risk of transmission of infectious agents; education of staff, volunteers, residents and families; and environmental cleaning.
- **Outbreak Preparedness**: policies should be evaluated and updated at least annually in accordance with evidence-based practices or prevailing practices.
- **Surveillance**: policies should include early identification of cases and application of appropriate practices to prevent disease transmission, management of data and the declaration of an outbreak.
- **Reporting**: policies should include notification of NRPH and other relevant authorities
- **Management of an Outbreak**: policies should include composition, mandate and roles of the OMT; a policy on staff exclusion; an outbreak staffing/resident plan for cohorting, transferring and workload management to ensure an adequate staff-to-resident ratio.
- **Staff and Volunteer Policies**: provide orientation to hand hygiene; modes of transmission; cleaning and disinfection; and use of personal protective equipment. Retraining of staff should be in accordance with evidence-based practices or prevailing practices.
- **Resident and Visitor Policies**: educate on what will happen during an outbreak.

Outbreak Preparedness

As part of the IPAC program, all policies and procedures should be evaluated and updated annually by the LTCH. All LTCHs are encouraged to include Public Health in the evaluation. Every LTCH should develop policies and procedures to include:
• The composition and mandate of the OMT
• A policy on excluding staff – and the criteria for their returning to work – during a gastroenteritis outbreak.
• An outbreak staffing/resident plan for cohorting, transferring and workload management.
• Specimen collection, including where to obtain specimen kits, testing facilities available and after hours testing contact information. Policies should also address receiving and reporting of laboratory test results.
• The carrying out of control measures for residents, staff, visitors and volunteers, including education about and reinforcement of routine practices and additional precautions and other control measures as applicable.
• Routine, thorough cleaning and education on specific disinfection procedures, depending on the identified type of organism.
• Food safety, maintenance of records such as temperature logs for food and dishwashers. Menu choices, catered and external food for residents, and routine retention of food samples should also be recorded.
• The roles and responsibilities of the home during an outbreak which include contact with NRPH, with the laboratory or laboratory-testing services available and communication with residents and their families, staff, volunteers, external groups and media during an outbreak.
• Procedures for declaring the outbreak over.

Infection Prevention and Control and Workers’ Safety

When preparing for gastroenteritis outbreaks, it is often viewed as a resident safety issue; however, the health of workers in LTCHs should be considered. LTCHs must comply with applicable provisions of the Occupational Health and Safety Act (OHSA) and its Regulations when implementing infection prevention and control procedures since infection of staff is an occupational health and safety issue (Box 1). Employers, supervisors, and workers have rights, duties, and obligations under the Act. A proactive approach to preparing policies and procedures is required to reduce the impact of outbreaks in LTCHs.
Staff safety is addressed in OHSA and its Regulations, including the use of personal protective equipment (PPE), regulations pertaining to the proximity of food and drink to infectious materials, needle safety, and ceiling exposure values for biological and chemical agents.

As noted previously, effective IPAC programs can reduce infections in health care settings. Central to an effective IPAC program is the implementation of Routine Practices and Additional Precautions. These measures should be at the core of a disease prevention culture in all LTCHs.

**Routine Practices**

Routine Practices are based on the premise that all residents are potentially infectious even when asymptomatic, and that standards of practice should be applied **routinely** with all residents during all care to prevent exposure to blood, body fluids, secretions, excretions, mucous membranes, non-intact skin or soiled items and to prevent the spread of micro-organisms. Healthcare providers must assess the risk of exposure to blood, body fluids and non-intact skin and identify the strategies that will decrease exposure risk and prevent transmission of micro-organisms before interacting with the resident.

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**Box 1: Health and Safety of Health Care Workers**

The *Regulation for Health Care and Residential Facilities under the Occupational Health and Safety Act* (OHSA) requires LTCHs develop written measures and procedures for the health and safety of workers, in consultation with the LTCHs Joint Health and Safety Committee.

These measures and procedures may deal with:

- Proper hygiene practices and the use of hygiene facilities.
- Control of infections.
- Use of appropriate antiseptics, disinfectants and decontaminants.
- Use, application, care, removal and limitations of PPE.
- Development of health and safety training and educational programs for workers by employer, that are relevant to the workers’ jobs.
Each health-care provider must conduct a risk assessment before interacting with the resident. To assess the risk of exposure, the health-care worker should consider:

- Risk of exposure to body fluids or blood during the procedure. Thorough hand hygiene is sufficient for minimal risk procedures, whereas higher risk procedures require both thorough hand hygiene and use of additional infection control practices.
- The procedure and the skill level of the health-care worker performing the procedure. Usually, the better trained a health-care worker is, the less likely they will be exposed to body fluids or blood.
- The resident's level of cooperation and cognitive awareness; for example, the more cooperative/cognitively aware, the lower the risk of transmission.
- Which infection prevention strategies to use during the resident and health-care-provider interaction.

**Hand Hygiene**

Proper hand hygiene is the single most important practice in preventing the transmission of infections. Hand hygiene refers to any action of cleaning one’s hands; this may involve using alcohol-based hand rub or liquid soap and water. Hand hygiene also encompasses the use of skin conditioners to maintain skin integrity, keeping nails short and clean, and refraining from wearing jewelry or nail enhancements.

To remove and/or kill micro-organisms on hands:

- Wash with soap and running water.
- When hands are not visibly soiled, use an ABHR containing at least 70% alcohol.
LTCHs should emphasize the importance of proper hand hygiene through ongoing education and regular communications with staff, residents, visitors and volunteers (Box 2). Auditing hand hygiene practices has been shown to improve compliance. Audit performance of hand-hygiene to identify current practices and to subsequently develop and implement strategies for improving thoroughness, appropriate timing and increased frequency. These audits should include direct observation.

**Personal Protective Equipment**

PPE, such as gloves and gowns, and in some situations masks and eye or face protection, may be required as barriers against micro-organisms. When used correctly, PPE helps protect staff and residents from infections and the environment from contamination. PPE only works when used properly. It is important for staff to don and doff PPE properly to avoid contaminating themselves, residents and the environment. See PIDAC signs for donning and doffing.
Gloves

Gloves protect the hands of health-care providers from contact with the resident’s body fluids, blood, excretions, secretions or non-intact skin. **Note:** Not all gloves are suitable for all tasks. For example, co-polymer gloves are not suitable for providing direct care to residents, but may be used in food preparation. Match the type of glove to the procedure and the strain exerted on the glove during the procedure. The ICP, public health unit or Regional Infection Control Network (RICN) can help in choosing appropriate gloves. Be aware of possible latex allergies, latex gloves are rarely necessary and should not be used if there is risk that staff or residents may have a latex allergy (Box 3).

Gowns

Use gowns to protect uncovered skin and protect clothing or uniforms during activities likely to generate splashes or sprays of blood, body fluids, secretions or excretions. The cuffs of the gloves must cover the cuffs of the gown. Remove gowns before leaving the resident’s room or dedicated space or if they become soiled, wet or contaminated.

Masks and Eye Protection

Wear masks and eye protection to protect eyes, nose and mouth during procedures likely to generate splashes or sprays of blood, body fluids, secretions or excretions. Consider using a mask to minimize the risk of touching ones nose and mouth with contaminated hands.
Box 3: Effective Use of Gloves for Disease Prevention

DO NOT:

- Substitute gloves for hand hygiene.
- Wear gloves for routine procedures limited to touching a resident’s intact skin.
- Wear gloves when feeding a resident.
- Wash or reuse single-use, disposable gloves.
- Double glove.
- Wear the same gloves for activities involving more than one resident.

DO:

- Perform hand hygiene and wear clean, non-sterile gloves when:
  - Contact with blood, body fluids, secretions or excretions is anticipated.
  - Handling visibly soiled items.
  - Staff’s hands have open cuts, wounds or skin conditions i.e., eczema, psoriasis, dermatitis.
- Change gloves and perform hand hygiene before putting on new gloves and between procedures with the same resident.
- Remove and discard gloves:
  - Immediately after completion of the task.
  - If they become ripped or damaged.
  - At the point of use before leaving the room.
  - Before touching clean environmental surface.

Additional Precautions

Additional precautions are necessary for certain pathogens and symptoms, and includes airborne, droplet and contact modes of transmission. Gastrointestinal infections typically cause significant vomiting and diarrhea, which can contaminate the environment. Contact and/or droplet precautions are recommended as soon as symptoms of a gastroenteritis infection develop as the virus may become aerosolized.
Contact Precautions

Contact precautions should always be used in addition to routine practices. The following strategies will help decrease transmission during a gastroenteritis outbreak:

- Encourage residents with gastrointestinal symptoms to remain in their rooms and provide them with tray service.
- Do not allow infected residents to participate in group activities for at least 48 hours after their symptoms have resolved.
- Instruct visitors on the precautions they should follow.
- Identify, and store separately, all equipment designated to be used by an ill resident, to prevent their use for other residents. If a lack of equipment or storage space makes this unfeasible, then do not use the equipment until it has been thoroughly cleaned and disinfected.
- Wear gloves and a gown when providing direct care to a resident.
- Wear a mask and goggles or a face shield to protect from splashes if a resident has explosive diarrhea or projectile vomiting or when there are other situations that pose risk of splashing such as removing fecal material or vomitus, or using a sink spray nozzle. To prevent contamination, store clean supplies outside the rooms of infected residents.
- Provide containers in residents' rooms for used PPE disposal.
- Reinforce the importance of hand hygiene with roommates and visitors – visitors who provide direct care to residents (i.e. toileting) should use the same PPE as staff and be instructed on how to properly do so.

Other Disease Prevention Strategies

Other disease prevention strategies include, routine environmental cleaning and disinfection, safe food-handling practices, a staff health policy and a visitor health policy, which shall include but not be limited to the following recommendations.

Environmental Cleaning and Disinfection:

Each LTCH should have written policies and procedures for:

- Routine cleaning and disinfecting.
- Enhanced cleaning during an outbreak. Enhanced environmental cleaning practices should always be implemented during outbreaks (Box 4).
These policies and procedures should be evaluated and updated at least annually to ensure they reflect current best practices. Policies should include proper use of supplies for cleaning and disinfecting; laundry-handling practices; and proper handling and disposal of waste.

Some basic cleaning principles include:

- Moving from clean areas to dirty areas.
- Cleaning from top to bottom.
- Increased cleaning of high-touch surfaces during gastroenteritis outbreaks.
- Adhering to manufacturer’s instructions on preparation and storage of disinfectant solutions and the recommended contact time.

**Safe Food Handling Practices:**

The Public Health Inspector can provide information on food safety requirements for:

- Proper food-handling techniques.
- Food-service worker hygiene.
- Sanitation.
- Food-safety education.

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**Box 4: Enhanced Environmental Cleaning Practices**

Emphasize the following during an outbreak:

- Increase routine cleaning of all high-touch surfaces such as door handles, bed railings, hand rails, light switches, elevator buttons, over-bed tables, dining tables and counters.
- Increase the cleaning and disinfecting of all surfaces in the ill resident’s immediate environment.
- Disinfect shared resident equipment after each use and discard disposable equipment before leaving the resident’s room.
- If possible, dedicate specific equipment to each ill resident.
- Promptly clean and disinfect surfaces contaminated by stool and vomit.
- Clean soiled carpets and soft furnishings with hot water and detergent or steam clean – vacuum cleaning is not recommended.
Staff Health Policy

Staff with any gastroenteritis symptoms should stay off work when ill and continue to remain home for a minimum of 48 hours after their gastrointestinal symptoms (i.e. vomiting, diarrhea) have resolved. The LTCH can consult with Public Health once a specific agent has been identified where the exclusion period may need to be adjusted.

Visitor Health Policy

Policies must be in place for visitors that are either infectious or who may become infected. Some policies that will help protect the residents, staff and visitors include:

- Posting signs at entrances outlining screening policies for non-staff.
- Advising everyone not to enter the LTCH when they have gastrointestinal symptoms, respiratory symptoms or known communicable disease. Visitors should not enter the LTCH if they have symptoms of a communicable disease, particularly if they are experiencing diarrhea or vomiting. This applies at all times, not only during outbreaks.
- Providing hand-hygiene products at the entrances and throughout the LTCH.

Education of Staff and Volunteers

An effective education program that is well planned and executed will improve IPAC programs (Daly et al. 1992). The LTCH should educate all staff and volunteers about gastrointestinal infections at the time of hiring or orientation, annually thereafter, and when an outbreak occurs. A mechanism to track all education should be implemented. Education can include the use of brochures, signs and posters as well as courses and demonstrations. The type of education provided should be tailored to meet the needs of staff and volunteers and the specific activities that they carry out within the LTCH. For further information or assistance, contact your public health unit or RICN office.
**Education for all Staff and Volunteers**

Education/orientation programs for all staff and volunteers (as applicable) should include information on:

- The transmission and prevention of gastrointestinal infections.
- Routine Practices and Additional Precautions.
- Hand hygiene.
- Donning and doffing PPE.
- Appropriate cleaning and disinfecting procedures to be followed after each use of multi-use equipment which is shared among residents.
- Environmental cleaning and disinfecting procedures, especially for housekeeping staff.
- Food safety – safe food-handling practices for receiving, preparing, storing and transporting food.
- Occupational Health policies.
- Routine daily surveillance for signs of infection.
- Roles and responsibilities of staff, administration, the ICP and Public Health.
- Specimen collection methods.
- Gastroenteritis outbreak management.
- Outbreak control.

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**Education of Residents, Resident Families, Private Pay Caregivers and Visitors**

Topics to include in education programs for all residents, resident’s families, private caregivers and visitors:

- Hand hygiene.
- Routine practices, and in specific instances, additional precautions (use of PPE).
- The transmission and prevention of gastrointestinal disease including the requirement not to visit LTCH when they are ill.
- Outbreak management – what to expect (restrictions) when there is an outbreak.
Surveillance

Daily surveillance is the most effective way to detect gastrointestinal infections.

Surveillance is defined as “the ongoing systematic collection, analysis, interpretation and evaluation of health data closely integrated with timely dissemination of this data to those who need it”. There are two key aspects of surveillance systems: surveillance is an organized, ongoing exercise and surveillance systems go beyond the collection of information and knowledge gained through surveillance must reach those who can use it to direct resources where needed to improve health.

Target Groups for Surveillance

Resident Surveillance/Passive Surveillance

Direct-care staff members are key to good resident surveillance; however, all staff should be encouraged to report changes in any resident condition. Staff who recognize and report initial signs of resident illness allow control measures to be implemented early, which is a vital step in preventing an outbreak.

To provide effective surveillance, staff must be given education and/or training in:

- Their role in surveillance and its importance.
- Symptoms of gastrointestinal infection.
- Criteria for a suspected outbreak.
- Procedures for reporting to the ICP or designate, who will then report to the public health unit.

LTCHs must identify residents with gastrointestinal symptoms on a daily surveillance form or line list (see page 28). Completed surveillance forms should be forwarded to the LTCH’s ICP or designate daily.

Active surveillance involves actively seeking out infections on a regular basis by individuals trained in surveillance, usually ICPs. Several strategies may be used including:

- Conducting unit rounds.
- Reviewing unit reports that include incidents of diarrhea and vomiting.
- Reviewing physician/staff communication books.
- Reviewing medical and/or nursing progress notes in charts.
- Reviewing pharmacy utilization records.
- Reviewing laboratory reports.
- Receiving verbal reports from unit staff based on their clinical observations.

Staff Surveillance

The ICP should monitor staff illness to identify clusters or outbreaks. Since ill staff can bring infectious diseases into the LTCH, staff should:

- Self-screen and stay home when they are vomiting and/or have diarrhea.
- Report vomiting and/or diarrhea to their supervisor or a person accountable for employee health. The Occupational Health designate must promptly inform the ICP of cases and clusters of staff who are absent from work with the symptoms of gastroenteritis.

Analysis

The ICP or designate must review surveillance data daily to determine whether any resident has symptoms of infectious gastroenteritis and if more than one person has such symptoms (i.e., an outbreak is suspected). The public health unit can help interpret and analyze surveillance data.
Outbreak Detection and Management

Early recognition of cases signaling outbreaks and swift actions are essential for effective management. Timely specimen collection, communication and the implementation of appropriate control measures have the potential to make significant impact in the course of the outbreak that will benefit both residents and staff.

The steps outlined in the following checklist are the responsibility of the LTCH unless otherwise noted. The roles and responsibilities of the NRPH (Medical Officer of Health or designate) should be clarified at the first OMT meeting, to which the public health unit representative(s) is always invited.
# Outbreak Management Checklist

In the event of a suspected outbreak, the LTCH should immediately institute control measures

<table>
<thead>
<tr>
<th></th>
<th>CHECKLIST</th>
<th>Nurse initial</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Initiate a list listing of all symptomatic patients/residents/staff using the Public Health line list (see page 28) and fax daily to 905-682-6470</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Implement outbreak control measures</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Should be implemented as soon as an outbreak is suspected</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• All staff should be notified quickly of outbreak and supplies (e.g., ABHR, PPE) should be made available.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• All residents symptomatic should be placed on appropriate additional precautions (contact) in addition to routine practices as soon as possible after symptoms are identified</td>
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</tr>
<tr>
<td></td>
<td>Refer to Outbreak Management Guide for specific enteric outbreak control measures.</td>
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</tr>
<tr>
<td>3.</td>
<td>a Notify Public Health, Infectious Disease program at 905-688-8248 ext. 7330 or 1-888-505-6074 or after hours 905-984-3690. Have the following information available:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Date of onset</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Symptoms</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Total # of residents/patients/staff in the home/facility, or unit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Total # of residents/patients/staff ill at present</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Enteric kits available in facility (check expiry date)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Within the last 7-10 days were there reports of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Ill food handlers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Water or power disruption</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Sewage backup</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Equipment failures (e.g. fridges)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Parties/special events</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Have the Outbreak Management Guide available for reference</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b Obtain an outbreak number from Public Health</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c Establish outbreak case definition with Public Health</td>
<td></td>
</tr>
<tr>
<td></td>
<td>d Review outbreak control measures with Public Health</td>
<td></td>
</tr>
<tr>
<td></td>
<td>e Review enteric specimen collection and pick up by Public Health. Contact Infectious Disease program for pick up.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>f Provide public health with the name of the person responsible for the outbreak investigation along with contact information.</td>
<td></td>
</tr>
</tbody>
</table>
4. Consider notifying appropriate individuals associated with the LTCH of the outbreak and establish OMT membership. These may or may not be individuals that form the OMT.

**Internal**
- Medical director, nurse practitioners
- Director of nursing and personal care
- Administrator
- Licensee and/or board of directors
- Chair of IPAC
- Employee health nurse
- Families of residents
- Director of food services/housekeeping/maintenance/volunteer services
- Resident and family councils
- Residents/staff/volunteers
- Other health care providers (e.g., physiotherapists)
- Other service providers (e.g., salon)

**Externally**
- Community care access centre
- Staffing agencies

5. Call an initial OMT meeting
- Administration of the LTCH should hold an OMT with LTCH representatives from each department and a Public Health unit representative(s) as soon as possible.
- The OMT should meet daily to manage all aspects of the outbreak

Refer to OMT agenda that follows

6. Communicate the results of laboratory tests
Educate staff/volunteers/residents on the infectious agent

7. Monitor the outbreak on an ongoing basis
- Identify new cases
- Monitor status of ill residents/staff
- Update and fax line listings to Public Health daily
- Monitor outbreak control measures
- Report significant changes in the outbreak (e.g., hospitalizations, deaths, change in clinical picture)

8. Declare the outbreak over
The Medical Officer of Health or designate in collaboration with the OMT shall determine when to declare an outbreak over

**Note:** the Medical Officer of Health retains the final authority to determine when an outbreak is over.

9. Following the outbreak, LTCH will arrange to meet with Public Health to review:
- Course of outbreak
- Management of outbreak
- What was handled well and improvement for future outbreaks
## Agenda – Outbreak Management Team (OMT) Meeting

<table>
<thead>
<tr>
<th>Outbreak# 2246-<strong><strong>-</strong></strong></th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>In Attendance:</strong></td>
<td></td>
</tr>
<tr>
<td>❑ Physician</td>
<td>❑ Media spokesperson</td>
</tr>
<tr>
<td>❑ Nurse Practitioner</td>
<td>❑ Resident representative</td>
</tr>
<tr>
<td>❑ DOC/DRC</td>
<td>❑ Community volunteers</td>
</tr>
<tr>
<td>❑ Administrator</td>
<td>❑ Public Health</td>
</tr>
<tr>
<td>❑ ICP</td>
<td>❑ Occupational Health</td>
</tr>
<tr>
<td>❑ Director of Food services</td>
<td>❑ Pharmacist</td>
</tr>
<tr>
<td>❑ Director of Housekeeping</td>
<td>❑ Staff members</td>
</tr>
<tr>
<td>❑ Director of Recreation</td>
<td>❑ Board member</td>
</tr>
</tbody>
</table>

### Actions

1. Review current line list

2. Review symptoms to date

3. Review case definition

4. Review outbreak location

5. Review of specimens collected

6. Review laboratory results

7. Review of environment

8. Review infection Prevention and control measures

9. Lab confirmed organism (e.g., Norovirus) Outbreak Control Measures

10. Questions

11. Date, time and location of next meeting
Specimen Collection

Enteric Outbreak Kit
Instructions for the collection and transportation of enteric specimens (feces)

Obtain Supplies, Complete Requisitions; and Label all Specimen Vials

1) Check expiry date, do not use expired kits.
2) Remove the specimen collection vial(s) from the biohazard bag.
3) Complete an “Enteric Disease Investigation Multiple Specimen Submission Form”. Include the outbreak number which is assigned by Niagara Region Public Health Department (NRPH).
4) On the main kit label located on the biohazard bag, fill in the required information with a pen (see example on reverse). Peel this label off of the bag and place this label on the completed submission form in the following areas:
   a) In the column marked “label” on the “Enteric Disease Investigation Multiple Specimen Submission Form”
5) Record on each vial used
   • Patient/Resident Name (First & Last)
   • Date of Birth (DOB)
   • Outbreak # assigned by NRPH
6) Peel off 1 of the 4 corresponding kit numbered stickers located on the biohazard bag. Place 1 sticker on each vial used.
   **Important: If the patient/resident name and kit number sticker are not on each of the vials, the specimen will not be tested.

Collect Specimen

Feces that have been in contact with water in toilet are unacceptable.

7) Using the spoon from each vial, select different sites of the feces specimen, preferably blood, mucus or pus, and transfer to the vials as follows:
   a) Virology/Toxin (White capped vial which is empty) Add feces up to the line indicated. Replace and tighten cap.
   b) Bacteriology (Green capped vial with red-coloured transport medium) Add 2-3 spoonfuls, mix into the transport medium. Replace and tighten cap.
   c) Parasitology (Yellow capped vial with clear liquid preservative) Add feces up to the line indicated. Mix well. Replace and tighten cap.

Transportation

8) Place all vials in the biohazard bag. Place the completed requisition in the outside pocket. Do not place the requisition inside the biohazard bag containing the specimens.

9) Refrigerate specimens immediately. Do not freeze specimens.

10) Call the Infectious Disease Program as soon as possible to pick up specimens.

**See next page for Labelling Example**
Labeling an Enteric Outbreak Kit

Place one sticker on each vial used

Enter date specimen collected
Enter onset date of case symptoms

Enter case name & DOB
Enter health card number

Outbreak #
2246-20XX-XXX
<table>
<thead>
<tr>
<th>Your facility name, address, telephone and fax number</th>
</tr>
</thead>
</table>

Outbreak number provided by Niagara Region Public Health 2246-YEAR-3 digit number

<table>
<thead>
<tr>
<th>Affix completed main kit label here</th>
</tr>
</thead>
</table>

For Lab Use Only

---

**Outbreak Management Guide**

October 27, 2014
Case Definitions

The case definition contains the criteria to be used during an outbreak to designate a resident or staff member as having infectious gastroenteritis. Individuals who meet the case definition are considered a case – even if laboratory test results are negative – unless another diagnosis or reason for symptoms (e.g., laxative use) is confirmed or the case definition is changed to include the laboratory diagnosis.

To be defined as a case of infectious gastroenteritis at least one of the following must be met:

- Two or more episodes of diarrhea or watery stool (take the form of its container) within a 24-hour period, or two more episodes of vomiting within a 24-hour period
  or
- One episode of diarrhea or watery stool (takes the form of its container) and one episode of vomiting within a 24-hour period
  or
- Laboratory confirmation of a known gastrointestinal pathogen and at least one symptom compatible with gastrointestinal infection (e.g., nausea, vomiting, diarrhea or abdominal pain or tenderness)

Note: Care should be taken to rule out non-infectious causes of these symptoms such as new medications, use of laxatives or other non-infectious diseases. The bowel movements should be unusual or different for the resident
Outbreak Definition

An outbreak should be suspected any time the occurrence of gastroenteritis is beyond what is normally expected based on surveillance data.

Reporting of gastrointestinal outbreaks is legislatively required under the HPPA from the following institutions: nursing homes, homes for the aged, acute and chronic care hospitals operating under the Public Hospitals Act. Although not required under the HPPA, reporting of gastrointestinal outbreaks in retirement homes is strongly recommended.

Any suspect outbreak should be reported to NRPH.

Suspected Gastroenteritis Outbreak Definition

Two suspected cases of infectious gastroenteritis in a specific area, such as a home, unit or floor, within 48 hours.

Confirmed Gastroenteritis Outbreak Definition

Three or more cases of infectious gastroenteritis in a specific area, such as a home, unit or floor, within a four day period, or three or more units/floors having a case of infectious gastroenteritis within 48 hours.

Note: this definition may be modified as the investigation proceeds.

Laboratory confirmation is not required to be classified as a confirmed institutional outbreak.
Infection Prevention and Control Measures

As mentioned in the introduction, the recommendations contained in this document are intended to protect the health of resident populations. LTCH licensees are also required to fully respect and promote the individual resident rights as set out in the Bill of Rights under the LTCHA. The LTCH and NRPH should work together to ensure that residents’ rights under the LTCHA are fully respected and promoted, while implementing outbreak control measures that are protective to the resident populations and that are appropriate and proportional to the risk profile of the outbreak.

When communicating outbreak control measures and recommendations to the LTCH, public health unit staff will need to emphasize the need for adherence to IPAC principles with respect to exceptional visit requests; LTCH staff should be advised to call NRPH to discuss how to proceed, if there are any concerns regarding how to mitigate the infection control risks of a particular request from a resident/resident’s family. Examples include a request for allowing children to visit during an outbreak because they don’t have child sized PPE or if a visitor wishes to visit numerous residents.

The LTCH infection control practitioner or the most responsible person should contact NRPH in order to balance the needs of the resident against the risk to the health of the other residents; at this point, a discussion around if/how the request can be accommodated can take place.

When providing outbreak management recommendations, NRPH will have to assess the risk of non-compliance to outbreak control measures on the general resident population. Generally, LTCHs and NRPH will discuss with OMT members the gastroenteric infection outbreak control measures and decide jointly on appropriate measures to implement. The extent to which outbreak control measures can be implemented and what is considered reasonable throughout the course of each outbreak will vary. Examples of reasonable measures include:

- limiting visiting hours.
- limiting the number of residents to whom the visitor has contact.
- requiring anyone providing direct care (including visitors, other residents, etc.) to wear the necessary PPE.
- posting signs at entrances of facility and/or affected unit/area, discouraging visitors during the outbreak period.
• notifying persons of the outbreak.

The above measures are seen to be reasonable and appropriate during the course of an outbreak.

The following outbreak control measures are recommended by NRPH for all gastroenteric outbreaks:

(1) **Restriction of Symptomatic Cases to Their Room**
- Cases should be isolated in their rooms for 48 hours from the cessation of symptoms as long as this does not cause them mental or physical harm.
- Implement contact precautions (i.e., post signs). See [PIDAC for signage](#).
- Optimally, room isolation should be used but if this is not feasible, ward/unit isolation could be applied.
- No restriction is required for asymptomatic roommates of cases, however as much as possible, restrict all residents to their units.

(2) **Cohorting Residents/Staff**
- Minimize movement of staff, students and volunteers between affected/unaffected floors/units and consider cohorting.
- If possible, exposed staff should remain caring for symptomatic cases on a daily basis and avoid transferring to another unit/floor during the outbreak.
- Where possible have recovering staff returning to work care for symptomatic residents.
- Strict cohort nursing is not always possible when many staff are ill.
- Allied health professionals (e.g., respiratory therapists, physiotherapists, occupational therapists, speech therapists, recreational therapists) should be cohorted to the outbreak unit where possible, or provide care on non-outbreak units before entering the outbreak unit (preferably on a one-on-one basis).

(3) **Hand Hygiene**
- Hand hygiene stations should be set up at designated areas in the facility (i.e., entrances, outside elevators, patient/resident care areas).
- Hand hygiene should be performed (four moments of HH):
Before initial patient/resident environment contact.
Before invasive/aseptic procedures.
After body fluid exposure risk (contact with blood, body fluids, secretions and excretions).
After patient/resident environment contact.

- Alcohol based hand rubs (ABHR) containing 70% alcohol are the first choice for hand hygiene in clinical situations when hands are not visibly soiled. Using ABHRs is more effective than washing hands (even with an antibacterial soap) when hands are not visibly soiled. When visible soil is present and running water is not immediately available, use moistened towellettes followed by ABHR.
- Residents, staff and volunteers should be instructed in proper hand hygiene to facilitate staff and visitor hand hygiene.
- PIDAC “Best Practices for Hand Hygiene, April 2014”

(4) Personal Protective Equipment
- The use of gowns and gloves is recommended for direct patient care of ill residents during an outbreak to prevent transmission of organisms.
- Visitors do not need to wear gloves or gowns if they are visiting one resident only; however, if providing direct resident care to an ill resident they should be encouraged to wear a gown and gloves and should be asked to wash their hands before and after the visit.
- Refer to PIDAC for “Sequence for Donning and Removing Personal Protective Equipment.”

(5) Enhanced Environmental Cleaning/Disinfection
- Cleaning and disinfection methods will be reviewed by the public health inspector.
- Disposable dishes and cutlery are not required.
- LTCHs should become familiar with the PIDACs Best Practices for Environmental Cleaning for the Prevention and Control of Infections in All Health Care Settings. This document will assist LTCH staff assess the cleaning requirements.
- Procedures for assigning responsibility and accountability of routine cleaning of all environmental surfaces and non-critical resident care items should be established.
(6) Exclusion of Symptomatic Staff, Students and Volunteers

- Staff who meet case definition are excluded from the facility until they have been 48 hours symptom-free (i.e. food handlers, health care workers including volunteers and students). Once a specific causative agent is known, disease-specific exclusions apply.
- Discard all read-to-eat foods (i.e., not to be cooked) prepared for by dietary staff that became ill while on shift.

(7) Visitor Access

- Well visitors/private pay care givers who choose to visit during the outbreak and who are not going to be providing direct care to an ill resident should be asked to:
  - Perform hand hygiene when entering the LTCH.
  - Perform hand hygiene before entering and upon leaving the resident’s room.
  - Visit residents only in their rooms and avoid communal areas.
  - Visit only one resident and leave the LTCH immediately; if multiple residents are in the LTCH but in different locations, it is recommended that the healthy resident(s) (non-outbreak case) be visited first.
  - Not mingle with other residents.

- Well visitors who choose to visit during an outbreak and are going to be providing direct care to an ill resident should be asked to wear appropriate PPE.
- Ill visitors/private caregivers shall not be permitted in the LTCH, unless under extenuating circumstances. Under these circumstances, they should wear the appropriate PPE, perform HH at the appropriate times and finally, they should restrict their visit to the resident.
- Complete closure of a LTCH to visitation is not permitted unless there is an order issued by the Medical Officer of Health as it may cause residents and visitors emotional hardship.
- Visitors should be instructed on how to put on and remove PPE.

(8) Communal Meetings and Other Activities

- Reschedule communal meetings on the affected unit/floor. However, other meetings or activities may proceed in non-affected areas.
- Discontinue group outings from the affected unit/floor.
- The OMT should discuss restricting meetings or activities in the entire LTCH if the outbreak spreads to two or more units/floors.
• Do not permit visits by outside groups, such as entertainers, volunteer organizations and community groups.
• Conduct on-site programs such as physiotherapy and foot care for residents in their rooms, if possible. Proper precautions should be taken for ill residents.
• Ensure there is no interaction between the affected floor/unit and participants in on-site child-care or other day programs.

(9) Admissions and Returns from Absences
• Generally as an outbreak control measure a NRPH advises against admission of new residents to a LTCH or unit/floor experiencing an outbreak.
• An applicant to a LTCH cannot be removed from a waitlist for a LTCH where an outbreak of disease prevents the applicant from moving into the LTCH at the time that the CCAC offers to authorize the applicant’s admission to the LTCH (O.Reg.79/10s.167).

New admissions and return of non-cases
• The admission of new residents and return of residents who have not been line-listed in the outbreak is generally not advised during an outbreak. If required, this recommendation may be altered as the outbreak comes under control.
• Members of the OMT from the LTCH and NRPH should discuss if new admissions and/or return of non-cases are being considered, such as:
  ○ What is the current status of the outbreak?
  ○ Does the attending physician at the hospital agree to admission/readmission?
  ○ Are appropriate accommodations available to the returning resident? Will they return to an outbreak affected area?
  ○ Has the resident or their substitute decision maker been given information about the return to LTCH?

(10) Transfer to Hospital, Other Facility or Urgent Appointment
• It is not recommended to transfer residents from anywhere in the LTCH to another LTCH during an outbreak.
• The OMT or Public Health and the ICPs of both facilities may approve the transfer of residents on a case-by-case basis.
• Prior to transfer of residents to a hospital, designated staff at the outbreak facility should contact the ICP directly by phone to inform them that the resident is coming from an outbreak situation
• Inform them of the outbreak, the pathogen, if known, and if the resident is symptomatic or not.
• Inform the ICP whether the resident was or was not on the line list; this will allow the hospital to start discharge planning.
• See appendix 2 for sample transfer letter.

Transfer to another LTCH

• Symptomatic resident transfers (from anywhere in the home) to another LTCH are not recommended during an outbreak.
• OMT should discuss exceptions to this recommendation and make a decision on a case-by-case basis.

(11) Working at Other Facilities
• During enteric outbreaks staff/volunteers should not work at any other facility (e.g. health care, child care centers and food premises). If asymptomatic staff chooses to work at another facility, they must wait one incubation period (i.e. 48 hours) after working the last shift at the outbreak facility (if causative organism is known, the waiting period may differ). Staff working at 2 facilities must inform their employers that they have been working in a LTCH at which there is an outbreak.

(12) Medical appointments
• Non-urgent appointments made before the outbreak may be rescheduled at the discretion of the treating physician, with the consent of the resident/SDM, as long as the resident is not symptomatic.
Declaring the Outbreak Over

Public Health shall declare whether an outbreak is over in consultation with the LTCH. Public Health shall use the most current available epidemiological data and best practices/guidance documents to determine when an outbreak can be declared over. The Medical Officer of Health retains the final authority to determine if an outbreak is over.

The outbreak may be declared over when certain criteria are met. The end of an outbreak is determined on a case-by-case basis. The specific period varies by micro-organism, but is often set at 48 hours after the symptoms of the last case have resolved and all appropriate precautions were taken.

Since LTCH have some sporadic gastrointestinal illness cases in non-outbreak situations, the OMT may need to attempt to differentiate between these sporadic cases and outbreak-associated cases in identifying the last outbreak-related resident case.
## Gastrointestinal Outbreak Associated Organisms
### A Reference Chart for Health Care Workers

<table>
<thead>
<tr>
<th>Organism</th>
<th>Symptoms</th>
<th>Mode of Transmission</th>
<th>Incubation</th>
<th>Period of Communicability</th>
<th>Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adenovirus</td>
<td>• Watery diarrhea, vomiting, fever (duration one to seven days)</td>
<td>• Fecal-oral route</td>
<td>Five to 10 days</td>
<td>• Most communicable during the first few days of an acute illness</td>
<td>Stool specimen</td>
</tr>
<tr>
<td>Clostridium difficile</td>
<td>• Diarrhea, abdominal cramps, fever may occur</td>
<td>• Fecal-oral route</td>
<td>Unknown</td>
<td>• Until formed stools</td>
<td>Stool specimen from patient/resident with diarrhea</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Contact with contaminated environmental surfaces</td>
<td></td>
<td>*rectal swabs are not accepted and will not be tested</td>
<td></td>
</tr>
<tr>
<td>Norovirus/Norwalk-like</td>
<td>• Diarrhea, nausea, vomiting, cramps, headache, fever, chills, malaise</td>
<td>• Probably by the fecal-oral route</td>
<td>One to two days</td>
<td>• During the acute stage of disease and up to 48 hours after Norwalk diarrhea stops</td>
<td>Stool specimens</td>
</tr>
<tr>
<td>Virus</td>
<td>• Symptoms characteristically last 24 to 60 hours</td>
<td>• Contaminated food or water</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Exposure to contaminated surfaces and vomitus</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rotavirus</td>
<td>• Vomiting, fever and watery diarrhea (severe)</td>
<td>• Probably fecal-oral with possible contact or respiratory spread</td>
<td>Two to three days</td>
<td>• During the acute stage of disease and later while virus shedding continues</td>
<td>Stool specimens</td>
</tr>
<tr>
<td></td>
<td>• Symptoms last for an average of six to nine days</td>
<td></td>
<td></td>
<td>• Virus is not usually detectable after the eighth day of infection</td>
<td></td>
</tr>
</tbody>
</table>

*rectal swabs are not accepted and will not be tested

**most common in daycare outbreaks
Investigation and Management of Food-borne Outbreaks

Most enteric outbreaks in LTCHs are caused by viruses which are acquired through person-to-person transmission. However, other microbial agents can cause enteric disease in LTCHs as well. These include foodborne as well as waterborne agents such as Verotoxin-producing Escherichia coli, Salmonella species and Listeria monocytogenes. For this reason, it is important that the NRPH investigate the possibility that foodborne, waterborne or other agents are potential sources of any illnesses identified.

It is important to note that outbreaks spread from person-to-person still could have started with a point source such as ill kitchen staff or contaminated food or utensils. Investigation of a food-borne outbreak may be discontinued if, during early stages of an outbreak, a confirmed etiological agent is identified and that it is being transmitted person-to-person. The policies and procedures related to the investigation and management of food-borne outbreaks should be integrated into the LTCHs IPAC program.

Recommended Food Handling Policies and Procedures

Policies and procedures should be developed to cover all aspects of food handling. NRPH can offer guidance. Implementing appropriate policies and procedures can be instrumental in preventing outbreaks and controlling those that do occur.

Once policies and procedures are in place, consider scheduling regular in-service training for appropriate personnel and keep a record of the training – date, session name, presenter, training description and names of staff who attended.

Policies and procedures should include those related to food handling staff, records of food suppliers, retention of food samples, temperature records of potentially hazardous foods (PHF), catered food, food brought in by families, common kitchens, feeding assistance, dishwasher temperature/sanitizing records and kitchen equipment installation and maintenance.

Food-Handling Staff

Staff should be familiar with the exclusion criteria for food handlers outlined in the Infectious Diseases Protocols (2008). Public Health will provide recommendations on the screening of ill
staff for enteric diseases if it strongly suspected that the outbreak is food-borne. Depending upon the circumstances, screening of asymptomatic staff may also be considered.

**Records of Food Suppliers**

Food contaminated early in the food-production process could be widely distributed and thus become the source of many simultaneous outbreaks. Under the LTCHA, all LTCHs must maintain, and keep for one year, a record of purchases related to the food production system, including food delivery receipts. NRPH also requires accurate records of food suppliers, including emergency contact information. Include suppliers of foods not generally considered potentially hazardous foods, such as fruits and vegetables, as these food items have also been involved in outbreaks.

**Retaining Food Samples**

Although not legislated, consideration should be given to implementing a policy of retaining 100 gram (solid), or 100 ml (liquid) samples of ready-to-eat, potentially hazardous foods from each meal for 5 days.

**Temperature Records of Potentially Hazardous Food**

LTCHs should verify and record the final cooking, reheating and holding temperatures of potentially hazardous food. The LTCHs policies and procedures should clearly indicate which foods must be monitored and the documentation required.

Improper cooling procedures often cause food-borne illness. NRPH recommends documenting the cooling procedures used for potentially hazardous, prepared-in-advance food items that are cooled and reheated before being served. Food-preparation temperature records should be kept in accordance with the LTCHs retention policy, but not less than three months.
Catered Food and Food Brought in by Families

Often, food prepared off-site is available to residents. The LTCH should have clear policies outlining:

- Procedures to be followed if a resident wishes to have one or more meals catered (commercial caterers must be approved by NRPH).
- Advising direct care staff that food has been brought into the LTCH. Visitors should be advised not to offer food to other residents without direct care staff knowledge. Some residents are not able to consume certain foods due to underlying medical conditions.
- Which staff should be notified.
- The labeling requirements such as contents, resident’s name and date prepared.
- Required storage procedures such as location, duration and holding temperature requirements.

Food Retention Policy:

Once a potential outbreak has been identified, food samples should not be discarded.

What to include in your food retention policy:

- Types of food to be retained.
- Date of production.
- Retention period (or date of discard).
- Location of retained food samples.
- Type of retention container.
- Quantity of food to be retained.
- Labeling requirements such as: date, type of food and time of meal.

Food samples should be kept refrigerated at or below 4.0C, or, frozen at or below – 18C until the outbreak is declared over by NRPH.

Common Servery or Kitchenette

Serveries or kitchenettes that are accessible to residents must meet the requirements of the Food Premises Regulation under the HPPA. These areas may pose special concerns since they can allow unrestricted access to food supplies that could lead to food contamination. The Food Premises Regulation is available at: http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_900562_e.htm.
The LTCHs policies must be in compliance with the LTCHA, O. Reg 79/10 and the Food Premises Regulation. The policies must:

- Clearly define to which servery or kitchenette residents have access.
- Require all personally-owned resident food be labeled – contents, name of resident and date of preparation/decanting.
- State that anyone preparing or handling food, including cooking with residents as part of activities programming, must follow proper hand-hygiene procedures.

**Feeding Assistance**

The LTCH should have as part of their policy, a requirement for:

1. A person assisting residents with eating to perform hand hygiene before and after each meal.
2. A resident to be provided an opportunity to perform hand hygiene before and after each meal.
3. Staff from external agencies and volunteers are not to enter the LTCH if they have symptoms of a communicable disease, particularly if they are experiencing diarrhea or vomiting.

**Dishwasher Temperature and Sanitizing Records**

Facilities must keep clear records of wash and rinse temperatures for each mechanical dishwasher. If the dishwasher has a low-temperature rinse and relies on chemical sanitizing, sanitizer concentration checks must be performed and documented daily, at minimum. Records must be dated, initialed and kept on site for at least three months. The LTCH and NRPH staff should review the records during routine inspections and outbreak investigations.

**Kitchen Equipment Installation and Maintenance**

Keep records of any equipment that has been installed or repaired. Instructions on how each piece of equipment should be maintained, cleaned and sanitized should be readily available.
Food-borne Illness Investigation

NRPH is the lead in investigations to identify the source of food-borne outbreaks. These investigations rely heavily on the cooperation and assistance of LTCH staff. A public health inspector (PHI) or public health nurse (PHN) may take the following actions once an outbreak has been confirmed and food/water has not been ruled out as the source.

1. **Questionnaires**

   The collection of information from residents, staff and others who may have been exposed to contaminated food or water is important in assessing the cause of an outbreak. Case-history information – especially symptoms, onset times and food consumed – will often identify the most likely causative food items and may help identify the most likely organisms.

2. **Clinical Samples**

   In addition to collecting samples from ill residents, LTCH staff should be encouraged to submit stool samples if they experience symptoms included in the case definition. In certain circumstances, NRPH may request stool samples from asymptomatic (not ill) staff as well.

3. **Food Service Operation**

   To complete the outbreak investigation, the PHI will require detailed information on:

   - Foods eaten by residents, including foods with altered texture, such as pureed foods. How the food was prepared (menus, recipes and formulations), including records of cold-holding temperatures, final cooking temperatures and hot-holding temperatures, as well as the date and time each item was prepared.
   - Purchase and inventory records.
   - Processing records.
   - Hazard Analysis Critical Control Point (HACCP) plans and records. Personnel responsible for each operation.
   - List of suppliers.
   - Records of personnel absenteeism due to illness.
   - Equipment repair/maintenance records.
   - Dishwashing and utensil washing records.
• Cleaning and sanitizing procedures and schedules.
• Resident meal seating plans.
• Records of bacteriological water sampling and water-supply maintenance if the LTCH is not on a municipal water supply.

4. HACCP Investigation

The PHI may decide that an assessment of food preparation using HACCP principles is needed. This may require the LTCH to prepare the suspect meal again. The goal of the HACCP audit is to identify improper food-handling practices, not to identify staff responsible for the outbreak. During the HACCP audit, the PHI may note:

• Temperature control, including storage, cooking, reheating and hot holding temperatures.
• Frequency and procedure on how staff wash their hands.
• The procedures used for wearing/removing gloves.
• Personal hygiene to prevent food contamination when they sneeze or cough.
• If staff understand the concept of cross-contamination and are knowledgeable on prevention methods.
• If staff are aware of the implications of improperly preparing potentially hazardous food.

5. Provision of Alternative Sources of Food and Water

Until the suspect food has been identified, NRPH may direct the LTCH to provide food and water from another source. If the LTCH provides food or meals for other organizations, such as Meals on Wheels, NRPH may order it to suspend those services until further notice.

6. Summary Report

A summary of the food safety investigation should be included in the outbreak investigation report. The summary should include detailed key inspection findings along with food and/or environmental sample results.
Glossary

Acute Respiratory Infection

Any new onset acute respiratory infection that could potentially be spread by the droplet route (either upper or lower respiratory tract), which presents with symptoms of a fever greater than 38°C and a new or worsening cough or shortness of breath (also known as febrile respiratory illness, or FRI). It should be noted that elderly people and people who are immunocompromised may not have a febrile response to a respiratory infection.

Additional Precautions

These precautions (i.e. Contact Precautions, Droplet Precautions and Airborne Precautions) are carried out in addition to Routine Practices when infections caused by organisms transmitted by these routes are suspected or diagnosed. They include the physical separation of infected or colonized residents from other individuals and the use of barriers (e.g. gowns, gloves, masks) to prevent or limit the transmission of the infectious agent, from colonized or infected individuals, to those who are susceptible to infection or to those who may spread the agent to others.

Antiviral Medication

Antiviral medication is medication that is used for preventing or treating viral infection. Two antiviral influenza medications, oseltamivir, zanamivir (both neuraminidase inhibitors) are licensed for use in Canada, for the treatment and prophylaxis of influenza A and B, in adults. Oseltamivir (Tamiflu™) is the recommended antiviral of choice for both treatment and prophylaxis of influenza A & B. Amantadine is in another class of antivirals, known as adamantanes, used for influenza A infections only. Because of the high levels of resistance among circulating influenza A viruses, amantadine is not recommended for antiviral treatment or chemoprophylaxis of currently circulating influenza A virus strains.

Attack rate

The occurrence of disease observed among a defined population over a limited period of time.

Baseline

The normal level or presence of a disease or infectious agent within a given geographic area or a population group and time period.
Case

A person with the particular illness or disease, usually fitting the case definition.

Case definition

A set of criteria for determining who should be classified as a case. The definition is comprised of clinical information and should include epidemiological information related to time, place, and person.

Cohorting

Cohorting of residents: Grouping of residents who present either with the same set of symptoms or are asymptomatic. Cohorting of staff: Grouping of staff to care for a specific group of residents or to assign them to a floor/unit that either contains or does not contain active cases.

Common-source outbreak

A type of outbreak that occurs when individuals are exposed to a point-source of infection at the same time.

Contact Precautions

A type of Additional Precautions to reduce the risk of transmitting infectious agents via contact with an infectious person. Contact Precautions are used in addition to Routine Practices.

Contact time

The length of time a surface is exposed to a disinfectant in order for the disinfectant to be effective against micro-organisms.

Contract worker

Workers from an outside agency. These workers include health-care workers, maintenance and other workers or those who carry on activities in resident-care areas or come into contact with residents, such as hairdressers.

Cross-contamination

The transfer of pathogens from one food item to another during food preparation through cooking equipment, utensils or the hands of food handlers.
Competent Person - A person who:

a) is qualified because of knowledge, training and experience to organize the work and its performance,
b) is familiar with [the Occupational Health and Safety Act] and [any] regulations that apply to the work, and
c) has knowledge of any potential or actual danger to health or safety in the workplace.

Control Measure

Any action or activity that can be used to prevent, eliminate or reduce a hazard.

Droplet Precautions

Droplet Precautions are used in addition to Routine Practices for residents known or suspected of having an infection that can be transmitted by large infectious droplets (http://www.publichealthontario.ca/en/BrowseByTopic/InfectiousDiseases/PIDAC/Pages/PIDAC_Documents.aspx).

Endemic

The usual presence of a disease or infectious agent within a given geographic area or a population group. Usually expressed as a rate of prevalence.

Fecal-oral transmission

Transmission of micro-organisms such as bacteria, viruses and parasites from feces into the mouth, through contaminated hands, food, water or objects.

Fomite

An inanimate object that may be contaminated with infectious organisms and serve in their transmission.

Food handler

A person who directly handles or prepares food.

Gastroenteritis

Inflammation of the stomach and intestines that usually causes diarrhea and/or vomiting.
Hand Hygiene

A general term referring to any action of hand cleaning. HH relates to the removal of visible soil and removal or killing of transient microorganisms from the hands. HH may be accomplished using soap and running water or an alcohol-based hand rub. HH also includes surgical hand antisepsis.


Health Care Setting

Any location where health care is provided, including settings where emergency care is provided, hospitals, LTCHs, outpatient clinics, community health centres and clinics, physician offices, dental offices, and home health care.

Hazard Analysis Critical Control Point

A science-based, systematic approach of identifying, evaluating, and controlling food-safety hazards. HACCP is designed to prevent, reduce or eliminate potential biological, chemical and physical food-safety hazards, including those caused by cross-contamination.

Incubation Period

The time interval between initial contact with an infectious agent and the first appearance of symptoms associated with the infection. For influenza, the incubation period is 1-3 days.

Infected/Infectious Individual

A person who harbours an infectious agent and who has either become symptomatic or is asymptomatic. An infectious person is one from whom the infectious agent can be acquired.

Infection prevention and control committee

A group that meets regularly to discuss infection-control issues. LTCHs are required to have infection-control committees.

Infection Prevention and Control Professional

A health professional designated to be responsible for infection control programs in the LTCH, in accordance with LTCHA, 2007, S.O. 2007, c. 8 and O. Reg. 79/10. The ICP should possess expertise and additional training in infection prevention and control.
Infectious period

The time during which infected individuals are able to transmit their infection to others.

Influenza

A viral infection of the respiratory system. Symptoms of influenza include fever, cough, sore throat, muscle ache, extreme fatigue, and headache. Unlike the common cold and most other respiratory viruses commonly called “the flu”, influenza virus infection can result in severe illness, pneumonia and even death. The incubation period of influenza is 1-3 days; duration of infectivity is usually not more than 5 days after onset of symptoms. Influenza can cause epidemics, or outbreaks, which are a cluster of cases occurring within a short period of time in a defined geographic area (e.g., schools or health care institutions) or group of people.

Influenza Vaccine

There are two types of Influenza vaccines authorized for use in Canada. The first type of influenza vaccine is prepared from killed and denatured influenza virus. It stimulates the formation of immunity (e.g. antibodies) against the strains of influenza virus likely to be circulating that season. The second type, FluMist (a product of AstraZeneca Canada), is a live attenuated, influenza vaccine (LAIV) that contains live, but weakened, influenza virus that is sprayed into the nostrils (i.e., intranasal spray). The live attenuated influenza vaccine is not publicly funded in Ontario.

Influenza Vaccine in Pregnancy

During seasonal influenza epidemics, healthy pregnant women with influenza, especially those in the third trimester of pregnancy, experienced rates of hospitalization in excess of those observed in age-matched non-pregnant women with influenza. Moreover, the rates of hospitalization were comparable to those observed in individuals with other recognized co-morbid conditions that increase the risk of influenza-related complications. As a result of such data, pregnancy is now recognized to be a risk factor that warrants annual influenza immunization (http://www.ammi.ca/media/57289/15916_aoki.pdf).

Just Clean Your Hands

A program created to help hospitals and individuals overcome the barriers to proper hand hygiene and improve compliance with hand hygiene best practices. http://www.publichealthontario.ca/en/BrowseByTopic/InfectiousDiseases/JustCleanYourHands/Pages/Just-Clean-Your-Hands.aspx
Line Listing

A table that summarizes information about possible, probable or confirmed cases associated with an outbreak. It often includes identifying information, demographics, clinical information and exposure or risk-factor information.

Long-Term Care Home (LTCH)

The term "long-term care home" has the same meaning as under the LTCHA. Subsection 2(1) of the LTCHA defines long-term care home as follows:

“long-term care home” is a place that is licensed under the Long-Term Care Homes Act, 2007, S.O. 2007, Chapter 8, and includes a municipal home, joint home or First Nations home approved under Part VIII of the Act.

Medical Contraindication to Influenza Immunization

Egg allergy is no longer considered a contraindication for receipt of the trivalent influenza vaccine (TIV). After careful review, the National Advisory Committee on Immunization (NACI) concludes that egg-allergic individuals may be vaccinated against influenza using TIV, without a prior influenza vaccine skin test, based on an assessment of risk for a severe allergic reaction to guide the method of vaccination (NACI, Statement on Seasonal Influenza Vaccine).

Influenza vaccine should not be given to people who have had an anaphylactic reaction to a previous dose or any of the vaccine components. (http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/13vol39/acs-dcc-4/index-eng.php)

Non-staff

Visitors, volunteers, family members and community groups.

Onset

The date and time when clinical signs or symptoms first appear.

Outbreak

An unexpected increase of disease occurring within a specific population at a given time and place.

Person-to-person outbreak

An outbreak that occurs when infection is spread from one person to another.
Point-source outbreak

An outbreak that occurs when infections stem from a single source, for example an outbreak spread to people who have eaten a contaminated food item.

Potentially hazardous foods

Are those that are capable of sustaining growth of pathogens (harmful bacteria). They generally have high protein content, are neutral in acidity and are moist. Common examples are poultry, meat, fish and dairy products. Potentially hazardous foods must be handled carefully with respect to temperature; they must be stored at or below 4°C and must be cooked to a specified internal temperature before being served to ensure they are safe. Although some fruits and vegetables have been implicated in large-scale, food-borne outbreaks, they lack the ingredients necessary for uncontrolled bacterial growth. It is not necessary to store them in a refrigerator or cook them to a specific temperature to ensure safety. These foods still need to be handled with extra care and washed thoroughly before use.

Private pay caregiver

A person who is hired directly or indirectly by a resident, or a person acting on behalf of a resident as the case may be, to provide care or companionship to the resident.

Recommended Recipients

People at high risk for influenza-related complications. High risk groups are defined by the NACI (NACI, Statement on Seasonal Influenza Vaccine).

Resident

The term “resident” has the same meaning as under the LTCHA. Subsection 2(1) of the LTCHA defines resident as follows:

“resident” means an individual who is admitted to and living in a LTCH

Respiratory etiquette

Practices that should be observed when coughing or sneezing:

I) Turning head away from others;
II) Covering the nose and mouth with tissue; or sneeze into your sleeve;
III) Discarding tissues immediately after use into waste; and
IV) Performing hand hygiene (HH) immediately after disposal of tissues.
Routine Practices

The system of infection prevention and control (IPAC) practices recommended by the Public Health Agency of Canada (PHAC) to be used with all residents during all care to prevent and control transmission of microorganisms in health care settings (http://www.publichealthontario.ca/en/BrowseByTopic/InfectiousDiseases/PIDAC/Pages/PIDAC_Documents.aspx).

Sentinel events

Sentinel Event: A colonization/infection in which the occurrence of perhaps even a single case may signal the need to re-examine preventive practices (http://www.publichealthontario.ca/en/BrowseByTopic/InfectiousDiseases/PIDAC/Pages/PIDAC_Documents.aspx).

Staff

The term “staff” has the same meaning as under the Long-Term Care Homes Act, 2007 (LTCHA). Subsection 2(1) of the LTCHA defines staff as follows:

“staff”, in relation to a long-term care home, means persons who work at the home,

a) as employees of the licensee,
b) pursuant to a contract or agreement with the licensee, or
c) pursuant to a contract or agreement between the licensee and an employment agency or other third party”

Surveillance of Disease

The continuous scrutiny of all aspects of occurrence and spread of a disease that are pertinent to effective control. Included are the systematic collection and evaluation of:

data on individual cases; laboratory test results; information about immunity or vaccination status; use of medications; other relevant data.

Transmission of Influenza

Influenza is spread from person to person by inhalation of tiny droplets produced by the cough or sneeze of a person infected with influenza. It can also be spread by contact with infected respiratory secretions through articles such as bedrails, facial tissue, or (unwashed) utensils.
**Visitor**

Person who attends at a LTCH but who is not staff or a volunteer.

**Volunteer**

A person who is part of the organized volunteer program of the LTCH, but does not receive a wage or salary for the services or work provided for that program.