



**Gastrointestinal (GI) Infection Outbreak Guidelines
for Health Care Facilities**

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Introduction

Gastrointestinal (GI) infection is generally caused by viruses and bacteria, and occasionally from the toxins created by bacteria. GI infection can cause a variety of symptoms from diarrhea, nausea, and vomiting to abdominal cramps, fever, headaches, and rashes; and is spread from person to person through direct or indirect contact via the fecal/oral route.

Common sources of infection in healthcare environments are contaminated hands that are not cleaned between patients, contaminated equipment that is not cleaned between patient use, and/or contact with environmental surfaces that have been contaminated with vomit or feces. Less common sources include consumption of contaminated food or beverages.

It is expected that residential and acute care facilities will more commonly be affected episodically by viral GI infection outbreaks that are also affecting the greater local community. Other possible pathogen causes should be considered if the clinical presentation and onset/incubation appears different than a routine viral GI infection outbreak.

These guidelines provide direction for Health Care Facilities in the event multiple cases of GI infection are identified.

This document is organized into sections:

1. [General Principles and Pre-Outbreak Preparation](#)
2. [Outbreak Detection, Declaration and Investigation](#)
3. [Outbreak Management](#)
4. [References](#)

While it is recognized that *Clostridium difficile* can be responsible for clusters or outbreaks in healthcare facilities and that some of the measures outlined in this protocol may be applicable in preventing or controlling this organism, it is beyond the scope of this document to provide direction in managing outbreaks caused by this organism due to its unique epidemiological properties.



1. General Principles and Pre-Outbreak Preparation

A. Pre-Outbreak Preparation

- Provide yearly and/or ongoing gastrointestinal infection outbreak education and/or training for staff and volunteers.
- Ensure specimen collection containers are **on-hand at all times**. A process should be in place to ensure containers are not expired. Specimen collection containers are obtained through PHSA Laboratories. Fax [Sample Container Order Form](#) to PHSA BCCDC at 604-707-2606 or email to kitorders@hsssbc.ca
- Ensure appropriate cleaning products are in stock.
- Ensure staff has easy access to the appropriate personal protective equipment.
- Keep all records and procedures together in a binder/folder at the nurse's station for easy access during an outbreak.
 - [IH – Gastrointestinal Infection Outbreak Guidelines](#)
 - [Quick Reference Guide: GI Infection Outbreak Guidelines for Healthcare Facilities](#)
 - [Gastrointestinal Illness Outbreak Surveillance Tool](#)
 - [RI and GI Outbreak Report Form 823076](#)
 - Quick Reference Guide: GI Infection Outbreak Guidelines for Acute Care Facilities

B. Create an Outbreak Management Team (OMT)

All facilities should have a designated OMT responsible for directing and overseeing the control measures during an outbreak situation. This includes reporting on the status of the outbreak as well as evaluating and modifying control measures as needed so the outbreak can be declared over as soon as possible. The structure also provides a systematic structure to support coordinated communication and resolve issues. OMT's meet daily (7 days a week).

The Residential Site Manager/Director of Care (or designate) or Acute Care Site Administrator (or designate) organizes the team, coordinates and chairs the meetings, and leads the team during an outbreak. These guidelines will refer to this person as the Most Responsible Person. Membership may include:

- Medical Health Officer (Residential Facilities)
- IPAC Medical Director or designate (Acute Facilities)
- An administrator or Director of Care
- CD Specialist (if no ICP available for the facility)
- Infection Control Practitioner
- An Occupational Health Nurse or person responsible for Workplace Health and Safety



- Front line health care provider such as a Charge Nurse
- Housekeeping representative
- Food services supervisor
- Access and Flow representative

Optional:

- A physician representative (if available)
- An Environmental Health Officer (if necessary)
- A Communications representative

Tools to assist:

- [Local Level One OMT – Acute Care](#)
- [Local Level One OMT – Residential Care](#)
- [Low Level One Quick Reference Guide](#)
- [Diagram 4 – Gastrointestinal \(GI\) Outbreak – Acute Care Facilities](#)
- [Diagram 5 – Gastrointestinal \(GI\) Outbreak –IH Owned Residential Facilities](#)
- [Diagram 6 – Gastrointestinal \(GI\) Outbreak – P3 Residential Facilities](#)

C. Surveillance

All residential and acute care facilities should have an individual who is identified as responsible for infection control activities. In addition, the Most Responsible Person, assisted by other staff in the facility, should be responsible for ongoing surveillance and implementation of control measures in the event of a gastrointestinal outbreak.

Surveillance consists of keeping a line list of ill residents/patients to aid the Most Responsible Person during an outbreak in completing the RI and GI Outbreak Report Form and sending it to the CD Unit on a daily basis (and ICP's for IH facilities).



2. Outbreak Detection, Declaration and Investigation

A. Recognition

Facility staff must monitor for GI illness in their residents/patients. GI illness may present with: nausea, vomiting, bloody or non-bloody diarrhea, abdominal pain, muscle aches, headache, low-grade fever or a combination of these symptoms. See [Appendix 1](#).

- Place symptomatic resident/patient on Droplet & Contact Precautions

B. Definitions

<p>Gastrointestinal (GI) Infection Case:</p>	<p>A case of gastrointestinal infection 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)</p> <ul style="list-style-type: none"> • 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 hour period OR • One episode each of vomiting and diarrhea in a 24 hour period OR • Positive culture for a known enteric pathogen with a symptom of GI infection (e.g. vomiting, abdominal pain, diarrhea) OR • One episode of bloody diarrhea <p><small>*Source: PICNET GI Infection Outbreak Guidelines for Health Care Facilities</small></p>
<p>Gastrointestinal (GI) Outbreak:</p>	<p>Three or more cases of gastrointestinal illness, potentially related, occurring within the same setting (e.g. unit, ward, wing, facility) in a four-day period.</p>
<p>Potential Outbreak / Alert Stage</p>	<p>When one or two suspect cases of GI illness occur within a 4-day period</p> <ul style="list-style-type: none"> • Implement Droplet & Contact Precautions when providing direct care to symptomatic residents/patients • Separate symptomatic residents/patients from well residents/patients • Increase monitoring and recording of GI illness among remainder of residents/patients and staff in same area <p>The purpose of taking action at this time is to prevent an outbreak from occurring.</p>

C. Declaring an Outbreak

If three or more cases of gastrointestinal infection occur in the facility within a four day period, then the outbreak definition has been met and the outbreak must be declared.



i. Residential Care Facilities:

- **For IH owned residential care facilities:** contact the ICP, who will declare the outbreak, consulting with the MHO as needed.
- **For Private and P3 residential care facilities:** contact the CD Unit, who will declare the outbreak, consulting with the MHO as needed.

ii. Acute Care Facilities:

- **For acute care facilities:** contact the ICP, who will consult with the Medical Director of IPAC (or designate) to determine if an outbreak is declared.

D. Reporting an Outbreak

ALL sites/facilities must report an outbreak of gastrointestinal illness to:
IH Communicable Disease (CD) Unit weekdays*
Call 1-866-778-7736
then
Complete the top portion and **Section A of the IH**
[RI and GI Outbreak Report Form](#)
Fax the form to CD Unit at (250) 549-6310 or email to **cdunit@interiorhealth.ca**

For IH facilities and Acute Care sites:
email the ICP a copy of the RI and GI Outbreak Report form as well.

Note: If there are reasons to believe the GI outbreak is related to food or is caused by something other than a common *viral* GI illness, then Infection Control, the Communicable Disease Unit, and Environmental Health will be more actively involved in investigating and managing the outbreak.

***For weekends and holidays:**

- Acute care facilities contact the Medical Microbiologist on call via hospital switchboard
- Residential facilities notify the MHO on call (1-866-457-5648)

Ongoing Daily Reporting to the CD Unit and/or ICP's (IH facilities & Acute Care) is Required.

Review of new and ongoing cases within residents and staff must occur to understand the progress of the outbreak.

Residential Care Facilities:
Complete Section B of the [IH RI and GI Outbreak Report Form](#) daily
Fax the form to the CD Unit at 250-549-6310 or email to **cdunit@interiorhealth.ca**
Email copy to site ICP as well (for IH facilities)



Acute Care Facilities:

Review ongoing cases with the ICP. Daily reporting to the CD Unit is not required.

A list of all [facility outbreaks within Interior Health](#) can be viewed on the public website for Interior Health.



E. Notification of Partners

The designated Most Responsible Person, the person with the highest level of administrative authority at the time an outbreak is suspected, begins the notification process.

The Most Responsible Person may be the following:

- Administrator on call;
- Manager of Residential Care;
- Clinical Resource Nurse;
- Patient Care Coordinator;
- Clinical Manager;
- Director of Care;
- Assistant Director of Care.

Partners to notify:

- The CIHS Administrator on Call
- Communicable Disease Unit at 1-866-778-7736 or cdunit@interiorhealth.ca
- Infection Control Practitioner
- IH facilities, Provincial Workplace Health Call Centre – for staff assessment and reporting of incident 1-866-922-9464
- Others as appropriate; for example:
 - Notify service providers such as the Patient Transport Office, oxygen services, laboratory services, BC Ambulance, hemodialysis units, etc. of outbreak and control measures required.
 - BCCDC Public Health Laboratory must be notified (via the [BCCDC Gastrointestinal Disease Outbreak Notification Form](#)) if specimens will be processed as part of the outbreak investigation
 - Staffing office must be notified if there is ill staff, so they may arrange for adequate relief staff
 - Medical Director of the facility and physicians of the residents
 - Facility Licensing Officer



F. Roles and Responsibilities

Facility Administrator /Manager or Director of Care or Most Responsible Person

- Organizes the OMT meetings
- Ensures that outbreak control measures have been put into place and the GI Illness Outbreak Guidelines for Healthcare Facilities are being followed
- Ensures the outbreak is reported to the Communicable Disease Unit and completes the daily RI and GI Outbreak Report form (Completes the [RI and GI Outbreak Report form](#) and sends it to the CD Unit at the start of the outbreak, each day during the outbreak, and when the outbreak is declared over. For IH facilities and acute care areas, a copy of the form is also sent to the ICP.)
- Notifies [partners](#).
- Notifies other facilities where staff work, and hospitals to which residents/patients have been transferred within the last 72 hrs
- Works collaboratively with WH&S to monitor and report staff illness
- Ensures ongoing communication with all staff in facility regarding outbreak situation
- When necessary, collaborates with Communication representative in the event that media statements are needed

Medical Health Officer

- Declares the outbreak, outlines control measures and declares the outbreak over in residential care facilities.
- Determines repatriation of residents, admissions and transfers of individuals into the residential facility under outbreak.

Medical Director of IPAC or Designate (microbiologist on call)

- Consults with Infection Control Practitioner (ICPs) regarding outbreak declaration, control measures and declares the end of an outbreak in Acute Care Facilities.
- Determines patient transfers associated with outbreak units in Acute Care Facilities.

Communicable Disease Unit

- Conducts surveillance for all GI outbreaks.
- Receives the RI and GI Outbreak Report Form from the residential facility/acute care area at the start of the outbreak, each day during the outbreak, and when outbreak is declared over.



- Notifies necessary stakeholders of outbreak declaration, relevant lab results, and when the outbreak is declared over.
- Provides outbreak education prior to outbreak season in partnership with Infection Prevention and Control.
- For Private and P3 Residential Care facilities:
 - Follows-up initially with facility to review situation e.g. outbreak definition being met, clinical pattern is consistent with suspect viral cause, collection of lab specimens has been initiated, outbreak control measures are in place, and PHSA labs has been notified.
 - Declares the outbreak, consulting with the MHO as needed.
 - Provides ongoing outbreak support to the facility.
 - Declares the outbreak over (consulting with the MHO if necessary).

Infection Control Practitioners (ICP)

- Provides outbreak education prior to outbreak season in partnership with the Communicable Disease Unit

For IH Residential Facilities:

- Follows-up with facility to review situation e.g. outbreak definition being met, clinical pattern is consistent with suspect viral cause, collection of lab specimens has been initiated, outbreak control measures are in place, and PHSA labs has been notified.
- Declares the outbreak, consulting with the MHO as needed.
- Provides ongoing outbreak support and education to facility staff.
- Declares the outbreak over, consulting with the MHO as needed.
- Collaborates with the Most Responsible Person/Facility Manager/ Director of Care to ensure the RI and GI Outbreak Report Forms are completed correctly and submitted to the CD Unit.
- Notifies necessary stakeholders regarding outbreak situation including outbreak declaration, ongoing control measures and when the outbreak is declared over.
- Provides opportunity for debriefing following outbreak. Examples of opportunities for improvement include:
 - Timeliness in recognizing and reporting outbreak.
 - Timeliness in implementing control measures.
 - Effectiveness of control measures in limiting the outbreak.
- Completes IPAC Outbreak Summary Report and sends to facility Manager/Director of Care and IPAC Epidemiologist.



For IH Acute facilities:

- Consults with the Medical Director of IPAC (or designate) to determine when outbreaks are declared on and declared over.
- Follows-up with facility to review situation e.g. outbreak definition being met, clinical pattern is consistent with suspect viral cause, collection of lab specimens has been initiated, outbreak control measures are in place, and PHSA labs has been notified.
- Provides ongoing outbreak support and education to facility staff.
- Collaborates with the nursing staff to complete the RI and GI Outbreak Report Forms are when the outbreak is declared on and declared over.
- Notifies necessary stakeholders regarding outbreak situation including outbreak declaration, ongoing control measures and when the outbreak is declared over.
- Provides opportunity for debriefing following outbreak. Examples of opportunities for improvement include:
 - Timeliness in recognizing and reporting outbreak.
 - Timeliness in implementing control measures.
 - Effectiveness of control measures in limiting the outbreak.
- Completes IPAC Outbreak Summary Report and sends to facility Manager/Director of Care and IPAC Epidemiologist.

Nursing Staff

- Works collaboratively with the ICP (for IH owned facilities) or the CDU (for P3 & Private facilities) and facility manager to ensure early recognition of clusters of GI illness and possible outbreaks occurring.
- Implements outbreak control measures.
- Collects necessary specimens and sends them to BCCDC Public Health Laboratory with completed requisitions [BCCDC GI Disease Outbreak Requisition](#) form and [BCCDC GI Disease Outbreak Notification](#) form.
- Maintains daily surveillance for new GI illness cases among residents.



All Employees

- Report GI illness to their supervisor and does not work for the duration of their illness and for at least 48 hours after resolution of symptoms.
- For IH staff, report GI illness to the Provincial Workplace Health Call Centre for an assessment of exposure and reporting of the incident. 1-866-922-9464

Support Services

- Ensures additional resources including staff, supplies and enhanced cleaning are available and implemented during the outbreak.

Access and Flow

- Contributes information regarding repatriation of residents from acute care to their residential care facility.

Environmental Health

- Involved in the investigation if there are reasons to believe the GI outbreak is related to food or caused by something other than a common viral GI illness.

Communication Representative

- Works collaboratively with the OMT representative (i.e. the Facility Director), the MHO and other key players involved in the outbreak to provide consistent, timely and accurate communication to the media when required.

G. Collection and Transportation of Specimens

**Testing of clinical specimens may be offered at IH labs. Please contact your local lab to see if it is available. Otherwise, samples should be sent to BCCDC Public Health Laboratories.

Stool and/or vomitus specimens should be obtained from residents/patients who meet case definition as soon as possible (within 3 days of onset of symptoms). BCCDC Public Health labs will test specimens related to the GI outbreak **until they have two confirmed viral samples** (e.g. norovirus). If the outbreak is not related to a viral GI then PHSA labs will continue to test specimens as determined on a case by case basis.

COLLECTION OF SPECIMENS:

Specimens for a GI Outbreak are to be sent to the **BCCDC Public Health Laboratory** for analysis.

- Use specimen vials ordered from BCCDC Public Health Laboratory using the [Sample Container Order Form](#). Fax to PHSA BCCDC at (604) 707-2606 or email to Public Health Laboratory at kitorders@hssbc.ca.
- Ensure that a supply of specimen containers is kept on hand as delivery of kits takes approximately two weeks.
- Instructions for specimen collection are located on the bottom of the [BCCDC Gastrointestinal Disease Outbreak Requisition](#)



- Follow instructions on page 2 of the [BCCDC Gastrointestinal Disease Outbreak Notification Form](#) to create outbreak identification number for your facility.
- Collect specimens (maximum of six).
- Contact your local hospital lab regarding shipping or courier specimens direct to **BCCDC Public Health Laboratory. Ensure:**
 - Each container is labeled with resident's name.
 - A completed [BCCDC Gastrointestinal Disease Outbreak Requisition](#) form is included for each sample.
 - **IH CD Unit C09768** is entered in the **Copy Report to Field** on the requisition form.
 - The Facility Outbreak Identification Number* is written on each lab requisition form. **Facilities determine their own outbreak identification number.*
 - A copy of the completed [BCCDC Gastrointestinal Disease Outbreak Notification Form](#) is faxed to BCCDC environmental Microbiology by fax (604-707-2607) before shipping the specimens

It is more likely that a viral organism will be identified if the:

- Sample is taken early in symptom onset.
- Sample is delivered to lab the same day as collection (or next morning if collected late in the day). BCCDC Public Health Laboratory should receive the sample within 3 days of collection.

Note: If clinical picture does not fit with viral GI illness, samples may be collected for Ova & Parasite investigation. A RED capped bottle with clear SAF fixative* is required for Ova & Parasite testing.

*These are no longer provided in outbreak kits and must be ordered separately.

Transport of Specimens:

1. Prior to sending specimens, ensure the [BCCDC Gastrointestinal Disease Outbreak Notification Form is completed](#) and faxed to (604) 707-2607.
2. Make sure specimen containers are closed tightly and properly labeled.
3. Place the specimen in a biohazard bag and seal the bag.
4. Complete all sections of the [BCCDC Gastrointestinal Disease Outbreak Requisition](#) for each specimen and place in the **outside** pocket of the plastic bag. If samples are to be stored overnight, keep refrigerated at 4°C. Do not freeze.
5. Ship specimens and requisitions with the complete BCCDC Gastrointestinal Disease Outbreak Notification Form via local hospital lab (if agreement in place) **or** direct by courier to:



**BC CDC Public Health Laboratory
Shipping & Receiving
655 West 12th Avenue
Vancouver, BC
V5Z 4R4**



3. Outbreak Management

A. Risk Assessment

- Mode of transmission of GI illness is from person to person, primarily through direct or indirect contact via the fecal/oral route. This includes contact with contaminated hands, equipment, and environmental surfaces. It can also include contact with suspended droplets when a person is actively vomiting or when there is gross contamination of the environment with vomitus or feces.
- Do a Point of Care Risk Assessment (PCRA) for any interaction between the healthcare worker and patients/residents and the environment.
- The PCRA assesses the patient/resident's symptoms and cognitive ability, type of interaction that will occur, PPE required, and the potential for contamination of equipment or the environment.
- A PCRA includes:
 - Potential exposure to body fluids (i.e. active vomiting, explosive diarrhea);
 - Exposure to large deposits of body fluids (vomitus, feces) on environmental surfaces;
 - Patient/resident's continence level and ability to comply with instructions.

B. Routine Practices

- These are designed to reduce the risk of blood and body fluid exposures to healthcare workers AND to prevent and control contamination and transmission of microorganisms in all healthcare settings.
- **Routine Practices should be used with all patients/residents at all times.**
- Hand hygiene is the most effective way to prevent transmission of micro-organisms. Use soap and warm water for hand hygiene. Alcohol based hand rub (ABHR) can be used if hands are not visibly soiled.
- Assist patients/residents with hand hygiene, particularly after toileting, before meals, and before handling food.
- Remind visitors to do hand hygiene upon arrival to facility and when leaving patient/resident's room.

C. Additional Precautions

- Use **Droplet & Contact precautions**. Transmission through aerosolization of infectious material has been suggested, so persons who clean areas grossly contaminated by feces or vomitus should wear a surgical mask and eye protection.
- Patients/Residents and their visitors should be educated on additional precautions being used.
- Healthcare workers should have quick and easy access to the personal protective equipment (PPE) and cleaning products required when providing care.



D. Personal Protective Equipment

- **Gloves:** wear to provide direct care and when in contact with the ill patient/resident's environment and contaminated equipment. Gloves must be changed between contact with different patients/residents and hands should be washed before and after gloves are used.
- **Gowns:** Must be worn when providing direct care and when in contact with the ill patient/resident's environment and contaminated equipment. Gowns must be changed between patients/residents or if wet, soiled or contaminated with vomitus/feces.
- **Masks/Eye Protection:** a surgical mask with eye protection or a face shield is used to protect mucous membranes from exposure to viral particles when assisting someone who is actively vomiting, has explosive uncontained diarrhea, or when cleaning an area grossly contaminated with vomitus or feces.

Note: PPE must be removed upon completion of the task and hand hygiene must be done.

E. Placement of Resident/Patient

i. Acute Care:

- Place the symptomatic patient in a single room with a toilet and sink. When single rooms are not available, cohort patients with similar symptoms and provide dedicated toileting facilities for each patient (each patient has their own commode kept at their bedside) Avoid placing a patient with GI symptoms in the same room as a patient who is at high risk for complications (ie. is immune compromised or has had recent surgery).
- Limit movement of symptomatic patients. Patients are to stay in their rooms unless required to leave for medically necessary procedures.
- Patients must remain on Droplet & Contact precautions until they have been asymptomatic for 48 hours.

ii. Residential Care:

- Ill residents should stay in their rooms as much as possible until asymptomatic for 48 hours. Serve the resident their meals in their room.
 - Confinement of residents even for a few days could have adverse effects on their well-being. It is important not to socially isolate residents and to *keep the period of confinement to a minimum.*
- Residents who are not ill may attend other facilities for medically necessary appointments. Notify the receiving facility and transportation services that an outbreak is in progress.



- If residents require hospitalization, notify the receiving facility and transportation services that an outbreak is in progress.
- Keep well residents away from affected floors/wings/areas where the outbreak is occurring.

Common Areas

- Consider decreasing or discontinuing group activities. Limiting activities to restrict movement of residents between units and floors may be an option.
- Encourage hand hygiene for all patients/residents prior to meals.
- All common touch items should be removed from the shared areas (e.g. salt and pepper shakers, sugar bowls, table cloths). Remove and discard food in refrigerators found in common areas or nourishment areas and clean these appliances.
- Staff should also avoid sharing meals or leaving food items open in their staff room. No food items (e.g. bowl of candy, tray of cookies) should be left open in or near patient/resident areas (e.g. nursing station).

F. Restrictions of Units

- In multi-bed rooms, transfer of well residents into an ill resident's room should not occur.
- In multi-wing units, no transfer of residents should occur between wings with ill residents and wings with well residents.
- If wings/units can be separated / closed from one other by doors and staffing is separate, then wings/units with ill residents should be closed to admissions and transfers, and wings with no illness can remain open.
- When **considering re-admission or repatriation of patients/residents** from acute care to residential care sites:
 - It is the **role of the Director of Care or Most Responsible Person in the residential care facility** to consult directly with the CD Unit/ICP regarding repatriation/re-admission issues. This is not the role of the Acute Care facility seeking the re-admission/repatriation.
 - For private or P3 facilities: Call the CD Unit (1-866-778-7736) during office hours. The CD unit will then consult with the MHO. After hours or on weekends, call the MHO directly (1-866-457-5648).
 - For IH facilities: consult the facility ICP during office hours. The ICP will then consult with the MHO. After hours or on weekends, call the MHO directly (1-866-457-5648).
- **When considering restrictions or closures of units/facilities:**
 - **For private or P3 facilities:** Call the CD Unit (1-866-778-7736) during office hours. The CD unit will then consult with the MHO. After hours or on weekends, call the MHO directly (1-866-457-5648).



- **For IH residential facilities:** consult the ICP. The ICP will then consult with the MHO after hours or on weekends, call the MHO directly (1-866-457-5648).
- **For acute care facilities:** consult the ICP. The ICP will then consult with the Medical Director of IPAC. After hours or on weekends, call the medical microbiologist on call.

G. Staff

- Any staff who develop symptoms of GI illness (i.e. vomiting, diarrhea) while at work should be required to leave work immediately.
- Any IH staff with symptoms need to call the Provincial Workplace Health Call Centre 1-866-922-9464 for an assessment of the exposure and report of the incident.
- Any staff with symptoms that suggest GI infection should be excluded from work while ill and **until at least 48 hours after resolution of symptoms** regardless of whether they feel well enough to work. Staff should be vigilant in self-assessment of symptoms, particularly those working in multiple sites.
- Managers should report staff illness to the CD Unit by ensuring the number of ill staff is included on the IH [RI and GI Outbreak Report Form](#) submitted daily to the CD Unit by the facility.
- When possible, limit staff exposure to ill patients/residents by assigning the same staff to patients/residents who are ill. Since some individuals acquire short term immunity following illness, staff who return to work after becoming ill with GI symptoms should also be assigned to care for ill patients whenever possible.
- Staff (including casuals) from an affected facility may work at another facility if they remain asymptomatic and maintain strict personal hygiene at all times.
- Staff must maintain strict adherence to hand hygiene practices and appropriate use of PPE at all times.

H. Visitors and Volunteers

- In the event of an outbreak, post sign to notify persons entering the building that an outbreak is underway. A sample sign is included in # [807909](#) (printed on red).
- It is strongly recommended that visiting be restricted during the outbreak. Visitors should only visit their family member/friend.
- Anyone visiting the facility shall be notified to clean their hands upon arrival to and departure from the facility. Hand hygiene stations should be available at facility entrances where possible.
- Symptomatic visitors and volunteers should not visit the facility.
- Visitors and volunteers should be warned that they are at risk of acquiring GI infection while the facility is under outbreak.
- Facility staff should provide instructions to visitors and volunteers on how to use PPE and how to perform hand hygiene when entering and leaving the building.

Animals and Pets



- It may be reasonable to restrict visiting pets and/or temporarily remove resident pets during a GI outbreak.
- Recommendations for restricting or excluding pets do not apply to certified guide or service dogs. The Guide Dog and Service Dog Act (the Act) ensures public access rights for guide dogs and service dogs.

I. Food Services

- Wash all dishes, utensils and trays in hot water and detergent (minimum of 74° for 10 seconds). Be careful not to cross-contaminate dirty and clean dishes.
- See below for recommendations on cleaning up vomitus and fecal matters in food preparation areas and dining rooms.

J. Cleaning

Note: If outbreak is related to a **bacterial** GI illness these recommendations may change. Please refer to your facility's disinfectant policy.

- Equipment that is shared between residents must be thoroughly cleaned and disinfected between each use.
- Areas contaminated with vomitus or feces must be cleaned and disinfected immediately to minimize the risk of infection.
- Increase cleaning frequency of high touch areas including bed rails, call bell cords, phones, bathroom surfaces (taps, toilet handle), door knobs, light switches, hand rails, elevator buttons, tables, counter tops, nourishment areas (fridges, ice machines, cupboard handles), and nurse's station.
- Change the general disinfectant used in the facility to a solution that is effective against norovirus such as a 0.5% Accelerated Hydrogen Peroxide product **or** a 1000 ppm bleach solution. See below for solution preparation.

Recommended Disinfectants:

Hypochlorite (Bleach) Solution

1000 ppm bleach solution is made by adding:

- 1 part of household bleach (5.25% hypochlorite) to 50 parts water
[i.e., 4 tsp (20 ml) household (5.25%) bleach to 4 cups (1000 ml) water]

Note: *Hypochlorite at higher concentrations is corrosive and may bleach fabrics. This concentration of bleach is the minimum recommended level known to be effective against viral gastrointestinal illness agents.*

0.5% Accelerated Hydrogen Peroxide Solution

A 0.5% accelerated hydrogen peroxide solution is effective against the feline calicivirus. This virus is used as a surrogate for Norovirus as these viruses cannot currently be cultured in the laboratory. The 0.5% accelerated hydrogen peroxide solution should be used as recommended in the product use and safety



information. A minimum contact time of 5 minutes is necessary for effectiveness against gastrointestinal viruses.

For further information on disinfectants, see [PICNET GI Outbreak Guidelines Appendix 7.](#)

Cleaning Vomitus and Feces

- Areas contaminated with vomitus or fecal matter should be cordoned off to prevent other residents from unintentional exposure. The area should be cleaned immediately.
- Wear appropriate personal protective equipment including disposable vinyl gloves, a procedure mask and eye protection and a plastic disposable apron or fluid-resistant gown.
- Use paper towels or equivalent to soak up excess liquid. Transfer these and any solid matter directly into a plastic garbage bag.
- Clean the soiled area with detergent and water, using a “single-use” cloth. Do not dip cleaning cloth into cleaning solution more than once.
- Prepare the recommended disinfectant solution. Follow the manufacturer’s instructions regarding preparation, dilution and contact time required to be effective.
- After cleaning, disinfect the area to a radius of 2 metres.

Note: Ensure the area is very well ventilated.

- Deposit used disposable gloves, masks and aprons into a garbage bag and re-usable aprons/gowns into laundry bag after cleaning the area of the vomit and/or fecal incident.
- Wash hands thoroughly using soap and warm running water for at least 30 seconds.

Cleaning up vomit in food preparation areas and dining rooms:

- Follow process above for cleaning vomit and feces. Disinfect the area to a radius of 2 metres.
- Dispose of any food that has been handled by the ill person since symptom onset, or been present within 2 meters of a vomiting incident.
- Wash all dishes, utensils and trays in a commercial dishwasher – with hot water rinse of at least 82°C or a chemical sanitizer rinse. Be careful not to cross-contaminate dirty and clean dishes.

For further information on cleaning, see [PICNET GI Outbreak Guidelines, Appendix 8.](#)

Treatment of Specific Materials

- Soft furnishings or cloth-covered mattresses should be thoroughly cleaned with detergent and hot water. For disinfection: articles can be placed outdoors in the sun for several hours or they can be steam cleaned at a minimum temperature of 60° C (which is strongly recommended) or they can be disinfected with 1:50 bleach (if bleach-resistant) or 0.5% accelerated hydrogen peroxide (in accordance with product information).



- Contaminated carpets should be cleaned with detergent and hot water and then disinfected with bleach (if bleach-resistant), or 0.5% accelerated hydrogen peroxide (in accordance with product information), or steam cleaned using water at a minimum of 60°C.

K. Declaring Outbreak Over

Outbreaks can be declared over when two incubation periods, based on the known or suspect causative organism, typically 96 hours have passed since last case onset. Consult with the CD Unit or ICP as appropriate.

If the possibility exists that an outbreak might be able to be declared over during a weekend/holiday, then the facility can consult with the CDU/ICP prior to the weekend and make arrangements to consult with the MHO on the weekend or to self-declare the outbreak over on the weekend/ holiday, should no new cases arise.

Confirm resident/patient and staff case numbers are correct. Complete **Section C** of the [IH RI and GI Outbreak Report Form](#) and fax it to the CD Unit at 1-250-549-6310 or email to CDUnit@interiorhealth.ca. **For acute care sites and IH residential care facilities, send a copy to the site ICP.**

For IH facilities, the ICP will facilitate a debriefing following the conclusion of an outbreak to evaluate the outbreak management process, to identify interventions that worked well and opportunities for improvement

i. Residential Care:

For Private/P3 residential facilities: consult with the CD Unit. The CD Unit will declare the outbreak over, consulting the MHO as needed.

For IH residential facilities: consult with the ICP. The ICP will declare the outbreak over, consulting with the MHO as needed.

ii. Acute Care Facilities

For acute care facilities: consult the ICP. The ICP will consult with the Medical Director of IPAC to determine when the outbreak can be declared over.

4. References

PICNet (Provincial Infection Control Network of British Columbia. (2016). *Gastrointestinal Infection Outbreak Guidelines for Healthcare Facilities*. Retrieved from https://www.picnet.ca/wp-content/uploads/PICNet-GI-Outbreak-Guidelines_Revised-June-2016.pdf



Appendix 1 Agents that are Common in Gastrointestinal Infection Outbreaks

Agent	Reservoir	Survival on Surfaces	Incubation Period	Symptoms	Duration of Symptoms	Period of Communicability	Person to Person Transmission	Type of Precautions and Duration
Calicivirus (i.e. Norovirus or Sapovirus)	Humans	Feline calicivirus (FCV), a surrogate, can survive on glass surfaces for 21-28 days at room temperature and for longer periods	Usually 24-48 hours (range-10-50 hours)	Self-limited mild to moderate vomiting and diarrhea	24-48 hours	During acute symptoms and up to 48 hours after symptoms resolve	Yes	Contact until asymptomatic for 48 hours. Use a surgical mask with eye/ facial protection in specific situations(see page 14)
Rotavirus	Probably humans	May survive for a few hours on human hands and for days on hard and dry surfaces.	24-72 hours	Abrupt onset of vomiting and diarrhea and rapid dehydration, fever	4-6 days	Abrupt onset of vomiting and diarrhea and rapid dehydration, low grade fever	Yes	Contact until asymptomatic for 48 hours. Use a surgical mask with eye/ facial protection in specific situations (see page 14).

Agent	Reservoir	Survival on Surfaces	Incubation Period	Symptoms	Duration of Symptoms	Period of Communicability	Person to Person Transmission	Type of Precautions and Duration
Adenovirus	Humans	Very stable in the environment and persist for 7 days to 3 months on dry inanimate surfaces	3-10 days	Abrupt onset of vomiting and diarrhea and rapid dehydration, low grade fever	4-6 days	During acute symptoms and up to 14 days after onset	Yes	Contact (a surgical mask with eye/facial protection in specific situations until asymptomatic asymptomatic for 48 hours or longer. If poor hygiene or continence issues continue (consult MHO)
<i>Campylobacter</i> species (bacteria)	Animals, mostly raw poultry; pets	Can survive freezing for several months in frozen poultry, minced meat, and other cold food products.	Usually 2-5 days (range 1-10 days)	Diarrhea, abdominal pain, malaise, fever, nausea and vomiting	2-5 days	Throughout infection, from several days to weeks if not treated	May be possible in food handlers or if individual faecally incontinent and has poor hygiene	Routine
<i>Clostridium difficile</i>	Humans and some animals	Weeks to months	Unknown	Mild to severe diarrhea capable of causing bowel perforation	Several days to months	Duration of symptoms until 48 hours after resolution	Yes	Contact precautions until stools have normalized for 48 hours



Agent	Reservoir	Survival on Surfaces	Incubation Period	Symptoms	Duration of Symptoms	Period of Communicability	Person to Person Transmission	Type of Precautions and Duration
<i>Clostridium perfringens</i>	Soil; GI tract of healthy people and animals (cattle, fish, pigs, poultry)	Ever present in soil, decaying vegetation, etc. Common in raw meats, dehydrated soups, sauces, raw vegetables, and spices. Spores can survive cooking, and grow rapidly in foods inadequately hot held or refrigerated after cooking.* Survival times depends on temperature, pH, water activity, salts & oxygen	Usually 10-12 hours (range= 6-24 hours)	Mild disease of short duration; sudden onset abdominal cramping and diarrhea; vomiting and fever usually absent	1 day or less	N/A	No	Routine

Agent	Reservoir	Survival on Surfaces	Incubation Period	Symptoms	Duration of Symptoms	Period of Communicability	Person to Person Transmission	Type of Precautions and Duration
<i>E. coli</i> O157:H7	Agricultural animals especially cattle, goats, sheep and humans	Variable: butter - up to 50 min; cream - 10 days; hamburger meat - survives well; does not survive long in slurry systems	2-8 days	Range from mild non-bloody to grossly bloody diarrhea Hemolytic uremic syndrome in 2-7% of cases	Typically less than a week, usually longer in children	1 week in adults; up to 3 weeks in children	Yes	Contact for 1-3 weeks depending upon age, ability to control excretions and hygiene
<i>Salmonella</i>	Domestic and wild animals and humans	Known to survive on fingertips for up to 80 minutes. Can live up to 63 days on lettuce, 231 days on parsley, 32 weeks in pecans, 10 months on refrigerated cheddar cheese, 9 months in butter, up to 63 days in frozen yogurt, and up to 20 weeks on frozen minced beef and chicken	Usually 6-12 hours (range= 6-72 hours)	Sudden onset headache, abdominal pain, diarrhea, nausea and sometimes vomiting. Usually fever	Several days to several weeks Can become a chronic carrier	While symptomatic, shedding continues after symptoms resolve	Yes	Contact until asymptomatic for 48 hours or longer if poor hygiene, continence issues or if person is employed as a food handler (consult MHO)



Agent	Reservoir	Survival on Surfaces	Incubation Period	Symptoms	Duration of Symptoms	Period of Communicability	Person to Person Transmission	Type of Precautions and Duration
<i>Salmonella typhi</i> and <i>paratyphi</i>	Humans	As above	S. Typhi 5-28 days S. Paratyphi 1-10 days	Often begins with fever, Abdominal pain, later diarrhea, Multiple side effects	S. typhi can become a chronic infection, especially if treated with incorrect antibiotic	Primarily while GI symptoms are occurring	Yes Food borne spread is usually via infected food handlers.	Contact while symptomatic
<i>Shigella sp.</i>	Humans	Can survive up to months on dry surfaces, up to 10 days in citric juices and carbonated soft drinks, several days on contaminated vegetables, over 3 hours on fingers, 2 – 28 days on metal utensils at 5°C or 0 – 13 days at 37°C, in feces for 12 days at 25°C and water for under 3 days	1-3 days	Diarrhea accompanied by fever, vomiting and cramps.	4-7 days	During acute symptoms and up to 4 weeks after illness	Yes	Contact until asymptomatic for 48 hours or longer if poor hygiene or continence issues or if person is employed as a food handler (consult MHO)



Agent	Reservoir	Survival on Surfaces	Incubation Period	Symptoms	Duration of Symptoms	Period of Communicability	Person to Person Transmission	Type of Precautions and Duration
<i>S. aureus</i> enterotoxigenic	Humans sometimes cows, dogs, and fowl	Survives on floors (less than 7 days), glass (46 hours), sunlight (17 hours), UV (7 hours), meat products (60 days), coins (up to 7 days), skin (30 minutes to 38 days). Depending on colony size, <i>S. aureus</i> can survive on fabrics from days to months	Usually 2-4 hours (range= 30 min.-8 hours)	Abrupt onset nausea, cramps, vomiting and sometimes diarrhea	1-2 days	N/A	No	Routine