Recommendations for Outbreak Prevention and Control in Institutions and Congregate Living Settings

Ministry of Health

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Ontario

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Introduction

Reference Documents are not enforceable; the aim of Reference Documents is to provide professional staff employed by local boards of health, support in operationalizing and implementing requirements outlined in the Standards and related documents.[1] Specifically, this document has been developed to support public health's work in managing outbreaks and provides guidance on infection control measures.

This guidance document is intended to be used as an operational guide for local public health units (PHUs) investigating outbreaks in institutions, including long-term care homes (LTCHs) and retirement homes (RHs). The document provides current best practices and evidence-based guidance for control of respiratory (including SARS-CoV-2) and gastrointestinal outbreaks in institutions under the *Health Protection and Promotion Act*, and other congregate living settings in Ontario.[2] This document also discusses the roles of ministry partners, PHUs and institutions. The Roles and Responsibilities outlined for institutions may also be applied to facilities that are not defined as institutions under the HPPA, such as shelters and other congregate living settings, based on the risk of the population and setting, to prevent and manage outbreaks.

Institutions may be at increased risk for infectious disease outbreaks due to communal living and underlying health conditions of the individuals residing in these spaces.

Effective outbreak management requires coordination of practices and policy to ensure a quick and effective response. Under the HPPA (Section 25 (1) and (2)), notification of a disease of public health significance (DOPHS) (including SARS-CoV-2, respiratory and gastrointestinal outbreaks) to the local Medical Officer of Health, or the PHU, is required by the physician or practitioner (definitions of "practitioner" are listed in the HPPA). Health care worker (HCW) and staff training are essential to the early detection of illness in a client/patient/resident and control of potential outbreaks in these institutions.[2]

NOTE: There are foundational infection prevention and control measures outlined in this document that are applicable throughout the year. However, additional infection prevention and control (IPAC) measures may be applicable during high-risk periods of respiratory virus illness. Please refer to PHO's Interim Infection Prevention and Control Measures Based on Respiratory Virus Transmission Risk in Health Care Settings for more information on the classification of periods of high-risk transmission and non-high-risk transmission.[3]

Additional measures (e.g., increased use of masking by staff/visitors, increased frequency of infection prevention and control audits with feedback) to prevent respiratory virus transmission during high-risk periods should be implemented provincewide when identified by the Office of the Chief Medical Officer of Health, Public Health, and may also be implemented based on local/regional context. Additional measures, as described in PHO's Interim Infection Prevention and Control Measures Based on Respiratory Virus Transmission Risk in Health Care Settings, during high-risk periods may be particularly applicable to settings where individuals who are at higher risk of severe outcomes reside, and may not apply to all institutions. Institutions should refer to any applicable sector-specific guidance for further information/direction during high-risk periods.[3]

Please note that PHUs have the discretion to modify or discontinue any activity in the institution as part of their outbreak investigation and management (e.g., adult day activities within the setting/affected unit, implementing universal masking).

How to Use This Guide

- This document was created for PHUs to use as a guide for preventing and supporting the management of suspect and confirmed COVID-19, respiratory and gastroenteritis outbreaks in institutions.
- The guide has been organized into ten sections, for user ease.
- Roles and responsibilities have been outlined for those who have a role in the outbreak management process.
- Institutions (including long-term care homes (LTCHs) and retirement homes (RHs) can use this document for guidance purposes to inform their policies and procedures regarding the prevention and management of outbreaks. **Due to the wide-ranging nature of institutions, not all information under each section will apply to every setting.** The user fulfilling a specific role can determine which guidance is applicable to their setting.
- Note: Settings should ensure they follow sector-specific requirements/guidance.

Acronyms

ABHR	Alcohol-Based Hand Rub
ARI	Acute Respiratory Infection
BOH	Board of Health
CLS	Congregate Living Setting
DONPC	Director of Nursing and Personal Care
DOPHS	Disease of Public Health Significance
FLTCA	Fixing Long-Term Care Act, 2021
GI	Gastrointestinal
HACCP	Hazard Analysis Critical Control Point
HCW	Health Care Worker
HCP	Health Care Providers
HPPA	Health Protection and Promotion Act, 1990
HCCSS	Home and Community Care Support Services
IAO	Indigenous Affairs Ontario
ICP	Infection Prevention and Control Professional
IPAC	Infection Prevention and Control
JHSC	Joint Health and Safety Committee
LTCH	Long-Term Care Home
MCCSS	Ministry of Children, Community, and Social Services
MMAH	Ministry of Municipal Affairs and Housing
MLTC	Ministry of Long-term Care
MLITSD	Ministry of Labour, Immigration, Training and Skills Development
MOH	Ministry of Health
MSAA	Ministry for Seniors and Accessibility
NACI	National Advisory Committee on Immunization
OB	Outbreak

OH	Ontario Health
OHS	Occupational Health and Safety
OHSA	Occupational Health and Safety Act, 1990
OMAFRA	Ontario Ministry of Agriculture, Food and Rural Affairs
OMT	Outbreak Management Team
PCRA	Point-of-Care Risk Assessment
PRA	Personal Risk Assessment
PHAC	Public Health Agency of Canada
PHU	Public Health Unit
PHO	Public Health Ontario
PIDAC	Provincial Infectious Diseases Advisory Committee on Infection Prevention and Control PIDAC-IPC
PPE	Personal Protective Equipment
RH	Retirement Home
RSV	Respiratory Syncytial Virus
SDM	Substitute Decision Maker
SolGen	Solicitor General
WSIB	Workplace Safety and Insurance Board

Glossary

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 clients/patients/residents from other individuals and the use of Personal Protective Equipment (PPE) (e.g., gowns, gloves, masks, eye protection) 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 transmit the agent to others. More information can be found in PIDAC's Routine Practices and Additional Precautions in all Health Care Settings.[4]

Alcohol-based hand rub (ABHR): A liquid, gel, or foam formulation of alcohol (e.g., ethanol, isopropanol) which is used to reduce the number of micro-organisms on hands in situations when the hands are dry and not visibly soiled. ABHRs should have an alcohol concentration between 70% and 90%.

Cohorting:

- Clients/Patients/Residents: Grouping of clients/patients/residents who are colonized, infected or exposed to/with the same microorganism with staffing assignments restricted to the cohorted group of patients;
- Staff: Grouping of staff to care for a specific group of clients/patients/residents or to assign them to a floor/unit that either contains or does not contain active cases.

Contact Precautions: A type of Additional Precaution 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 time that a disinfectant must be in contact with a surface or device to ensure that disinfection has occurred. For disinfectants, the surface should remain wet for the required contact time.

Control measure: Any action or activity that can be used to prevent or stop transmission of infection and outbreaks. Control measures for gastroenteritis outbreaks are primarily focused on reducing additional exposure.

Cross-contamination: The transfer of pathogens from one item to another item (e.g., during food preparation through cooking equipment, utensils, food contact surfaces, the hands of food handlers or care providers).

Epidemiological Link: An epidemiological link can refer to, but is not limited to, common unit/floor, common staff, shared activities or dining area, common visitors etc., where there is evidence of transmission within the unit or site.

Food handler: A person who directly handles or prepares food.

Gastroenteritis: Inflammation of the stomach and intestines that usually causes diarrhea and/or vomiting.

Hazard Analysis Critical Control Point (HACCP): 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.

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.

Infection prevention and control committee: The Infection Prevention and Control Committee is a multidisciplinary committee that serves the setting and is responsible for verifying that the infection prevention and control recommendations and standards are being followed in the health care setting.

Infection prevention and control professional (ICP)/IPAC lead: Trained individual(s) responsible for a health care setting's infection prevention and control activities. Refer to sector-specific legislation for requirements of the ICP or IPAC lead.

Just Clean Your Hands[5]**:** Is the evidence-based hand hygiene program that was developed by Public Health Ontario to improve the hand hygiene compliance of health care providers, reduce negative impacts on clients/patients/residents due to health care associated infections, and increase the performance of Ontario's health system.

Joint Health and Safety Committee (JHSC): A committee formed in workplaces to address health and safety concerns and improve health and safety in the workplace. This committee is composed of employer and worker representative.

Joint Health and Safety Committee (JHSC) member: a worker representative whose duties include ensuring *Occupational Health and Safety Act, 1990*, requirements are met.[6]

Line list: A table that summarizes information about suspect, 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 Homes: is a long-term care home within the meaning of subsection 2(1) of the *Fixing Long-Term Care Act, 2021*.[7]

OHS Workplace Designate: anyone or any service that assumes the responsibility for the delivery of occupational health services to the setting.

Organizational Risk Assessment: An evaluation done by the organization or facility in order to implement controls to mitigate identified hazards.[4]

Performed by the employer to:

- Apply engineering controls;
- Apply administrative controls;
- Provide PPE as required.

Personal Risk Assessment (PRA): Staff/visitors conduct personal risk assessments to identify controls (precautions, PPE) already in place and determine if additional measures/PPE are required.

Point-of-care Risk Assessment (PCRA): Assesses the task, the patient, and the environment to identify the most appropriate precautions (PPE) that need to be taken for that particular interaction or task.

Performed by staff to:

- Identify controls already in place (e.g., access to ABHR, sharps container)
- Use additional measures, if needed (e.g., selection of PPE)[8]

Retirement Home: is a retirement home within the meaning of subsection 2(1) of the *Retirement Homes Act, 2010*.[9]

Routine Practices: The system of infection prevention and control practices recommended by the Public Health Agency of Canada to be used with all clients/patients/residents during all care to prevent and control transmission of microorganisms in all health care settings. They are based on the premise that all blood, body fluids, secretions, excretions, mucous membranes, non-intact skin, or soiled items are potentially infectious. These practices are to be used with all clients/patients/residents during all care to prevent and control the transmission of micro-organisms. More information can be found in PHO's Routine Practices and Additional Precautions in all Health Care Settings.[4]

Surveillance: The systematic and ongoing collection, collation, and analysis of data and the timely dissemination of information so that appropriate action can be taken to reduce the number of illnesses. For more information, please refer to PHO's Best Practices for Surveillance of Health Care-Associated Infections.[10]

Section 1: Roles and Responsibilities

Managing outbreaks is a collaborative effort across public health and institution partners. Depending on the scope of the outbreak and type of pathogen, different partners may be involved in outbreak response and investigation.

Role of PHU

Act under the authority of the HPPA and in accordance with the Ontario Public Health Standards.[1]

The OPHS and accompanying protocols outline the minimum expectations for PHU programs and services to be delivered by PHUs in Ontario.

Prevention and Preparedness

Assist institutions with creation of a prevention and preparedness plan for managing cases, contacts, and outbreaks.

Provide information and training to institutions to encourage uptake of immunizations and antivirals.

Support the development and implementation of outbreak management plans (in conjunction with partners) per section 2.

Case and Contact Management/Outbreak Management

Receive reports of suspected or confirmed cases and contacts of illness in accordance with the HPPA.[2]

Enter cases, contacts, and outbreaks into the provincial surveillance system, in accordance with data entry guidance provided by PHO.

While assessing the scope, severity, population at risk and ability for the institution to manage the outbreak, the PHU shall provide outbreak support as needed.

Provide guidance and recommendations to the facility on outbreak control measures, IPAC best practices and provincial resources.

Support/consult with Infection Prevention and Control Professionals (ICP) and provide representation on the Outbreak Management Team (OMT), when appropriate.

Assist in ensuring collection of clinical, environmental, or other samples as appropriate to assess, evaluate, confirm, and control the outbreak.

Ensure prophylaxis and/or vaccines are recommended and offered in outbreaks where they would be considered a public health intervention.

For respiratory outbreaks, including COVID-19, shall assess, and where epidemiological evidence supports it, review and evaluate infection prevention and control practices in the institution, in accordance with the *Institutional/Facility Outbreak Management Protocol, 2018* (or as current).[11]

For gastroenteritis outbreaks, shall assess the need for additional inspection of food preparation and handling within the institution, in accordance with the *Institutional/Facility Outbreak Management Protocol, 2018* (or as current).[11]

For *Clostridioides difficile* (CDI) outbreaks, shall assess and, where epidemiological evidence supports it, inspect, and evaluate IPAC practices at the institution, including antimicrobial stewardship programs in accordance with the *Institutional/Facility Outbreak Management Protocol, 2023* or as current.[11]

Issue orders by the Medical Officer of Health (MOH) or their designate under the HPPA, if necessary.[2]

Declare an outbreak over.

Coordination and Communication

If a case or contact resides in a PHU that is different than that of the institution, discussions between the respective PHUs should take place to coordinate contact follow-up and delineate roles and responsibilities.

The PHU where the home is geographically located is typically the lead PHU for home follow-up.

Request support from the Ministry of Health if coordination between multiple PHUs is required for outbreak management.

Notify the Ministry of Health (IDPP@ontario.ca) of:

- Potential for significant media coverage or if media releases are planned by the PHU and/or facility.

- Any orders issued by the PHUs MOH or their designate to the institution and share a copy.
- Engage and/or communicate with relevant partners, stakeholders, and ministries, as necessary.

Outbreak Management Team

- Facilitates lab testing by contacting the lab to discuss the appropriate specimen collection and testing required.
- Recommends best practices for outbreak control measures to be implemented including new admissions/transfers, immunization, and management of HCWs/staff.
- Determines the frequency of receiving updated line lists as part of the ongoing risk assessment of the outbreak which will influence the level of involvement by the PHU in the management of the outbreak.
- Reviews line list received from institution, monitors outbreak progress, and provides consultation to setting when necessary.
- Creates outbreak number for institution through Public Health Ontario (PHO) for outbreak-related specimen tracking and provides this number to the institution contact person.

Role of Institutions

- All institutions are responsible for reporting outbreaks of DOPHS to their local PHU, as per subsection 27(2) of the HPPA.[2] Some institutions are to be considered that are not under the HPPA (see *Institutional/Facility Outbreak Management Protocol, 2018* or as current).[2,11]
- Institutions are to follow any outbreak reporting requirements required under their respective legislation or authorities.
- All institutions as employers under the *Occupational Health and Safety Act, 1990* (OHSA) and its regulations, have a duty to take every precaution reasonable in the circumstances for the protection of a worker. This includes protecting workers from the hazards of infectious diseases.[6]
- Implement prevention measures found in this guidance, sector-specific guidance or as directed by their local PHU.
- Coordinate with the local PHU and other stakeholders as appropriate, as part of the investigation of cases, contacts, and outbreaks.
- Follow any directions of the local PHU and/or OMT if there is a suspect or confirmed outbreak in the institution.

- Maintain accurate records regarding suspect and confirmed outbreaks that can be made available to the local PHU in a timely manner for investigations and communications.
- Develops and maintains communication plans to keep staff, clients/patients/residents, and families informed about the outbreak status of the institution, including frequent and ongoing communication during outbreaks.

IPAC Lead/Designate within Institution

Note: Depending on the nature of the institution, not all institutions will have an IPAC lead/designate. Refer to: IPAC Standard for Long-Term Care Homes.[12]

- Conducts routine auditing to identify educational/training needs.
- Ensures training and education of HCWs/staff/visitors regarding outbreak management and IPAC principles.
- Where applicable, review infectious disease surveillance results regularly to ensure that all staff are conducting infectious disease surveillance appropriately and to ensure that appropriate action is being taken to respond to surveillance findings.
- Reviews and updates internal policies and procedures for IPAC (Routine Practices, Additional Precautions) and outbreak management as necessary, including review of case definitions and reporting processes.
- Work with site personnel to ensure adequate PPE/hand hygiene (HH) supplies, signage for outbreak management, and respiratory and stool specimen kits that are not expired.

Institution Administration, Management or Designate

- Supports recommended immunization of clients/patients/residents, HCW/staff and volunteers.
- Develop plan for implementing prophylaxis/therapeutics.
- Develop policies and procedures for outbreak prevention and management.
- Liaise with IPAC Lead/Designate to ensure policies and procedures are in place for reporting of DOPHS by units/staff (where applicable).
- Liaise with IPAC Lead/Designate to ensure unit/HCW/staff have access to the current outbreak management guidance as well as policies and procedure for reporting outbreaks to the local PHU.

- Ensure HCW/staff/visitor awareness of symptoms as found in Appendix 1[a] for reporting to PHU.[13]
- Works closely with IPAC lead to report HCW/staff illness to setting management and OMT where necessary.
- Liaise with Joint Health and Safety Committee (JHSC) or health and safety representative to ensure *Occupational Health and Safety Act* (OHSA) requirements are fulfilled.[6]
- Supports/discusses any workplace-related health and safety concern with the Joint Health and Safety Committee (JHSC).
- Ensure communication pathways between the PHU and institution are identified during an outbreak such that the PHU can obtain outbreak information as needed, even on weekends/holidays.

Onsite HCW (where applicable)/Staff

- Ensures ongoing monitoring and surveillance at the setting to identify and report new symptomatic illness in residents according to Appendix 1.[13]
- Works in collaboration with other staff to facilitate outbreak investigations and implement appropriate initial IPAC measures immediately.
    - It is not necessary to await lab results from collected specimens to initiate IPAC measures.
- Coordinates the collection of clinical specimens as appropriate, under direction of OMT.
- Maintains clear communication with staff leads, administration and management in the setting.
- Liaise with clinicians as necessary.

Occupational Health and Safety (OHS)

- The *Occupational Health and Safety Act* (OHSA) requires employers to take every precaution reasonable in the circumstances for the protection of workers (includes protecting workers from transmission of infectious disease in the workplace).[6]

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[a] Appendix 1: Gastroenteritis Outbreaks in Institutions and Public Hospitals
Appendix 1: Diseases caused by a novel coronavirus, including Coronavirus Disease 2019 (COVID-19), Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS) | Appendix 1: Respiratory Infection Outbreaks in Institutions and Public Hospitals

- Joint Health and Safety Committee (JHSC) member information can be found at Ontario's Guide for Health and Safety Committees and Representatives page.[14]
- Institutions may have an OHS workplace designate who will assist with recommendations made by the JHSC;
- The OHS workplace designate would also work closely with IPAC lead to report HCW/ staff illness to institution management and OMT where necessary.
- Assess and address any workplace-related health and safety concerns.

Role of Ministries with respect to Institutions and Congregate Living Settings (e.g., IAO, MCCSS, MLITSD, MLTC, MMAH, MOH, MSAA, OMAFRA, SolGen)

- Provide sector-specific guidance and policy oversight, where applicable.
- May have enforcement capabilities within their sector (i.e., MLTC, MLITSD).

Role of Public Health Ontario

- Provide scientific and technical advice to PHUs to support outbreak management, case and contact management, and data entry.
- Develop evidence-informed resources, programs, and approaches.
- Advise on and support laboratory testing as needed.
- Work with MOH and other government and health system partners on a coordinated approach to strengthening capacity.
- Provide scientific and technical advice to MOH and PHUs, including multi-jurisdictional teleconferences.
- Supplies specimen collection kits as needed to PHUs.
- Test specimens to identify etiology.
- As needed, provides consultation to PHU/OMT on specimen type and testing appropriate for outbreak.
- Ensures OMT and IPAC lead receive timely results of outbreak specimens.
- Track all samples and specimens submitted under the outbreak number.

Public Health Ontario Specimen Collection Guidance

- For more information, refer to PHO's Enteric Outbreak Kit Ordering Instructions and Gastroenteritis –Stool Viruses webpage and the Respiratory Viruses webpage.[15,16,17] Policies should also address receiving and reporting of laboratory test results. Refer to the Laboratory Services section of PHO's website for more information.[18]

Role of IPAC Hub

- Support implementation of infection prevention and control (IPAC) best practices in applicable institutions.
- Educational supports are offered both remotely (virtually) or onsite and are tailored to the unique types and needs of settings.
- Deliver education and training.
- Host communities of practice (CoP) to support information sharing, learning, and networking to congregate living settings.
- Support the development and implementation of IPAC programs, policy, and procedures within sites/organizations.
- Support assessments and audits of IPAC programs and practices.
- Mentor IPAC leads/staff to strengthen IPAC programs and practices.
- Mentor those with responsibilities for IPAC within institutions.

Section 2: Preparing for Potential Outbreaks

It is the responsibility of the institution to be prepared for the possibility of a COVID-19, respiratory or gastrointestinal illness (GI) outbreak. PHUs support outbreak management by assisting these settings to develop their own policies and procedures for outbreak prevention and management, including, but not limited to:

- Staff training on outbreak management principles.
- Routine Practices and Additional Precautions (related to outbreak management), including passive screening and information for staff/clients/patients/residents/visitors.
- Staff access to current outbreak management resources.
- Internal policies and procedures for outbreak management including symptoms that require investigation, surveillance and reporting internally and to the PHU.
- Adequate availability of supplies for outbreak management including PPE, HH supplies, and respiratory/stool collection kits.
- Communications plans as part of outbreak management, including between PHU and institution and to client/patients/residents, family member and visitors.

Outbreak Preparedness Plan

Institutions should ensure measures are taken to prepare for and respond to an infectious disease outbreak, including developing and implementing an outbreak preparedness plan. The plan should include:

- Outbreak Preparedness Plans to support the operationalization of the recommendations outlined in this guidance document and develop contingencies as appropriate to their setting, in accordance with any setting-specific guidance issued by their respective ministries. Refer to PHO's COVID-19 Preparedness and Prevention in Congregate Living Settings Checklist.[19]
- Identifying members of the OMT.
- Identifying their local PHU and their contact information.
- Implementing and auditing of the IPAC Program, in accordance with relevant legislation and sector specific guidance as applicable.
- Ensuring non-expired collection kits are available and stored appropriately, and plans are in place for specimen collection (including training of staff on how to collect a specimen.
- Ensuring sufficient PPE is available and that all staff and volunteers are trained on IPAC protocols, as applicable, including how to perform a personal risk assessment/PCRA and the appropriate use of PPE including how to don and doff PPE.[20]
- Ensuring policies and processes are in place for rapid deployment of antivirals and prophylaxis, when applicable.
- Developing policies to manage staff who may have been exposed in an outbreak and/or staff shortages.
- Developing and implementing a communications plan to keep staff, clients/patients/residents, and families informed about the status of outbreaks in the settings, including frequent and ongoing communication during outbreaks.
- Identifying their local IPAC Hub and their contact information.

Outbreak Preparation Resources

Please see Appendix A for outbreak resources.

Please see Appendix C for a sample outbreak line list.

Section 3: Managing a Suspect Outbreak

Table 3.1: Initial information required by PHU from Institutions

Site name	
Address	
Telephone	
Name of Manager/contact person and email	
Date	
# ill residents and # total residents per unit/area	
# ill staff and # total staff	
Do staff work in multiple locations/sites?	
First case's symptom onset date	
# hospitalizations	
# deaths	
What control measures have been initiated?	
Request line list from Institution	

3.1 IPAC Measures

- **Routine Practices** are based on the premise that all clients/patients/residents are potentially infectious, even when asymptomatic, and that these standards of practice should be used routinely during all care. Routine practices include but are not limited to:
    - **PCRA:** HCW conducting a point-of-care risk assessment (PCRA) prior to client/patient/resident interaction to determine PPE use;
    - **PRA:** Staff/visitors conducting personal risk assessment to identify controls already in place and determine if additional measures are required;
    - **Hand hygiene**: A general term referring to any action of hand cleaning. Hand hygiene relates to the removal of visible soil and removal or killing of transient microorganisms from the hands. Hand hygiene may be accomplished using

soap and running water or an alcohol-based hand rub. Hand hygiene includes surgical hand antisepsis;
    - **PPE:** The use of PPE (e.g., gloves, gown, mask, eye protection) to prevent staff contact with a client's/patient's/resident's blood, body fluids, secretions, excretions, mucous membranes, non-intact skin, or soiled items;
    - **Control of the environment**: Describes the structural design of an institution and design measures (e.g., cleaning and disinfecting of equipment and surfaces, bed placement in shared rooms, and location of ABHR dispensers);
    - **Administrative controls**: Policies and procedures related to the IPAC program, staff education, staffing levels, immunization, etc.;
    - **Engineering controls**: Physical or mechanical measures put in place to help reduce the risk of infection to staff and/or to clients/patients/residents (e.g., installation of ABHR at the point-of-care, installation of sharps containers at the point-of-care, ventilation).[21]
- **Additional Precautions** refer to IPAC interventions (e.g., PPE, accommodation, additional environmental cleaning) to be used in addition to Routine Practices to protect staff and clients/patients/residents by interrupting transmission of suspected or identified infectious agent; Based on presenting symptoms, droplet and contact or airborne precautions can be implemented.
- If a client/patient/resident develops symptoms in accordance with Appendix [1], IPAC measures including Additional Precautions should be implemented immediately.[13]
- Isolation of symptomatic clients/patients/residents:
    - Symptomatic clients/patients/residents:
        - Isolate immediately and implement Additional Precautions.
        - HCWs/Staff to wear PPE as determined by their PCRA or PRA.
        - Place signage outside client/patient/resident's room, on the door, indicating to HCWs/Staff/visitors that Additional Precautions are required.
- For symptomatic clients/patients/residents if COVID-19 or Influenza is suspected, see early treatment/therapeutics recommendations in Section 6.2 and Section 8.2.
- Notify the local PHU.
- Notify all staff, clients/patients/residents, and families as soon as an outbreak is suspected or confirmed.
- Encourage clients/patients/residents with suspect gastroenteritis to remain in their rooms until 48 hours symptom-free and provide them with tray food service.

- Begin a line list to track additional clients/patients/residents and staff that meet the case definition (refer to Appendix C for a sample outbreak line list).
- Implement enhanced environmental cleaning and disinfecting (e.g., increased cleaning and disinfecting of high touch surfaces, potentially switching disinfectants, donning/doffing appropriate PPE).
- Staff are to follow routine practices when handling soiled clothing/linens and waste and wear the appropriate PPE as indicated by a PCRA.
- Hand hygiene is the single, most important measure in preventing the spread of infections.
    - Hand hygiene should be performed in accordance with PHOs Best Practices for Hand Hygiene in All Health Care Settings, 4th Edition[22]
    - The 4 moments for hand hygiene are:
        - Before initial client/patient/resident contact and/or contact with their environment.
        - Before invasive/aseptic procedures.
        - After body fluid exposure risk and contact with blood, body fluids, secretions, and excretions.
        - After client/patient/resident contact and/or contact with their environment.
- Alcohol-based hand rubs (ABHR) are the first choice for hand hygiene when hands are NOT visibly soiled.
    - 70-90% ABHR should be used as this range is also more effective against Norovirus.
    - Must have a Natural Product Number (NPN) or Drug Identification Number (DIN) from Health Canada.
    - Must not be expired.
- Wash hands with soap and water when hands are visibly soiled.
    - Liquid and foam soaps may become contaminated. Liquid products shall be dispensed in disposable pump dispensers that are discarded when empty. They should never be "topped-up" or refilled.
- Glove use is not a substitute for hand hygiene; hand hygiene is required before donning and after doffing gloves.

Table 3.2: Additional Precautions

Additional Precautions	Items Required
Contact Precautions	Gloves, gown (if skin or clothing may come into direct contact with the client/patient/resident or their environment).
Droplet Precautions	Facial protection (medical mask, eye protection).
Airborne Precautions	Airborne infection isolation room; fit-tested N95 respirator for airborne pathogens.

For more fulsome details regarding the IPAC measures listed above, please refer to:

- The Best Practices for Hand Hygiene, April 2014.[22]
- Routine Practices and Additional Precautions in All Health Care Settings, November 2012.[4]
- Annex B, Best Practices for Prevention of Transmission of Acute Respiratory Infection, March 2013.[23]
- Best Practices for Environmental Cleaning for Prevention and Control of Infections, April 2018.[24]

The most current PIDAC documents are available at: Provincial Infectious Diseases Advisory Committee on Infection Prevention and Control (PIDAC-IPC).[25]

Figure 3.1: Routine Practices and Additional Precautions

Implement Routine Practices and Additional Precautions as per PHO's Routine Practices and Additional Precautions in All Health Care Settings (3rd edition).[4]

PCRA

- A PCRA assesses the task, the client/patient/resident, and the environment to identify the most appropriate precautions that needs to be taken for that interaction or task.

Resident Placement and Signage

- Single room preferred.
- Maintain 2 metres between clients/patients/residents sharing a room.
- Use of physical barriers (curtains or portable wipeable screens) is recommended.

Face Mask (for respiratory outbreaks)

- Masking is recommended for staff, clients/patients/residents, and visitors during respiratory outbreaks or seasonal increases in respiratory illness.

Eye Protection

- Eye protection is worn to protect mucous membranes of the eyes during procedures likely to generate splashes or sprays of blood, body fluids, secretions, excretions or when within two metres of a coughing client/patient/resident or client/patient/resident on Droplet Precautions.
- Prescription eyeglasses are NOT appropriate for use as eye protection.

Gowns

- Gowns are worn to protect uncovered skin and protect clothing or uniforms during activities likely to generate splashes or sprays of blood, body fluids, secretions, or excretions.

Gloves

- Gloves protect the hands of HCWs from contact with the client's/patient's/resident's body fluids, bloods, excretions, secretions, tissue, mucous membranes or non-intact skin, or equipment/surfaces which have been contaminated with the above.

Four Moments of Hand Hygiene

1. Before initial client/patient/resident contact and/or contact with their environment.
2. Before invasive/aseptic procedures.
3. After body fluid exposure risk and contact with blood, body fluids, secretions, and excretions.
4. After client/patient/resident contact and/or contact with their environment.

Visitors

- Request visitors to report to administration desk or nursing desk to discuss precautions before entering client's/patient's/resident's room.

Environmental Control

- Institutions should ensure regular environmental cleaning (e.g., at least once a day) of their institution is maintained and enhanced environmental cleaning and disinfection for frequently touched surfaces is performed.
- Institutions should increase cleaning and disinfection to twice daily in suspect or confirmed outbreaks.
- Confirm disinfectant being used is effective for identified pathogen (products effective against one pathogen may not be effective against another).

*Please refer to PHO's Routine Practices Fact Sheet for more detailed information.[26]

3.2 Administrative Measures

- Ensure an organizational risk assessment is conducted to determine which controls are already in place and which controls need to be implemented (this includes administrative, environmental, and engineering controls).
- Ensure adequate availability of all supplies, such as hand hygiene products, PPE, linen, cleaning products and specimen collection supplies for appropriate departments.
- Ensure HCWs/staff are maintaining heightened surveillance to identify and report newly symptomatic clients/patients/residents as per Appendix 1.[13]
- Consult with the ICP/IPAC lead or the OMT when making decisions about cohorting HCW/staff assignments. Cohorting is recommended where operationally feasible (i.e., symptomatic clients/patients/residents receiving treatments after asymptomatic clients/patients/residents or having designated HCW/staff treat symptomatic clients).
- Ensure policies and processes are in place for rapid deployment of antivirals and prophylaxis, if applicable to be used as an outbreak control measure.

Consider:

- Cohorting HCW/staff to affected areas if practical or assigning HCW/staff to care for asymptomatic clients/patients/residents before symptomatic clients/patients/residents.
- Minimizing movement of HCW/staff, students, or volunteers between floors/areas, especially if some areas are not affected.
- Cohorting clients/patients/residents with the same illness.
- Cohorting asymptomatic clients/patients/residents exposed to the same infectious agent.
- Please see PHO's Cohorting in Respiratory Virus Outbreaks for more information.[27]

3.3 Client/Patient/Resident Restrictions

Note: The recommendations contained in this document are intended to protect the health of client/patient/resident populations. Institutions should ensure that the rights of the clients/patients/residents are fully respected and promoted. The facility ICP IPAC lead should contact the PHU to balance the needs of the client/patient/resident against the risk to the health of the other clients/patients/residents.

- When providing outbreak management recommendations, PHUs assess the risk of non-compliance to outbreak control measures on the general client/patient/resident population.
- Generally, the PHU discusses outbreak control measures and decides on appropriate measures to implement.
- The extent to which IPAC measures can be implemented and what is considered reasonable throughout the course of each outbreak will vary. Examples of some measures that may be reasonable depending on the context include:
    - limiting visiting hours;
    - limiting the number of clients/patients/residents with whom the visitor has contact;
    - requiring anyone providing direct care (including visitors, other clients/patients/residents, etc.) to wear the necessary PPE;
    - posting signs at entrances of facility and/or affected unit/area;
    - limiting non-essential visitors during the outbreak period;
    - limiting communal dining activities and day programming; and
    - notifying clients/patients/residents, HCW/staff, and visitors of the outbreak.
- Implementing universal masking in the suspect outbreak area, for respiratory outbreaks
- Asymptomatic clients/patients/residents outside of the suspect outbreak area are able to participate in daily activities.
- Symptomatic clients/patients/residents are recommended to remain in their rooms. Additional Precautions are required when entering a symptomatic clients/patients/resident's room (see Fig. 3.1). See Sections 5, 6, 7 and 8 for specific guidance once an outbreak has been declared.
- During a suspect outbreak, symptomatic clients/patients/residents are recommended to receive treatments such as physiotherapy or occupational therapy in their rooms instead of common areas. For respiratory illnesses, they are recommended to wear an appropriate mask (as tolerated).
- Symptomatic clients/patients/residents will be allowed to attend medically necessary appointments or activities and it is recommended they wear a mask (as tolerated for respiratory illnesses). Receiving facility should be notified of the potential outbreak so appropriate precautions can be taken for the client/patient/resident on arrival.
- For respiratory illnesses, if client/patient/resident chooses not to wear a mask, or is unable to safely wear a mask, HCW/Staff should review their PCRA and adjust PPE accordingly.

- Additional considerations for accommodations that may be supported for safe movement of clients/patients/residents with dementia or cognitive impairment who are in isolation, depending on the type of outbreak (respiratory vs. gastrointestinal):
- Support client/patient/resident in leaving their room in ways that minimize spread of infection (e.g., one-to-one support with client/patient/resident at all times when outside of their room, putting on PPE, using ABHR, physical distancing, avoid touching surfaces, etc.).
- Minimize contact with the isolated client/patient/resident (e.g., minimize the possibility of other clients/patients/residents going into their room) by providing or offering additional activities and interventions for non-isolated clients/patients/residents in the unit.
- Support outdoor visits with caregivers and volunteers.

Note: for Norovirus, outdoor visits are not recommended until Additional Precautions are discontinued. Alternatively, 1:1 visits with essential caregiver or visitor can be encouraged as long as Additional Precautions are followed.

3.4 Restrictions on Affected Units/Sites

Restrictions on affected units/sites will depend on the type of outbreak, severity of the outbreak and risk of non-compliance.

In the event of a disagreement between the institution and the MOH, the MOH has the authority to determine if an outbreak of a communicable disease exists, for purposes of exercising statutory powers under the HPPA.[2]

3.5 Admissions/Transfers from Acute Care Setting to an Institution

PHU approval is not required for admissions/transfers, but PHU consultation is recommended when IPAC advice or risk mitigation is needed.

In general, mitigation measures should routinely be in place to facilitate the return of clients/residents/patients to the institution and avoid unnecessary delays in transfer from acute care.

Institutions are recommended to consult the PHU when:

- The client/resident/patient is from a health care facility in outbreak and is going to an institution that is not in outbreak and there are concerns with compliance of IPAC measures.
- The client/patient/resident is from the community or a health care facility not in outbreak and going to an institution in outbreak and any of the following apply:

- New outbreak has been declared with an ongoing investigation;
- Outbreak is uncontrolled/uncontained;
- Admission/transfer to an area where many clients/patients/residents are unable to follow IPAC measures or client/patient/resident is unable to isolate and/or follow IPAC measures;
- Client/patient/resident is severely immunocompromised;
- Informed consent has not been obtained from the client/patient/resident.
- Additionally, for admissions or transfers from an acute care facility, the discharging physician should agree to the admission or transfer to an institution in outbreak.

3.6 Transfers from an Outbreak Institution to an Acute Care Setting

- For LTCHs only, all inter-facility client/patient/resident transfer between hospitals, physicians' offices, dental clinics, and institutions should not take place without the sending facility obtaining a Medical Transfer (MT) authorization number from the Provincial Transfer Authorization Centre (PTAC). **Life threatening emergencies DO NOT require authorization**.
    - To arrange a transfer, the sending institution/facility should login to the online PTAC portal, administered by Ornge at: https://www.hospitaltransfers.com/transfer/ or call 1-866-869-PTAC (7822).
    - If approved, an authorization number will be issued immediately and either sent online or by fax depending on the method used to obtain the MT authorization number from PTAC.
- Before sending an ill client/patient/resident to acute care, the facility should notify the receiving healthcare facility and the PTAC that the institution is experiencing an outbreak.
- The hospital ICP/IPAC lead must be provided with the details of the outbreak to ensure control measures are in place when the client/patient/resident arrives at the hospital. The hospital ICP/IPAC lead should be informed of whether the

client/patient/resident to be transferred has been identified as a case or a contact of a case.

- Additionally, a client/patient/resident who is away from the LTCH on a medical absence will have their bed held for them if 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 client's/patient's/resident's medical or psychiatric leave exceeds the maximum length identified above, the client/patient/resident will be discharged by the LTCH. They will then be placed in the re-admission category to return to that LTCH which will give the client/patient/resident priority for re-admission to the LTCH when the client/patient/resident is well enough to return. However, if a client/patient/resident cannot return to the LTCH because of an outbreak of disease in the LTCH, the licensee of the LTCH is not permitted to discharge the client/patient/resident and the client/patient/resident will return to the LTCH when the outbreak is declared over (O. Reg. 246/22 s. 158).[28]
- All other institutions should notify Emergency Medical Services (EMS) when they are in outbreak prior to transferring a client/patient/resident.

3.7 Group/Social Activities and Other Events

- Symptomatic clients/patients/residents or those on Additional Precautions are not recommended to participate in in-person group or social activities with other clients/patients/residents and institutions should discontinue group activities in affected units.
    - Symptomatic clients/patients/residents or those on Additional Precautions may continue to interact with essential caregivers and visitors. This includes going outdoors and participating in 1:1 activities as long as Additional Precautions are followed (e.g., enhanced HH, masking, physical distancing).
    - For clients/patients/residents with **GI symptoms**, social activities should be postponed until Additional Precautions are discontinued.
    - 1:1 visits with essential caregivers or visitors may continue if Additional Precautions are followed.

3.8 Nourishment Areas/Sharing of Food

- Symptomatic clients/patients/residents or those on Additional Precautions should receive tray meal service in their rooms, where possible.
- Other restrictions may be implemented depending on type and severity of outbreak.

3.9 Visitors and Essential Caregivers

- General visitors should postpone all non-essential visits to clients/patients/residents within the outbreak area for the duration of the outbreak.
- Essential caregivers/visitors should be directed to the reception desk prior to visiting clients/patients/residents.
- Essential caregivers/visitors should be educated on the potential risk of exposure when visiting a symptomatic client/patient/resident.
- If an essential caregiver/visitor is symptomatic, they are recommended not to enter the setting.
- In some circumstances, the setting, along with the OMT will need to determine if the visitation is recommended when an essential caregiver/visitor is symptomatic.
    - Exemptions exist on compassionate grounds to support visitation by essential caregivers/visitors of patients who are at end of life.
    - In the case above, appropriate PPE (mask, gown, gloves, appropriate eye protection, depending on symptoms) and HH should be performed by the visitor.
- Encourage essential caregivers/visitors visiting symptomatic clients/patients/residents to wear PPE (mask, gown, gloves, appropriate eye protection, depending on symptoms) and to perform hand hygiene with ABHR before donning and doffing PPE[29]. Please refer to Appendix N of the PIDAC Routine Practices and Additional Precautions[4] document for more information on PPE requirements.
- If education is needed, demonstrate for caregivers/visitors how to use PPE appropriately.

Essential Caregivers

- Institutions are recommended to support the presence of essential caregivers while balancing the safety of all clients/patients /residents, caregivers, and HCWs/Staff.
- Essential caregivers are NOT recommended to be restricted from visiting their loved ones, but limits may be required, and will be assessed on a case-by-case basis by the OMT and the setting.
- Institution to contact family members and advise them of their relative's illness.

3.10 HCW/Staff Outbreak Control Measures (including volunteers, students, and physicians)

- HCWs/staff should monitor themselves for signs and symptoms of an infectious disease.
- Symptomatic staff should self-isolate at home, and not go into work; staff should report being ill to their employer (setting administration/management).
- Employers also have a duty to report workplace-related/occupational illness as per the Occupational Health and Safety Act (OHSA)[6] and Ontario regulation 420/21.[30] For more information, please see the provincial web page on Occupational Health and Safety compliance.[6,31]
- HCWs/staff who develop **respiratory symptoms** at work are recommended to perform respiratory hygiene practices (wear mask, cough into sleeve/elbow) and leave work as soon as possible.
- For **respiratory illness**, staff should immediately leave and be directed to self-isolate at their own home until symptoms have been improving for 24 hours and no fever present.
    - For 10 days after the date of specimen collection or symptom onset, whichever is earlier/applicable, HCWs/Staff should adhere to workplace measures for reducing risk of transmission (i.e., masking for source control) and avoid caring for clients/patients/residents at highest risk of severe respiratory illness, where possible.
- HCWs/staff who develop **gastrointestinal symptoms** at work are recommended to perform hand hygiene and leave work as soon as possible.
- For **gastrointestinal illness**, depending on the policies of their employers, staff may be asked to not return to work until symptom-free for 48 hours. This period could be modified if the causative agent is known.
    - Disease-specific exclusions may apply. See Appendix 1[13].
- Cohort HCWs/staff to care for asymptomatic clients/patients/residents before symptomatic clients/patients/residents when possible.
- Consider minimizing movement of HCWs/staff/volunteers/students between units/ floors, especially if some units/floors are not affected.
- Volunteers:
    - Educate volunteers on the importance of HH, Routine Practices and Additional Precautions, and including a PRA.
    - Symptomatic volunteers are recommended to NOT enter the setting.

- Volunteers are recommended to follow the same PPE recommendations as HCWs/staff.

Note: Settings should ensure they follow sector-specific requirements.

3.11 Specimen Collection

- If respiratory or gastrointestinal illness case definition has been met, appropriate samples should be collected:
  - **Respiratory illness**: Confirmation of a respiratory outbreak is NOT dependant on lab confirmation. Please see PHOs testing information for more details: Respiratory Viruses (including influenza) | Public Health Ontario[17]. Refer to Appendix 1a.[13]
  - **Gastrointestinal illness**: Confirmation of a gastroenteritis outbreak is NOT dependent on lab confirmation. Please see PHO's testing information for more details: Gastroenteritis –Stool Viruses | Public Health Ontario[16]. Refer to Appendix 1[13].
    - If the causative agent of the outbreak is suspected or confirmed to be caused by norovirus, laboratory testing of food retention samples is **not** recommended.
    - For further information about human diagnostic testing, contact the Public Health Ontario's Laboratory.
    - For more information regarding specimen collection and testing, please refer to the Public Health Inspector's Guide to Environmental Microbiology Laboratory Testing.[21]
    - Please see Gastroenteritis Outbreaks in Institutions. and Public Hospitals (under the Infectious Diseases Protocol[13], for more info.
- If specimen collection is required, HCWs/staff should ensure correct collection and labelling of specimens and lab requisition forms (D.O.B., name of client/patient/resident, date of sample collection, outbreak number, etc.).

3.12 Enhanced Environmental Cleaning and Disinfection

- Clean and disinfect:
  - Common areas
    - At least once daily for low touch surfaces (shelving, windowsills, white/message boards).

        - Minimum twice daily for high touch surfaces (door handles/knobs, light switches, handrails, phones, elevator buttons, etc.), treatment areas, dining areas and lounge areas.
        - Immediately for any visibly dirty surfaces.
        - Surfaces and items in close proximity to vulnerable client/patient/resident populations require more frequent cleaning and disinfection than surfaces in close proximity to those who are less vulnerable.
    - Non-critical medical equipment (stethoscope, blood pressure cuffs) should be dedicated. If unable to dedicate, shared equipment should be cleaned and disinfected between client/patient/resident use.
    - HCW/Staff equipment should be cleaned and disinfected at least twice daily or when visibly dirty.
    - Refer to manufacturer's instructions for use (MIFUs) of cleaners and disinfectants.
    - Concerning dilution/mixing as well as contact time and expiry dates.
    - Ensure staff are educated on cleaning and disinfection procedures and following cleaning schedules.
- Areas that are not considered common areas (private offices, admin areas) do not require enhanced cleaning and disinfection.
- Ensure to follow appropriate precautions when using chemicals for cleaning and disinfection. Consult Safety Data Sheets (SDS) for further safety information.[33] Use appropriate PPE and donning and doffing methods for cleaning and disinfection practices.
- Upholstered furniture, rugs or carpets contaminated with body fluids (vomit, diarrhea) are difficult to clean and disinfect. Consult MIFUs for instructions on cleaning. Steam clean as soon as possible. Consider only using cleanable, non-porous surfaces/equipment in settings that is compatible with the cleaners and disinfectants used.
- HCW/Staff handling soiled linens are recommended to wear gloves and gown if there is a risk of contaminating their clothing. Additional PPE may be recommended depending on the causative organism and risk of aerosolization from soiled linens.
- If the laundry machine has been used to clean soiled (vomit, diarrhea) laundry, a bleach cycle of the laundry machine is recommended to be run (without laundry) before washing the next load.
- Cleaning and disinfection principles:

  - Cleaning should be performed using a health care grade cleaners ~~as~~ well as disinfectants that have a drug identification number (DIN).
  - Do not apply cleaning chemicals by aerosol or trigger sprays.
  - Minimize the contamination levels of the disinfectant solution and equipment by frequently changing the disinfectant solution and ensuring wiping cloths, are not double dipped into the disinfectant solution.
  - Move from clean areas to dirty areas and clean from top to bottom.
  - Adhere to manufacturer's instructions for use on preparation and storage of disinfectant solutions and the recommended contact time.
- For more information on cleaning and disinfection, please see PHO's Best Practices for Environmental Cleaning for Prevention and Control of Infections in All Health Care Settings, 3rd Edition.[24]

Each institution should have written policies and procedures for:

- Routine cleaning and disinfection.
- Enhanced environmental cleaning and disinfection during an outbreak and for terminal cleaning.

These policies and procedures should be reviewed, evaluated and updated at least annually to ensure they reflect current best practices. Policies and procedures should include:

- Proper use of supplies for cleaning and disinfection;
- cleaning schedules and appropriate documentation;
- Staff training;
- Laundry-handling practices;
- Proper handling and disposal of waste;
- Responsibility and accountability of routine cleaning of all environmental surfaces and non-critical client/patient/resident care items; and
- Staffing in Environmental Services (ES) departments to allow for surge capacity (e.g., additional staff, supervision, supplies, equipment) during outbreaks.

Refer to the following for additional information:

- PIDAC Best Practices for Environmental Cleaning for Prevention and Control of Infections in All Health Care Settings, 3rd Edition.[24]
- PIDAC Best Practices for Infection Prevention and Control Programs in Ontario In All Health Care Settings.[34]
- PIDAC Best Practices for Cleaning, Disinfection and Sterilization of Medical Equipment/Devices in All Health Care Settings.[35]

Section 4: General Recommendations for Confirmed Outbreaks

Roles and Responsibilities for Confirmed Outbreaks

- See section 1.

Reporting to the Local PHU

- Reporting requirements vary in different settings. Outbreaks and diseases of public health significance (DOPHS) are required to be reported to the Medical Officer of Health or their designate (local PHU) by Institutions under the HPPA[2].
- Local PHUs are required to report outbreaks to the Ministry of Health and to PHO, using the integrated Public Health Information System (iPHIS), or any other method specified by the ministry, within **one** business day of receiving notification of an outbreak or of assessing that an outbreak is occurring but has not been reported by the institution.
- If staff advise the setting that they are ill or have acquired an occupational illness, the institution must report those cases to the MLITSD. Please see below section on reporting to MLITSD for more information.
- The PHUs should notify, as appropriate:
    - Physicians and nurse practitioners in the community
    - Adjacent PHUs
    - EMS
    - Other institutions in the community

Refer to: Timely Entry of Cases and Outbreaks for Diseases of Public Health Significance (DOPHS).[36]

Reporting Worker Illness to MLITSD

- Workers who are unwell should report their illness-related absence to their supervisor or employer.

  In accordance with the Occupational Health and Safety Act (OHSA) and its regulations.[6] If an employer is advised that a worker has an occupational illness or that a claim has been filed with the Workplace Safety and Insurance Board (WSIB) by or on behalf of the worker with respect to an occupational illness, the employer must provide written notice within four days to:

  - A Director appointed under the OHSA of the MLITSD.[31]
  - The workplace's joint health and safety committee (or a health and safety representative).
  - The worker's trade union, if any.
- This may include providing notice for an infection that is acquired in the workplace.
- The information to include in a notice of occupational illness is prescribed by the Ontario Regulation 420/21: "Notices and Reports, under sections 51 to 53.1 of the Act – Fatalities, Critical Injuries, Occupational Illnesses and Other Incidents".[30]
- In accordance with the Workplace Safety and Insurance Act (WSIA), the employer must also report any instance of an occupationally acquired disease to the WSIB within 72 hours of receiving notification of said illness.
- For more information, please contact the MLITSD:
  - Employment Standards Information Centre: Toll-free: 1-800-531-5551
  - Health and Safety Contact Centre: Toll-free: 1-877-202-0008
  - Reporting workplace incidents and illnesses | ontario.ca[31]
- For more information from the WSIB, please refer to the following:
  - Telephone: 416-344-1000 or Toll-free: 1-800-387-0750.

Declaring an Outbreak

- PHUs are responsible for notifying PHO's Laboratory of the investigation and providing the laboratory with the particulars of the suspected outbreak.
- The PHU completes PHO's online OB reporting tool.[37] When there are special concerns such as severity of illness, extent of illness in institution and/or community, suspicion of unusual agent, or other special testing considerations the PHU should phone PHO to discuss additional testing considerations.
- Institutions should discuss with the PHU how specimens will be collected, stored, and submitted to the laboratory, using as reference current PHO specimen collection instructions in the relevant Test Information Sheet on the PHO website.[38] This will ensure that the most up-to-date instructions, proper laboratory requisitions, and appropriate collection kits are used.
- The PHU is responsible for declaring the outbreak over, completing and closing the outbreak file.

4.1 IPAC Measures

See section 3.1 for IPAC measures.

Additionally, other IPAC measures that *may be* recommended by the PHU/OMT:

- IPAC measures for all visitors and essential caregivers.
- Universal masking in outbreak areas for respiratory outbreaks.
- High risk activities suspended in affected units (large group activities, bus outings).
- For **respiratory outbreaks**, physical distancing in communal areas/dining areas, where possible.
- HCWs/staff active screening for symptoms prior to each shift during the outbreak.
- Active screening of visitors and essential caregivers prior to entering the setting.
- Restrictions on non-essential visitors.
- Client/patient/resident screening upon return from absences.
- Active screening for client/patient/residents' admissions upon return from other health care settings that are in active outbreaks.
- During a COVID-19 outbreak close contact identification and management of clients/patients/residents or HCW/staff may be implemented to control the outbreak.

Additional Precautions

Additional Precautions refer to IPAC interventions (e.g., PPE, accommodation, enhanced environmental cleaning) to be used in addition to Routine Practices to protect staff and clients/patients/residents by interrupting transmission of suspected or identified infectious agents. Additional Precautions include Contact, Droplet, and Airborne Precautions.[4]

Contact and Droplet Precautions

Contact and Droplet Precautions should always be used in addition to Routine Practices with all clients/patients/residents who have signs and symptoms of respiratory illness and in all respiratory outbreaks.

The following strategies help decrease the risk of transmission during an outbreak:

- Clean, disinfect, and record cleaning of all devices/equipment/surfaces.
- Devices/Equipment must be dedicated to the client/patient/resident whenever possible. If devices/equipment cannot be dedicated to client/patient/resident it must be cleaned, disinfected immediately after use.
- All devices/equipment designated to be used by an ill client/patient/resident should be identified and dedicated to prevent the use by others. 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 mask, eye protection, gloves, and gown in providing direct care to an ill client/patient/resident. A fit tested sealed checked N95 may also be required.
- Store clean supplies outside the rooms of infected residents to prevent contamination.
- Provide appropriate waste receptacles with lids in clients/patients/residents' rooms for PPE disposal.
- Reinforce the importance of HH and respiratory etiquette with clients/patients/residents, staff, and visitors.
- Instruct visitors including essential care givers on additional precautions they should follow while in the institution/facility.
- Essential caregivers who provide direct care to clients/patients/residents should use the same PPE as staff and be instructed on how to properly do so.

For additional resources on Contact Droplet Precautions, refer to PIDAC's Routine Practices and Additional Precautions In All Health Care Settings [4] and COVID-19 Guidance: Personal Protective Equipment (PPE) for Health Care Workers and Health Care Entities.[40]

4.2 Administrative Measures

See section 3.2 for administrative measures.

- Establish OB case definition.
- Assemble OMT and initiate an OMT meeting to discuss OB and IPAC measures taken/to be taken.
- Ensure adequate availability of all supplies by notifying necessary departments.
- Notify Environmental Cleaning Services regarding the increased need for supplies and services. and/or change in cleaning product or disinfectant if required.
- Notify all relevant partners of the outbreak.
- Ensure all HCWs/Staff (inclusive of all departments) are aware of recommendations during confirmed outbreak and work restrictions if applicable.
- Ensure outbreak signage has been posted on all entrances to facility, advising all staff and visitors that the institution is experiencing an OB.
- Inform client/patient/resident families/essential caregivers of outbreak status at the institution.

4.3 Client/Patient/Resident Restrictions

See section 3.3.

- Continue all measures noted in section 3.3 including isolation of symptomatic clients/patients/residents and Additional Precautions.
- Symptomatic clients/patients/residents are allowed to attend medically necessary activities or appointments. For respiratory outbreaks, they are recommended to wear an appropriate mask, as tolerated. Ensure transportation staff and staff at receiving medical setting are notified of the outbreak so appropriate precautions can be implemented for client/patient/resident on arrival. Where possible, virtual visits are encouraged.
- Symptomatic clients/patients/residents should avoid contact with other clients/patients/residents.
- Please refer to sector-specific guidance on absences for clients/patients/residents; the PHU/OMT may provide guidance for absences during an outbreak to minimize risk of spread.

4.4 Restrictions on Affected Units/Sites

See section 3.5.

4.5 Admissions/Transfers from Acute Care to an Outbreak Institution

See section 3.5.

4.6 Transfers from an Outbreak Institution to an Acute Care Setting

See section 3.6

4.7 Group/Social Activities and Other Events

See section 3.7

Additionally:

- Consult the OMT for recommendations on whether routine group activities may continue for asymptomatic clients/patients/residents to support physical and mental well-being and with mitigation measures in place to prevent spread of infection.

- For respiratory illnesses or outbreaks, measures such as physical distancing, masking, HH, and enhanced surveillance may be used for low-risk group activities.
- The following should be implemented during an outbreak:
    - Reschedule communal meetings on the affected unit/floor. However, other meetings or activities may proceed in non-affected units/floors;
    - Discontinue group outings from the affected unit/floor;
    - The OMT should discuss restricting meetings or activities in the entire facility if the outbreak transmits to two or more units/floors;
    - Exceptions involving non-outbreak units/floors should be discussed with the OMT involving outside groups such as entertainers, volunteer organizations, and community groups;
    - Conduct on-site programs such as physiotherapy and foot care for clients/patients/residents in their rooms, if possible. Precautions should be taken for ill clients/patients/residents; and
    - Ensure there is no interaction between staff/clients/patients/residents of the affected floor/unit and participants in on-site childcare or other day programs.

4.8 Nourishment Areas/Sharing of Food

- Symptomatic clients/patients/residents should receive tray meal service in their rooms.
- Some other measures/modifications related to nourishment areas and sharing of food during a confirmed outbreak:
    - Close buffet lines and have food plated by staff.
    - Encourage staggered eating times for diners.
    - Pre-set tables with utensils to minimize client/patient/resident handling.
    - Single service/disposable utensils may be encouraged depending on severity of outbreak.
    - Limit/close communal food or snacking areas and sharing of foods between residents or staff.
    - Individually wrapping-snacks, and use of-single packet condiments.

4.9 Visitors and Essential Caregivers

- See section 3.9.

4.10 HCW/Staff Outbreak Measures (including volunteers, students, physicians)

- See section 3.10.

4.11 Specimen Collection

- See section 3.11.

4.12 Enhanced Environmental Cleaning and Disinfection

- See section 3.12.

Section 5: Confirmed COVID-19 Outbreak

A. Declaring a COVID Outbreak

For case definition please see Appendix 1: Diseases caused by a novel coronavirus, including Coronavirus Disease 2019 (COVID-19), Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS).[13]

Refer to Appendix E for more information on case and contact management in LTCH/RH settings.

Refer to Appendix D for more information on COVID case and contact management in non-LTCH/RH institutions.

B. Duration of outbreak

In consultation with the OMT and institution, the outbreak may be declared over when no new cases, which were reasonably acquired in the setting, have occurred for 7 days, and there is no evidence of ongoing transmission.

- For example, in the circumstance of a case in a roommate of a case, where the roommate had already been in isolation prior to testing positive and therefore did not pose a risk for ongoing transmission, the roommate should be counted as part of the outbreak but would not extend the duration of the outbreak.

C. Case Management

- Clients/patients/residents who are identified as a confirmed or a probable COVID-19 case and are unable to wear a mask, should self-isolate on Additional Precautions for at least 10 days from symptom onset or date of specimen collection, if asymptomatic (whichever is earlier/applicable) and until symptoms

have been improving for 24 hours (or 48 hours if gastrointestinal symptoms) and no fever is present.

- Clients/patients/residents can leave their room for walks in the immediate area with staff wearing appropriate PPE, to support overall physical and mental well-being. See section 5.1 for information on contact management.
- Clients/patients/residents who are identified as a confirmed or a probable COVID-19 case and are able to independently and consistently wear a mask, should self-isolate on Additional Precautions for at least 10 days from symptom onset or date of specimen collection, if asymptomatic (whichever is earlier/applicable). Clients/patients/residents may leave their room to participate in activities and join others in communal areas provided they meet the following criteria:
    - It has been a minimum of 5 days from symptom onset or positive test (whichever is earlier/applicable);
    - They are asymptomatic or their symptoms have been improving for 24 hours (or 48 hours if gastrointestinal symptoms) and no fever is present; and
    - They wear a well-fitted mask at all times outside of their room, they do not join in communal activities where they would need to remove their mask within the setting (e.g., group dining), and they continue to follow additional precautions for 10 days after their symptom onset or positive test.
- Clients/patients/residents who test positive for COVID-19 should be assessed as soon as possible to determine if COVID-19 therapeutics are within their goals of care, and if so, to determine eligibility. Refer to Appendix B for more information on COVID-19 therapeutics.

D. Contact Management

- Client/patient/resident close contacts (for the definition of close contacts, please refer to p. 11 of the Coronavirus Case Definitions and Disease-Specific Information (ontario.ca)) who remain asymptomatic do not need to be placed on Additional Precautions.[13] However, the following risk reduction measures should be recommended by the PHU for the duration of the outbreak:
    - Even if not under Additional Precautions, exposed clients/patients/residents within the outbreak area of the institution/facility should be cohorted separately from non-exposed clients/patients/residents.
    - Should symptoms develop, promptly isolate the client/patient/resident on Additional Precautions and testing for COVID-19 and other respiratory viruses.

- All roommate close contacts should be placed on Additional Precautions. Individuals who remain asymptomatic may discontinue isolation after a minimum of 5 days of isolation (based on 5 days from when the case became symptomatic or tested positive if asymptomatic). Roommate close contacts should then wear a well- fitting mask, if tolerated, when receiving care and outside of their room, and physically distance from others when outside of their room until day 7 from last exposure to the case.
- Ideally, roommate close contacts are placed in a separate room to isolate away from the case. When this is not possible, the use of physical barriers (e.g., curtains or a cleanable barrier) to create separation between the case and the roommate is recommended.

Note: Institutions cannot restrict or deny absences for medical, palliative, or compassionate reasons at any time. This includes when a client/patient/resident is in isolation or when an institution is in an outbreak.

When a client/patient/resident who is self-isolating on Additional Precautions is required to leave the institution for a medical absence, institutions should notify the health care facility so that care can be provided to the client/patient/resident with the appropriate Additional Precautions in place.

- Roles and Responsibilities for Confirmed COVID-19 Outbreaks

Note: Only those actions above and beyond those discussed in previous sections are listed in this section. See Section 1 Roles and Responsibilities for additional details.

OMT

- Provides direction on restrictions to admissions/transfers/discharges to the outbreak unit/institution.
- Provides direction on isolation of client/patient/resident cases.
- Provides direction on management of HCWs/Staff.
- Provides direction on changes to activities (if applicable) within the unit/institution.
- Provides direction on IPAC measures to be implemented upon declaration of outbreak.

Specific actions for OMT in a confirmed COVID-19 outbreak:

- Defining the outbreak area of the institution (i.e., floor or unit) and cohorting based on COVID-19 status (i.e., infected or exposed and potentially incubating);
- Assessing risk of exposure to residents/staff based on cases' interactions.

IPAC Lead/Designate

- Advises on isolation of clients/patients/residents.
- Communicates with PHU for outbreak management and status updates (including line lists, review of IPAC measures, etc.).
- Identifies high risk activities which are recommended to be stopped during the outbreak.
- Initiate Additional Precautions for all symptomatic clients/patients/residents and those with suspect or confirmed COVID-19.
- Post appropriate additional precaution signage outside the client's/patient's/resident's room.
- Facilitate assessment of IPAC and outbreak control measures, as needed.
- Weekly IPAC audits should be conducted for the duration of the outbreak. The results of these audits should be reviewed by the OMT.
- Ensure dedicated staff conduct IPAC Audits for hand hygiene, PPE usage and cleaning and disinfection and report rates to staff.
- Ensure training/education of staff, volunteers, essential care givers and visitors on applicable IPAC measures.

Facility Administration/Facility Management or their Designates

- Supports assessment of client/patient/resident cases to determine if institution meets outbreak definition.
- Manages impact of HCW/Staff exclusion on institution operations.
- Ensures if there are recommendations to restrictions/transfers/discharges to the outbreak institution, they are implemented.
- If institution has restrictions to admissions/transfers/discharges, oversees administrative paperwork for client/patient/resident moves (Provincial Transfer Authorization Centre [PTAC]).
- Communicates outbreak status to partners and stakeholders.

Setting/Unit Manager/Designate

- Report worker's occupational illnesses as outlined in section 52 (2) of the Occupational Health and Safety Act (including agency staff).
- Provides information to OMT/MLITSD about HCW/Staff shifts to determine when they were last on site or when they were onsite during communicable period.
- Collects info about HCW/Staff as well as resident/client /patient immunization status; and shares this information with OMT.

- Supports assessment of client/patient/resident cases to determine if unit meets outbreak definition.
- Manages impact of HCW/Staff exclusion on unit operations.
- Ensures if there are recommendations to restrictions/transfers/discharges to the outbreak unit, they are implemented.
- If unit has restrictions to admissions/transfers/discharges, oversees administrative paperwork for client/patient/resident moves (PTAC).
- Communicates status of unit to/with partners and stakeholders.
- Ensure that line list includes occupational illness in agency workers.

On site HCW/Staff

- Each HCW/Staff person is responsible for reporting their immunization status to facility administration/management.
- Complies with work restrictions, if applicable.

PHO

- Completes testing of samples submitted by institutions/PHUs to identify variants of concern.

5.1 IPAC Measures

- See section 3.1.
- All HCWs should conduct a PCRA before every client/patient/resident interaction and task.
- A PCRA is the first step in Routine Practices assesses the task, the client/patient/resident and the environment to identify the most appropriate precautions that need to be taken for the particular interaction or task.[4]
- All HCWs should wear appropriate PPE based on their PCRA, when assessing clients/patients/residents with acute respiratory infections.[40]
- At minimum, institutions should conduct enhanced symptom assessment (minimum once daily) of all clients/patients/residents in the outbreak area to facilitate early identification and management of ill clients/patients/residents.
- If feasible, clients/patients/residents should be assessed twice daily when the client/patient/resident is symptomatic, has tested positive for COVID-19, or is a close contact, to identify and monitor new or worsening symptoms of COVID-19.
- All HCWs or essential caregivers providing direct care to or interacting with a suspect or confirmed case of COVID-19 should wear eye protection (goggles, face shield, or safety glasses with side protection), gown, gloves, a well-fitted

medical mask (surgical/procedure) or a fit-tested, seal-checked N95 respirator (or approved equivalent).
- HCW who are not yet fit-tested for an N95 respirator (or approved equivalent) should wear a well-fitted surgical/procedure mask or a non-fit-tested N95 respirator (or approved equivalent), eye protection (goggles, face shield, or safety glasses with side protection), gown and gloves.
- HCWs/staff should report any PPE breaches to IPAC lead/designate or supervisor, who should then report to the institution as appropriate.
- For information on COVID-19 case and contact management in an institution, refer to Appendix E.

5.2 Administrative Measures

- Employers of HCW should make reasonable efforts to ensure HCW obtain respirator fit testing at the earliest opportunity.
- Institutions should have policies in place to address the use of COVID-19 therapeutics.
- COVID-19 therapeutics may be available and health care providers should discuss potential treatment options (i.e.: Paxlovid, Remdesivir) with client/patient/residents and caregivers in advance of a potential COVID-19 infection.
- Once an outbreak is declared, frequency of reporting of cases to the local PHU will be determined through consultation with the PHU as per the *Institutional/Facility Outbreak Management Protocol, 2018* (or as current).[11]
- Post outbreak signs at all entrances to institution to advise that setting is in outbreak (see Figure 1).
- COVID-19 vaccination is one of the most effective ways to prevent severe illness and death due to COVID-19, and institutions should have policies in place for staff, clients/patients/residents and visitors' immunizations. *Please refer to sector-specific requirements regarding vaccine.*
- New admissions to institutions who are not up-to-date with their COVID-19 vaccinations should be offered a complete series of a COVID-19 vaccination or their remaining eligible doses as soon as possible.

5.3 Client/Patient/Resident Restrictions

See Section 3.3 and 4.3.

5.4 Restrictions on Affected Unit/Site

- See Section 4.4.

5.5 Admissions/Transfers from Acute Care Setting to an Outbreak Institution

- See section 3.5.

5.6 Transfers from an Outbreak Institution to an Acute Care Setting

- Inter-facility transfer requires the sending facility to obtain a Medical Transfer (MT) authorization number from the PTAC (1-866-869-PTAC (7822)).
- This policy also applies to clients/patients/residents being transported from a healthcare setting to and from a private doctor's or dental office for treatment.
- NOTE: life threatening emergencies DO NOT require authorization to transfer.
- Acute care setting ICP must be provided with details of the outbreak.

5.7 Group/Social Activities and Other Events

- See section 3.7 and 5.7.

Additionally:

- Group activities should be conducted such that the outbreak unit is cohorted separately from unexposed clients/patients/residents and units. At the discretion of the PHU/OMT, group activities for cohorts (exposed separated from unexposed) may resume. Wherever possible, continuing group activities for exposed cohorts is recommended to support mental health and wellbeing.

5.8 Nourishment Areas/Sharing of Food

- See section 3.8 and 4.8.
- The OMT can provide direction with any modifications based on the outbreak (e.g., moving to single service utensils, if possible, discontinuing group dining).
- Communal dining should be conducted so that the outbreak unit is cohorted separately from unexposed clients/patients/residents and units. At the discretion of the PHU/OMT, communal dining for cohorts (exposed separated from unexposed) may resume.

- At the discretion of the PHU, communal dining and group activities may be paused completely in the case of a facility-wide outbreak where transmission is uncontrolled, the rate of increase in cases or severity of illness is significant or unexpected and the benefits of closure of communal activities are deemed to be greater than the harms caused to client/patient/resident wellbeing. This decision should be revisited as the outbreak progresses.
- At the discretion of the institution, in consultation with the PHU, resumption of day programming may occur during an outbreak. However, all staff and clients/patients/residents who are part of the outbreak should be cohorted to be kept separate from participants and staff of day programs.

5.9 Visitors and Essential Caregivers

- Visitors should be made aware of the screening and masking policies for the setting.
- It is recommended, but no longer required, that visitors and caregivers wear a mask in LTCHs, RHs, and other institutions. Visitors are required to comply with any masking/PPE requirements as appropriate during outbreaks or if the client/patient/resident is on Additional Precautions.
- General visitors who test positive for COVID-19 and/or have symptoms compatible with COVID-19 should avoid non-essential visits to anyone who is immunocompromised or at higher risk of illness (e.g., senior) as well as highest risk settings such as hospitals and LTCHs for 10 days following symptom onset and/or positive test date (whichever is earlier/applicable).
- Where visits cannot be avoided (e.g., essential caregiver visits), visitors should wear a medical mask, maintain physical distancing, and should notify the setting of their recent illness/positive test. If the individual being visited can also wear a mask, it is recommended they do so.
- General visitors should postpone non-essential visits to client(s)/patient(s)/resident(s) who are symptomatic and/or self-isolating, or when the LTCH/RH/institution is in outbreak.

5.10 HCW/Staff Outbreak Measures (including volunteers, students and physicians)

- See sections 3.10 and 4.10.
- If HCWs/Staff work in multiple settings/locations, it is recommended that they advise other settings/locations of the outbreak to determine if they should continue working in multiple places.

- If HCWs/Staff are symptomatic, they should not be permitted entry into the institution.
- HCWs/Staff who become symptomatic while at work should leave immediately and be directed to self-isolate at their own home and see medical assessment as required.
- **If HCWs/Staff test positive for COVID-19,** and are working at the institution, they should immediately leave and be directed to self-isolate at their own home until symptoms have been improving for 24 hours (48 if gastrointestinal symptoms) and no fever present. HCWs/staff should report their illness to management/OHS designate/JHSC member.
- **For 10 days after the date of specimen collection or symptom onset,** whichever is earlier/applicable, HCWs/Staff should adhere to workplace measures for reducing risk of transmission (i.e., masking for source control) and avoid caring for clients/patients/residents at highest risk of severe COVID-19 infection, where possible.
- **For asymptomatic close contacts,** where feasible, additional workplace measures for individuals who are self-monitoring for 10 days from last exposure may include:
    - Active screening for symptoms ahead of each shift, where possible
    - Individuals should not remove their mask when in the presence of other staff to reduce exposure to co-workers (i.e., not eating meals/drinking in a shared space such as conference room or lunchroom.)
    - Working in only one facility, where possible;
    - Ensuring well-fitting medical mask for the staff to reduce the risk of transmission.

5.11 Specimen Collection

- When a client/patient/resident is symptomatic with signs and symptoms consistent with acute respiratory illness (ARI), they should self-isolate, be placed on Additional Precautions, medically assessed and tested for COVID-19 and other respiratory pathogens as soon as possible.
- For a COVID-19 outbreak, ALL symptomatic clients/patients/residents should be tested.
- See PHO's respiratory testing page for more information: Respiratory Viruses (including influenza) | Public Health Ontario.[17]

5.12 Enhanced Environmental Cleaning and Disinfection

- See section 3.12.
- Additionally, cleaning and disinfection practices should be conducted twice daily, at minimum.

Ventilation and Filtration

- In general, ventilation with fresh air and filtration can improve indoor air quality over time by diluting and reducing potentially infectious respiratory aerosols. Ventilation and air filtration do not prevent transmission in close contact situations and, as with other measures, need to be implemented as part of a comprehensive and layered strategy against COVID-19.
- The risk of COVID-19 transmission is higher in indoor settings. Where appropriate and possible, encourage outdoor activities.
- Indoor spaces should be as well ventilated as possible, through a combination of strategies: natural ventilation (e.g., by regular opening of windows and doors), local exhaust fans, (e.g., bathroom exhaust fan), or centrally by a heating, ventilation, and air conditioning (HVAC) system.
- Directional currents can move air from one patient/client/resident to another. Portable units (e.g., fans, air conditioners, portable air cleaners) should be placed in a manner that avoids person-to-person air currents.[41] Expert consultation may be needed to assess and identify priority areas for improvement and improve ventilation and filtration to the extent possible given HVAC system characteristics.
- For more information, see PHO's Heating, Ventilation and Air Conditioning (HVAC) Systems in Buildings and COVID-19 and Public Health Agency of Canada's guidance on Using Ventilation and filtration to reduce aerosol transmission of COVID-19 in long-term care homes.[42,43]
- The use of portable air cleaners can help filter out aerosols, especially where ventilation is inadequate or mechanical ventilation does not exist.[41]

Section 6: Confirmed ARI Outbreak

A. Declaring an ARI Outbreak

- For case definition please see Appendix 1: Respiratory Infection in Institutions and Public Hospitals.[13]

B. Duration of Outbreak

In consultation with the OMT and the local PHU, to declare an outbreak over, the institution must not have had any new cases of infection in either clients/patients/residents or staff, which meet the case definition for the time period established by the OMT (i.e., predetermined decision rules that the OMT has decided to use to declare the outbreak over). These decision rules are usually based on the period of communicability, the incubation period or based on two incubation periods.

For example, viral respiratory outbreaks may 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 (5 days) and an incubation period (3 days) for influenza and in general may apply to many other respiratory viruses associated with respiratory infection outbreaks as well. If symptoms in the last resident case resolves 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. Please refer to Appendix 1 for additional information on incubation periods for other respiratory viruses.[13]

C. Case Management

- All cases should be placed on Additional Precautions, tested for COVID-19 and other respiratory viruses, and monitored once daily for symptoms. Refer to PHO's Infection Prevention and Control Core Competencies – Additional Precautions, and PHO's Additional Precautions Signage and Lanyard Cards.[44,45]
- Cases (ill residents) should be encouraged to stay in their room and should be on Droplet and Contact Precautions until 5 days after the onset of acute illness or until symptoms have resolved (whichever is shorter).
- For some pathogens, the period of communicability may be longer than 5 days, but for practical reasons, this could still be applied to outbreaks caused by respiratory viruses other than influenza or in the case of outbreaks when the pathogen is unknown.
- Cases may leave their room while on Droplet and Contact Precautions if they are able to perform hand hygiene and consistently wear a well-fitted medical mask. However, this strategy may not work with all populations and its application is left to the discretion of the institution in consultation with the PHU.

- All clients/patients/residents in isolation should be supported to leave their room for walks in the immediate area with staff wearing appropriate PPE, to support overall physical and mental well-being.

D. Contact Management

- If cases are confined to one unit, all residents and staff from that unit should avoid contact with residents and staff in the remainder of the institution. Additional recreational activities/resources should be made available.
- Additional Precautions in the outbreak area should remain in place until there is no longer a risk of transmission of the microorganism or illness. Please see PHO's Routine Practices and Additional Precautions, 3rd Edition document for more information.[4]
- Ideally, roommate close contacts are placed in a separate room to isolate away from the case. When this is not possible, the use of physical barriers (e.g., curtains or a cleanable barrier) to create separation between the case and the roommate is recommended.
- Asymptomatic roommate close contacts should wear a well-fitting mask, if tolerated, when receiving care and outside of their room, and physically distance from others when outside of their room for 10 days from first day of symptoms in the roommate case.
- The following risk reduction measures should be considered for non-roommate resident close contacts in the outbreak unit to reduce the risk of transmission to other residents, while balancing the resident's mental and social well-being:
    - Monitoring once daily for symptoms.
    - Strongly encouraging the resident to wear a well-fitting mask, if tolerated, and physically distance from others when outside of their room for 7 days following their last exposure to the individual with ARI.
        - This may include avoiding attending group dining and group activities that involve unexposed residents where masking and physical distancing cannot be maintained by the close contact.
    - Encouraging the resident to wear a well-fitted mask, if tolerated, when receiving care.
- If a close contact, or anyone in the outbreak area, develops symptoms, promptly isolate under Additional Precautions and test for COVID-19 and other respiratory pathogens (i.e., FLUVID).

Table 6.1: Organisms Commonly Associated with Respiratory Illness

Organism	Clinical	Infectious Substance/How it	Incubation Period	Period of	Precautions Required
Influenza, Seasonal Type A or B	Symptoms include, but are not limited to, new or worsening cough, shortness of breath, fever, sore throat, headache, myalgia, and lethargy. Infections in children may also be associated with some gastrointestinal symptoms such as nausea, vomiting and diarrhea, while the elderly may not mount a fever response and may present with an exacerbation of underlying conditions.	Influenza virus particles are predominantly spread via droplets which are released or shed from infected persons when they sneeze, cough, or talk. These large droplets do not stay suspended in the air and usually travel less than two metres (six feet). They may enter the host's eyes, nose or mouth or fall onto surfaces in the immediate environment. Some of these viruses may remain viable for extended periods of time, therefore contact transmission can occur by touching contaminated objects or surfaces and then touching one's face or eyes.	1-4 days	5-10 days, peak at 24-48 hrs	Contact and Droplet

Organism	Clinical Presentation/Symptoms	Infectious Substance/How it is Transmitted	Incubation Period	Period of Communicability	Precautions Required
Respiratory Syncytial Virus (RSV)	Similar to influenza including sudden onset of fever, cough, chills, headache, fatigue, sore throat, runny or stuffy nose, muscle pain or body aches.	Direct person-to-person transmission and fomites.	3-7 days	3-8 days; up to 3-4 weeks in children and immunocompromised	Contact and Droplet
Parainfluenza Type 1-4	Rhinorrhea, cough, croup, bronchiolitis, fever, and pneumonia.	Transmitted between humans through direct person-to-person contact. Also transmitted by large droplet spread.	2-4 days	Typically, 3-10 days, in rare cases as long as 3-4 weeks	Contact and Droplet
Human Metapneumo-Virus (hMPV)	Cough, fever, nasal congestion, and shortness of breath. Symptoms may progress to bronchitis or pneumonia.	Most likely spread from an infected person to others through secretions from coughing and sneezing, person-to-person contact, and touching objects/surfaces with viruses on them.	3-6 days, varying depending on severity of illness.	Immunocompromised may shed virus for months.	Contact and Droplet

Organism	Clinical Presentation/Symptoms	Infectious Substance/How it is Transmitted	Incubation Period	Period of Communicability	Precautions Required
Other Common Respiratory Viruses, such as: **Entero/Rhino Virus** **Non-COVID-19 Coronaviruses** **Adenovirus**	Runny nose, sneezing, sore throat, muscle pain, fatigue, fever, cough, chills, headache, shortness of breath, loss of taste or smell, gastrointestinal issues.	Direct person-to-person transmission through close contact and exposure to large and small respiratory particles, and fomites.	1-14 days	2 days – 3 weeks depending on virus.	Contact and Droplet

6.1 IPAC Measures

- See section 3.1 and 4.1.

6.2 Administrative Measures

- See section 3.2 and 4.2.

6.3 Client/Patient/Resident Restrictions

- See section 3.3 and 4.3.

Additionally:

- Ill clients/patients/residents should be on droplet and contact precautions until 5 days after symptom onset or until symptoms have resolved (whichever is shorter).
- If a client/patient/resident is in a shared room, contact and droplet precautions can be implemented with privacy curtains drawn.
- Clients/patients/residents on Droplet and Contact precautions may leave their rooms if they are able to comply with hand hygiene and wear a well-fitted medical mask.

6.4 Restrictions on Affected Unit/Site

See section 4.4.

6.5 Admissions/Transfers from Acute Care to an Outbreak Institution

- See section 4.5 and 5.5.

6.6 Transfers from an Outbreak Facility to an Acute Care Setting

- See section 3.6.

Additionally:

- If necessary, clients/patients/residents who do not have an ARI may be admitted or transferred to a floor/unit with an outbreak, provided the following conditions are met:

- Client/patient/resident (or substitute decision-maker) is made aware of the risks of the admission or transfer and consents to the admission or transfer. It is important to note the client/patient/resident should not face any unintended consequences in terms of placement should the client/patient/resident (or substitute decision-maker) choose not to consent.
- Client/patient/resident is admitted or transferred to a private room.
- Attending physician should be consulted.

6.7 Group/Social Activities and Other Events

- See section 4.7.

6.8 Nourishment Areas/Sharing of Food

- See section 4.8 and 5.8.

6.9 Visitors and Essential Caregivers

- See section 5.10.

6.10 HCW/Staff Outbreak Measures (including volunteers, students, physicians)

- See section 3.10, 4.10 and 5.10.

Additionally:

- Symptomatic staff should be excluded from the institution until afebrile without the use of fever-reducing medication and symptoms have been resolving for at least 24 hours (48 hours if GI symptoms).
- Staff should mask until day 10 from symptom onset.

6.11 Specimen Collection

- See section 3.11, 4.11 and 5.11.

Diagnostic Testing for ARI Outbreaks in institutions

- All symptomatic clients/patients/residents should be tested by a laboratory method, where possible, for COVID-19 and other respiratory pathogens as soon as symptoms present.[17]
- Symptomatic staff are eligible for testing as part of an outbreak.

- PHO's laboratory has expanded the eligibility for outbreak-related respiratory virus FLUVID (influenza A, influenza B, RSV, and SARS-CoV-2) PCR testing to **all** specimens from symptomatic clients/patients/residents and staff. A select number (typically 4) specimens from an outbreak will also be tested by the laboratory by multiplex respiratory virus panel testing to assess for other respiratory viruses.
- PHUs are responsible for following usual outbreak notification steps to PHO's laboratory to coordinate/facilitate outbreak testing and ensuring an outbreak number is assigned. See PHO's Respiratory Outbreak Testing Prioritization protocol for details.[46]

6.12 Enhanced Environmental Cleaning and Disinfection

- See section 3.12 and 5.12.

Roles and Responsibilities for Confirmed Outbreaks

- See section 1 and 5.12.

Section 7: Confirmed Influenza Outbreak

A. Declaring an Influenza Outbreak

Confirmed Influenza outbreak is a confirmed ARI outbreak where Influenza is the causative organism. See Appendix 1: Respiratory Outbreaks in Institutions and Public Hospitals.[13]

B. Duration of Outbreak

See section 6B.

In consultation with the OMT and the local PHU, to declare an outbreak over, the institution must not have had any new cases of infection in either clients/patients/residents or staff, which meet the case definition for the period of time established by the OMT i.e., predetermined decision rules that the OMT has decided to use to declare the outbreak over. These decision rules are usually based on the period of communicability + the incubation period or based on two incubation periods, which for influenza is 8 days (5 days period of communicability + 3 days incubation period).

C. Case Management

See section 6C.

- Should the client/patient/resident close contact be taking influenza antiviral prophylaxis as part of outbreak management, consideration should be given to switch empirically to treatment dosage of influenza antivirals if symptoms develop.
- Initiation of early empiric treatment with influenza antiviral medication should be considered, as antiviral treatment works best when initiated within 48 hours of symptom onset.[47]
- Considerations for when to initiate influenza antiviral treatment empirically can be found in PHO's Antiviral Medications for the 2023-2024 Seasonal Influenza.[48]

D. Contact Management

See section 6D

- In addition to the acute respiratory infection outbreak management recommendations outlined above, antiviral prophylaxis should be started as soon as an influenza outbreak is declared and continued until the outbreak is over.
- Consider a cautious approach to starting antiviral prophylaxis if suspect ARI definition is met (e.g., consider initiating when one lab-confirmed influenza case in a client/patient/resident or in the context of co-circulation of influenza and COVID-19 in the same unit/area).
- For further details on the use of antiviral medication for prophylaxis in an outbreak, please refer to PHO's Antiviral Medications for Seasonal Influenza.[48]

7.1 IPAC Measures

- See section 3.1 and 4.1.

7.2 Administrative Measures

- See section 3.2 and 4.2.

Additionally, the following are important interventions for an influenza OB:

- Antiviral prophylaxis for all clients/patients/residents – Appendix B
- Antiviral prophylaxis for unimmunized HCW/staff – Appendix B

7.3 Client/Patient/Resident Restrictions

- See section 5.3 and 6.3.

7.4 Restrictions on Affected Units/Settings

See section 6.4 and 7.6.

7.5 Admissions/Transfers from Acute Care to an Outbreak Institution/Setting

- See section 4.5 and 5.5 and 7.6.

7.6 Transfers from an Outbreak Institution to an Acute Care Setting

- See section 4.6 and 6.6.

Additionally:

- It is recommended that if client/patient/resident is entering an outbreak area that is using antiviral prophylaxis as a control measure, the client/patient/resident should be started on the antiviral prophylaxis prior to coming into the outbreak area.

7.7 Group/Social Activities and Other Events

- See section 4.7.

7.8 Nourishment Areas/Sharing of Food

- See section 4.8 and 5.8.

7.9 Visitors and Essential Caregivers

- See section 6.9.

7.10 HCW/Staff Outbreak Measures (including volunteers, students, physicians)

- See sections 3.10 and 4.10.

Additionally:

- Asymptomatic staff protected by either immunization (at least two weeks prior to outbreak declaration) or antivirals have no restrictions on their ability to work at other institutions. Unimmunized staff may resume work at the affected setting as soon as they are taking antiviral prophylaxis. If issues arise regarding compliance with work exclusions, options should be reviewed with the OMT.
- Unimmunized staff not receiving prophylactic therapy should wait one incubation period (3 days) from the last day that they worked at the outbreak institution/facility prior to working in a non-outbreak institution, to ensure they are not incubating.
- Unimmunized staff on antiviral prophylactic therapy that wish to work at another institution may do so, under the following considerations:
    - They do not have a fever and/or other signs and symptoms of respiratory illness.
    - It does not conflict with the policies of the receiving institution.
    - It does not conflict with direction provided by the PHU based on information available to them about the epidemiology of the outbreak or other local considerations.
- On a case-by-case basis, the PHU may consider exceptions to the staff exclusion policy if there are staffing shortages that would compromise resident care.
- The institution should discuss possible barriers that staff have, to not being vaccinated or accessing antivirals.

7.11 Specimen Collection

- See section 6.11.

7.12 Enhanced Environmental Cleaning and Disinfection

- See section 3.12.

Roles and Responsibilities for Confirmed Outbreaks

- See section 1.

Influenza-related resources

- NACI statement on seasonal influenza[49]
- Annex B: Prevention of Transmission of Acute Respiratory Infection in all Health Care Settings, March 2013[23]

Section 8: Confirmed Gastrointestinal Outbreak

A. Declaring a Gastroenteritis Outbreak

- Please see Appendix 1: Gastroenteritis Outbreaks in Institutions and Public Hospitals [13]for a confirmed gastro outbreak definition. If an outbreak is suspected, notify the local PHU to support the investigation and outbreak management.

B. Duration of the outbreak

In consultation with the OMT and the local PHU, to declare an outbreak over, the institution must not have had any new cases of infection in either clients/patients/residents or staff, which meet the case definition for the period of time established by the OMT i.e., predetermined decision rules that the OMT has decided to use to declare the outbreak over. These decision rules are usually based on the period of communicability + the incubation period or based on two incubation periods.

One incubation period plus one communicable period following onset of symptoms in last identified case is a reasonable approach (e.g.: after 5 days where Norovirus is suspected or confirmed), or 48 hours after symptoms have resolved (diarrhea or vomiting has ended). Where the last case is an ill staff person, the last day worked at the setting would be used as the last date of exposure.

Table 8.1: Organisms Commonly Associated with Gastrointestinal Illness

Organism	Clinical Presentation/ Symptoms	Infectious Substance/How it is Transmitted	Incubation Period	Outbreak Restrictions/ Recommendation for Sites
Bacillus cereus (Bacterial toxin)	a) Diarrheal syndrome: acute diarrhea, nausea, and abdominal pain b) Emetic syndrome: acute nausea, vomiting and abdominal pain and sometimes diarrhea	Ingestion of food that has been stored at ambient temperatures after cooking, permitting the growth of bacterial spores and toxin production. Many outbreaks (particularly those of the emetic syndrome) are associated with cooked or fried rice that has been kept at ambient temperature. Foods involved include starchy products such as boiled or fried rice, spices, dried foods, milk, dairy products, vegetable dishes, and sauces.	a) Diarrheal syndrome: 8-16 hours b) Emetic syndrome: 1-5 hours	Refer to Section 9.
Campylobacter jejuni Campylobacter coli	Fever, severe abdominal pain, nausea, and diarrhea which can vary from slight to profuse and watery sometimes containing blood or mucus.	Principally through ingestion of contaminated food. Main food sources are raw milk and raw or undercooked poultry. Spread to other foods by cross-contamination or contamination with untreated water; contact with animals or birds. Other sources of transmission are contact with live animals (pets and farm animals). Person-to-person transmission occurs during the infectious period that ranges from several days to several weeks. Foods involved include raw milk, poultry, beef, pork and drinking water	2-5 days (may persist 1-2 weeks)	Refer to Section 9.

Organism	Clinical Presentation/ Symptoms	Infectious Substance/How it is Transmitted	Incubation Period	Outbreak Restrictions/ Recommendation for Sites
Clostridium botulinum	Vomiting, abdominal pain, fatigue, muscle weakness, headache, dizziness, ocular disturbance (blurred or double vision, dilated pupils, unreactive to light), constipation, dry mouth and difficulty in swallowing and speaking, and ultimately paralysis and respiratory or heart failure.	Ingestion of toxin pre-formed in food. This may occur when raw or under- processed foods are stored in anaerobic conditions that allow growth of the organism. Most outbreaks are due to faulty preservation of food (particularly in homes or cottage industries), e.g., canning, fermentation, curing, smoking, or acid or oil preservation. Foods involved include vegetables, condiments (e.g., pepper), fish and fish products, meat and meat products, honey, fruit and vegetable juices. Several outbreaks have occurred as a result of consumption of un-eviscerated fish, garlic in oil, and baked potatoes.	12-36 hours, or up to several days (foodborne), 4-14 days (wound), up to 30 days (intestinal)	Refer to Section 9.

Organism	Clinical Presentation/ Symptoms	Infectious Substance/How it is Transmitted	Incubation Period	Outbreak Restrictions/ Recommendation for Sites
Clostridium perfringens	Abdominal pain, diarrhea, rarely vomiting and fever.	Illness usually caused by cooked meat and poultry dishes subject to time/temperature abuse. Dishes are often left for too long at ambient temperature to cool down before storage or cooled inadequately. This allows spores that survive the cooking process to germinate and grow, producing large numbers of vegetative cells. If a dish is not reheated sufficiently before consumption, the vegetative cells can cause illness. Foods involved include meat and poultry (boiled, stewed, or casseroled).	8-24 hours	Refer to Section 9.
Cryptosporidium parvum	Persistent diarrhea, nausea, vomiting and abdominal pain, sometimes accompanied by an influenza-like illness with fever	Spread through the fecal-oral route, person-to-person contact or consumption of fecal-contaminated food and water, bathing in contaminated pools. Foods involved include raw milk, drinking water and apple cider.	1 to 12 days with an average of 7 days	Refer to Section 9.

Organism	Clinical Presentation/ Symptoms	Infectious Substance/How it is Transmitted	Incubation Period	Outbreak Restrictions/ Recommendation for Sites
Cyclospora cayetanensis	Watery diarrhea (this is the most common symptom), abdominal bloating and gas, fatigue, (tiredness), stomach cramps, loss of appetite, weight loss, mild fever and nausea.	Cyclosporiasis is unlikely to spread directly between people. This is because the parasite can only infect others once it leaves your body through feces. To be able to spread, the parasite needs to be outside the body for about 7 to 15 days. Food can be a source of cyclosporiasis for Canadians when imported from countries where Cyclospora is common. Foods imported to Canada that have been linked to the Cyclospora parasite include: basil, cilantro, raspberries, blackberries, mesclun lettuce, snow and snap peas and pre-packaged salad mix.	2-14 days with an average of 7 days	Refer to Section 9.

Organism	Clinical Presentation/ Symptoms	Infectious Substance/How it is Transmitted	Incubation Period	Outbreak Restrictions/ Recommendation for Sites
Escherichia coli a) Enteropathogenic E. coli (EPEC) b) Enterotoxigenic E. coli (ETEC) producing a heat-labile (LT) and a heat-stable (ST) enterotoxin c) Enteroinvasive E. coli (EIEC) d) Enterohaemorrhagic E. coli (EHEC) or verocytotoxin producing E. coli (VTEC), also referred to as Shiga-toxin producing E. coli (STEC), of which the most recognized is E. coli O157	a) EPEC adheres to the mucosa and changes its absorption capacity, causing vomiting, diarrhea, abdominal pain, and fever. b) ETEC mediates its effects by enterotoxins. Symptoms include diarrhea (ranging from mild to a severe, cholera-like syndrome), abdominal cramps and vomiting, sometimes leading to dehydration and shock. c) EIEC causes inflammatory disease of the mucosa and submucosa by invading and multiplying in the epithelial cells of the colon. Symptoms include abdominal pain, vomiting and watery diarrhoea (in <10% of cases stools may become bloody and contain mucus). d) EHEC causes abdominal cramps and watery diarrhea that may also develop into bloody diarrhea (hemorrhagic colitis). Fever and vomiting may also occur.	(a-c) EPEC, ETEC, EIEC: consumption of food and water contaminated with fecal matter. Time/temperature abuse of such foods increases risk of illness. Up to 25% of infections in infants and young children in developing countries are due to E. coli, in particular ETEC and EPEC (10 – 20% and 1 – 5% of cases at treatment centres, respectively). ETEC is a major cause of traveller's diarrhea in developing countries. d) EHEC is transmitted mainly through consumption of foods such as raw or undercooked ground-meat products and raw milk from infected animals. Fecal contamination of water and other foods, as well as cross-contamination during food preparation, will also lead to infection. Foods involved include ground (minced) meat, raw milk, and vegetables. Secondary transmission (person-to-person) may also occur during the period of excretion of the pathogen which is less than a week for adults but up to 3 weeks in one-third of affected children	a) EPEC: 1 – 6 days; as short as 12 – 36 hours b) ETEC: 1 – 3 days; as short as 10–12 hours c) EIEC: 1 – 3 days; as short as 10–18 hours d) EHEC: 3 – 8 days, median of 4 days	Refer to Section 9.

Organism	Clinical Presentation/ Symptoms	Infectious Substance/How it is Transmitted	Incubation Period	Outbreak Restrictions/ Recommendation for Sites
Giardia lamblia	Diarrhea (which may be chronic and relapsing), abdominal cramps, fatigue, weight loss, anorexia, and nausea. Symptoms may be caused by a protein toxin.	Infected individuals excrete Giardia cysts in large numbers. Illness is spread by fecal-oral route, person-to-person contact or fecal-contaminated food and water. Cysts have been isolated from lettuces and fruits such as strawberries. Infection also associated with drinking-water from surface waters and shallow wells. Foods involved include water, home-canned salmon, fruit and vegetables and noodle salad.	3-24 days or longer, with a median of 7-10 days	Refer to Section 9.
Hepatitis A	Loss of appetite, fever, malaise, abdominal discomfort, nausea and vomiting, followed by symptoms of liver damage (passage of dark urine, pale stools, jaundice).	Spread by fecal-oral route, primarily person-to-person. Can also be transmitted through food and water as a result of sewage contamination or infected food handlers. Risk of transmission is greatest during the second half of the incubation period until a few days after the appearance of jaundice. Foods involved include shellfish, raw fruit and vegetables, bakery products.	15-50 days with an average of 28-30 days	Refer to Section 9.
Listeria monocytogenes	Influenza-like symptoms such as fever, headache and occasionally gastrointestinal symptoms.	A substantial proportion of cases of listeriosis are foodborne. Foods involved include raw milk, soft cheese, meat-based paste, jellied pork tongue, raw vegetables and coleslaw.	1-70 days	Refer to Section 9.

Organism	Clinical Presentation/ Symptoms	Infectious Substance/How it is Transmitted	Incubation Period	Outbreak Restrictions/ Recommendation for Sites
Non-typhoid Salmonella serotypes	The principal symptoms are fever, headache, nausea, vomiting, abdominal pain and diarrhea.	Main route of transmission is by ingestion of the organisms in food (milk, meat, poultry, eggs) derived from infected food animals. Food can also be contaminated by infected food-handlers, pets and pests, or by cross-contamination as a result of poor hygiene. Contamination of food and water from the feces of an infected animal or person may also occur. Problems caused by initial contamination may be exacerbated by prolonged storage at temperatures at which the organism may grow. Direct person to person transmission may also occur during the course of the infection. Foods involved include unpasteurized milk, raw eggs, poultry, meat, spices, salads and chocolate.	6 – 48 hours, occasionally up to 4 days	Refer to Section 9.
Salmonella typhi and **Salmonella paratyphi types a-c**	Systemic infections characterized by high fever, abdominal pains, headache, vomiting, diarrhea followed by constipation, rashes and other symptoms of generalized infection.	Ingestion of food and water contaminated with fecal matter. Food-handlers may carry the pathogen and be a source of food contamination. Secondary transmission may also occur. Foods involved include prepared foods, dairy products (e.g. raw milk), meat products, shellfish, vegetables, and salads.	10 – 20 days (range 3 days to 8 weeks)	Refer to Section 9.

Organism	Clinical Presentation/ Symptoms	Infectious Substance/How it is Transmitted	Incubation Period	Outbreak Restrictions/ Recommendation for Sites
Shigella dysenteriae, S. flexneri, S. boydii, S. sonnei	Abdominal pain, vomiting, fever, diarrhea ranging from watery (S. sonnei) to dysenteric with bloody stools, mucus and pus (S. dysenteriae and, to a lesser extent S. flexneri and S. boydii).	Food and water contaminated with fecal matter. Person-to-person transmission through the fecal–oral route is an important mode of transmission. Food can be contaminated by food-handlers with poor personal hygiene or by use of sewage/wastewater for fertilization. Foods involved include uncooked foods that have received extensive handling, such as mixed salads and vegetables, water and raw milk.	1 – 3 days, up to 1 week for S. dysenteriae	Refer to Section 9.
Staphylococcus aureus	Intoxication, sometimes of abrupt and violent onset. Severe nausea, cramps, vomiting and prostration, sometimes accompanied by diarrhea.	Consumption of foods containing the toxin. Foods are contaminated by food-handlers. If storage conditions are inadequate, the bacteria may multiply to produce toxin. Intoxication is often associated with cooked food e.g. meat, in which competitive bacteria have been destroyed. Foods involved include prepared foods subject to handling in their preparation (ham, chicken and egg salads, cream-filled products, ice cream, cheese).	2-6 hours	Refer to Section 9.

Organism	Clinical Presentation/ Symptoms	Infectious Substance/How it is Transmitted	Incubation Period	Outbreak Restrictions/ Recommendation for Sites
Vibrio cholerae O1 and O139	Profuse watery diarrhea, which can lead to severe dehydration, collapse and death within a few hours unless lost fluid and salt are replaced; abdominal pain and vomiting.	Food and water contaminated through contact with fecal matter or infected food handlers. Contamination of vegetables may occur through sewage or wastewater used for irrigation. Person-to- person transmission mode of transmission. Foods involved include seafood, vegetables, cooked rice and ice.	A few hours to 5 days, with an average of 2-3 days	Refer to Section 9.
Vibrio parahaemolyticus	Profuse watery diarrhea, abdominal pain, vomiting, and fever. A dysenteric syndrome has been reported from some countries, particularly Japan.	Associated with consumption of raw or undercooked fish and fishery products or cooked foods subject to cross contamination from raw fish.	9–25 hours, up to 3 days	Refer to Section 9.
Vibrio vulnificus	Profuse diarrhea with blood in stools. Organism is associated with wound infections and septicaemia may originate epithelial surfaces.	All known cases are associated with seafood, particularly raw oysters,	12 hours – 3 days	Refer to Section 9.
Yersinia enterocolitica	Abdominal pain, diarrhea, mild fever, sometimes vomiting.	Associated Foods Illness is transmitted through consumption of pork products (tongue, tonsils, gut), cured or uncured, as well as milk and milk products.	3-7 days, generally less than 10 days	Refer to Section 9.

Organism	Clinical Presentation/ Symptoms	Infectious Substance/How it is Transmitted	Incubation Period	Outbreak Restrictions/ Recommendation for Sites
Viral gastroenteritis Note**:** Many different viruses can cause viral gastroenteritis, including adenoviruses, coronaviruses, rotaviruses, parvoviruses, caliciviruses and astroviruses. Those viruses most associated with foodborne outbreaks are norovirus and hepatitis A.	Diarrhea and vomiting, which is often severe and projectile with sudden onset.	Gastroenteritis viruses usually spread by fecal–oral route. Food and drinking-water may be contaminated either at source when exposed to sewage/wastewater in the environment or used for irrigation, or by an infected food-handler. Filter-feeding shellfish most common food contaminated at source, but a wide range of different cooked and uncooked foods have been implicated in secondary contamination by food-handlers.	15-50 hours	Refer to Section 9.

8.1 IPAC Measures

- See sections 3.1 and 4.1.

8.2 Administrative Measures

- See sections 3.2 and 4.2.

8.3 Client/Patient/Resident Restrictions

- See sections 3.3 and 4.3.

8.4 Restrictions on Affected Units/Site

- See section 4.4.

Additionally:

- Decisions on restrictions for clients/patients/residents on affected units/sites will be made by the OMT in consultation with the institution.
- If restrictions are lifted by the OMT, but some clients/patients/residents continue to exhibit symptoms of gastrointestinal illness, isolation precautions for ill clients/patients/residents should remain in effect to prevent further spread.
- The scope of restrictions on the affected unit are usually dependent on the affected areas and severity of the outbreak.
- Restrictions typically remain in place until the outbreak has been declared over by the PHU.
- Timeframes for declaring the outbreak over may vary depending on the organism but usually follow whichever comes first:
  - 48 hours from symptom resolution in the last case; OR
  - No new cases after one infectious period plus one incubation period. For example, Norovirus can be declared over after 5 days.

8.5 Admissions/Transfers from Acute Care to an Outbreak Institution

- See section 4.5 and 5.5.

Additionally:

- New admissions are generally not advised during gastrointestinal outbreaks.
- If a client/patient/resident is returning from absence, due diligence should be observed in protecting them by IPAC measures/precautions.

- It is important to weigh risk to the individual returning to the facility (health status, etc.) and to consult with medical staff on a case-by-case basis to ensure the returning client/patient/resident is protected.

8.6 Transfers from an Outbreak Setting to Acute Care

- The acute care setting should be notified of the outbreak and provided details to ensure control measures are in place upon the client/patient/resident's arrival.
- Institution to institution transfer during an outbreak is NOT recommended, but this is evaluated by the OMT and settings on a case-by-case basis.
- For LTCHs, the PTAC, Paramedic Services and others may be notified about the outbreak if the transfer has been approved.

8.7 Group/Social Activities and other Events

- See section 3.7 and 4.7.
    - Nourishment Areas/Sharing of Food
- See section 3.8.

Food safety plays a role in controlling gastrointestinal illness, and all food areas located within institutions are subject to Ontario Regulation 493/17.[50]

The following safe food handling practices are required:

- Facilities should have policies and procedures on safe food handling, including:
    - those related to staff who are certified food handlers;
    - records of food suppliers;
    - retention of food samples;
    - temperature records of potentially hazardous foods;
    - catered food;
    - food brought in by families;
    - common kitchens/serveries;
    - feeding assistance;
    - dishwasher temperature/sanitizing records and
    - kitchen equipment installation and maintenance.
- Feeding assistance would require those providing it to follow proper HH procedures before and after assisting with feeding. Clients/patients/residents should also have an opportunity to perform HH before and after each meal. If staff/volunteers are experiencing symptoms (diarrhea or vomiting), they should be excluded from providing feeding assistance.

- A certified food handler must be on site to champion safe food handling practices.
- Catered food and food brought in by families should be discussed with setting staff. Food for one client/patient/resident should not be shared with other clients/patients/residents without staff knowledge (some clients/patients/residents cannot consume certain foods). Food should be labelled with date prepared and client/patient/resident's name. Families should be directed on where to store this food.
- Families should be educated on potentially hazardous foods (deli meats and potential for Listeria).

If it is suspected that the outbreak source is a food source or an infected food handler, the following are also recommended:

- Staff should be familiar with exclusion criteria for food handlers related to the *Infectious Disease Protocol, 2018* (or as current).[13]
- PHUs may provide recommendations on the screening of ill staff for enteric diseases if it is strongly suspected that the outbreak source is an infected food handler.
- Food samples (including food that is brought from outside of the facility) should not be discarded once a potential outbreak has been identified. Food retention policies should be in place including:
    - 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 frozen solid for 10 days.
- Retain 200-gram samples of suspect food for collection and testing by a public health inspector. Refer to the Public Health Inspector's Guide to Environmental Microbiology Laboratory Testing and Considerations for Food Safety Investigations at Food Premises During an Outbreak for more information. Contact PHOL for consultation, if necessary, at 416-235-6556 or toll free 1-877-604-4567.[32,51]

8.8 Visitors and Essential Caregivers

- See section 4.9.

8.9 HCW/Staff Outbreak Measures

- HCWs/staff should monitor themselves for signs and symptoms.
- Symptomatic staff should self-isolate at home, and not go into work; staff should report being ill to their employer (setting administration/management).
- Staff can return to work after 48 hours if symptom-free.
- Employers also have a duty to report workplace-related illness as per the Occupational Health and Safety Act (OHSA).[6] For more information, please see the provincial web page on Occupational Health and Safety compliance.[31]
- HCWs/staff who develop **gastrointestinal symptoms** at work are recommended to perform hand hygiene and leave work as soon as possible.
- Cohort HCWs / staff to care for asymptomatic residents before symptomatic residents when possible.
- Consider minimizing movement of HCWs/staff/volunteers/students between units/ floors, especially if some units/floors are not affected.
- For **gastrointestinal illness**, staff can return to work after 48 hours symptom free. This period could be modified if the causative agent is known.
    - Disease-specific exclusions may apply. See Appendix 1 for more details.[13]
    - All ready-to-eat (RTE) foods prepared by dietary staff that became ill while working on shift, should be discarded.

8.10 Specimen Collection

- Not all clients/patients/residents will require specimen collection for outbreak management.
- Confirmation of a gastroenteritis outbreak is NOT dependent on lab confirmation.
    - If the causative agent of the outbreak is suspected or confirmed to be caused by norovirus, laboratory testing of food retention samples is **not** recommended.
- If gastrointestinal illness case definition has been met, appropriate samples may be collected.
    - If clinical specimen collection is required, HCWs/staff should ensure correct collection and labelling of specimens (D.O.B., name of client/patient/resident, date of sample collection, etc.).

- For further information about human diagnostic testing, contact PHO's Laboratory.[18]
- For more information regarding collection and testing of environmental samples, please refer to the Public Health Inspector's Guide to Environmental Microbiology Laboratory Testing.[32]
- Please see Gastroenteritis Outbreaks in Institutions and Public Hospitals for more info.[13]

8.11 Enhanced Environmental Cleaning and Disinfection

- See section 3.12 and 4.12.
- During **gastrointestinal illness/outbreaks**, the following is recommended for disinfecting surfaces and equipment:
    - Use a hard surface disinfectant with efficacy against the identified/suspected pathogen (e.g., norovirus) and reasonable contact time (not something with a 30 min CT) and compatible with the surface to be disinfected.
    - Consultation with PHU for more information on cleaning and disinfection practices.

Roles and Responsibilities for Confirmed Outbreaks

- See section 1.
- See ON-FIORP, 2023 or as current for further information on multi-jurisdictional roles and responsibilities in gastrointestinal outbreaks.[52]

Section 9: Closing an Outbreak

Review the Outbreak

The OMT should meet to review the management of the outbreak, including:

- What was handled well and what could be improved in managing future outbreaks.
- Identifying recommendations for future preventive actions and/or necessary policy/protocol changes
- Possible reasons for the outbreak and steps to prevent similar outbreaks in the future.

Complete the Outbreak Investigation File

The PHU should review the outbreak file to ensure it contains full documentation including:

- Copies of laboratory and other results.
- Copies of all meeting minutes and other communications.
- All other documents specific to the investigation and management of the outbreak, including notes and line lists.
- A summary report.

Note: Setting administration/management or IPAC lead/designate should store copies of all documents related to the outbreak. The PHUmay also maintain file copies of all documents related to the outbreak and may report details of the outbreak to the MOHs Office of the Chief Medical Officer of Health – Public Health using the integrated Public Health Information System (iPHIS), Case and Contact Management System (CCM) or any other method specified by the ministry and within timelines specified by PHO.

Appendix A: Outbreak Preparation Resources

General:

- Ontario Investigation Tools: Ontario Investigation Tools | Public Health Ontario[53]
- Contact precautions: sign-ltc-caution-contact.pdf (publichealthontario.ca)[54]
- Routine practices and additional precautions for all health care settings: bp-rpap-healthcare-settings.pdf (publichealthontario.ca)[4]
- Best practices for infection prevention and control programs in Ontario: bp-ipac-hc-settings.pdf (publichealthontario.ca)[34]
- Best practices documents: Best Practices in IPAC | Public Health Ontario[55]
- Public health inspector's guide to environmental microbiology laboratory testing: Public Health Inspector's Guide to Environmental Microbiology Laboratory Testing (publichealthontario.ca)[32]
- Donning and Doffing PPE: https://www.publichealthontario.ca/-/media/documents/l/2013/lanyard-removing-putting-on-ppe.pdf?la=en[56]
- Performing a risk assessment related to routine practices and additional precautions[20]
- IPAC core competencies and resources[57]:
    - Routine Practices and Additional Precautions[4], including use of PPE, cleaning and disinfecting requirements, and environmental cleaning, as per Provincial Infectious Disease Advisory Committee (PIDAC) documents.
    - Just Clean Your Hands[5], including your Four Moments for Hand Hygiene[58].
    - Chain of transmission: modes of infection transmission[59].
    - PHO's IPAC online learning modules[60]
- OPHS: Ontario Public Health Standards [1]
- Ontario Regulation 493/17 (Food Premises Reg.): O. Reg. 493/17: FOOD PREMISES (ontario.ca)[51]
- Ontario Regulation 246/22 (General) under the Fixing Long Term Care Act: O. Reg. 246/22: GENERAL (ontario.ca)[28]
- Personal Protective Equipment Use Tracking Tools | NIOSH | CDC[61]

Figure 1: Outbreak Signage

Respiratory:

- Interim Infection Prevention and Control Measures based on COVID-19 Transmission Risks in Health Care Settings (publichealthontario.ca)[3]
- Influenza (flu) | Public Health Ontario[63]
- Ontario Respiratory Virus Tool[63]

GI:

- Gastro stool viruses: https://www.publichealthontario.ca/en/laboratory-services/test-information-index/enteric-gastroenteritis-stool-viruses[16]
- Enteric OB kit: https://www.publichealthontario.ca/en/laboratory-services/kit-test-ordering-instructions/enteric-outbreak-kit[15]
- Considerations for Food Safety Investigations at Food Premises During an Outbreak[51]

COVID:

- COVID-19 Specific Guidance for Health Sector[64]
- COVID-19 Guidance: Personal Protective Equipment (PPE) for Health Care Workers and Health Care Entities[39]
- COVID-19 General Webpage[65]

Appendix B: Antivirals/Therapeutics

Antivirals as Part of an Outbreak Preparedness Plan

An outbreak plan should include measures that will expedite the administration of antiviral medication for staff and clients/patients/residents. A plan is required to begin antivirals quickly not only because treatment is most effective when started within 48 hours of symptom onset, but also because prophylaxis should begin as soon as possible to stop the progression of the outbreak. This plan should include measures to ensure rapid access to antiviral medications from local pharmacies.

Every eligible client/patient/resident in any setting could be a candidate for antiviral prophylaxis. For outbreak management purposes, only some settings would be eligible for antiviral prophylaxis for use as an outbreak control measure. The following recommendations should be addressed in institution/facility policies in preparation for an outbreak to ensure that there are no delays in providing immunization and/or antiviral medication:

- Consent for antiviral medication use during the entire respiratory season should be obtained from clients/patients/residents (or SDM) in advance of each respiratory season. This may be obtained at the same time consent is obtained for immunization.
- Advance medical orders for influenza antiviral medication for clients/patients/residents should be obtained from medical staff at the beginning of each respiratory season, or a plan should be in place to obtain physician's orders quickly in the event of an outbreak. Advance medical orders can substantially expedite administration of antiviral medications.
- Staff who are unimmunized for any reason should be informed that in the event of an outbreak, they may be given the option of taking antiviral medication for the duration of the outbreak in order to continue their duties. If staff are unable or refuse to take antiviral medication for the duration of the outbreak, the PHU and institution should determine staffing needs for the setting on a case-by-case basis.
- To facilitate antiviral treatment during outbreaks, staff who are unable to receive vaccinations should be assessed for eligibility for antiviral drugs prior to the respiratory season. A record of this information should be kept on-hand at the institution/facility to expedite timely implementation of antiviral prophylaxis. In addition, staff who are not immunized, who conduct activities in the institution/facility, and who are assessed as being able to take antiviral

medication, may wish to obtain and keep prescriptions on hand to assist with timely commencement of antivirals, in the event of an outbreak.

- During the respiratory illness season, institution/facility administration should keep a current list of staff working in the institution/facility who are not immunized, to promptly implement control measures, such as antiviral prophylaxis and cohorting staff. Other control measures, such as non-client/patient/resident care work arrangements or staff exclusions, may also be considered.
- The PIDAC document Annex B: Prevention of Transmission of Acute Respiratory Infection in all Health Care Settings, March 2013 recommends: "Annual influenza vaccination should be a condition of continued employment in, or reappointment to, health care organizations".[23]
- As soon as a vaccine-preventable respiratory outbreak is suspected, unimmunized clients/patients/residents and staff carrying on activities in the institution/facility, who do not have contraindications to the vaccination, should be offered the vaccine. When an outbreak is declared, immunized persons carrying on activities in the institution/facility may continue to work without disruption of their work pattern. Those who have not provided documentation of receipt of vaccine should be managed as unimmunized.
- Unimmunized staff carrying on activities in the institution/facility who refuse antivirals during an outbreak should not provide client/patient/resident care or conduct activities where they have a potential to acquire or transmit infections. The institution/facility may choose to exclude from work unimmunized staff carrying on activities in the institution/facility unless they take antivirals. Unimmunized staff carrying on activities in the institution/facility who agree to be immunized during an outbreak but do not take antivirals may return to work 14 days, or as indicated, following receipt of vaccine (the duration required to achieve vaccine-induced immunity). They may return earlier if they begin a course of antiviral prophylaxis.
- Newly immunized (within 2 weeks) or unimmunized staff taking antiviral prophylaxis could continue their work without interruption.
- Antiviral drugs for staff carrying on activities in the institution/facility require a prescription. All staff should try to use their own physician or health care provider; however, in the event of an outbreak, to facilitate eligible staff with timely antiviral medication (in situations where the medical assessment does not contraindicate such) the institution/facility may wish to discuss with the institution/facility physician(s)/nurse practitioners the opportunity for institution/facility staff to access their medical services, as applicable.

- Unimmunized staff working in an outbreak institution/facility can work in a non-outbreak or alternate healthcare setting if three or more days (one incubation period) have passed since their last day of activities in the outbreak institution/facility.

Influenza Antiviral Prophylaxis

Antiviral prophylaxis does not replace annual influenza immunization.

PHUs should be aware that clinical recommendations for the use of antiviral medications may change from season-to-season, as additional evidence becomes available. Decisions regarding influenza antiviral prophylaxis or treatment should be made at the discretion of the attending physician/health care provider based on current data of circulating influenza strains, including antiviral resistance.

It is important to ensure that the most current guidelines/publications/product monographs are accessed as they can be updated yearly. Please refer to PHO's Flu Antiviral Guidance[62]. PHUs should be aware of the Association of Medical Microbiology and Infectious Disease (AMMI) Canada's current guidelines for the use of antiviral drugs for influenza[66] In addition to AMMI, the current manufacturer's product monograph contains information regarding the use of the drug. The manufacturer publishes an updated product monograph when changes relating to recommended use of their products take effect. The Tamiflu™ product monograph[67] is located on the Roche Canada website and the Nat-oseltamivir product monograph is on the Natco Pharma Canada website.

Antivirals for Prevention (Prophylaxis)

During a confirmed influenza outbreak, antiviral medication for prevention should be offered to all clients/patients/residents in the outbreak-affected floor/unit who are not already ill with influenza, whether previously vaccinated or not, until the outbreak is declared over. When the circulating strain is not well-matched by the vaccine, antiviral prophylaxis may be offered to all staff, regardless of vaccination status, as determined by the OMT or in consultation with the PHU until the outbreak is declared over. PHUs may consult with PHO regarding scientific and technical support regarding evidence of a mismatch.

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, rapid test results are usually available within one business day. In some circumstances, the PHU may provide recommendations for

prophylaxis prior to laboratory confirmation. Institutions/facilities should consult with PHU representatives on the OMT when starting antiviral prophylaxis and treatment.

Recommendations regarding influenza antiviral prophylaxis:

- All unvaccinated asymptomatic staff who work in the area of the institution/facility where the influenza outbreak is occurring should be advised to take prophylactic antiviral medication until the outbreak is declared over.
- It is reasonable to allow unvaccinated staff to work with clients/patients/residents on an outbreak floor/unit 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.
- 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. Staff reporting signs and symptoms of influenza should be excluded from working in any health care setting if symptoms develop.
- Prophylaxis may be discontinued once the influenza outbreak is declared over.
- Prophylaxis may also be given during influenza season in institutions/facilities not experiencing an influenza outbreak to unvaccinated individuals at high-risk of influenza-related complications, at the discretion of the treating physician or health care provider.
- If a person taking a neuraminidase inhibitor (i.e., 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 to determine the presence of a resistant strain or another respiratory virus.

Antiviral Prophylaxis to the Outbreak Floor(s)/Unit(s) Versus the Whole Facility

The advantages and disadvantages of providing antiviral prophylaxis to the outbreak floor(s)/unit(s) or to the whole facility may be evaluated based on the specific characteristics of the outbreak and the design of the facility.

- Advantages of a whole-facility approach:
    - Preventing the spread of the outbreak to other floors/units;
    - Preventing the introduction from another outside source when influenza is circulating in the community;
    - Not needing to be as vigilant to detect the spread on another floor/unit as would be needed if surveillance is being used as a trigger for prophylaxis; and,
    - Preventing the need to manage an outbreak unit by floor/unit as new floors/units are added.
- Disadvantages to the whole-facility approach:
    - Logistics of using antiviral medication for a large number of residents;
    - The theoretical potential for resistance if the drug is widely used for prevention;
    - Antiviral availability; and,
    - The potential for side effects occurring in a larger number of residents.

PHUs may consult with PHO for scientific and technical support regarding the use of antivirals for prophylaxis in outbreak unit(s)/facilities.

Antivirals for Treatment

Treatment decisions for the clients/patients/residents and staff are the responsibility of the attending physicians or health care providers. Staff are responsible for obtaining prescriptions for antiviral treatments.

Recommendations regarding antiviral treatment:

- Antiviral treatment should be started for ill clients/patients/residents (who meet the outbreak case definition), as soon as possible and preferably within 48 hours of symptom onset for maximum effectiveness. This may decrease complication of influenza infection. 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 to initiate antiviral treatment in individuals who meet the outbreak case definition.

Diagram 1, below, provides additional detail on actions to take in cases where antiviral treatment is not initiated within 48 hours (Diagram 1), or in cases where treatment has been completed but an outbreak is still ongoing (Diagram 2).

The algorithm in Diagram 2 would not apply if there was known to be two different influenza strains in the same institution/facility. If this were the case, all clients/patients/residents on treatment should switch to prophylaxis after treatment completion, until prophylaxis is no longer indicated in the facility.

When Antivirals Do Not Control the Outbreak

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 96 hours or more 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 compliance issues;
- The circulating strain may be resistant to the antivirals.

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

- Consult with the PHU
- The PHU should consult with PHOL about additional testing strategies.
- The PHU representative on the OMT should be consulted regarding continued use of antivirals.
- Resistance testing on positive influenza specimens may be done in consultation with PHOL if resistance is suspected and no other organism is identified in the outbreak.

Obtaining Reimbursement for Antivirals for the Ontario Drug Benefit (ODB) Program

Clients/patients/residents may be eligible for prescription drug coverage under the ODB Program. Prescriptions for antiviral medications, as for all other medications, are the responsibility of the medical directors or attending physicians of the clients/patients/residents.

A searchable on-line ODB eFormulary database is available with information on the conditions for reimbursement of the neuraminidase inhibitors oseltamivir and zanamivir.[68]

Staff are not eligible for prescription drug coverage under any circumstances from the ODB Program. Staff that do not have insurance or have an insurance plan that covers antivirals may be eligible for reimbursement through the Level-of-Care envelope funding system allocated through the HCCSS. Prescriptions for antiviral medications for staff, as for all other medications, are obtained from their physician, health care provider, or another source, as appropriate.

General information regarding the ODB Program is available at the ODB Program.[69]

Full details of the reimbursement criteria are below in Table 1. Reimbursement for clients/patients/residents applies only during a confirmed influenza outbreak for clients/patients/residents requiring treatment (up to five days of therapy) and for clients/patients/residents requiring prophylactic therapy (up to six weeks of therapy for prophylaxis).

Table 1: Reimbursement Criteria for Influenza Antivirals

LU Code	Drug	Clinical Criteria
371	Oseltamivir (Tamiflu®) 30mg, 45mg, 75 mg capsule	For the prophylaxis (max: 75 mg daily) of institutionalized individuals during confirmed outbreaks of influenza A or influenza B. Supply is limited to a maximum of 6 weeks. The outbreak must be confirmed by PHUs.
372	Oseltamivir (Tamiflu®) 30mg, 45mg, 75 mg capsule	For the treatment (max: 75 mg twice daily) of institutionalized individuals during confirmed outbreaks due to influenza A or influenza B. Supply is limited to 5 days. The outbreak must be confirmed by PHUs.

LU Code	Drug	Clinical Criteria
414	Zanamivir (Relenza) 5 mg inhalation	For treatment: 2 inhalations of 5 mg (10 mg) twice daily for 5 days. For the treatment of institutionalized individuals during confirmed outbreaks due to influenza A or influenza B when the predominant circulating strain is resistant to oseltamivir The outbreak must be confirmed by PHUs.
415	Zanamivir (Relenza®) 5 mg inhalation	For prophylaxis: 2 inhalations of 5 mg (10 mg) once daily for 10 days For the prophylaxis of institutionalized individuals during confirmed outbreaks due to influenza A or influenza B when the predominant circulating strain is resistant to oseltamivir. The outbreak must be confirmed by PHUs.

Antiviral Resistance

Testing of influenza isolates for antiviral resistance is performed as part of routine laboratory surveillance at the National Microbiology Laboratory, and is reported by PHO's Ontario Respiratory Pathogen Bulletin, the Laboratory-Based Respiratory Pathogen Surveillance Report and the national FluWatch report. HCWs are advised to refer to updates on influenza activity and antiviral resistance patterns in ongoing surveillance reports.

Resistance testing on positive influenza specimens may be done in consultation with PHO if resistance is suspected and no other organism is identified in the outbreak. The results, however, may not be received within a timeframe to influence decision-making regarding the continued use of antivirals to control the outbreak. PHUs should contact PHO's Customer Service Centre at 416-235-6556/1-877-604-4567 in the event that they want to perform resistance testing. Influenza virus should be detected from the clients/patients/residents of concern; only then can sensitivity testing on the virus be performed. This testing usually requires that the client's/patient's/resident's influenza virus grows in culture.

If antiviral drug resistance is detected or suspected in an institution/facility outbreak (e.g., if an outbreak appears uncontrolled despite proper antiviral use), or resistance has been reported in local community, local and provincial health authorities should be contacted for up-to-date advice on antiviral use.

COVID-19

Antivirals

Health care providers should discuss potential treatment options (i.e., Paxlovid, Remdesivir) with residents and caregivers in advance of potential COVID-19 infection.[68]

- This should include obtaining a clinical assessment, up-to-date renal function tests and other relevant workup, medication reconciliation, and goals of care. A physician or nurse practitioner must determine if treatment is right for a client/patient/resident based on multiple factors such as clinical judgement, goals of care, the potential for drug-drug interactions or other medication contraindications, as well as other general considerations.
- Plans should also include steps for accessing treatment so it can be made available as quickly as possible.

LTC homes are encouraged to pre-emptively:

- Determine if a client/patient/resident meets eligibility, including reviewing medications for potential drug-drug interactions, and ordering a serum creatinine while the residents are well.
- Connect with their contracted pharmacy about including Paxlovid in their emergency box, especially if a home is in a remote area. (All long-term care contracted pharmacies have access to Paxlovid and, in emergency situations, homes may rely on their secondary pharmacy to access Paxlovid).
- If a patient is not eligible for Paxlovid, there are other therapeutic treatment options (i.e., Remdesivir). Residents and their caregivers are encouraged to proactively speak with their primary care provider.
- Health care providers and LTCHs should work with their Nurse-Led Outreach Teams or OH regional contact to access Remdesivir through local pathways.

RHs and other institutions are encouraged to provide information on COVID-19 therapeutics and encourage residents and clients to speak with their primary care provider to come up with a treatment plan in case they get sick, as appropriate.

Diagram 1: Antiviral treatment use recommendation in influenza outbreaks. If treatment is not initiated within 48 hours of symptom onset

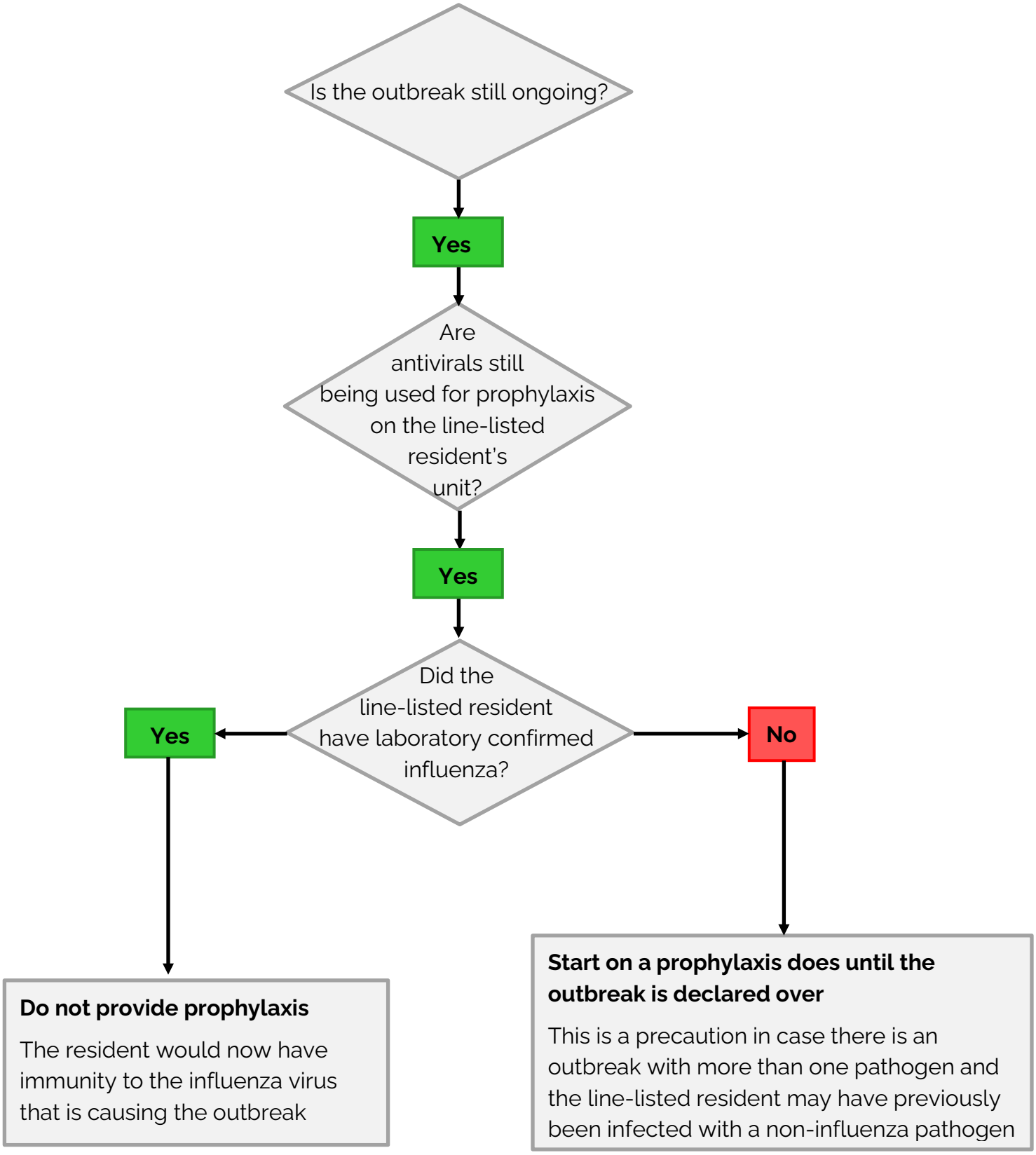
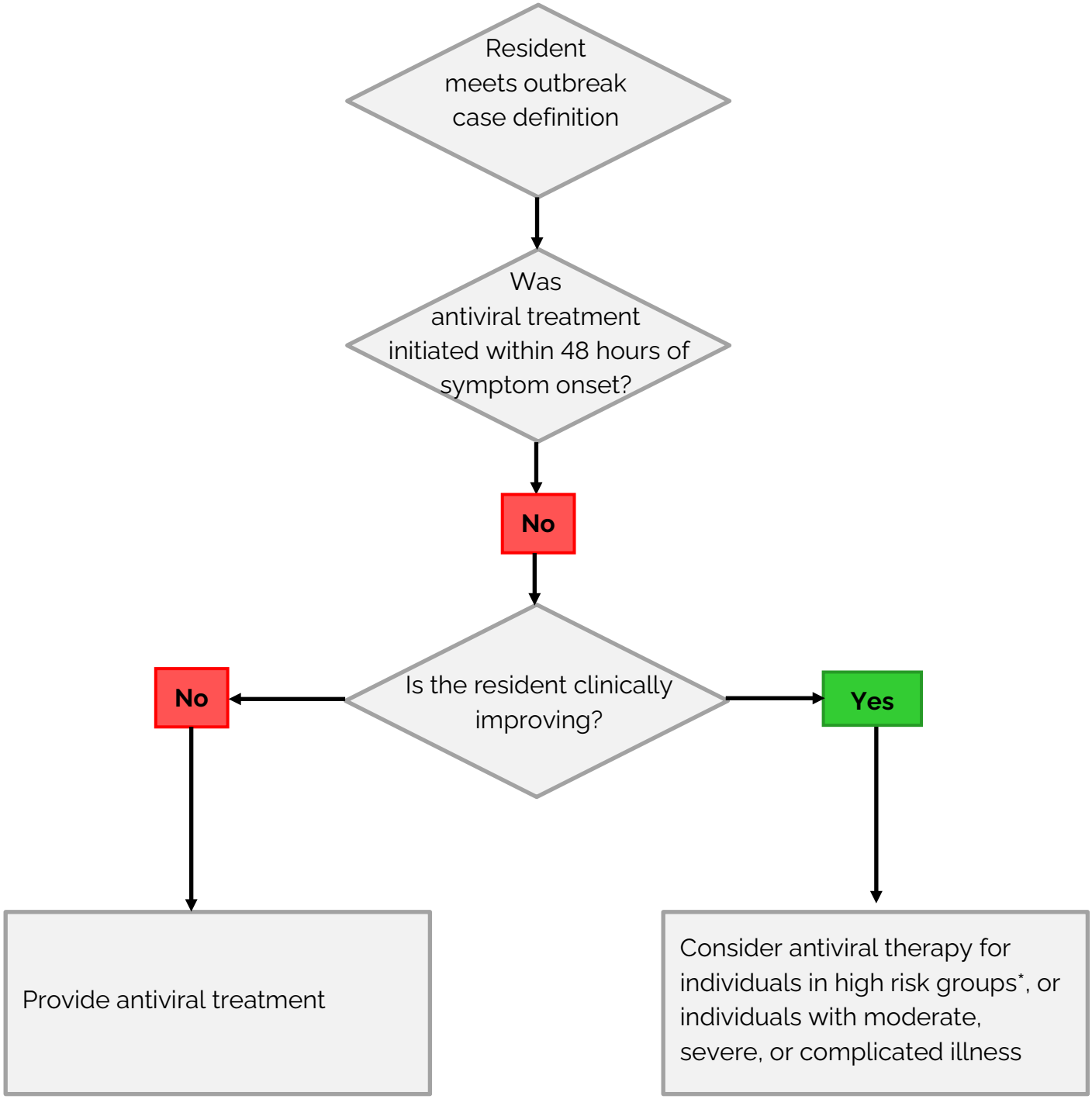


Diagram 2: Antiviral prophylaxis recommendations in influenza outbreaks for line-listed cases after completion of treatment with antiviral medication



*Note: please see AMMI Infuenza Guidelines (as current) for a definition of high-risk groups, available at http://www.ammi.ca/guidelines

Appendix C: Sample Outbreak Line List

Facility Outbreak Line List

Facility Name		**Select ONLY one:**	**Select ONLY one:**	**Line List Outbreak #: Iphis?**	
Facility Address		Respiratory ☐	Resident ☐	**Index Case Symptom Onset Date: YYYY-MM-DD**	
Facility Phone and Ext		Enteric ☐	Patient ☐	**Control Measures Started Date: YYYY-MM-DD**	
Contact Person #1			Children ☐	**Submission Date: YYYY-MM-DD**	
Contact Person #2			Staff ☐	**Submitted By:**	

Respiratory	Enteric	Symptoms		
Submit line list when: (1) Two or more cases of acute respiratory infections occur within 48hrs with a common epi-link (i.e., unit, floor) in residents; OR (2) One or more laboratory confirmed case(s) of influenza in a resident; OR (3) One or more positive tests for COVID-19 in residents; OR (4) Directed by local public health unit.	**Submit line list when two or more people have:** (1) Two or more episodes of diarrhea (i.e., loose/watery bowel movements) within a 24-hour period; OR (2) Two or more episodes of vomiting within a 24-hour period; OR (3) One or more episodes of diarrhea AND one or more episodes of vomiting within a 24-hour period. (4) Directed by local PHU.	Fever (37.8°C) ☐	Nausea/Vomitting ☐	Sore ☐
		Headache ☐	Diarrhea ☐	Nasal ☐
		Malaise/Fatigue ☐	Shortness of Breath ☐	Loss of taste/Smell ☐
		New Cough ☐	Muscle Aches ☐	
		Other		

Case Demographics			Isolation	Symptoms (new or worsening)											Speciment Diagnostics		Vaccination / Treatment				Complications / Outcome				
Case Name (Last, First)	Date of Birth (YYYY-MM-DD)	Unit/ Room# (resident) OR Unit Worked /Role (Staff)	Isolation & Additional Precautions start date or date of last shift MM-DD	Symptom onset date MM-DD	Fever / Abnormal Temp (Celsius)	New / worsening cough	Shortness of Breath	Hoarseness / Shortness of Breath	Runny Nose/ Nasal Congestion	Headache	Fatigue / Malaise/ Myalgias	Loss of Taste / Smell	Vomiting # of episodes**	Diarrhea # of episodes**	Specimen Collection Date MM-DD	Type of Test & Result (+ or -) (RAT, PCR, MRVP, NAAT, Stool)	COVID-19 Vaccine (# of doses)	Influenza Vaccine MM-DD	Antiviral Treatment MM-DD	Antibiotic Treatment MM-DD	Clinical / X-RAY evidence of pneumonia	Hospitalization Date MM-DD	Hospital Discharge Date MM-DD	Death MM-DD	Out of Isolation OR Return to Work Date MM-DD
					☐	☐	☐	☐	☐	☐	☐	☐													
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**If client/patient/resident is experiencing new onset of diarrhea, collect stool sample using enteric outbreak stool kit for viral and bacteria testing.

Appendix D: COVID-19 Case, Contact and Outbreak Management in non-LTCH/RH Institutions

This section applies to higher risk institutions within the meaning of "institution" in subsection 21(1) of the HPPA.[2]

PHUs may provide outbreak management using principles outlined in this document to other institutions that are not designated as an "institution" under the HPPA but provide residential services to individuals who are medically and/or socially vulnerable to COVID-19 when within their capacity to do so.

Institutions are recommended to develop Outbreak Preparedness Plans to support the operationalization of the recommendations outlined in this guidance document, and to develop contingencies as appropriate to their setting and in accordance with any setting-specific guidance issued by their respective ministries. For more information, refer to Public Health Ontario's (PHO's) COVID-19 Preparedness and Prevention in Congregate Living Settings Checklist.[19]

Management of Symptomatic Individuals:

- Any client who is exhibiting signs or symptoms consistent with COVID-19 should be self-isolated and tested for COVID-19. Molecular testing remains the preferred test for symptomatic individuals associated with a highest risk setting. Ideally, rapid antigen tests (RATs) should not be used for symptomatic clients, however, if they are used, parallel molecular testing should be done to confirm results.
- Symptomatic clients should self-isolate away from others while awaiting test results, ideally in a single room with access to a private washroom. Where this is not possible, symptomatic individuals should be encouraged to physically distance least 2 metres away from others as much as possible and wear a well-fitting medical mask, if tolerated, around others while within the setting.
- When a staff or visitor is symptomatic, they should be directed to leave the setting immediately and self-isolate at their own home. If they test positive for COVID-19, they should self-isolate until symptoms have been improving for 24 hours (48 hours if gastrointestinal symptoms) and no fever present.
    - Visitors: For a total of 10 days after the date of specimen collection or symptom onset, whichever is earlier/applicable, visitors should avoid non-

essential visits to anyone who is immunocompromised or at higher risk of illness (e.g., seniors). Additionally, avoid non-essential visits to highest-risk settings such as hospitals and long-term care homes. Where visits cannot be avoided (e.g., essential caregiver visits), visitors should wear a medical mask, maintain physical distancing, and should notify the setting of their recent illness/positive test. If the individual being visited can also wear a mask, it is recommended they do so.

- Staff: For a total of 10 days after the date of specimen collection or symptom onset, whichever is earlier/applicable, staff should adhere to workplace measures for reducing risk of transmission (e.g., masking for source control, not removing their mask unless eating or drinking, distancing from others as much as possible) and avoid caring for patients/residents at highest risk of severe COVID-19 infection, where possible.

Case Management

- If the case **lives** in a non-LTCH/RH institution, they should:
  - Isolate in the setting (i.e., in a separate room away from others, with access to a private washroom or disinfection of a shared bathroom between users) to limit the transmission of COVID-19 to others who work/reside in that same setting,
  - Remain isolated for **at least 5 days** after the onset of symptoms or date of specimen collection (whichever is applicable/earlier), and until the case has no fever and symptoms are improving for 24 hours (48 hours for gastrointestinal symptoms).
  - A client may also isolate away from the setting if alternative isolation facilities are available.
  - Until at least day 10 from symptom onset/positive specimen collection date (whichever is applicable/earlier), client/patient/resident cases should continue to wear a well-fitted mask at all times. Exceptions include eating and sleeping, during which times the individual should maintain physical distancing where possible.

- Setting-specific guidance only applies to individuals when they are physically present in the institution. For individuals who leave the setting (e.g., for work, school, other purposes), public health measures and any other setting-specific guidance applies when they are outside of the setting. This means that an individual may still be required to isolate away from others in their living situation (e.g., shelter, group home), but once they are afebrile and their symptoms have been improving for 24 hours (or 48 hours if gastrointestinal symptoms), they can

resume attending other settings in the community with precautions of masking and avoiding vulnerable individuals and other highest-risk settings for 10 days from their symptom onset or date of positive specimen collection. They should also avoid contact anyone who is at higher risk of severe complications from COVID-19 (e.g., immunocompromised and/or elderly) for 10 days from symptom onset or date of specimen collection (whichever is applicable/earlier).

- Institutions should ensure that clients who test positive for COVID-19 have access to the following, as applicable:
    - Medical care, including Paxlovid or other approved COVID-19 therapeutics, if eligible. For more information on eligibility, please see Ontario's COVID-19 antiviral treatment screener.[71]
    - Routine medications, as applicable.
    - Mental health supports, as applicable.
    - Harm reduction supplies, as applicable.

Contact Management:

- While in the institution, all close contacts should wear a mask at all times (except for eating/sleeping and maintain a distance of at least 2 metres from other individuals) for 7 days from last exposure to the case.
- When outside of the institution, close contacts may follow community guidance.[13]
- All close contacts should self-monitor for symptoms, and promptly isolate and get tested for COVID-19 if symptoms develop.

Outbreak Management:

Confirmed COVID-19 Outbreak

- For case definition please see Appendix 1: Diseases caused by a novel coronavirus, including Coronavirus Disease 2019 (COVID-19), Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS).
- In institutions, clients/residents should be assessed at least once daily when the client is symptomatic, has tested positive for COVID-19, or is a close contact, to identify and monitor new or worsening symptoms of COVID-19.
- Outbreak management in institutions should follow the principles for outbreak management in LTCHs and RHs, while recognizing that there are important differences in settings and making modifications where necessary.

- For further information on how to modify outbreak measures to the unique circumstances of an institution, please see PHO's Checklist: Managing COVID-19 Outbreaks in Congregate Living Settings[19].

Staff Exposure/Staff Illness

- Staff who test positive for COVID-19 should report their illness to their manager/supervisor or to Occupational Health designate as per usual practice.
- The manager/supervisor or Occupational Health designate must promptly inform the Infection Control Practitioner or designate of any cases or clusters of staff including contract staff who are absent from work,
- Employers should help workers with symptoms and/or illness to self-isolate and support them through the process.
- Staff who have COVID-19 symptoms or are a high-risk household contact of someone who is COVID-19 positive should notify their manager/supervisor or Occupational Health designate in consultation with their health care provider.
- Staff should report to Occupational Health designate prior to return to work. Detailed general occupational health and safety guidelines for COVID-19 are available on the MOH COVID-19 website and the MLITSD website.[64,72]
    - Symptomatic staff who decline testing should follow directions provided by their employer, manager/supervisor, and/or Occupational Health.
    - Staff who are returning to work after illness must follow their sector-specific requirements or policy on test to work/return to work.

Appendix E: Instructions for COVID-19 Cases and Close Contacts Associated with LTCHs, RHs, and Institutions

Scenario	Self-Isolation Period	Additional Instructions
LTCH/RH client/patient/resident case if able to independently and consistently wear a mask	At least 10 days after the date of specimen collection or symptom onset (whichever is applicable/earlier), and until symptoms have been improving for 24 hours (or 48 hours if gastrointestinal symptoms) and no fever present.	After day 5, if the client/patient/resident is asymptomatic or their symptoms have been improving for 24 hours (or 48 hours if gastrointestinal symptoms) and no fever is present, the resident: • May routinely participate in communal areas/activities but must wear a well-fitted mask at all times when outside of their room; and • May not participate in communal activities where they would need to remove their mask within the setting (e.g., group dining).
LTCH/RH client/patient/resident case if unable to mask	At least 10 days after the date of specimen collection or symptom onset (whichever is applicable/earlier), and until symptoms have been improving for 24 hours (or 48 hours if gastrointestinal symptoms) and no fever present.	Client/patients/residents are able to leave their room for walks in the immediate area with a staff person wearing appropriate PPE, to support overall physical and mental well-being.

Scenario	Self-Isolation Period	Additional Instructions
LTCH/RH client/patient/resident asymptomatic close contact	Roommate close contacts: isolate and place on Additional Precautions. Individuals who remain asymptomatic may discontinue isolation after a minimum of 5 days of isolation (based on 5 days from when the case became symptomatic or tested positive if asymptomatic). All other close contacts do not need to self-isolate if asymptomatic but should follow Additional Instructions for risk reduction measures.	For a total of **7 days** after last exposure to the COVID-19 case (or individual with symptoms): • Daily monitoring for symptoms; • Wear a well-fitted mask, if tolerated, and physically distance from others as much as possible when outside of their rooms; and • Not visit other (unaffected) areas of the home or interact with residents who have not been exposed.
Non-LTCH/RH Institution client case	While in the setting: Isolate at least 5 days after the date of specimen collection or symptom onset (whichever is applicable/earlier), and until symptoms have been improving for 24 hours (or 48 hours if gastrointestinal symptoms) and no fever present. When outside the setting: follow community guidance.[73]	For a total of **10 days** after date of specimen collection or symptom onset (whichever is earlier/applicable): • Wear a well-fitted mask, if tolerated, and physically distance from others as much as possible while in the setting.
Non-LTCH/RH Institution client asymptomatic close contact	Does not need to self-isolate if asymptomatic.	For a total of **7 days** after last exposure to the COVID-19 case (or individual with symptoms): • Daily monitoring for symptoms; and • Wear a well-fitted mask, if tolerated, and physically distance from others as much as possible in common areas of the setting.

Scenario	Self-Isolation Period	Additional Instructions
LTCH/RH/Institution staff case	Follow community guidance when community settings outside of the LTCH/RH/Institution.[73]	Staff may return to work if they are afebrile and their symptoms have been improving for 24 hours (48 hours if vomiting/diarrhea). For a total of **10 days** after date of specimen collection or symptom onset (whichever is earlier/applicable), staff should: • Strictly adhere to workplace measures for reducing risk of transmission (e.g., masking for source control, not removing their mask unless eating or drinking, distancing from others as much as possible); and • Avoid caring for patients/residents at highest risk of severe COVID-19 infection, where possible.
LTCH/RH/Institution visitor case	Follow community guidance when community settings outside of the LTCH/RH/institution.[73]	• For a total of 10 days after the date of specimen collection or symptom onset, whichever is earlier/applicable, visitors should avoid non-essential visits to anyone who is immunocompromised or at higher risk of illness (e.g., seniors) and avoid non-essential visits to highest-risk settings such as hospitals and long-term care homes. • Where visits cannot be avoided, visitors should wear a medical mask, maintain physical distancing, and notify the setting of their recent illness/positive test. If the individual being visited can also wear a mask, it is recommended they do so.
LTCH/RH/Institution staff and essential visitor/caregiver asymptomatic close contact	Does not need to self-isolate if asymptomatic	• Where feasible, additional workplace measures for individuals who are self-monitoring for 10 days from last exposure may include: o Active screening for symptoms ahead of each shift, where possible o Individuals should not remove their mask when in the presence of other staff to reduce exposure to co-workers (i.e., not eating meals/drinking in a shared space such as conference room or lunch room.) o Working in only one facility, where possible; o Ensuring well-fitting source control masking for the staff to reduce the risk of transmission (e.g., a well-fitting medical mask or fit or non-fit tested N95 respirator or KN95).

Appendix F: Summary of Screening Practices for Settings

	General Visitors	Staff, Students, Volunteers, and Essential Visitors	Current Residents
What are the recommended screening practices?	• Provide individuals with information to monitor themselves for COVID-19 symptoms and inform them they are not permitted to enter the home if they are feeling ill. • Signage at entrances and throughout the home listing signs and symptoms of COVID-19, information on self-monitoring, and steps that must be taken if COVID-19 is suspected or confirmed. • All visitors entering the home should adhere to the home's visitor policies, where applicable.		• For LTCHs and RHs: Conduct symptom assessments of residents as per sector-specific guidance or legislation to identify if any client/patient/resident has symptoms of COVID-19. For a list of signs and symptoms, refer to Appendix 1.[13] • For other institutions: Clients/residents should be assessed at least once daily when the client client/resident is symptomatic, has tested positive for COVID-19, or is a close contact, in order to monitor new or worsening symptoms of COVID-19. • Symptom assessments should include temperature checks only if the client/patient/resident is symptomatic, has tested positive for COVID-19, or has been exposed to COVID-19. • Residents returning from absence can be screened at their next daily symptom assessment rather than upon arrival.

	General Visitors	Staff, Students, Volunteers, and Essential Visitors	Current Residents
What if someone does not pass screening (i.e., screens positive)?	Visitors who are showing symptoms of COVID-19 or had a potential exposure to COVID-19, and have screened positive should: • Not enter the home • Be advised to follow public health guidance	Staff who are showing symptoms of COVID-19 or had a potential exposure to COVID-19, and have screened positive should: • Not enter the home (unless on early return to work protocols), • Be advised to follow public health guidance	Residents with symptoms of COVID-19 (including mild respiratory and/or atypical symptoms) should be self-isolated on Additional Precautions and tested. For a list of signs and symptoms, refer to Appendix 1[13].

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