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INFECTION PREVENTION AND CONTROL

Respiratory and Gastrointestinal Outbreak Management Guidelines

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The purpose of this document is to provide best practice infection prevention and control guidelines for outbreak management of respiratory and gastrointestinal (GI) illness in Acute and Long Term Care settings.

These guidelines support Infection Control Professionals/designates, SDOs, and health care workers in developing, implementing and evaluating infection prevention and control (IP&C) policies, procedures and programs to improve their outbreak response. They also assist in standardizing IP&C practices throughout the province.

SDOs may develop policies and procedures based on these guidelines. These guidelines have been developed by the Manitoba Provincial IP&C Team.

The information in this guideline was current at the time of development. Scientific knowledge and technology are constantly evolving. Revisions of these guidelines will be necessary as further experience and advances in the field provide new information. Although the guidelines will be updated periodically, professionals are responsible to ensure the most current knowledge and practice is applied for each case.

In the event of an emerging infectious disease threat or a pandemic, direction on best practices for outbreak management will be provided by Manitoba Health and Shared Health and may extend beyond this document

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SECTION 1: GENERAL PRINCIPLES OF OUTBREAK MANAGEMENT

Outbreaks cause a strain on the health care system every year. A planned and unified response is required. Reducing the burden of respiratory and gastrointestinal pathogens, such as influenza, RSV, norovirus, *Clostridioides difficile*, and COVID-19, is particularly important to protect the patients we care for and prevent an increase in health care utilization.

Note: where the term patient is used, it shall be interpreted as referring to patient/resident/client

PURPOSE

To provide Infection Prevention and Control (IP&C) guidance for the minimum requirements SDOs should implement prior to and during outbreaks to ensure patients receive the appropriate IP&C management.

GUIDING PRINCPLES

This guidance is supported by the following principles

- Multiple pathogens can cause respiratory and gastrointestinal outbreaks in healthcare facilities.
- Multiple viruses contribute to the impact of the annual respiratory season.
- Outbreak morbidity and mortality can have a significant impact on the operations of the health care system.
- Sites, programs, and services operate as one system – sharing resources, balancing their needs, and coordinating patient care. This is required to meet the demands of outbreak management, mitigate the various risks that lack of coordination of these services poses, and to protect public health.
- Health Care Workers (HCW) with direct patient contact should consider it their responsibility to provide the highest standard of care, which includes influenza vaccination and COVID-19 vaccination.
- Routine Practices and Additional Precautions are required within all healthcare settings (see Manitoba Health Routine Practices Additional Precautions: Preventing the Transmission of Infection in Healthcare document), including, but not limited to
    - Hand hygiene with alcohol-based hand rub (ABHR) or soap and water
    - Cough/respiratory etiquette
    - Point-of-care risk assessment (PCRA)
    - Appropriate personal protective equipment (PPE) such as gloves, gowns, masks, eye protection, and N95 respirators
- Preventing transmission of respiratory and gastrointestinal pathogens within the health care delivery settings requires a multi-faceted approach that includes
    - Ensuring IP&C measures are implemented to prevent spread of respiratory and gastrointestinal infections
    - Offering immunization (e.g., influenza, COVID-19, pneumococcal) to patients and staff as appropriate, who meet the criteria established by Manitoba Health
    - Ensuring facilities have adequate supplies in the event of an outbreak
    - Providing timely antiviral chemoprophylaxis and/or treatment as appropriate

Outbreak Prevention and Preparedness	• Being prepared for a potential outbreak is vital • Ensure your facility has supplies (e.g., alcohol-based hand rub (ABHR), personal protective equipment (PPE), cleaning/disinfecting supplies etc.) and resources (e.g., line lists, signage, prophylactic antiviral dosing info, contact lists etc.) that can be quickly accessed and implemented
Surveillance	• Conduct ongoing infection surveillance and monitor for unusual clusters of illness and identification of possible outbreaks • Surveillance takes place prior to, during, and after outbreaks
Assessment	• Assess individual cases to confirm illness meets respiratory case definition (including Influenza-like Illness or COVID-19) or gastrointestinal (GI) illness case definitions outlined in this document. See Tables 1, 2, 3 and 4
Outbreak Identification	• Confirm the outbreak definition criteria outlined in this document are met. See Tables 1, 2, 3 and 4
Initial IP&C Measures	• Implement initial IP&C measures including PPE, isolation of symptomatic and exposed patients, as appropriate, and enhanced cleaning/disinfection, active case finding, etc.
Notification & Communication	• Follow SDO/sector established outbreak notification protocols to report outbreaks to Manitoba Health (e.g., using CNPHI)
Specimen Collection	• Collect specimens with outbreak code identified, as appropriate and outlined in protocols and/or recommended by IP&C/designate
Outbreak Control Strategies	• Ensure adequate resources to manage the outbreak • Implement additional precautions for symptomatic patients; this includes restricting them to their room (with dedicated bathroom/commode, meal tray service in room, etc.), except for medically essential purposes • Apply site and/or unit level restrictions (e.g., cohort staff, restrict admissions, limit visitation, assess the need to cancel group activities) • Post outbreak signage • Enhance environmental cleaning and disinfection of frequently touched surfaces and equipment • HCW notification and management as per recommendations by occupational health/designate • Visitation is restricted; designated caregivers continue to be permitted. Exceptions for general visitation exist (e.g., end of life)
Monitoring Outbreak Status	• Maintain a line list per site/regional/SDO process • Communicate and track outbreak status within site and to regional IP&C/ designate per established processes, e.g., share line list/other reporting, in accordance with privacy policies re: sharing personal health information
Declaring Outbreak Over and Evaluation	• Regional/SDO IP&C/designate will review and declare outbreak over • Following an outbreak, evaluate and/or debrief to identify lessons learned using the outbreak evaluation questionnaire

SECTION 2: ROLES AND RESPONSIBILITIES

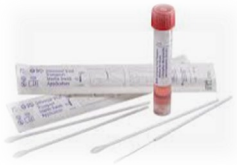
All Health Care Workers (HCW) in Acute and Long-Term Care (LTC) facility settings including physicians, students, and volunteers have a role in outbreak prevention and management.

When an outbreak is identified, an Outbreak Management Team (OMT) should be convened to ensure a timely and coordinated response to control the outbreak. OMT members could include Nursing, Medicine, Microbiology Laboratory, Environmental Services/Housekeeping, Communications, Workplace Health and Safety, Infection Prevention and Control, Occupational Health, and Facility Leadership. Composition of the OMT will depend on disease, outbreak spread and facility type. Each OMT should identify a team lead for the duration of the outbreak.

For facility outbreaks, **all staff** will refer to the Respiratory Illness and Gastrointestinal Illness Outbreak Management: Acute and Long-Term Care Facilities.

1. Unit Staff

- Monitor patients for signs and symptoms of illness and document assessment findings
- Implement Additional Precautions immediately for suspected, clinical, and lab confirmed cases
- Follow Additional Precautions signage as posted
- Report suspicion of outbreak to IP&C/designate for the site
- Inform primary care provider of patients who develop respiratory and/or GI symptoms
- Populate line list with details of the symptoms and other demographics
- Update line listing and share with IP&C/designate daily
- Post outbreak signage
- Collect specimens as recommended by IP&C/designate from those identified as symptomatic

If Respiratory Outbreak	If GI Outbreak
 Ensure universal transport media and nasopharyngeal (NP) swabs are available and have not expired	Ensure stool specimen containers are available 

- Assist with outbreak communication (e.g., shift report)
- Inform management of concerns related to the outbreak
- Communicate outbreak status to physicians and other staff
- Provide appropriate information sheets as required
- Inform patients, visitors, families, and Powers of Attorney, as necessary
- Promote hand hygiene, vaccination, and cough/respiratory etiquette with patients, staff,

families, and visitors
    - Respiratory Hygiene (French)
    - Clean Hands Saves Lives (French)
    - Information for Visitors During Outbreak

2. **Unit Management**
    - Liaise with Occupational Health/designate when there are symptomatic staff
    - Collaborate with IP&C/designate through the course of the outbreak
    - Ensure the site/unit specific outbreak management binder/toolkit is up to date
    - Ensure staff have access to PPE
    - Notify site departments (e.g., environmental services, dietary, facility maintenance, recreation, etc.) that an outbreak has been declared
    - Cohort staff to specific units or patient assignments, if possible
    - Restrict staff movement in the daily assignments from outbreak affected areas to non-affected areas, if possible
    - Review initial outbreak measures with staff (i.e., staff huddle):
        - Outbreak signage posted upon entry to unit/facility
        - Implementation of Additional Precautions
        - Specimen collection and identification of outbreak code on requisition
        - Screening patients for symptoms
        - Communication plan to patients, family and visitors
        - Hand Hygiene
            - Review 4 moments for hand hygiene for staff
            - Remind staff to assist patients with hand hygiene before meals, after using bathroom and when they touch high touch surfaces if unable to manage independently
        - Review PPE donning & doffing with staff
        - Review plan for admissions/transfers
        - Review visitation plan
        - Review plan for activities on unit/facility
        - Reinforce importance of equipment cleaning
        - Advise where to direct media calls
    - Ensure IP&C audits, as requested by IP&C/designate, are performed regularly during outbreak. Examples include Hand Hygiene audits, PPE Donning & Doffing audits, Additional Precautions audits, and Environmental Cleaning audits
    - Promote hand hygiene and cough/respiratory etiquette with patients, staff, families and visitors
    - Ensure outbreak control strategies are maintained until the outbreak is declared over
    - Following an outbreak, evaluate and/or debrief to identify lessons learned using the outbreak evaluation questionnaire.

3. Infection Prevention and Control

Outbreak Preparedness	• Investigate reports of healthcare associated respiratory illness (i.e., ILI, COVID- 19) and/or GI illness to determine and/or confirm an outbreak is occurring • Support staff as they prepare in advance for outbreaks, including providing education as needed • Act as a resource for facility staff to promote early recognition of possible outbreaks
Determining if Outbreak Present	• Review data being reported to determine if there is a potential outbreak • If clinical findings indicate the criteria meet the outbreak definition, review information to confirm outbreak status as per regional/SDO process • Declare outbreak as per regional/SDO process
Once Outbreak Declared	• Establish a working outbreak case definition that should be used for all cases, even those without lab confirmed cause (but with matching symptoms) • Ensure an outbreak code is obtained from Cadham Provincial Laboratory (CPL) or Communicable Disease Coordinator as per established regional/SDO processes ○ Cadham Lab (204) 945-7473 or (204) 945-7311 • Ensure appropriate IP&C measures are implemented in a timely manner • Notify all appropriate stakeholders and departments of the outbreak; include all pertinent information • Notify unit staff of any maximum patient testing requirements as directed by laboratory
Outbreak Management	• Obtain report on the clinical status and identify new cases from unit daily • Communication between site and IP&C/designate to occur regularly during outbreak; IP&C/designate to communicate regular outbreak updates to stakeholders • Direct outbreak control strategies appropriate to the type and scope of outbreak • Provide guidance on contact tracing as required depending on type of outbreak • Notify Manitoba Health of the outbreak by completing an outbreak summary using Canadian Network for Public Health Intelligence (CNPHI) reporting system • Recommend increased IP&C audits. Examples include Hand Hygiene audits, PPE Donning & Doffing audits, Additional Precautions audits, and Environmental Cleaning audits • Recommend outbreak control strategies are maintained until the outbreak is declared over following outlined SDO processes • Facilitate the delivery of influenza antivirals as per SDO process. See https://www.gov.mb.ca/health/publichealth/cdc/protocol/influenza1.pdf. • Declare outbreak over as per regional/SDO process

Site Visit(s) during Outbreak	• If **no site IP&C/designate**, regional IP&C to attend site in person to review outbreak measures with a goal to attend within the first 4 days of outbreak being declared. Should travel not be feasible, explore virtual opportunities. • If **site IP&C/designate present**, communicate daily with regional IP&C/designate. If there are questions/concerns or requests from the site, regional IP&C/designate to make site visit.

IP&C Outbreak Deployment	• Redeployment of regional IP&C to outbreak site may be needed:
	  ○ If site does not have an IP&C/designate
	  ○ On as needed basis in consultation with OMT

4. **Support Services (e.g., Housekeeping/Environmental Services)**
   - Upon notification of an outbreak, collaborate with IP&C/designate to plan and arrange for increased cleaning and disinfection of appropriate areas and surfaces using facility-approved disinfectants
   - Clean and disinfect all high touch surfaces in all outbreak affected area(s) at least twice a day. This includes
     - High-touch surfaces (e.g., handrails, tap handles, faucets, door handles, soap dispensers, furniture, phones, computer keyboards etc.)
     - Care areas and common areas such as dining/activity areas and lounges
   - The Housekeeping/Environmental Services Manager/designate should:
     - Complete an inventory of stock of the appropriate cleaning/disinfecting supplies
     - Inform and update housekeeping/environmental services staff regarding the outbreak
     - Communicate to staff their role in preventing transmission and the importance of following Additional Precautions
     - Increase auditing of environmental services cleaning practices

5. **Medical Officer of Health (MOH) / IP&C Physician/Designate**
   - Collaborate with IP&C/designate
   - Facilitate lab testing by recommending type of specimen to be collected and testing required
   - Act as a resource
   - Review specimen results as required
   - Recommend antiviral prophylaxis when indicated
   - Where required, in collaboration with IP&C/designate, determine when the outbreak can be declared over

6. **Facility/Regional Leadership/Management**
   - Maintain operations to provide optimal care and services during an outbreak
   - Support implementation of recommended outbreak management control strategies
   - Support direct care staff and management with their outbreak associated tasks. Examples

could include: ensuring sufficient staff and supplies for cleaning and disinfection, accommodation for patients when flow may be impacted, assisting with facility communication with visitors and family, and supporting increased hand hygiene and Additional Precautions auditing

- Enforce appropriate outbreak measures (e.g., hand hygiene and PPE use) as necessary during an outbreak
- Ensure adequate resources are provided to manage the outbreak
- Disseminate information including internal and external updates and media releases as required
- Review Outbreak Evaluation Tool summary with Outbreak Management Team and guide implementation of improvement measures/recommendations

7. Occupational Health/Designate

- Compile list(s) of unvaccinated staff and consider immunization for future outbreaks, if applicable
- Provide direction for absenteeism, according to the recommendations of OMT/established Occupational Health policies/current Communicable Disease Guidelines
- Provide direction for staff specimens to be collected in collaboration with Public Health if applicable
- Maintain documentation for staff and provide information on individual and aggregate data as appropriate

8. Primary Care Provider (Physician, Nurse Practitioner)

- Order laboratory testing as indicated and as directed by the MOH/IP&C Physician/designate during an outbreak
- Consult with MOH/IP&C physician on an as needed basis
- If influenza or COVID-19 outbreak
  - Order antiviral treatment as required
  - Order antiviral prophylaxis in an influenza outbreak if recommended

9. Public Health/Communicable Disease Control

- Provide consultation as needed on suspected clusters of illness or outbreaks, per regional/SDO established processes

10. Recreation/Activities

- Cease large group activities. Instead offer small group activities with those who are well and not symptomatic. For those symptomatic or recovering, 1:1 activity is appropriate
- Cancel or postpone previously scheduled activities (e.g. entertainers, school groups, community presentations, and/or communal meals for special holidays) until the outbreak is declared over
- Continuation of hair dressing services is dependent on where the outbreak is occurring in the facility and may be cancelled/continued at the discretion of the facility or ICP/designate

11. Rehabilitation/Therapy Staff

- Restrict group activities on affected unit/area
- Conduct more one-to-one activities within affected unit/area
- Dedicate equipment to single patient when possible or clean and disinfect shared patient care equipment prior to use with another patient
- Follow Additional Precautions signage as posted

12. Laboratory

- Cadham provincial lab to assign outbreak code upon request
- Notifies IP&C of any maximum patient testing requirements as necessary (e.g., testing capacity)
- Facilitate timely identification of causative organism(s) and communicate to IP&C/designate/unit/area of care
- Cadham provincial lab to advise on additional testing in multi-organism outbreaks or outbreaks in large facilities with multiple or distinct units

13. Nutritional Services

- Patients on Additional Precautions will be served meals/snacks in their rooms
- Work with management to stagger mealtimes as needed

SECTION 3: OUTBREAK PREVENTION AND PREPAREDNESS

Being prepared for a potential outbreak is vital. Ensure your facility has supplies (e.g., ABHR, PPE, cleaning/disinfecting etc.) and required resources (e.g., line lists, signage, contact lists etc.) that can be quickly accessed and implemented.

- Education
    - Outbreak preparedness/management education should be on-going for staff. At a minimum, this should occur once/year
- Surveillance
    - Every facility must have a surveillance program in place to identify and report health care associated infections including respiratory and gastrointestinal illness
    - Reporting Healthcare associated infections allows for early detection of outbreaks
- Refer to Shared Health Respiratory Virus Season: Infection Prevention and Control Planning & Response
- Refer to Quick reference: Outbreak Preparedness for steps your facility can take to ensure you are prepared if an outbreak occurs
- Have a current site/unit specific outbreak binder/toolkit that HCWs can refer to during an outbreak. Examples of information to include are
    - Testing and collection
    - Reporting tools (line lists)
    - PPE information
    - Staff resources (e.g., Mental Health, IP&C information/education)
    - Nutrition and Hydration
    - Patient screening tools
    - Provincial Outbreak posters
    - Provincial Posters Cough Etiquette and Hand Hygiene
    - Visitor signage
    - PPE, Additional Precautions, and Hand Hygiene audits
    - Facility floorplan/layout
- Occupational Health
    - Contact Occupational Health/designate for vaccination information, staff assessment and/or concerns
    - Managers should support Occupational Health in direction for staff to remain home if they have respiratory and/or gastrointestinal symptoms

SECTION 4: RESPIRATORY OUTBREAKS

Respiratory outbreaks occur in acute care and long-term care. These cause significant morbidity and mortality. Through preparedness, planning, and careful management, the outbreak can be prevented or the morbidity and mortality can be decreased.

Respiratory viral infections are often spread when people cough or sneeze and droplets of their respiratory secretions come into direct contact with the mucous membranes of the eyes, mouth, nose, or airway of another person. Because some microorganisms can survive in droplets on other surfaces, droplet-spread infections can also be spread indirectly when people touch contaminated hands, surfaces and objects.

Outbreaks of respiratory viral infections can occur at any time during the year. A number of respiratory pathogens can cause outbreaks (see table below for common examples). While no single protocol can cover all the aspects that might be necessary for specific organism outbreaks, all respiratory outbreaks can initially be managed in a similar fashion with basic measures to prevent further respiratory transmission, at least until the organism is identified and more specific measures can be put into place (e.g., antiviral prophylaxis for influenza).

COMMON CAUSES OF RESPIRATORY OUTBREAKS

There are several types of viral agents that can infect persons receiving care and cause a respiratory illness. The microorganism causing the illness usually cannot be identified from the symptoms as they are often similar. Most cases of respiratory infection result in cough and fever.

Once introduced into a population, respiratory viral illnesses can spread rapidly because they are highly contagious and have a relatively short incubation period. The most common causes of facility-based outbreaks are listed below.

VIRUS	INCUBATION PERIOD	DECLARE OUTBREAK OVER AFTER*
Influenza	1-4 days	8 days
Respiratory Syncytial Virus (RSV)	2-8 days	10 days
Human Rhinovirus	2-3 days	6 days
Human Parainfluenza	2-6 days	12 days
Human Coronovirus (229E, NL63, OC43)	2-4 days	8 days
COVID-19	Up to 14 days	7 days
Human Metapneumovirus	3-5 days	10 days
Human Adenovirus	1-10 days	20 days
Boca Virus	Not documented	Consult IP&C
Human Enterovirus	3-5 days	10 days

**The earliest an outbreak can be declared over is after midnight following the number of days listed in this column (date of appropriate isolation/discharge = day 0)*

RESPIRATORY CASE AND OUTBREAK DEFINITIONS

Ongoing surveillance of patients should be conducted for early detection of clusters of respiratory illness. Increased HCW absences or reports of respiratory infection may trigger an outbreak investigation.

Outbreaks can be caused by many organisms. Review positive laboratory reports when received to determine if there may be an outbreak occurring in one unit/area. If healthcare associated cases start to occur, an investigation is required. Accordingly, if multiple people receiving care in the same area at the same time have similar respiratory symptoms, it is recommended to treat the cases as a potential outbreak until it is confirmed.

Surveillance definitions are designed to identify trends in a population, whereas clinical diagnoses are patient specific and consider a range of diagnostic data. It is possible to meet a surveillance case definition and not meet a clinical definition and vice-versa. Therefore, failure to meet a surveillance definition should never override clinical judgement during diagnosis, management or treatment of patients. Respiratory case surveillance definitions can be found below in Tables 1, 2 and 3. Additional definitions can be found in Definitions.

TABLE 1: INFLUENZA-LIKE ILLNESS

ILI Case Definition	Acute onset of respiratory illness with fever AND cough and with one or more of the following: • Sore throat • Arthralgia (joint pain) • Myalgia (muscular pain) • Prostration (extreme exhaustion) that could be due to influenza In **children < 5 years of age**, gastrointestinal symptoms (e.g., nausea, vomiting, diarrhea) may be present. In **patients < 5 years or ≥ 65 years old**, fever may not be prominent. **NOTE: Illness associated with novel influenza viruses may present with other symptoms** **Source:** Manitoba Health Seasonal Influenza protocol (gov.mb.ca) **NOTE FOR LTC SETTINGS:** 1. Fever definition is single oral temperature >37.8°C **or** 2. Repeated oral temperatures >37.2°C or rectal temperatures >37.5°C **or** 3. Single temperature >1.1°C over baseline from any site (oral, tympanic, auxiliary). **Source for Fever Definition:** surveillanceDefinitions_summer2023.pdf (ipac-canada.org)

Influenza- like Illness Outbreak Definition	Two or more patients (who are not roommates, do not share a bathroom between two patient rooms and/or are not tablemates), acquire health care associated ILI (including at least one influenza laboratory–confirmed case) occurring within a seven-day period in an institution/unit/area. **Source:** Expert Consensus
Influenza- like Illness Outbreak Termination Criteria	An outbreak is usually considered to have ended when there are no new cases after 2 incubation periods following appropriate isolation/discharge of the last case. So, for influenza which has an incubation of 1-4 days, outbreak can be considered over after 8 full days with no new cases following appropriate isolation/discharge of the last case (date of appropriate isolation/discharge = day 0). Note: If there are multiple causative organisms, outbreak criteria for all organisms must be met before declaring outbreak over. If influenza is part of a multiple causative organism outbreak, the influenza portion of the outbreak should be resolved according to the timelines above. **Source:** Expert Consensus

TABLE 2: COVID-19

COVID-19 Case Definition	Confirmed case is a person with confirmation of infection with SARS-CoV-2 documented by • The detection of at least one specific gene target by a validated laboratory-based nucleic acid amplification test (NAAT) assay (e.g., real-time PCR or nucleic acid sequencing) performed at a community, hospital, or reference laboratory (the National Microbiology Laboratory or a provincial public health laboratory) **OR** • The detection of at least one specific gene target by a validated point-of-care (POC) nucleic acid amplification test (NAAT) that has been deemed acceptable to provide a final result (i.e., does not require confirmatory testing) **OR** • Seroconversion or diagnostic rise (at least four-fold or greater from baseline) in viral specific antibody titre in serum or plasma using a validated laboratory-based serological assay for SARS-CoV-2 **Source:** Manitoba Health Interim Guidance Public Health Measures Managing Novel Coronavirus (COVID-19 Cases and Contacts in Community)
COVID-19 Outbreak and HAI Definition **Outbreak Termination Criteria**	**For Acute Care Facilities**: see Outbreak Section in COVID-19 Specific Disease Protocol (Provincial) – Acute and Community Health-care Settings **For Long Term Care Facilities:** see Outbreak Management, in COVID-19 Infection Prevention and Control Guidance for Personal Care Homes Note: if there are multiple causative organisms, outbreak criteria for all organisms must be met before declaring outbreak over

OTHER VIRAL RESPIRATORY INFECTIONS

There are many types of respiratory viruses that can cause a wide range of symptoms (e.g., cough, runny nose, fever, shortness of breath etc.) and these viruses may have different infectious and/or incubation periods (refer to Respiratory Virus Table). There may be times when patient(s) develop respiratory symptoms while in our care that do not meet ILI or COVID- 19 case definitions as above.

For these types of situations, please consult with Regional IP&C/designate to investigate further if outbreak measures are needed. Site/unit to implement initial outbreak management measures pending lab confirmation.

TABLE 3: OTHER VIRAL RESPIRATORY INFECTIONS

Respiratory Outbreak Definition (non-ILI and non COVID outbreak)	As determined by IP&C/designate, two or more HAI cases of respiratory illness with similar symptoms (who are not roommates, do not share a bathroom between two patient rooms and/or are not tablemates) occurring within a 7-day period in an institution/unit/area. Ideally this includes at least one laboratory-confirmed case, but this is not necessary. **Source**: Expert Consensus
Respiratory Outbreak Termination Criteria	If the causative agent is known, an outbreak is usually considered to have ended when there are no new cases after 2 incubation periods following appropriate isolation/discharge of the last case. If there are multiple causative organisms, outbreak criteria for all organisms must be met before declaring outbreak over. Where the causative agent is unknown, in consultation with IP&C/designate, the outbreak may usually be considered over after 8 days with no new cases following appropriate isolation of the last case. **Source**: Expert Consensus

RESPIRATORY OUTBREAK MANAGEMENT (INCLUDING INFLUENZA and COVID-19)

If a facility **respiratory outbreak** is suspected or confirmed, refer to the following documents

- Respiratory Illness and Gastrointestinal Illness Outbreak Management: Facilities Quick Reference: Outbreak Management
- Respiratory Virus Highlights (for all respiratory outbreaks except COVID-19)
- If a confirmed **Influenza Outbreak**, in addition to above resources, refer to Manitoba Seasonal Influenza CDC Protocol
- If a confirmed **COVID-19 Outbreak,** in addition to the above resources, refer to:
  - Acute Care Facilities
    - COVID-19 Acute Care Highlights – Provincial
    - IP&C COVID-19 Contact Management in Acute Care Facilities
  - Long Term Care Facilities
    - IP&C guidance for Personal Care Homes
    - COVID-19 Long Term Care Highlights
    - PCH Outbreak Checklist
    - Individual Case Management Checklist
    - Daily patient/resident/client screening tool
    - IP&C COVID-19 Contact Management in Long Term Care Facilities
- Testing
  - Collect nasopharyngeal (NP) specimens using flocked swabs or provincially approved swabs as soon as possible when a respiratory viral illness is suspected. In patients with a tracheostomy, laryngectomy, etc. a tracheal aspirate may be collected and submitted in Universal Transport Media (UTM), but NP specimen should also be collected. Retesting may be considered on a case-by-case basis; prior consultation with IP&C/designate required. Refer to Respiratory Virus Specimen Collection
- Antiviral Treatment and Prophylaxis
  - Current provincial recommendations related to Influenza antiviral treatment and prophylaxis can be found here: Seasonal Influenza protocol (gov.mb.ca)
    - LTC influenza outbreaks: consult MOH or IP&C physician for Oseltamivir prophylaxis recommendations. LTC Oseltamivir Dosing and Vaccination Tracking Spreadsheet and Oseltamivir prophylaxis labels are available under the LTC tab of the Shared Health Infection Prevention & Control page.
    - Acute care influenza outbreaks: consult MOH or IP&C physician for Oseltamivir prophylaxis recommendations
    - NOTE: Situations which do not meet the outbreak definition can be discussed with regional MOH or IP&C physician to determine if oseltamivir is indicated
  - Current provincial recommendations related to COVID-19 antiviral treatment can be found here: Treatment Options for COVID-19 - Shared Health (sharedhealthmb.ca)
- Report outbreak as required by legislation and SDO policies.
- Report deaths per Public Health Act, Reporting of Diseases & Conditions Regulation in accordance with SDO policy. This includes all outbreak-related deaths.

Management of Simultaneous COVID-19 and Influenza Outbreaks

In facility outbreaks, more than one respiratory pathogen may be isolated, which may impact decisions on antiviral treatment for influenza or COVID-19, or antiviral prophylaxis for influenza. Consider the following guidance to assist with management of symptomatic individuals when both COVID-19 and influenza are identified during an outbreak:

- COVID-19 RATs can assist with timely identification of COVID-19. Medical management to be determined through physician guidance of the specific situation. General recommendations include
    - If RAT is positive, manage/treat for COVID-19, and continue influenza prophylaxis as indicated. Additionally, send swab for PCR testing to rule out co-infection with influenza. If influenza positive, change influenza antivirals to treatment dosing as indicated
    - If RAT is negative, begin influenza antiviral treatment dosing as indicated. Additionally, send swab for PCR testing to identify cause of illness. Adjust antiviral regime as appropriate based on results (e.g., if influenza negative, adjust dosage to complete influenza prophylaxis)

SECTION 5: GASTROINTESTINAL ILLNESS OUTBREAKS

There are several types of viral and bacterial infectious agents that can infect/impact persons receiving care and cause a GI illness. The organism causing the illness usually cannot be identified from the symptoms as they are often similar. Most cases of GI illness result in nausea, vomiting and/or diarrhea. Outbreaks of GI illness can occur any time of the year, regardless of the season. GI illness symptoms may be associated with an outbreak without a determined cause.

Once introduced into a population, GI illness can spread quickly and easily because they are highly contagious and often have a fairly short incubation period

The symptoms are based on the specific organism. Some infections do not have symptoms while others can cause diarrhea, nausea, vomiting, abdominal pain, bloody stools, fever or feeling unwell. Onset of symptoms may start slowly or suddenly and typically last 24 hours but can last for several days. Symptom severity may vary, depending on the causative organism, from asymptomatic to severe disease leading to dehydration and death. Symptoms include sudden onset of vomiting and non-bloody, watery diarrhea, with abdominal cramps and nausea. Low grade fever may also occur. In children, diarrhea is more common than vomiting.

Symptoms usually last anywhere from 48 to 72 hours; dehydration is the most common complication. People of all ages may be infected but the greatest severity is at extreme ages such as young children and the elderly.

PATHOGEN	INCUBATION PERIOD	DECLARE OUTBREAK OVER AFTER*
Norovirus	Usually 24-48 hours	4 days
Rotavirus (in children)	1-3 days	6 days
C. difficile	variable	14 days
Adenovirus	3-10 days	20 days
Sapovirus	12-48 hours	4 days
Campylobacter	1-10 days	20 days
E. coli	1-8 days	16 days
Salmonella	6-72 hours	6 days
Shigella	1-7 days	14 days
Listeria	3-70 days (mean 21 days)	Consult IP&C

**The earliest an outbreak can be declared over is after midnight following the number of days listed in this column (date of appropriate isolation/discharge = day 0)*

GASTROINTESTINAL ILLNESS CASE AND OUTBREAK DEFINITION

Ongoing surveillance of patients should be conducted using the following definitions for early detection of unusual clusters of GI illness. Increased HCW absences or reports of GI illness may trigger an outbreak investigation.

Review of laboratory reports when received is required to determine if there may be an outbreak. If healthcare associated cases start to occur, an investigation is required. Accordingly, if multiple persons receiving care in the same area at the same time have similar GI illness symptoms, it is recommended to treat the cases as a potential outbreak until it is confirmed.

Surveillance definitions are designed to identify trends in a population, whereas clinical diagnoses are patient specific and consider a range of diagnostic data. It is possible to meet a surveillance case definition and not meet a clinical definition and vice-versa. Therefore, failure to meet a surveillance definition should never override clinical judgement during diagnosis, management or treatment of patients. Gastrointestinal illness case surveillance definitions can be found below in Table 4.

TABLE 4: GASTROINTESTINAL (GI) ILLNESS

GI Illness Case Definition – LTC	GI illness (at least 1 of the following criteria must be present) 1. Diarrhea: 3 or more loose or watery stools within a 24h period, above what is normal for the patient. 2. Vomiting: 2 or more episodes in a 24h period 3. Both of the following sign or symptom sub criteria a. A stool specimen testing positive for an enteric pathogen b. At least 1 of the following sub-criteria i. Nausea ii. Vomiting iii. Abdominal pain or tenderness iv. Diarrhea (as defined above) Take care to exclude symptoms with non-infectious causes, e.g., new medications, laxatives, enteral feeding, and gallbladder disease. **Source**: Appendix A - Surveillance definitions for infections in Canadian long-term care homes: 2023 update (Dec 2023)
GI Illness Case Definition – Acute Care	A case of GI illness is defined as any one of the following conditions that cannot be attributed to another cause (e.g., laxative use, medication side effect, diet, prior medical condition) • Two or more episodes of diarrhea in a 24-hour period – above what is considered normal for that individual ***or***

	• Two or more episodes of vomiting in a 24 hours period ***or*** • One episode each of vomiting and diarrhea in a 24 hours period ***or*** • One episode of bloody diarrhea A case of confirmed GI illness is defined as positive detection for a known enteric pathogen with a symptom of GI illness (e.g., vomiting, abdominal pain, diarrhea). **Source:** Gastrointestinal Infection Outbreak Guidelines for Healthcare Facilities (2016)
GI Illness Outbreak Definition (Acute & LTC)	Three or more cases of GI illness, potentially related, occurring within a four-day period, within a specific geographic area (i.e., unit, ward). **Source**: Gastrointestinal Infection Outbreak Guidelines for Healthcare Facilities (2016)
GI Illness Outbreak Termination Criteria	If the causative agent is known, an outbreak is usually considered to have ended when there are no new cases after 2 incubation periods following appropriate isolation/discharge of the last case. If the causative agent is unknown, usually the outbreak is considered to have ended when there have been no new cases 72 hours after the resolution of acute symptoms of the last identified case OR 72 hours after last identified case transferred/discharged from outbreak ward. It is important that vigilant observation for new cases continues even after the outbreak is declared over, especially when the causative agent has not yet been identified. **Source:** Gastrointestinal Infection Outbreak Guidelines for Healthcare Facilities (2016)

Clostridioides *difficile* Infection (CDI) Case Definition	A "primary" episode of CDI is defined as either the 1st CDI episode ever experienced by the patient or a new episode of CDI occurring greater than 8 weeks after diagnosis of a previous episode in the same patient. A patient is identified as having CDI if: • the patient has diarrhea* or fever, abdominal pain and/or ileus AND a laboratory confirmation of a positive toxin assay or positive polymerase chain reaction (PCR) for *C. difficile* (without reasonable evidence of another cause of diarrhea) ***or*** • the patient has a diagnosis of pseudomembranes on sigmoidoscopy or colonoscopy (or after colectomy) or histological/pathological diagnosis of CDI ***or*** • the patient is diagnosed with toxic megacolon (in adults only) *Diarrhea is defined as one of the following: • 6 or more watery/unformed stools in a 36-hour period • 3 or more watery/ unformed stools in a 24-hour period and this is new or unusual for the patient (in adult patients only) Exclusions: • Any patients less than one year of age • Any pediatric patients (aged one year to less than 18 years) with alternate cause of diarrhea found (i.e., rotavirus, norovirus, enema or medication etc.) are excluded even if *C. difficile* diagnostic test result is positive **Source:** *Clostridioides difficile* Infection (CDI) Protocol (manitoba.ca)
CDI Outbreak Definition	Per Manitoba Health *Clostridioides difficile* Infection (CDI) Protocol (manitoba.ca)
CDI Outbreak Definition	When there is evidence of continued *C. difficile* transmission within a facility or when the incidence rate is higher than the site's baseline rate **Source*:*** *Clostridioides difficile* Infection (CDI) Protocol (manitoba.ca)
***C. difficile* Outbreak Termination Criteria**	The outbreak is considered to have ended when there have been no new cases for 3 weeks following appropriate isolation of the last identified case. **Source**: Expert Consensus

GASTROINTESTINAL (GI) ILLNESS OUTBREAK MANAGEMENT

If a facility GI illness outbreak is suspected or confirmed, refer to the following documents

- Respiratory Illness and Gastrointestinal Illness Outbreak Management: Facilities
- Quick Reference: Outbreak Management
- Visitor Access Acute and Long Term
- Gastrointestinal Illness Highlights

SECTION 6: OUTBREAK IP&C RESOURCES

1. Respiratory Illness and Gastrointestinal Illness Outbreak Management: Facilities
2. Quick Reference: Outbreak Preparedness
3. Quick Reference: Outbreak Management
4. Respiratory Virus Specimen Collection
5. GI Illness Specimen Collection
6. Outbreak Sample Cadham Lab Requisition
7. Respiratory Virus Highlights Sheet
8. COVID-19 Acute Care Highlights Sheet
9. COVID-19 Long Term Care Highlights Sheet
10. Gastrointestinal Highlights Sheet
11. Information for Families and Visitors During an Outbreak
12. Additional Precautions signage
13. Outbreak Signage
14. Outbreak Line Lists
15. Outbreak Management Evaluation Questionnaire
16. Outbreak Management Team Meeting Template
17. COVID-19 PCH Outbreak Resources:
    a. PCH Outbreak Checklist
    b. Individual Case Management Checklist

SECTION 7: REFERENCES

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CHANGE LOG

DATE	DETAILS
April 2024	1. Updated to match current Shared Health COVID-19 guidelines 2. Removed document titled “Respiratory Illness and Gastrointestinal Illness Outbreak Management: Community Programs” 3. Updated evaluation tool 4. Outbreak definitions updated 5. Management of Simultaneous COVID-19 and Influenza Outbreaks section added 6. Final Outbreak Report template removed. 7. Outbreak Management Team Meeting Template removed.
September 2022	1. Individual case definitions updated for Influenza-like illness and Gastrointestinal illness 2. Outbreak definitions updated for Respiratory (non COVID, non ILI), Influenza-like illness and Gastrointestinal illness 3. Recommendations for visitation during outbreaks updated 4. Removed document titled “Oseltamivir Treatment and Prophylaxis”. Document now links user to Manitoba Health Seasonal Influenza Protocol 5. Gastrointestinal outbreak signage and Respiratory outbreak signage adapted and made into one generalized Outbreak Signage