

# **Guidelines for Outbreak Prevention, Control and Management in Acute Care and Facility Living Sites**

**Includes Influenza and Gastrointestinal Illness**

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## Introduction

The purpose of this document is to provide current best-practice/evidence-based guidelines for outbreak control and management of respiratory and gastrointestinal (GI) illness in Acute Care and Facility Living sites.

Infectious disease outbreaks occur year round and in different settings including acute care sites and facility living. Effective outbreak management requires a multidisciplinary approach and involves individuals with different responsibilities. In compliance with Alberta's Hospital Act (AR 247/90 s16(i)) and the Continuing Care Health Services Standards (Standard 1.7), Alberta Health Services (AHS) facilities and contracted service providers will develop and implement written procedures for identifying, reporting, investigating notifiable diseases and controlling any suspect outbreaks within hospitals and facility living sites.

The notification of outbreaks and other infectious disease threats in Alberta is mandated under Section 26 of the provincial Public Health Act, and each Medical Officer of Health (MOH) is accountable for outbreak investigation and management (Section 29).

Early recognition of unusual clusters of illness and swift actions in response to these episodes are essential for effective management of outbreaks. Public Health staff, Infection Control Professionals (ICP) in Acute Care/Infection Control Designate (ICD) in Facility Living sites work collaboratively with Facility Administrators and staff to facilitate prompt response to help minimize the impact of the outbreak.

Information in this document is divided into 4 sections:

- [Section I:](#) General Guidelines for Outbreak Management
- [Section II:](#) Confirmed Influenza Outbreak Management
- [Section III:](#) Antiviral Chemoprophylaxis and Treatment Guidelines during Influenza Outbreaks
- [Section IV:](#) Gastrointestinal (GI) Illness Outbreak Management

**Note:** This is not a comprehensive infection prevention and control (IPC) document. Only the minimum IPC strategies necessary for managing outbreaks of respiratory or GI illnesses are outlined here. These basic recommendations may be enhanced or modified depending on identification of the causative agent. For detailed information about IPC, please consult your ICP/ICD for your facility or Public Health. If considering implementation of outbreak control measures beyond those recommended in this document, it is important to consider the potential impact on the well-being of residents.

**In the event of an outbreak or threat of an outbreak of an unusual infectious disease, such as a new influenza pandemic or any other infrequent infectious disease, direction on best practices for outbreak management will be provided by the MOH and may extend beyond this document.**

**While it is recognized that *Clostridium difficile* and multi-drug resistant organisms (e.g. MRSA, VRE) can be responsible for clusters or outbreaks, and that some of the measures outlined in this protocol may be applicable in preventing or controlling them, it is beyond the scope of this document to include these organisms, due to their unique epidemiological properties.**

## Definition of Terms and Glossary

**Acute Care** - includes all urban and rural hospitals, psychiatric facilities and urgent care facilities where inpatient care is provided.

**Admission and transfer status** - determined in consultation with the Outbreak Management Team (OMT) and categorized as follows:

- **“Open”**: The facility/unit remains open to all patient admissions, transfers and discharges.
- **“Restricted”**: Depending upon the circumstances and the infectious agent involved, admission and transfer status may range from NO admission to selected patient admissions, transfers and discharges as permitted under the direction of the zone Medical Officer of Health and in consultation with the OMT. This approach is intended to be flexible allowing for individual assessments to be made based on established criteria without undue risk to patients/program/system.

**AHS** - Alberta Health Services

**CHOICE - (Comprehensive Home Option of Integrated Care for the Elderly)/C3** - a comprehensive community based model of coordinated care that helps to support older people who are experiencing multiple, ongoing health problems and/or those requiring coordination of their care to remain independently in their own homes.

**Closed facility** - a facility is deemed a closed facility when it has a fixed residential population with limited turnover or has units or wards that can be closed.

**Cluster** - aggregation of similar, relatively uncommon events or diseases in space and/or time in amounts that are believed or perceived to be greater than could be expected by chance.

**CNPHI** – Canadian Network for Public Health Intelligence

**Cohort** - persons grouped together.

**Contact** - any person suspected to have been exposed to an infected person or a contaminated environment to a sufficient degree to have had the opportunity to become infected or colonized with an organism.

**Contact Precautions** - see Routine Practices and Additional Precautions, [Tables 4](#) and [5](#) in Section I.

**Day Program** - adult Day Program provides: health services for elderly individuals who may be physically frail, cognitively impaired or living with chronic illness; support and respite for caregivers; personal care (bathing), health education, exercise, podiatry, noon meal, wound care, medication monitoring and social activities.

**Drug Identification Number (DIN)** – a number assigned by Health Canada to a drug product prior to being marketed in Canada.

**Exclusion** - a measure that prevents symptomatic/infected/susceptible employee from working, until such time that the risk for patients or employee is low or minimal, as recommended by Public Health or Workplace Health and Safety, or designate.

**Exposure Investigation Number (EI#)** - a number assigned by the Provincial Laboratory for Public Health for the purpose of tracking laboratory specimens associated to a specific event (e.g. a potential outbreak) at a specific location and time.

**Facility Living** - includes long-term care facilities such as nursing homes and auxiliary hospitals. Care is provided for people with complex health needs who are unable to remain at home or in supportive living.

**Gastrointestinal (GI) Illness** - For GI illness case and outbreak definitions refer to [Table 2](#) in Section I.

**Healthcare-associated** - (formerly referred to as nosocomial infections) infections that patients may have acquired during the course of receiving treatment for other conditions within a health care setting.

**Health Care Workers (HCW)** – As defined by Alberta Health (AH) includes all hospital employees, other staff who work or study in hospitals (e.g., students in health care disciplines, volunteers and contract workers) and other health care personnel (e.g., those working in clinical laboratories, nursing homes, home care agencies and community settings), who are at risk of exposure to communicable diseases because of their contact with individuals or material from individuals with infections both diagnosed and undiagnosed.

**Infection Control Designate (ICD)** - someone assigned to be accountable for IPC issues in a facility.

**Infection Control Professional (ICP)** - is a health professional with specialized knowledge responsible for infection prevention and control within the facility or area of practice. ICPs come from several disciplines, including nursing, medicine, microbiology, medical technology and/or epidemiology and may be certified or working toward certification in infection control (CIC®).

**IPC** - Infection Prevention and Control

**ILI** - influenza-like-illness - For ILI case and outbreak definitions refer to [Table 1](#) in Section I.

**MOC** - Microbiologist on-call, Provincial Laboratory for Public Health.

**MOH** - Medical Officer of Health

**MOH designate** – someone in Public Health designated by the Zone MOH to assist with decision making when there are requests by facilities/sites to deviate from admission/transfer guidelines from those described in this document. The MOH may designate the Zone Outbreak Response Lead or other Public Health personnel to fulfill this role.

**Outbreak** - the perceived or true occurrence of more cases of a communicable disease than expected in a given area or among a specific group of people over a defined period of time.

**Outbreak Management Team (OMT)** - a group of key individuals, including but not limited to, representatives from Public Health (usually chairs the meeting), Infection Prevention and Control (IPC) in Acute Care or Infection Control Designate (ICD) in Facility Living, Workplace Health Safety (WHS), Facility Administration or Site Management who work cooperatively to ensure a timely and coordinated response to a suspect or confirmed outbreak. Composition of the OMT will depend on disease and facility type.

**Patient** - for the purpose of this document, patient refers to individuals who receive care in Acute and Urgent Care and residents who reside in Facility Living.

**PHAC** - Public Health Agency of Canada



**PPE** - Personal Protective Equipment

**ProvLab** - Provincial Laboratory for Public Health

**Public Health** - for the purpose of this document, Public Health encompasses the Medical Officer of Health, Zone Outbreak Response Lead or a Public Health designate who provides consultation and leadership in outbreak investigations occurring in the community and in public or healthcare facilities.

**Relapse Case** - GI illness cases frequently “relapse,” i.e. experience onset of vomiting or diarrhea after being asymptomatic for 24 to 48 hours. The relapse is likely due to malabsorption during an existing norovirus infection rather than being a new infection.

**Transition Services** - within urban AHS (Edmonton and Calgary), Transition Services coordinate client movement between different levels of care including but not limited to Home care services, and placements in supported living facilities. In other jurisdictions in AHS, this work may be carried out by Home Care coordinators or Placement coordinators.

**TS** – Throat Swab

**UTM** – Universal Transport Medium

**VOC** - Virologist On-Call, Provincial Laboratory for Public Health

**Workplace Health and Safety (WHS)** - designated personnel responsible for employee health and safety in AHS facilities. In non AHS facilities, Employee Health or the Site Management or the Site Medical Leader may fill this role.

**Zone Outbreak Response Lead** - a Public Health Nurse specialized in Communicable Diseases or an Environmental Health Officer assigned to be the lead for a specific outbreak investigation at the Zone level working closely with the Zone MOH.



### AHS Zone Public Health Contacts (Regular and After Hours)

AHS ZONE	REGULAR HOURS			AFTER HOURS
	Business hours may vary slightly from Zone to Zone, but are typically 8:30 am – 4:30 pm			
Zone 1 South	Communicable Disease Control	CDC Intake	587-220-5753	(403) 388-6111 Chinook Regional Hospital Switchboard
	Environmental Public Health	EPH CDC Lead	403-388-6689	
Zone 2 Calgary	Communicable Disease Control	CDC Intake	403-955-6750	(403) 264-5615 MOH On-Call
	Environmental Public Health	EPH Disease Control	403-943-2400	
Zone 3 Central	Communicable Disease Control	CDC Intake	403-356-6420	(403) 391-8027 CDC On-Call
	Environmental Public Health	24 Hour Intake	1-866-654-7890	1-866-654-7890
Zone 4 Edmonton	Communicable Disease Control	CDC Intake Pager	780-445-7226	(780) 433-3940 MOH On-Call
	Environmental Public Health	EPH		
Zone 5 North	Communicable Disease Control	CDC Intake	1-855-513-7530	1-800-732-8981 Public Health On-Call
	Environmental Public Health	EPH		

**NOTE:** Confirm outbreak reporting procedures and business hours in the zone in advance of each outbreak season.

## SECTION I - GENERAL GUIDELINES FOR OUTBREAK MANAGEMENT

### 1. Principles of Outbreak Management

#### 1.1 Surveillance

Conduct ongoing surveillance and monitoring for unusual clusters of illness in patients/residents and staff, and identification of possible outbreaks. Surveillance takes place prior to, during and after outbreaks.

#### 1.2 Assessment

Assess individual cases to confirm that the illness meets the ILI or GI illness case definitions outlined in this document, see [Tables 1](#) and [2](#).

#### 1.3 Outbreak Identification

Confirm that the outbreak definition criteria outlined in this document are met; see [Tables 1](#) and [2](#).

#### 1.4 Notification

Follow the facility established internal outbreak notification protocols to report outbreaks to the AHS zone Public Health Office – see AHS Zone Public Health Contacts on previous page. Acute Care sites should call IPC, and IPC will then liaise with Public Health. In facilities where there is no one assigned the role of IPC, contact Zone Public Health.

#### 1.5 Communication

Communicate with staff and administration regarding the outbreak and initiation of the investigation by Public Health, including other facilities at the site (e.g. child care facility).

#### 1.6 Infection Prevention and Control Measures

Implement **initial** IPC measures including hand hygiene, respiratory hygiene, PPE, and isolation of symptomatic patients/residents.

#### 1.7 Specimen Collection

Collect specimens as appropriate and as recommended by Public Health.

#### 1.8 Outbreak Control Strategies

Implement outbreak control strategies as outlined in this document:

- a. authorize and deploy additional resources to manage the outbreak
- b. restrict symptomatic patients/residents to their room (with dedicated bathroom where possible, meal tray service in room, etc.)
- c. continue implementing appropriate infection control measures
- d. apply site-level restrictions as recommended by Public Health (restrict admissions, cancel group activities, post outbreak signage, inform visitors, etc.) When site level/facility restrictions are in place, the Sample Risk Assessment worksheet ([Attachment I.2](#)) may be used to assess patients/residents for admissions/transfers/discharges.
- e. enhance environmental cleaning and disinfection of frequently touched environmental surfaces and equipment. Note: equipment should be cleaned and disinfected only with a product listed in and following the procedures outlined in the manufacturer's directions for that equipment.
- f. manage staff as outlined in this document

- g. initiate antiviral prophylaxis as recommended by Public Health in the event of a confirmed influenza outbreak

### **1.9 Potential Impact On Well-Being of Residents**

If considering implementation of outbreak control measures beyond those recommended in this document, it is important to consider the potential impact on the well-being of residents.

### **1.10 Monitoring Outbreak Status**

Communicate and track outbreak status by completing and submitting daily case listings.

- o Discuss weekend and holiday case listing reporting with Public Health.

### **1.11 Declaring Outbreak Over and Evaluation**

Public Health will declare outbreaks over and lift any site restrictions. Following an outbreak, key program leads need to review and evaluate their role in the outbreak management and revise internal protocols where necessary for improvement. A debriefing may be called by any member of the Outbreak Management Team (OMT) to address outbreak management issues. Depending on type and scale of the outbreak, a summary report including background, details of the investigation, results and recommendations may be written by a member of the OMT and shared with internal/external partners.

## **2. Roles and Responsibilities**

As stated in the Public Health Act sections 26 and 29, the MOH is responsible for outbreaks in their health region boundaries, therefore Public Health needs to be notified and provide directions during outbreaks. There are current working relationships with identified partners in each Zone in the management of outbreaks and these will need to continue or be enhanced as these guidelines are implemented at the Zone level.

All staff in Acute Care and Facility Living Sites including physicians, students and volunteers have a role in outbreak prevention and management. Staff are key collaborators and are expected to review internal operational protocols to ensure they are in accordance with the guidelines in this document. This will support a coordinated and uniform approach to outbreak prevention, control and management.

Once an outbreak is identified, an OMT may be convened to ensure a timely and coordinated response to control the outbreak. The OMT usually consists of a Public Health Zone Outbreak Response Lead, the site ICP/ICD, Infectious Disease Specialist or Facility Medical Leader, WHS or designate, Laboratory Services, Communications and Facility/Site Administration. Composition of the OMT will depend on the disease and facility type.

**Depending on the partnerships already established within AHS Zones, the roles and responsibilities may be assigned to different agencies or individuals with varying titles and positions.**

### **2.1 Public Health (MOH, Zone Outbreak Response Lead)**

- Sets the standard of practice for communicable disease surveillance and notification in relation to outbreak investigation and management.
- Provides consultation on suspected clusters of illness or outbreaks.
- Determines the need to initiate an outbreak investigation.
- Requests information from their designated contact at the Facility (e.g. site Administrator, IPC, ICD) to meet zone-specific Public Health requirements for outbreak management.

- Facilitates laboratory testing by recommending type of specimen to be collected and testing required.
- Obtains an Exposure Investigation number (EI#) from the ProvLab for the tracking of all outbreak related specimens and samples and communicates to the site.

**Note:** Generally, if an EI is already open for an outbreak in a facility, a new EI number may not be necessary for management of new symptomatic cases in the same outbreak facility, if the new symptomatic cases:

- Are symptomatic with the same syndrome (e.g. ILI or GI illness) as previously identified cases, and
- Are epidemiologically linked to previously identified cases (e.g. same unit, shared care staff, etc.), and
- Have symptom onset within one maximum incubation period of latest symptom onset in previously identified cases (some exceptions to this guideline may apply, and should be determined on a case-by-case basis).

- Advises on appropriate outbreak control measures to be implemented including admission/transfer status (open or restricted), immunization, chemoprophylaxis if appropriate, and management of staff.
- Sends out outbreak notifications and alerts as appropriate; and if relevant posts provincial and national public health alerts on Canadian Network for Public Health Intelligence (CNPHI).
- Reports outbreak to Alberta Health (AH, and to AHS Senior Public Health Executive as established within Zone protocol.)
- Reviews daily outbreak line lists received from outbreak site, monitors outbreak progress and provide consultation to the outbreak site when appropriate. Zone MOH/designates should consider sharing timely outbreak status reports with Acute Care, Facility Living and/or Supportive Living partners in their Zone (including non-AHS facility operators), as appropriate. It must be ensured that any shared reports comply with AHS corporate policies for collection, access, use, retention and disclosure of personal and health information under the care and control of AHS.
- Responds to media inquiries in consultation with AHS Communications Media Advisor.
- Tracks all outbreak samples and closes EI# when outbreak is declared over.
- Lifts restrictions when appropriate.

## 2.2 Infection Prevention and Control (Infection Control Professional or Infection Control Designate)

- Ensures that acute care and facility living staff have access to and are familiar with current AHS outbreak management protocols.
- Reviews and updates internal protocols and procedures for outbreak management as necessary, including review of case and outbreak definitions and reporting protocols. Refer to criteria listed in **Tables 1, 2 and 3**.
- \*Working with key site personnel, ensures adequate availability of supplies needed for outbreak management including having respiratory and stool kits on site for specimen collection.
- Reviews routine infection control practices and additional (outbreak management) precautions with hospital or Facility Living staff.
- Acts as a resource for frontline staff to facilitate early recognition of possible outbreaks.
- \*Notifies Public Health as soon as possible in the event of a suspected outbreak, see [Table 3](#). In facilities where there is no one assigned the role of IPC, the front line staff or manager at the outbreak unit/site notifies Public Health.

- Directs the implementation of initial IPC measures immediately; does not wait until the etiology is confirmed.
- \*Directs the implementation of additional outbreak control strategies as indicated according to the type and scope of the outbreak, including prophylaxis if recommended by the MOH, in consultation with site Medical Lead.
- \*Notifies appropriate staff within the facility of outbreak as indicated by internal protocols (e.g. administration, medical director, pharmacy, etc.).
- \*Obtains reports on the clinical status of all affected individuals, and works with staff to identify new cases.
- \*Provides Public Health with status updates of outbreaks within their facility, including daily submission of accurate and updated illness data related to the outbreak. See [Attachment II.1](#) in Section II and [Attachment IV.2](#) in Section IV for data elements required for reporting to Public Health (and to IPC as per Zone requirement).
- Participates on the OMT with Public Health and Facility/Site Administrator.
- Confirms WHS has been notified where appropriate.
- \*In collaboration with Public Health, coordinates the collection of clinical specimens as appropriate and provides instruction on completion of requisitions, including the EI#. The **EI Number MUST** be put on all outbreak related specimens to facilitate tracking and reporting to Public Health and outbreak facility.
- \*Notifies appropriate departments within the site once the outbreak has been declared over.

*Note: \* Identifies responsibilities where there will be variation within some zones.*

### 2.3 Facility Administration (Hospital/Facility Administrator, Senior Administrator or Director of Care)

- Supports and encourages the annual seasonal influenza immunization of patients/residents, staff and volunteers.
- Develops an influenza response plan that details how antiviral prophylaxis will be implemented for residents (e.g. standing orders) and for staff (as required).
- Liaises with ICP/ICD to ensure facility/units have protocols and procedures for reporting cases of notifiable diseases and suspected outbreaks as per Section 26 of the Public Health Act.
- Liaises with ICP/ICD to ensure facility/units have access to a current copy of the AHS outbreak management protocol, and that key staff (ICP/ICD, front line managers, supervisors, administration on-call, charge nurse, etc.) in the facility have contact information for reporting outbreaks to the Zone Public Health.
- Provides current lists of facilities (including addresses and key contact information) to zone Public Health.
- Responsible for maintaining operations to provide optimal care and services for patients/residents during an outbreak.
- Collaborates with IPC/ICD and Public Health on outbreak management control strategies.
- Participates on OMT as appropriate.
- Consults with Public Health on issues pertaining to admission, discharge and transfers during an outbreak.
- Notifies senior management within the site as indicated by internal protocols. Communicates with staff, patients/residents, families, volunteers, students and visitors within the facility as appropriate.
- Communicates to appropriate stakeholders outside of the facility.
- Complies with unit/bed restrictions as recommended by Public Health.
- Ensures adequate resources are provided to manage the outbreak.
- Ensures outbreak control strategies are maintained until the outbreak is declared over.

## **2.4 Front Line Site or Unit Manager/Designate**

- Ensures staff awareness of ILI and GI illness case and outbreak definitions and reporting protocols.
- Notifies IPC/ICD when an unusual cluster of illness is suspected. In facilities where there is no one assigned the role of IPC, contact zone Public Health. **See [Table 3](#).**
- Implements appropriate IPC measures immediately.
- Collaborates with WHS to identify unit staff who may have been exposed and require prophylaxis or immunization by way of a line list.
- Ensures staff have been N95 Respirator fit tested if, according to a completed hazard assessment, hazards exist that would be addressed by appropriate PPE.
- Identifies other groups of individuals accessing the unit who may have been exposed (e.g. technicians, residents, physicians, students, volunteers, support staff, families, visitors).
- Works collaboratively with IPC/ICD or Public Health to disseminate information to staff, patients/residents, students, other departments and families.
- Anticipates and provides adequate unit resources for outbreak management.

## **2.5 Workplace Health & Safety or Designate**

- Promotes and provides annual influenza immunization for HCWs.
- Develops reviews and updates internal protocols for management of staff during an outbreak as necessary.
- Maintains close communication with Frontline Unit/Site Manager and IPC/ICD including HCWs' work restrictions/return to work assessments.
- Provides information to staff about work restrictions. For AHS Staff, see algorithm ([Attachment II.5](#))
- Follows recommendations from OMT, as directed by Zone MOH and/or WHS physician.
- Supports illness assessment and surveillance of staff from outbreak unit.
- Maintains documentation on HCWs' health and vaccine status and provides the Unit Manager with a list of staff with reported immunization records. In a declared outbreak, identifies HCWs who may be at risk of exposure and infection (e.g. unimmunized).
- Provides or facilitates immunization and/or prophylaxis to staff based on recommendations from Public Health and WHS physician.
- Provides staff with direction on how to access prescription for prophylaxis and counsels them on where to obtain the prophylaxis.
- Participates in OMT meetings when indicated.
- Assesses HCWs' suitability for return to work.

## **2.6 Provincial Laboratory for Public Health (ProvLab)**

- Designates laboratory contact (i.e. microbiologist or virologist) for each outbreak.
- Assigns EI# to facilitate specimen tracking.
- Provides consultation to Public Health on specimen type and testing appropriate for the outbreak, including genotyping.
- Provides specimen collection supplies, as required.
- Ensures Public Health and IPC/ICD (if noted on the requisition) receive results of outbreak specimens.
- Tracks all outbreak samples.

## **3. Case and Outbreak Definitions**

Early recognition of suspected outbreaks is important. Ongoing surveillance of patients/residents and staff should be conducted using the following definitions for early detection of unusual clusters of influenza-like (ILI) or gastrointestinal (GI) illness and/or outbreaks.



The following are National and Provincial case and outbreak definitions. In practice, each Zone should follow the recommendations of their Zone MOH to facilitate early recognition and reporting of unusual ILI activity and implementing appropriate infection control measures. **Some Zones may choose to use the more sensitive case definition.**

**Table 1: Influenza-like-illness (PHAC *FluWatch* definition, at time of review)**

ILI Case Definition*	ILI Outbreak Definition (Hospitals and Residential Institutions):
<p>Acute onset of respiratory illness with fever and cough and with one or more of the following:</p> <ul style="list-style-type: none"> <li>• sore throat</li> <li>• joint pain (arthralgia)</li> <li>• muscle aches (myalgia)</li> <li>• severe exhaustion (prostration)</li> </ul> <p>which is likely due to influenza. In children under age 5, gastrointestinal symptoms may also be present. In patients under age 5 or 65 years and older, fever may not be prominent.</p>	<p>2 or more cases of ILI within a 7 day period, with a common epidemiological link (e.g. same location or same care giver, and evidence of healthcare-associated transmission within the unit or facility), of which at least one is a laboratory confirmed case.</p> <p><i>In practice, AHS uses an adapted ILI outbreak definition whereby there is no requirement for a laboratory confirmed case (see <a href="#">Section II</a>).</i></p>

*\* It is recognized that the definitions for influenza-like illness (ILI) differ slightly between this document and the Point of Care risk assessment algorithm for patients with ILI (check AHS website - search: 'infection control' for the most current recommendation.) These definitions serve different purposes, the former for population surveillance and the latter as a means for staff to assess the infectious risk of patients/residents to themselves and others and implement appropriate preventive measures. Therefore although slightly different, the discrepancy is valid and acceptable.*

**Table 2: Gastrointestinal Illness**

Gastrointestinal (GI) Illness Case Definition	GI Illness Outbreak Definition
<p>At least ONE of the following criteria must be met and not be attributed to another cause (e.g. <i>Clostridium difficile</i> diarrhea, medication, laxatives, diet or prior medical condition etc.):</p> <ul style="list-style-type: none"> <li>▪ 2 or more episodes of diarrhea (i.e. loose or watery stools) in a 24 hour period, above what is normally expected for that individual</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>▪ 2 or more episodes of vomiting in a 24 hour period</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>▪ 1 or more episodes of vomiting <b>AND</b> diarrhea in a 24 hour period</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>▪ Positive stool culture of a known enteric pathogen AND at least one symptom compatible with a GI infection e.g. nausea, vomiting, diarrhea, abdominal pain or tenderness</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>▪ One episode of bloody diarrhea</li> </ul>	<p>2 or more cases (with initial onset within one 48 hour period) of GI illness with a common epidemiological link (i.e. same location or same care giver, and evidence of health care-associated transmission within the facility).</p>

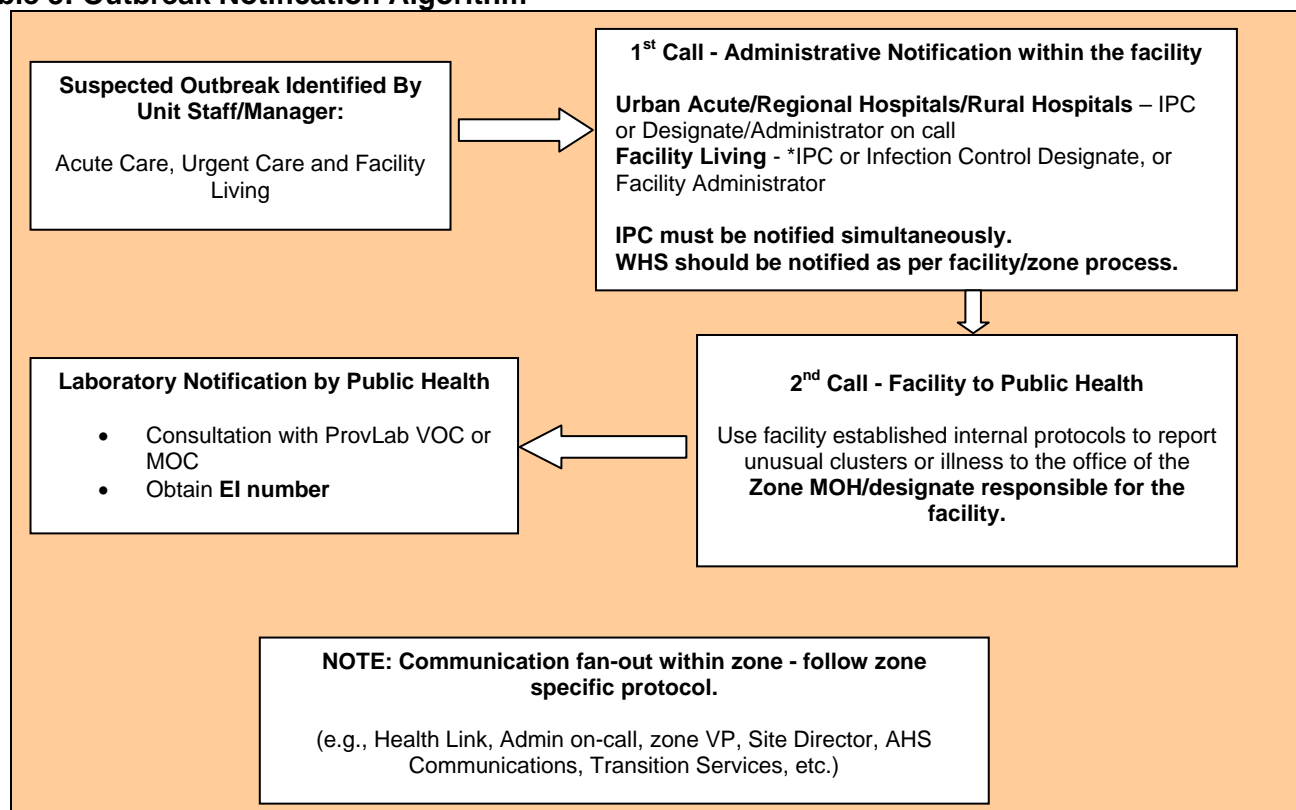
#### 4. Reporting a Suspected Outbreak

Prompt reporting permits early identification and interventions to interrupt transmission, reducing morbidity and mortality.



In order to initiate an outbreak investigation promptly, report any suspected cases of ILI or GI illness (see definitions **Tables 1 and 2**) to your IPC/ICD. If an outbreak is suspected, using established protocols, notify the office of the MOH in your zone (see AHS Zone Public Health Contacts).

**Table 3: Outbreak Notification Algorithm\***



*\*This document speaks to outbreak reporting in most situations, but there may be variation within some Zones. It is recommended to periodically confirm outbreak reporting procedures within your Zone.*

**For details of outbreak management refer to:**

[Section II:](#) Confirmed Influenza Outbreak Management

[Section III:](#) Antiviral Chemoprophylaxis and Treatment Guidelines during Influenza Outbreaks

[Section IV:](#) Gastrointestinal (GI) Illness Outbreak Management

## 5. Initial Infection Prevention and Control (IPC) Measures

Based on the type of illness presenting (ILI or GI illness), implement the **initial** IPC measures outlined below as soon as an outbreak is suspected to help reduce the spread of infection. Do not wait until the causative agent is identified.

**Routine practices** help prevent the spread of infection and reduce the possibility that HCWs will sustain accidental exposures to infectious organisms. Routine Practices are used for every patient/resident, every time regardless of their diagnosis or infectious status. Additional precautions such as droplet and contact precautions are determined and implemented by presenting symptoms. Refer to [Tables 4 and 5](#). Sites/floors/wings experiencing an outbreak must implement additional IPC precautions to the extent that resources are available (e.g. private rooms with washroom facilities, physical layout of care units, housekeeping procedures and staffing patterns).

**Note: Additional Precautions for ILI:** Initiate **Contact and Droplet Precautions** (in addition to **Routine Practices**). Refer to [Table 4](#) (below) or check the AHS website, IPC section for the most current recommendations.

- Wear appropriate PPE as determined by Point of Care risk assessment algorithm for patients with ILI.
- Consider placing signage inside the symptomatic patient/resident's room, near the door, alerting staff/visitors that the patient/resident is symptomatic and precautions are required.

### 5.1 Strict hand hygiene is the most important measure in preventing spread of infections for both staff and patients/residents.

- Hand hygiene should be performed in accordance with the AHS Hand Hygiene Policy and Procedure which provides direction on product selection, location, and use.
- Alcohol-based hand rubs containing a minimum of 70% alcohol are as effective as soap and water when hands are not visibly soiled. They should be clearly labelled with a DIN, or claim as being effective and used prior to expiry date.
- Wash hands with soap and water when:
  - Hands are visibly soiled
  - After removal of gloves when caring for a patient/resident that has diarrhea and/or vomiting.
- Glove use is not a substitute for hand hygiene; hand washing is needed after glove removal.
- Frequent and thorough hand hygiene should be performed by both staff and patients/residents.
- Hand hygiene is required:
  - 1) Before providing care to patients/residents
  - 2) After providing care to patients/residents and in between tasks on same person.
  - 3) After touching used patient/resident care equipment
  - 4) After touching soiled environmental surfaces.
- Assist the patient/resident with hand hygiene if required.

### 5.2 Enhanced Environmental Cleaning Measures

Thorough cleaning and disinfection of frequently touched/"high touch" surfaces and equipment can assist in disrupting disease transmission.

- High touch surfaces must be cleaned and disinfected frequently during an outbreak i.e. if surfaces are being cleaned once this should be increased to more than once a day and as needed.
- Equipment should be cleaned and disinfected with products listed by its manufacturer.

- Cleaning and disinfecting refers to a two-step process i.e. must clean before you disinfect. Where a surface disinfectant claims to have both cleaning and disinfecting properties the product may be used for both steps.
- During ILI outbreaks using a facility approved disinfectant may be sufficient, however for GI outbreaks products must have a label claim against Norovirus with a DIN number. Where a facility is experiencing both ILI and GI outbreaks it is imperative that a product with a label claim against Norovirus be used.
- Where a patient/resident is taken off isolation the room and equipment should be thoroughly cleaned and disinfected. At the end of the outbreak a thorough cleaning and disinfection of all affected areas should be completed

**Notes:**

1. Upholstered furniture and rugs or carpets should be cleaned and disinfected when contaminated with emesis or stool, but may be difficult to clean and disinfect completely. Consult manufacturer's recommendations for cleaning and disinfection of these surfaces. If appropriate manufacturer's recommendations are not available, consult Public Health. Consider discarding items that cannot be appropriately cleaned/disinfected, when possible/appropriate.
2. Confirmed influenza outbreak and GI specific cleaning and disinfection information is provided in their respective sections within this document.
3. Consult with IPC/ICD for assistance with IPC issues.

### **5.3 Restriction of Symptomatic Patients/Residents**

- In acute care settings, symptomatic patients/residents should be placed on appropriate isolation.
- In Facility Living sites, when possible, symptomatic residents should be confined to their rooms with their meals served to them in the room. If this is not practical, symptomatic residents should be restricted to their own units.
- Medically necessary appointments should be kept unless the patient/resident is not physically able to attend. Discussions should occur between the responsible staff and the health care professionals involved in the appointment to ensure precautions can be taken in transit and at the appointment site.
- Symptomatic patients/residents should avoid contact with other patients/residents in common areas as much as possible.

**Note:** For symptomatic patients/residents, if influenza is suspected, see early treatment recommendations in [Section III](#).

### **5.4 Staffing (including volunteers, students)**

- Ensure the Zone WHS office has been notified of the outbreak. Zone WHS, in partnership with the Zone Outbreak Response Lead will manage staff affected by the outbreak. Activities may include:
  - Exclude symptomatic staff from working
  - Cohort or assign staff to care for asymptomatic patients/residents before symptomatic patients/residents
  - Consider minimizing movement of staff, students or volunteers between units/floors, especially if some units are not affected
  - If possible, during initial investigations of ILI, assign staff that have been immunized against influenza to care for symptomatic patients/residents

### 5.5 Group/Social Activities and Non-Resident Events

- When a **GI illness outbreak** investigation has been initiated, Public Health advises that:
  - All previously scheduled resident social and special events/activities (e.g. special holiday meal celebrations, birthday parties, entertainers, school groups, community presentations) are cancelled/postponed effective immediately on all affected units/sites or entire facility (as applicable) until the outbreak is declared over by Public Health.
  - It is recommended that non-resident events previously booked for areas in the outbreak facility (e.g. meetings) also be cancelled/postponed.
- When an **ILI outbreak** investigation has been initiated, Public Health will advise if similar restrictions are to be implemented.
- Consult Public Health with any questions about group/social activities during outbreaks.

### 5.6 Communication

- Use outbreak signage to notify and inform staff and visitors that an outbreak is being investigated in the facility.
- Encourage visitors to postpone visiting if possible. Visitors who choose to visit should be advised of potential risk of exposure, and to practice good hand hygiene, visit one (1) patient/resident only and exit the site immediately after their visit.
- Ensure individuals visiting symptomatic patients/residents are wearing appropriate PPE. Demonstrate for visitors how to utilize PPE appropriately.

**Table 4 Routine Practices and Additional Precautions for ILI**

**Conduct Point of Care risk assessment algorithm for patients with ILI – check AHS website (search: ‘infection control’) for the most current recommendation.**

**Implement Contact and Droplet Precautions** in addition to Routine practices when caring for symptomatic patients/residents to control the spread of respiratory viruses such as influenza:

- Patient/Resident Placement and Signage
  - Single-room preferred
  - maintain a distance of two (2) metres between patients/residents sharing a room
- Mask
  - Wear procedure/surgical mask for any encounter, within two (2) metres, with a patient/resident who has, or is suspected of having ILI.
- N95 Respirator (fit-tested) - for aerosol generating medical procedures (AGMP)
  - Patient/resident undergoing an aerosol generating medical procedure (AGMP) –AGMPs are defined as any medical procedure that can induce the production of aerosols of various sizes, including droplet nuclei. Check AHS website (search: ‘infection control’) for the most current list of AGMPs and recommendations.
- Eye Protection
  - When a mask or N95 respirator is worn, eye protection or face shields should also be worn for all patient care activities
  - Personal (prescription) eyewear does not provide adequate protection
- Gown
  - For direct contact of clothing or forearms with patient/resident or patient’s/resident’s environment
- Gloves
  - Wear clean non-sterile gloves for direct contact with resident or resident’s environment
- Hand Hygiene (4 moments from AHS Hand Hygiene Policy)
  - Before contact with a patient/resident or patient’s/resident’s environment including but not limited to: putting on (donning) personal protective equipment; before entering a patient’s/resident’s room; and, before providing patient/resident care.
  - Before a clean or aseptic procedure including but not limited to: wound care; handling intravenous devices; handling food; or, preparing medications.
  - After exposure (or risk of exposure) to blood and/or body fluids including but not limited to: when hands are visibly soiled; following removal of gloves.
  - After contact with a patient/resident or patient’s/resident’s environment including but not limited to: removing (doffing) personal protective equipment; leaving a patient’s/resident’s environments and after handling patient/resident care equipment.
- Patient/Resident Care Equipment
  - Dedicate to this patient/resident or clean and disinfect after use
- Patient/Resident Transport
  - Transport for essential purposes only
  - Patients/Residents wear mask during transport
  - Notify receiving department

**AHS PPE Donning and Doffing posters (check AHS website)**

**Visitors:** discuss precautions with nursing staff before entering patient’s/resident’s room.

**Environmental Services:** change mop head, cloths and cleaning solution after cleaning room or bed space.

**For detailed outbreak control strategies if influenza virus is confirmed refer to:**

[Section II:](#) Confirmed Influenza Outbreak Management

[Section III:](#) Antiviral Chemoprophylaxis and Treatment Guidelines during Influenza Outbreaks

**Table 5: Routine Practices and Additional Precautions for GI Illness**

Implement **Contact Precautions** in addition to Routine Practices for symptomatic patients/residents. Contact Precautions are implemented for symptomatic patients/residents to control the spread of gastrointestinal viruses during GI illness outbreaks.

Implement **Contact and Droplet Precautions** if patient/resident is actively vomiting.

- **Wear clean Gloves** to enter patient/resident room or bed-space when providing direct care to symptomatic patients/residents or when having any contact with items in the patient/resident room; when cleaning an area contaminated with feces or vomitus, or gathering/handling specimens.
- **Wear a new Gown** to enter patient/resident room or bed-space when providing direct care to symptomatic patients/residents or when having any contact with items in the patient/resident room or when cleaning areas contaminated with feces or vomitus to protect against possible contamination of clothing.
- **Wear Eye Protection and a Procedure Mask** to protect your face when there is any risk of sprays of body fluids or when caring for patients/residents who are actively vomiting.

**All PPE must be removed and hand hygiene performed before leaving the patient's/resident's room.**

Maintain at least one (1) metre of physical separation between bed/stretcher spaces.

**Statement on use of Alcohol-based Hand Rub during GI Illness Outbreaks**

- Plain soap and water are recommended following glove removal when caring for patients with diarrhea and/or vomiting.
- Alcohol-based hand rubs (minimum 70% alcohol) are an acceptable alternative to hand washing during GI illness outbreaks, when used according to label directions.
- If hands are visibly soiled, instead wash hands with soap and warm, running water.

**For detailed outbreak control strategies refer to:**

[Section IV](#): Gastrointestinal (GI) illness Outbreak Management

## 6 Other Respiratory Organisms Commonly Associated with ILI and ILI Outbreaks

Note: In the event that the outbreak is confirmed to be an organism other than influenza, appropriate outbreak control measures would continue until the outbreak is declared over. ([See Table 6.](#))

In addition to influenza A and B, there are other respiratory organisms commonly associated with ILI (e.g. RSV, parainfluenza, human metapneumovirus, coronavirus) and these are summarized in [Table 6.](#)

Appropriate infection control practices and additional precautions will be reviewed at the time the outbreak organism is confirmed. Antiviral chemoprophylaxis is currently **not** recommended for organisms other than confirmed Influenza A or B. Depending on the circumstances, other recommendations for outbreak management and control, including facility restrictions, may be made by Public Health at the time of the outbreak.

## 7 Attachments

Attachment I.1 - Outbreak Signage

Attachment I.2 – Sample Risk Assessment Worksheet



**Table 6: Organisms Commonly Associated with ILI**

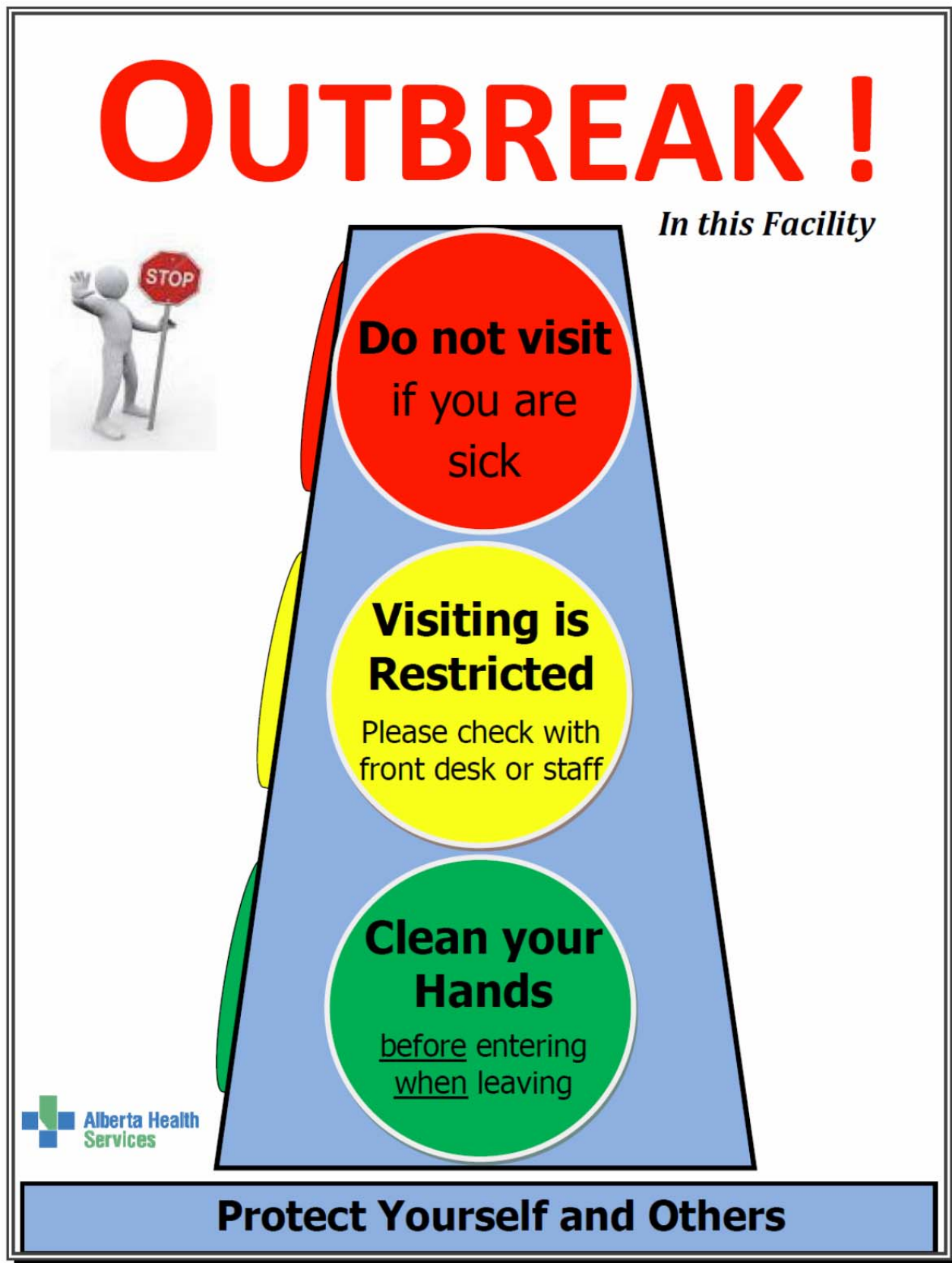
ORGANISM	SYMPTOMS	MODE OF TRANSMISSION	INCUBATION PERIOD	PERIOD OF COMMUNICABILITY	OUTBREAK RESTRICTIONS/ RECOMMENDATIONS for Facility Living Sites*
<b>INFLUENZA TYPE A OR B</b>	Sudden onset of fever, often with chills or rigors, non-productive cough, headache, malaise, myalgia, runny nose, sore throat  Note: fever may not be prominent in those >65 years	Person to person by droplets or direct contact with articles recently contaminated with respiratory secretions.	1 to 3 days	Usually 3-5 days from clinical onset in adults, and up to 7 days in children	<b>Cases</b> should remain in their rooms until 5 days** from the onset of acute illness <b>OR</b> until they are over the acute illness and have been afebrile X 48 h  <b>Admissions/transfers restrictions</b> for confirmed influenza remain in place for 7 days after onset symptoms in the last case.
<b>RESPIRATORY SYNCYTIAL VIRUS (RSV)</b>	Similar to common cold symptoms; usually mild but can be moderate to severe  Severe lower respiratory tract disease can occur in the elderly	Person to person usually by direct or close contact with contaminated secretions which may involve droplets.  Virus may live on environmental surfaces for many hours and for a half-hour or more on hands.	2 to 8 days, average 4 to 6 days	Period of viral shedding is usually from 3-8 days	Admission/transfer restrictions only when recommended by local MOH.  It is recommended that confirmed or symptomatic <b>cases</b> remain in their rooms for 8 days from onset of symptoms.
<b>PARAINFLUENZA Type 1, 2, 3, 4</b>	Similar to common cold symptoms. Can also cause serious lower respiratory tract disease with repeat infection (e.g. pneumonia, bronchitis, and bronchiolitis) in the elderly.	Person to person through direct contact with infected persons or exposure to respiratory secretions on contaminated surfaces or objects.	2 to 6 days	Varies with different types- average 1-3 weeks	Admission/transfer restrictions only when recommended by local MOH.  It is recommended that confirmed or symptomatic <b>cases</b> remain in their rooms for the duration of the illness.
<b>HUMAN METAPNEUMOVIRUS (hMPV)</b>	The clinical features of hMPV are similar to those caused by RSV. Illness may range from mild upper respiratory tract infections to severe bronchiolitis and pneumonia.	Transmission is likely to occur through direct or close contact with contaminated secretions.	Estimated to be 3 to 5 days	The period of viral shedding has not been determined, but individual cases in which otherwise healthy infants shed virus for more than a week have been reported.	Admission/transfer restrictions only when recommended by local MOH.  It is recommended that confirmed or symptomatic <b>cases</b> remain in their rooms for the duration of the illness
<b>Other Common Respiratory Viruses such as: Enterovirus/Rhinovirus, Coronavirus</b>	“Common cold like” symptoms. Sneezing, runny nose, cough, sore throat, sinus congestion, malaise, headache, myalgia and/or low grade fever Note: Fever is uncommon in children over 3 and rare in adults.	Direct contact or inhalation of airborne droplets, indirect transmission through hands and articles freshly soiled by nose and throat discharges of an infected person.	Enterovirus / Rhinoviruses: usually 2-6 days  Coronaviruses: usually 2-5 days	24 hours before onset up to 5 days after onset	Admission/transfer restrictions only when recommended by local MOH.  It is recommended that confirmed or symptomatic <b>cases</b> remain in their rooms for the duration of the illness

\* In Acute Care Settings, refer to current IPC Manual for isolation and restriction guidelines.

\*\*First day would be designated as Day 0, the first 24 hours after would be designated as Day 1




Attachment I.1 - Outbreak Signage – Color Version



Outbreak Signage – Black and White Version

# OUTBREAK !


*In this Facility*



**Do not visit**  
if you are  
sick

**Visiting is  
Restricted**  
(Please check with  
front desk/staff)

**Clean your  
Hands**  
before entering  
when leaving



**Protect Yourself and Others**

**Attachment I.2 - Admission, Discharge and Transfer during an Outbreak (Sample Risk Assessment Worksheet)****SAMPLE RISK ASSESSMENT WORKSHEET****Purpose:**

To provide a consistent risk assessment tool for care providers when considering admitting, discharge and transfers to or from a site/facility experiencing an outbreak during urgent need.

**Urgent need** including but not limited to:

- overcapacity
- necessity for specialized care to mitigate patient/resident safety risk
- length of time on waiting list for specialized services
- urgency of specialized service provision

Documentation on this worksheet will be used by the Public Health Outbreak Contact and MOH/designate to provide rationale for why the patient/resident transfer or admission may or may not proceed.

**Instructions:**

The Risk Assessment Worksheet should be completed fully and collaboratively by the discharging and receiving sites when directed to do so by the Public Health Outbreak Contact (a Public Health Inspector in the case of a gastrointestinal outbreak or a Communicable Disease Control Nurse in the case of an influenza-like-illness (ILI) outbreak).

In the case of an admission from a person's own home to a seniors' living facility, the facility should complete:

- SECTION B: Patient/Resident Risk Factors, AND
- SECTION C: Receiving Site/Facility/Unit Information

It is expected that this worksheet is used for all transfers/admissions/discharges deemed necessary including those from or to facilities within or outside the Zone.

Attachment I.2 cont'd

**SAMPLE RISK ASSESSMENT WORKSHEET**

Patient/Resident Name: \_\_\_\_\_ Date: \_\_\_\_\_

Attending Physician from Sending Facility: \_\_\_\_\_

Attending Physician from Receiving Facility (if applicable): \_\_\_\_\_

Current Site/Facility/Unit Name (if still in own home, please indicate this): \_\_\_\_\_

Patient/Resident transferring, discharging or admitting: ☐ to outbreak site ☐ from outbreak site

**SECTION A: DISCHARGING/TRANSFERRING SITE/FACILITY/UNIT INFORMATION**

(to be completed by the discharging/transferring site/facility/unit)

<p><b>Discharging Unit</b>, contact name: _____ Date: _____</p> <p>Is this site/facility/unit experiencing an outbreak? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes, check outbreak type: <input type="checkbox"/> Gastrointestinal <input type="checkbox"/> Influenza-like-illness</p>						
<p><b>Outbreak Risk Factors</b> (complete this section only if there is an outbreak occurring in the Discharging/Transferring site/facility/unit)</p> <p>Status (check one):</p> <p><input type="checkbox"/> Early investigation, agent not identified</p> <p><input type="checkbox"/> Agent confirmed</p> <p><input type="checkbox"/> Number of new cases increasing</p>						
<p><b>Outbreak confined to</b> (check one):</p> <table style="width: 100%;"> <tr> <td><input type="checkbox"/> 1 room only</td> <td><input type="checkbox"/> single unit</td> <td><input type="checkbox"/> ward</td> </tr> <tr> <td><input type="checkbox"/> floor</td> <td><input type="checkbox"/> wing/pod</td> <td><input type="checkbox"/> entire facility</td> </tr> </table>	<input type="checkbox"/> 1 room only	<input type="checkbox"/> single unit	<input type="checkbox"/> ward	<input type="checkbox"/> floor	<input type="checkbox"/> wing/pod	<input type="checkbox"/> entire facility
<input type="checkbox"/> 1 room only	<input type="checkbox"/> single unit	<input type="checkbox"/> ward				
<input type="checkbox"/> floor	<input type="checkbox"/> wing/pod	<input type="checkbox"/> entire facility				

## Attachment I.2 cont'd

### SECTION B: PATIENT/RESIDENT RISK FACTORS

(to be completed by the site/facility/unit where the patient/resident is **currently located**, or if the admission is occurring from a person's own home, by the site/facility/unit that will be receiving them)

<p>Initial Reason for admission to the site/facility/unit: _____</p> <p><b>Current Medical Status</b> (check ALL applicable):</p> <p><input type="checkbox"/> Immunodeficient (*respiratory or GI outbreaks)</p> <p><input type="checkbox"/> Cardiopulmonary disease (*respiratory outbreaks only)</p> <p><input type="checkbox"/> Post-operative abdominal or chest surgery within 7 days (*GI outbreaks only)</p> <p><input type="checkbox"/> Renal failure (requires dialysis) (*GI outbreaks only)</p> <p><input type="checkbox"/> Pregnancy (*rubella, measles, chickenpox outbreaks only)</p> <p><input type="checkbox"/> Other relevant conditions – please state: _____</p> <p><small>*information for use by the Public Health Outbreak Contact. Health risk of patient/resident or transmission risk to other patient/resident is increased when factor is present.</small></p>
<p><b>Cognition and hygiene compliance</b> (check one):</p> <p><input type="checkbox"/> Independent and compliant</p> <p><input type="checkbox"/> Compliant but requires prompting (needs to be monitored)</p> <p><input type="checkbox"/> Non-compliant, mobile (*GI and respiratory outbreaks)</p> <p><input type="checkbox"/> Non-compliant, mobile with assistance (walker, wheelchair, personal assistance)</p> <p><input type="checkbox"/> Non-compliant, non-mobile (bed-ridden)</p> <p><small>*information for use by the Public Health Outbreak Contact. Health risk of patient/resident or transmission risk to other patient/resident is increased when factor is present.</small></p>
<p><b>Outbreak illness symptoms</b> in the patient/resident to be discharged or transferred:</p> <p><input type="checkbox"/> None – no symptoms ever</p> <p><input type="checkbox"/> None – symptoms have resolved</p> <p style="padding-left: 20px;">1. Infectious*</p> <p style="padding-left: 20px;">2. Non-infectious*</p> <p><input type="checkbox"/> Symptomatic</p> <p><small>*Note: patients/residents with suspected norovirus gastrointestinal infection are infectious until 48 hours after the end of symptoms. Influenza patients/residents are infectious until 5 days after onset. If uncertain, contact the Public Health Outbreak Contact involved.</small></p>
<p><b>Influenza Immunization and/or Antiviral Prophylaxis</b></p> <p>Has received current year's seasonal influenza vaccine:    <input type="checkbox"/> Yes        <input type="checkbox"/> No</p> <p>Has commenced antiviral prophylaxis:    <input type="checkbox"/> Yes        <input type="checkbox"/> No        <input type="checkbox"/> to be started on _____</p> <p style="text-align: right;"><small>yyyy/mm/dd</small></p>

Attachment I.2 cont'd

**SECTION C: RECEIVING SITE/FACILITY/UNIT INFORMATION**

(to be completed by the site/facility/unit which will be receiving the patient/resident)

<p><b>Receiving Site Name:</b> _____ <b>Contact Name:</b> _____</p> <p><b>Date:</b> _____</p> <p>Is this site/facility/unit experiencing an outbreak?    <input type="checkbox"/> Yes                      <input type="checkbox"/> No</p> <p>If Yes, check type:        <input type="checkbox"/> Gastrointestinal    <input type="checkbox"/> Influenza-like-illness</p>
<p><b>Outbreak Risk Factors</b> (complete this section only if an outbreak is occurring in the Receiving site/facility/unit)</p> <p><b>Status</b> (check one):</p> <p><input type="checkbox"/> Early investigation, agent not identified</p> <p><input type="checkbox"/> Agent confirmed</p> <p><input type="checkbox"/> Number of new cases increasing</p>
<p><b>Outbreak confined to</b> (check one):</p> <p><input type="checkbox"/> 1 room only                      <input type="checkbox"/> single unit                      <input type="checkbox"/> ward</p> <p><input type="checkbox"/> floor                                  <input type="checkbox"/> wing/pod                      <input type="checkbox"/> entire facility</p>
<p><b>Site/Facility/Unit Risk Factors</b></p> <p><b>Accommodation</b> (check one)</p> <p><input type="checkbox"/> Private room with private bathroom</p> <p><input type="checkbox"/> Room with blocked bed and dedicated bathroom</p> <p><input type="checkbox"/> Private room with shared bathroom (*GI outbreaks only)</p> <p><input type="checkbox"/> Semi-private with dedicated bathroom (*respiratory outbreaks only)</p> <p><input type="checkbox"/> Semi-private with 2 or more sharing bathroom (*GI outbreaks only)</p> <p><input type="checkbox"/> Ward (3 or more in room or sharing bathroom) (*GI outbreaks only)</p> <p><input type="checkbox"/> Shared room or bathroom with symptomatic individual (*GI or respiratory outbreaks)</p> <p><small>*information for use by the Public Health Outbreak Contact. Health risk of patient/resident or transmission risk to other patient/resident is increased when factor is present.</small></p>
<p><b>Supervision and staffing resources</b> (check one):</p> <p><input type="checkbox"/> Able to confine cases to rooms</p> <p><input type="checkbox"/> Able to cohort staff (staff assigned to care for only ill or well patients/residents)</p>
<p><b>Housekeeping</b> (check one):</p> <p><input type="checkbox"/> Resources to do enhanced cleaning, more than once a day</p> <p><input type="checkbox"/> Regular housekeeping services only (*GI or respiratory outbreaks)</p> <p><small>*information for use by the Public Health Outbreak Contact. Health risk of patient/resident or transmission risk to other patient/resident is increased when factor is present.</small></p>

**Attachment I.2 cont'd**

<p><b>Laundry services</b> (check one):</p> <p><input type="checkbox"/> Provided by site (off-site)</p> <p><input type="checkbox"/> Done by family members off-site</p> <p><input type="checkbox"/> Common laundry areas (shared washer and dryer) (*GI outbreaks only)</p>
<p><b>Dining facilities</b> (check one):</p> <p><input type="checkbox"/> Meal service in room</p> <p><input type="checkbox"/> Communal dining area only</p>
<p><b>Interventional therapy requirements</b> (check one):</p> <p><input type="checkbox"/> Requires group intervention</p> <p><input type="checkbox"/> Can deliver therapy in room or as individual in dedicated space</p> <p><input type="checkbox"/> Can arrange therapy in common area at the end of the schedule day to allow proper disinfecting of the area</p>

**SECTION D: CONSULTATION/NOTIFICATION INFORMATION**

(to be completed by the sending facility after the transfer has been approved by the Public Health Outbreak Contact. Please FAX to the Public Health Outbreak Contact.)

Both the attending physician and patient/resident or their guardian must be consulted and in agreement with the transfer or admission. Please document that this consultation and agreement has occurred:

Physician Name: \_\_\_\_\_ Date: \_\_\_\_\_

Patient/resident or Guardian Name: \_\_\_\_\_ Date: \_\_\_\_\_



## SECTION II - CONFIRMED INFLUENZA OUTBREAK MANAGEMENT

The symptoms of influenza disease are the same as the symptoms for many other respiratory illnesses. Therefore the ILI Case definition is used to identify potential influenza cases as well as other respiratory illness cases. For ease of reference, ILI Case Definition is repeated here from Section I.

**ILI Case Definition** (adapted from PHAC FluWatch ILI definition, at time of review)

The following is the National definition. In practice, each Zone should follow the recommendations of their Zone MOH to facilitate early recognition and reporting of unusual ILI activity and implementing appropriate infection control measures. Some Zones may choose to use a more sensitive case definition.

### **ILI Case Definition\***

Acute onset of respiratory illness with fever and cough and with one or more of the following:

- sore throat
- joint pain (arthralgia)
- muscle aches (myalgia)
- severe exhaustion (prostration)

which is likely due to influenza. In children under age 5, gastrointestinal symptoms may also be present. In patients under age 5 or 65 years and older, fever may not be prominent.

*\*It is recognized that the definitions for influenza-like illness (ILI) differ slightly between this document and the Point of Care risk assessment algorithm for patients with ILI (check AHS website - search: 'infection control' for the most current recommendation.) These definitions serve different purposes, the former for population surveillance and the latter as a means for staff to assess the infectious risk of patients to themselves and others and implement appropriate preventive measures. Therefore although slightly different, the discrepancy is valid and acceptable.*

### **Influenza Outbreak Definition**

Two (2) or more cases of ILI within a seven-day period, including at least one laboratory confirmed case of influenza.

**Note:** If cases occur in staff, confirm they have worked in the defined area within the incubation period.

## 1. Outbreak Control Strategies for Confirmed Influenza

### 1.1 Infection Prevention and Control Measures

- Initiate **Contact/Droplet Precautions** (in addition to Routine Practices). Refer to [Table 4](#) in Section I, or check AHS website IPC section for most current recommendations.
- Wear appropriate PPE as determined by Point of Care risk assessment algorithm for patients with ILI.
- Place symptomatic patients/residents in single rooms if possible. If a single room is not available, patients/residents with infection due to the same micro-organism may be cohorted following consultation with IPC. Maintain at least two (2) metres of physical separation between bed/stretcher spaces.
- In Acute or Urgent Care settings, place signage on the patient's/resident's room door indicating the precautions required.
- **Strict hand hygiene** is the most important measure in preventing spread of infections. Practice consistent hand hygiene and respiratory hygiene.
- As per Routine Practices, care equipment used with any patient/resident should be cleaned before use in the care of another patient/resident.
- Staff handling soiled laundry should wear gloves. Gowns should also be worn if there is a risk of contaminating clothing.
- Enhance **environmental cleaning** using a facility approved disinfectant. The thoroughness of cleaning is more important than the choice of disinfectant used.
  - The frequency of cleaning and disinfecting "high touch" surfaces (e.g., doorknobs, light switches, call bells, handrails) in patient/resident rooms, care areas and common areas such as dining areas and lounges should be more than the minimum of once daily. Recommendations for enhanced cleaning may be made by the OMT.
  - Surfaces must first be cleaned prior to disinfection (2 step process). If the surface disinfectant product used has cleaning properties (detergent/disinfectant) it may be used for both steps. Follow manufacturer's directions for use.
  - Conduct a thorough, enhanced cleaning in all affected areas at the end of the outbreak as per facility protocols.
- Note: equipment should be cleaned and disinfected only with a product listed in and following the procedures outlined in the manufacturer's directions for that equipment.
- Note: upholstered furniture and rugs or carpets should be cleaned and disinfected when contaminated with emesis or stool, but may be difficult to clean and disinfect completely. Consult manufacturer's recommendations for cleaning and disinfection of these surfaces. If appropriate manufacturer's recommendations are not available, consult Public Health. Consider discarding items that cannot be appropriately cleaned/disinfected, when possible/appropriate.
- **Note:** Consult with IPC/ICD for assistance with IPC issues.

### 1.2 Administrative Measures

- Notify appropriate staff/departments within the site/facility as indicated by internal protocols (i.e. administration, WHS pharmacy, transition services and admitting).
- Send symptomatic staff home as soon as possible.
- Ensure that staff are advised of relevant recommendations and work restrictions including working at other health care facilities.
  - Confirm with Public Health to determine if the outbreak influenza strain is covered in the seasonal vaccine.

- If the outbreak strain is covered in the seasonal vaccine, work with WHS to determine which staff on the outbreak unit/facility is not immunized and therefore at risk for infection.
  - If the outbreak strain is *not* covered in the seasonal vaccine, work with WHS to implement prophylaxis for HCWs IF recommended by Public Health.
- Post outbreak signage ([Attachment I.1](#)) at the entrance of the facility/unit advising staff and visitors of necessary precautions.
- Ensure proper collection of appropriate specimens as directed by Public Health including using assigned EI# on all specimens. See ProvLab Respiratory Specimen Collection Guidelines ([Attachment II.2](#)).
- Ensure adequate availability of all supplies (e.g., hand hygiene products, PPE, linen, lab testing supplies) through notification of appropriate departments.
- Communicate with appropriate departments regarding need for enhanced environmental cleaning as necessary.
- Ensure staff are maintaining heightened surveillance to identify and report newly symptomatic patients/residents.
- Consult with the ICP/ICD or Public Health when making decisions about:
  - cohorting staff assignments. As much as possible, consider:
    - cohorting staff to affected areas if practical or assigning staff to care for asymptomatic patients/residents before symptomatic patients/residents
    - minimizing movement of staff, students or volunteers between floors/areas, especially if some areas are not affected
    - assigning staff who have been immunized for influenza to care for symptomatic patients/residents during initial investigations for ILI.
  - cohorting patients/residents with the same illness
  - cohorting exposed asymptomatic patients/residents
- Consult with the Zone MOH or MOH designate on issues pertaining to admissions, discharges and transfers during an outbreak.
- Ensure an **accurately completed list of cases** is sent to Public Health (and to IPC as per Zone requirement) daily as soon as the outbreak is declared. See [Attachment II.1](#) for reporting data elements.
  - Discuss weekend and holiday line list reports with Public Health.
- Communicate with patients/residents, families and visitors regarding immunization and chemoprophylaxis when relevant.

### 1.3 Patient/Resident Activities

**Note:** If necessary, consult with IPC/ICD for assistance with adapting patient/resident activities.

- Symptomatic patients/residents should remain in their rooms with meal service provided to them until 5 days from the onset of acute illness, or until they are over their acute illness and have been afebrile for 48 hours.
- Symptomatic patients/residents should not participate in group activities.
- If an outbreak is confined to a unit, asymptomatic patients/residents from that outbreak unit should remain on their own unit to avoid contact with other patients/residents at the site/facility.
- Patients/residents requesting a pass to leave a site/facility that is under restrictions due to an influenza outbreak may do so if the patient/resident is asymptomatic. Patients/residents should be advised that if they become symptomatic while away from their site/facility, they should return to or contact their site/facility, or seek medical attention.
- During an outbreak, consideration should be given to providing treatment such as physiotherapy or occupational therapy in the symptomatic patient's/resident's room

instead of a centralized area; however, patients/residents may be allowed to attend medically necessary activities or appointments. Ensure receiving facility/unit is notified so that appropriate precautions can be taken for the patient/resident on arrival.

- Symptomatic patients/residents must wear a procedure/surgical mask (as tolerated) when out of their room.

#### 1.4 Restrictions on Affected Units/Site

- Facility/unit status (e.g., open or restricted admissions) will be determined by the MOH or Designate at the time the outbreak is declared.
- The scope of unit restrictions is typically dependent on the extent of the outbreak activity within the facility (one unit, one floor, one wing or the entire facility), the ability to cohort staff to affected areas, and severity of the outbreak (e.g. many patients/residents and staff affected, new cases continue to develop in spite of implemented control measures).
- For confirmed influenza outbreaks, **admission restrictions will remain in place at minimum for seven (7) days following the onset of symptoms in the last case**, based on recommendations from the National Advisory Committee on Immunization – Statement on Influenza and as directed by the MOH or MOH designate. Restrictions for outbreaks caused by other (non influenza) respiratory viruses will be determined by the OMT.
- When a facility/unit is restricted, admissions and transfers to and from other facilities/sites are generally not permitted; however, they can be considered in consultation with Public Health on a case-by-case basis during times of urgent need.

Restrictions regarding patient/resident admissions/re-admissions/transfer and activities are ONLY modified or lifted by the MOH or MOH designate. In the event that restriction of admissions/transfers is unduly impacting the availability of acute care beds for individuals requiring urgent care, the MOH or MOH designate will assess the circumstances surrounding the restriction including the degree of risk to the full spectrum of individuals requiring care. Refer to Admission, Discharge and Transfers During Outbreaks – Sample Risk Assessment Worksheet ([Attachment I.2](#)).

#### 1.5 Admissions/Transfers from an Acute Care Site to an Outbreak Facility Living Site

- A patient/resident who is hospitalized **prior** to the outbreak should not be transferred back to their Facility Living site until the outbreak is declared over as they may be at risk for infection. If the patient/resident was hospitalized due to influenza/ILI, he/she may return to the outbreak facility upon discharge since he/she will likely have been exposed already.
- If a patient/resident is hospitalized during an outbreak for an unrelated condition (e.g. fracture) the patient/resident may return to their facility **if** he/she is on recommended chemoprophylaxis.

If an admission/transfer to a Facility Living site must occur during a confirmed influenza outbreak at the site, following the assessment of the circumstances and consultation with Public Health (as described in the box in 2.4), Facility Living staff should collaborate with the acute care staff before the patient/resident is discharged. The patient/resident should not be transferred until the Facility Living site staff can ensure that:

- the patient/resident/guardian has information on risks associated with the outbreak and consents to the transfer
- the patient/resident is immunized AND
- the patient/resident/guardian is able to and agreeable to take antiviral medication as indicated.

## **1.6 Transfers from an Outbreak Facility to an Acute Care Site**

If a patient/resident requires acute medical attention or treatment off site (e.g. ER, Urgent Care, dialysis), the outbreak facility must notify the transport staff and the receiving care facility that the patient/resident is being transferred from a facility experiencing an influenza/ILI outbreak. The facility receiving the patient/resident can then ensure IPC measures are in place when the patient/resident arrives at the hospital/treatment centre. If tolerated, symptomatic patients/residents should wear a general procedure/surgical mask during transfer.

## **1.7 Group/Social Activities and Other Events**

- For confirmed influenza outbreaks, cancel or postpone previously scheduled patient/resident social and special events (e.g. entertainers, school groups, community presentations, and/or communal meals for special holidays) until the outbreak is declared over.
- Previously booked non-patient events (i.e. meetings, staff in-service) in an outbreak unit/facility should be cancelled or postponed to minimize risk of exposure to others.

## **1.8 Nourishment Areas/Sharing of Food**

As appropriate, and with discussion with Public Health, close the kitchen/nourishment areas accessed by patients/residents/visitors and ensure there is no communal sharing of food in outbreak areas.

## **1.9 Operating CHOICE/C3/DAY Programs during an Outbreak**

- If the outbreak facility operates a CHOICE/C3 Program or Day Program, discuss continuance or stopping of this activity with the OMT/Public Health at the time the outbreak is first reported.
- As a general rule, Public Health will recommend that CHOICE/C3 Program/Day Programs continue to operate in a facility with an ongoing influenza outbreak IF:
  - The Day Program is operating in an area physically separate from areas of the facility in which there have been resident cases with ILI symptoms.
  - Patients/residents attending the CHOICE/C3 Program/Day Program do not socialize with the residents from the outbreak facility
  - CHOICE/C3 Program/Day Program staff do not provide care in the areas of the facility in which there have been outbreak cases.

## **1.10 Visitors**

- Visitors are strongly encouraged to receive annual immunization for influenza when available.
- Post outbreak signage ([Attachment I.1](#)) at the entrance of the facility/unit advising staff and visitors of necessary precautions.
- Request all visitors to report to the nursing desk before visiting patients/residents. Visitors should be advised of potential risk of exposure.
- Discourage ill visitors from visiting.
- Advise those who choose to visit during an outbreak to practice good hand hygiene, visit one (1) patient/resident only and exit the facility immediately after the visit.
- Advise persons visiting symptomatic patients/residents to wear PPE (e.g. gloves, gown, procedure/surgical mask, eye protection) and to clean hands with alcohol-based hand rub before putting on and removing the PPE.
- Request visitors to follow the directions of HCWs and Facility Administration.
- Complete closure of visitation is not recommended by Public Health since it may cause emotional hardship to both patients/residents and families. However, if a facility is having difficulty controlling an outbreak, Public Health will support their decision to limit visitors.



### **1.11 Volunteers**

- Volunteers are strongly encouraged to receive annual immunization for influenza when available.
- Advise volunteers of the potential risk of acquiring illness during outbreaks. Have volunteers who continue to assist during an outbreak to follow the same control measures as staff (see 1.12 below).

### **1.12 Staff Related Outbreak Control Measures**

- All staff should be strongly encouraged to receive annual immunization(s) for influenza when available.
- Despite the excellent efficacy of most vaccines, there is a minority of people who may not be fully protected even after immunization; therefore, immunized individuals need to continue daily self-assessment for ILI during influenza season. In addition, immunized individuals should continue to use PPE to protect against new strains of influenza virus and other infectious respiratory agents.
- Whether related to workplace exposure, or exposure in the community or home, any worker who exhibits ILI symptoms during an influenza outbreak must contact his or her manager and be off work. Staff should be advised of the need for daily self-assessment for ILI symptoms.
- Symptomatic staff are required to report to their manager/designate and to WHS, as per internal protocol.
- Staff with symptomatic household members can report to work, provided that staff member is asymptomatic, practices appropriate personal hygiene (especially between facilities/units), and has met immunization recommendations.
- HCWs and staff who develop ILI at work should perform respiratory hygiene practices (e.g. coughing into sleeve, using tissues, wearing a mask) and leave the workplace as soon as possible.
- The length of time for which a symptomatic worker should stay off work will be recommended by the Zone MOH at the time of the outbreak. Generally, a person with influenza is infectious for an average of five (5) days.
- Symptoms such as cough may continue for longer than five (5) days. However, if a worker is otherwise healthy, he or she is not likely to continue to be infectious after five (5) days following onset of symptoms.
- When working between facilities, staff members should change uniforms and practice personal hygiene to prevent the spread of illness. Movement between facilities may be limited based on type of outbreak. Please consult WHS/designate or Public Health for further recommendations.

#### **1.12.1 Post-Exposure Immunization, Antiviral Prophylaxis and Work Restrictions**

Recommendations for post-exposure immunization, prophylaxis and/or work restrictions to control influenza A or B outbreaks will be directed by the MOH and the OMT. Antiviral treatment and prophylaxis is administered as per the most current Alberta Health Influenza Antiviral Drug Policy. It is the responsibility of the Facility to clearly communicate instructions to their staff on how to access antiviral prophylaxis.

- In Acute Care settings, MOH/OMT communicates with AHS WHS when an outbreak is declared.
- In Facility Living, MOH/OMT communicates with site specific IPC designate when an outbreak is declared.
- If HCWs on antiviral prophylaxis develop symptoms of ILI, they should stay home and contact WHS or designate for instructions about changes to medications. (This may ultimately be a referral to their family physician.)

### **Immunization & Prophylaxis**

- for asymptomatic staff, no waiting period is required between starting antiviral chemoprophylaxis and returning to work.
- asymptomatic staff immunized greater than 14 days prior to the outbreak may continue to work
- asymptomatic staff who have been immunized less than 14 days prior to the outbreak may continue to work if they begin and continue antiviral prophylaxis until 14 days post-immunization, or for the duration of the outbreak (whichever period is shorter). These individuals must be alert to the signs and symptoms of ILI, especially within the first 48 hours after starting antiviral prophylaxis, and should be excluded from patient/resident care if symptoms develop.
- staff who are not immunized at the time of the outbreak should receive influenza immunization as soon as possible. They can continue to work if they begin and continue antiviral prophylaxis until 14 days post-immunization, or for the duration of the outbreak (whichever is shorter). These individuals must be alert to signs and symptoms of ILI, especially within the first 48 hours after starting antiviral prophylaxis, and should be excluded from patient/resident care if symptoms develop.
- staff who are unable or unwilling to receive influenza vaccine can continue to work if they take antiviral prophylaxis for the duration of the outbreak. These individuals must be alert signs and symptoms of ILI, especially within the first 48 hours after starting antiviral prophylaxis, and should be excluded from patient/resident care if symptoms develop.

### **Restriction from Work**

Symptomatic workers must remain restricted from work until the conditions in section 1.12 are met. Asymptomatic workers generally fall into three categories, each subject to work restrictions:

- **Unimmunized** staff who are asymptomatic and agree to be immunized, but decline prophylaxis should be:
  - Excluded from work for three (3) days from the last day of work on the outbreak unit/site. If they remain asymptomatic after three (3) days, they may be reassigned to a non-outbreak unit/site for the duration of the outbreak or for fourteen (14) days from date of immunization whichever occurs first. If reassignment of work is not possible, then the staff should be excluded from work for 14 days from the time of immunization or for the duration of the outbreak, whichever occurs first.
- **Asymptomatic** staff who are not immunized **and** are not taking recommended antiviral prophylaxis should be:
  - Excluded from working in the affected facility/unit(s) until the outbreak is over, **OR**
  - Relocated to a non-outbreak unit/site if they remain asymptomatic after waiting three (3) days from the last day of work on the outbreak unit. Relocated staff should not return to the outbreak unit/site for the duration of the outbreak.
- **Asymptomatic** staff immunized less than fourteen (14) days prior to the outbreak **and** are not taking recommended antiviral prophylaxis should be:
  - Excluded from working in the affected unit/facility until 14 days from date of immunization, or for the duration of the outbreak whichever occurs first, **OR**



- Excluded from working at any site for three (3) working days from the last day of work on the outbreak unit. If they remain asymptomatic after waiting the three (3) working days they can be relocated to a non-outbreak unit until 14 days from the date of immunization or for the duration of the outbreak at the managers' discretion.

**Note:** It is the responsibility of the individual who works in more than one facility/unit to inform the alternate facility/unit that an influenza outbreak is in progress in the index facility, and determine whether or not they are permitted to work at the alternate facility/unit.

## 2. Attachments

Attachment II.1 - Data Collection for Respiratory Outbreak Management

Attachment II.2 - ProvLab Respiratory Specimen Collection Guidelines

Attachment II.3 - Outbreak Antiviral Prophylaxis in AC/FL - Sample

Attachment II.4 - MOH Notice to all Unimmunized Workers - Exclusion from Work (SAMPLE) Letter used for confirmed influenza outbreaks at the discretion of MOH or as requested by facility/WHS.

Attachment II.5 - WHS Influenza Outbreak Algorithm

## Attachment II.1 - Data Collection for Respiratory Outbreak Management

It is important that as soon as an outbreak is suspected, front line staff assess and track symptomatic patients/residents and staff for surveillance, monitoring and reporting purposes. Accurately completed lists of cases should be reported to Public Health (and to Infection Prevention and Control as per Zone requirement) on a **daily basis** once an outbreak has been declared. Outbreak data elements that should be reported daily to Public Health include:

**Outbreak Facility/Site** (name, unit/floor, contact person, phone and fax)

**Date of Report**

**Population affected at the time outbreak is declared** (total patient/resident and staff population at risk on the outbreak unit/site, number of patients/residents and staff who meet the case definition)

**Outbreak/EI number** (as provided by Public Health)

### Demographics of Cases

- Patients/residents: name, personal health number, date of birth, gender, unit/room #
- Staff: initials, gender, occupation, unit they work on

### Signs and Symptoms

- Onset date
- Signs and symptoms meeting case definition (new cough, fever, sore throat, joint pain, muscle aches, severe exhaustion)
- Duration of illness

### Lab tests/Results

- NP or throat swabs (date sent)
- Results

### Immunization/Antiviral Prophylaxis

- Date of influenza immunization for that season
- Date antiviral prophylaxis commenced (if recommended by Public Health)

### Hospitalization or Death of Cases

- Cases hospitalized (name, personal health number, date of admission, name of hospital)
- Cases who died (name, personal health number, date and cause of death)

Zones may already have established methods or tools for tracking illness during outbreaks compatible with current Information Technology (IT) systems. For Zones that do not currently have tools for collecting and reporting outbreak data or if they would like to see other tracking forms being used, they can contact Public Health offices in the other Zones.

## Attachment II.2 - ProvLab Respiratory Specimen Collection Guidelines

Check ProvLab Bulletins for most current information on specimen collection, testing and interpretation of lab results.

<http://www.provlab.ab.ca/> or <http://www.albertahealthservices.ca/3290.asp>

**ProvLab Bulletin (May 11, 2011) - New Laboratory Policy, Acceptance of Laboratory Samples and Test Requests.**

**ProvLab Bulletin (August 22, 2011) – Reminder Laboratory Policy, Acceptance of Laboratory Samples and Test Requests.**

### The Requisition must be completed to include:

- Patient's/resident's full name (first and last names)
- Patient/resident Personal Health Number (PHN) or unique numerical assigned equivalent
- Patient/resident demographics including: date of birth (DOB), gender, address, phone number
- Physician name (full name), address/location
- Test orders clearly indicated, including body site and sample type, date and time of collection
- Clinical history and other clinical information
- Site of the outbreak (i.e. facility/unit)
- EI# (assigned by the ProvLab and provided to Public Health Lead investigator)
- Fax number of outbreak facility/unit or ICP/ICD office
- Results will be faxed to the outbreak facility/unit or ICP/ICD **when it is noted on the requisition**, and reported to Zone Outbreak Response Lead.

**Note:** Viral history information is not required as long as the EI# is clearly recorded on the requisition.

### Specimen Transport:

- Follow current Provincial Laboratory standards for transporting specimens at <http://www.provlab.ab.ca/guide-to-services.pdf>.
- AHS is reviewing current transportation processes within Zones to identify gaps and make appropriate recommendations.

## Attachment II.2 cont'd

### NASOPHARYNGEAL (NP) AND THROAT SWAB FOR DETECTION OF RESPIRATORY INFECTIONS

#### General Information:

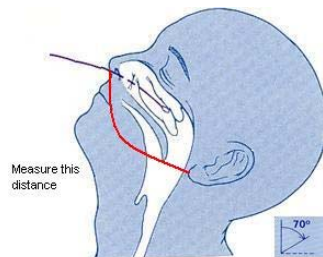
- The amount of virus is greatest in acute phase of illness, usually within the first 48-72 hours of symptom onset.
- NP swabs are the preferred specimens for respiratory virus testing and pertussis testing
- If nasopharyngeal swabs are difficult to collect, or if nasal secretions are minimal, throat swabs collected in viral transport media are acceptable alternatives.
- Collect up to a maximum of six (6) NP or throat swabs from separate cases, in the acute phase of illness, to determine the etiological agent of a suspected viral respiratory outbreak. Submit these as a batch of samples.
- If one or more of these samples are positive and an etiological agent has been identified, then further swabs should not be collected. If additional specimens are received under the EI# at some later period, these will not be tested unless the external investigator (Zone Outbreak Response Lead or MOH) has contacted the ProvLab point person for the EI# or designate.
- If six (6) samples have been tested and all are negative for respiratory virus for a particular EI#, additional samples will not be tested unless there is consultation between the external investigator and the ProvLab point person for the EI# or designate (e.g. MOC/VOC).
- Contact the ProvLab point person for the EI# or designate anytime, if the clinical situation for the EI# has changed and additional testing needs to be done.
- Results of the Respiratory Virus Panel (RVP) by molecular testing are usually available within 48hrs.

**Swab Description:** The NP swab has a white plastic shaft, with three (3) different thicknesses, ending in a “furry” or flock tip. Each swab is individually packaged and labeled “Copan sterile swab applicator”. After specimen is collected, to fit the swab into the transport medium container, please use break or cut the swab shaft where there is a deep score mark ( ▽ ) on the thick part of the shaft (see graphic).



#### Collection of a Nasopharyngeal (NP) Swab:

1. Access the respiratory outbreak specimen collection kit (contains NP flock swab, Universal Transport Media, ProvLab requisition), and appropriate PPE
2. Check expiry date of Universal Transport Medium (UTM). Do not use if the media is leaking, has turned color, is cloudy or has expired.
3. Perform hand hygiene by washing hands with soap and water or using alcohol-based hand rub.
4. Put on appropriate PPE. (See [Table 4](#).)
5. Have the patient sit in a chair or lie on a bed - elevate the head of the bed so that their head can be tilted back (see diagram).
6. Remove any mucous from the patient's nose, with a tissue or cotton tipped swab prior to collecting the NP swab.
7. How deep is the NP swab inserted into the nasopharynx? Measure the distance from the corner of the nose to the front of the ear and insert the shaft ONLY **half this length**. In adults, this distance is usually about four (4) cm, (finest thickness of this swab shaft). In children this distance is less.



**Attachment II.2 cont'd**

8. Tilt the patient's head back slightly (about 70°) to straighten the passage from the front of the nose to the nasopharynx to make insertion of the swab easier.
9. **Gently** insert the swab along the medial part of the septum, along the base of the nose, until it reaches the posterior nares - gentle rotation of the swab may be helpful. (If resistance is encountered on one side, try the other nostril, as the patient may have a deviated septum).
10. Rotate the swab several times to dislodge the columnar epithelial cells, and then remove the swab.  
**Note:** *Insertion of the swab usually induces a cough.*
11. Put the NP swab into the transport medium and break or cut at the score mark on the shaft so that it does not protrude above the rim of the container. Failure to do so will result in the transport medium leaking and the **sample being discarded**.
12. Ensure that the lid of the container is screwed on tight, and put the specimen in the biohazard zip lock bag.
13. Remove and discard gloves. Perform hand hygiene by washing hands with soap and water or using alcohol-based hand rub.
14. Remove and discard face mask and eye protection, and repeat hand hygiene if hands become contaminated.
15. Follow the labeling and transport instructions given in the collection kit insert. Ensure to label the UTM container with patient information.

**Source:** Provincial Laboratory for Public Health (ProvLab).

**Collection of a Throat Swab (TS) in viral transport media:**

1. Access the respiratory outbreak specimen collection kit (contains NP flock swab, Universal Transport Media, ProvLab requisition), and appropriate PPE
2. Check expiry date of Universal Transport Medium (UTM). Do not use if the media is leaking, has turned color, is cloudy or has expired.
3. Perform hand hygiene by washing hands with soap and water or using alcohol-based hand rub.
4. Put on appropriate PPE. (See [Table 4](#))
5. Using the plastic shafted swab in the kit, vigorously swab the back of the throat around the tonsillar area.
6. Place the swab into the transport medium, and break off the shaft so that it does not protrude above the rim of the container. Failure to do so will result in the transport medium leaking and the **sample being discarded**.
7. Ensure that the lid of the container is screwed on tight.
8. Remove and discard gloves. Perform hand hygiene by washing hands with soap and water or using alcohol-based hand rub.
9. Remove and discard face mask and eye protection, and repeat hand hygiene if hands become contaminated.
10. Follow the labeling and transport instructions given in the collection kit insert. Ensure to label the UTM container with patient information.

**Source:** Provincial Laboratory for Public Health (ProvLab).

**If the specimens are for outbreak diagnosis, ensure specimen is transported to the lab ASAP. Rural facilities to transport lab specimens to ProvLab as directed by the Zone Outbreak Response Lead or by the fastest means possible.**

**Attachment II.3 - Outbreak Antiviral Prophylaxis in Acute Care & Facility Living Sites – Sample Worksheet**

AC/FL Outbreak Site: _____					Site Contact: _____		Exposure Investigation (EI)#: _____				
Dispensing Pharmacy: _____					Pharmacy Contact: _____		AHS Zone Outbreak Lead (name, phone #): _____				

Patient/Resident					Physician				Antiviral Prophylaxis									
Rm #	Last Name	First Name	M/F	DOB (d/m/y)	PHN	Physician Name	Physician Phone #	Physician Fax #	Serum Creatinine (Cr)	Date of Cr (d/m/y)	Wt * (kg)	Influenza Vaccine Current Year	Agrees to antiviral	Rx from physician			Rx dose	Comments (refusals, side effects, etc.)
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\* eGFR may be used as proxy to creatinine clearance when client weights are not easily obtained when determining antiviral prophylaxis dosage. eGFR and calculated creatinine clearances are estimates of GFR and creatinine clearance, so both eGFR and calculated creatinine clearance are silver standard estimates of renal function.

**Attachment II.4 - MOH Notice to all Unimmunized Workers - Exclusion from Work (SAMPLE)**  
**Letter used for Confirmed Influenza Outbreaks**

The Medical Officer of Health (MOH) or designate has declared an outbreak of influenza at \_\_\_\_\_ effective \_\_\_\_\_. Influenza is a serious infectious disease, especially in persons who are elderly or have underlying medical conditions. Workers in health care facilities who come into contact with these vulnerable persons have a duty of care to protect them by being immunized against influenza.

Facility records indicate that you were not immunized against influenza during the \_\_\_\_\_ influenza season. Under Section 29(2) of the Public Health Act of Alberta, the MOH has the legal authority to undertake whatever steps are necessary to prevent the spread of a communicable disease to others, and may prohibit a person from engaging in their occupation if this activity could transmit an infectious agent.

Because of the risk that you could transmit influenza to vulnerable individuals in your care, effective immediately, the MOH has ordered your manager to **exclude you from further work** in the outbreak facility until:

a) You receive the influenza immunization now, AND commence antiviral prophylaxis for a period of 10 days, or up to a maximum of 14 days dependent on outbreak duration. Protection from immunization takes two weeks to develop completely. Vaccine is available from a Community Health Centre, your family physician or may be available at your facility. Your family physician, another physician, or a prescribing pharmacist can also prescribe the appropriate antiviral agent.

**OR**

b) You start antiviral prophylaxis immediately WITHOUT receiving influenza immunization. Prophylaxis must be taken for the duration of the outbreak and an initial 10 day supply should be obtained by prescription from your family physician or through special arrangements at your facility, if they exist. Without immunization, you will not develop immunity against influenza, and to continue to work in the event of other influenza outbreaks you will need to take antiviral prophylaxis again.

**OR**

c) Two weeks after you have been immunized, if you DO NOT take antiviral prophylaxis.

**OR**

d) The outbreak is declared over (7 days following onset of symptoms in the last case at the outbreak facility) if you refuse a, b, or c.

You may return to work **immediately** after commencing prophylaxis, provided you do not have any symptoms of influenza (acute onset of headache, chills and dry cough, followed by fever, muscle aches and pains, runny nose, and/or malaise). If you develop symptoms, the length of time for which you should stay off work will be recommended by the Zone MOH at the time of the outbreak. Generally, a person with influenza is infectious for an average of five (5) days.

If you work at health care facilities in addition to the outbreak facility, you may continue to report for work at these facilities if you have complied with either of option (a) or (b) above. If you have not, you are excluded from working in any non-outbreak facility for a period of **three (3) days** after your last shift at the outbreak facility, in addition to you remaining symptom free, in order to ensure you do not spread influenza to other facilities.

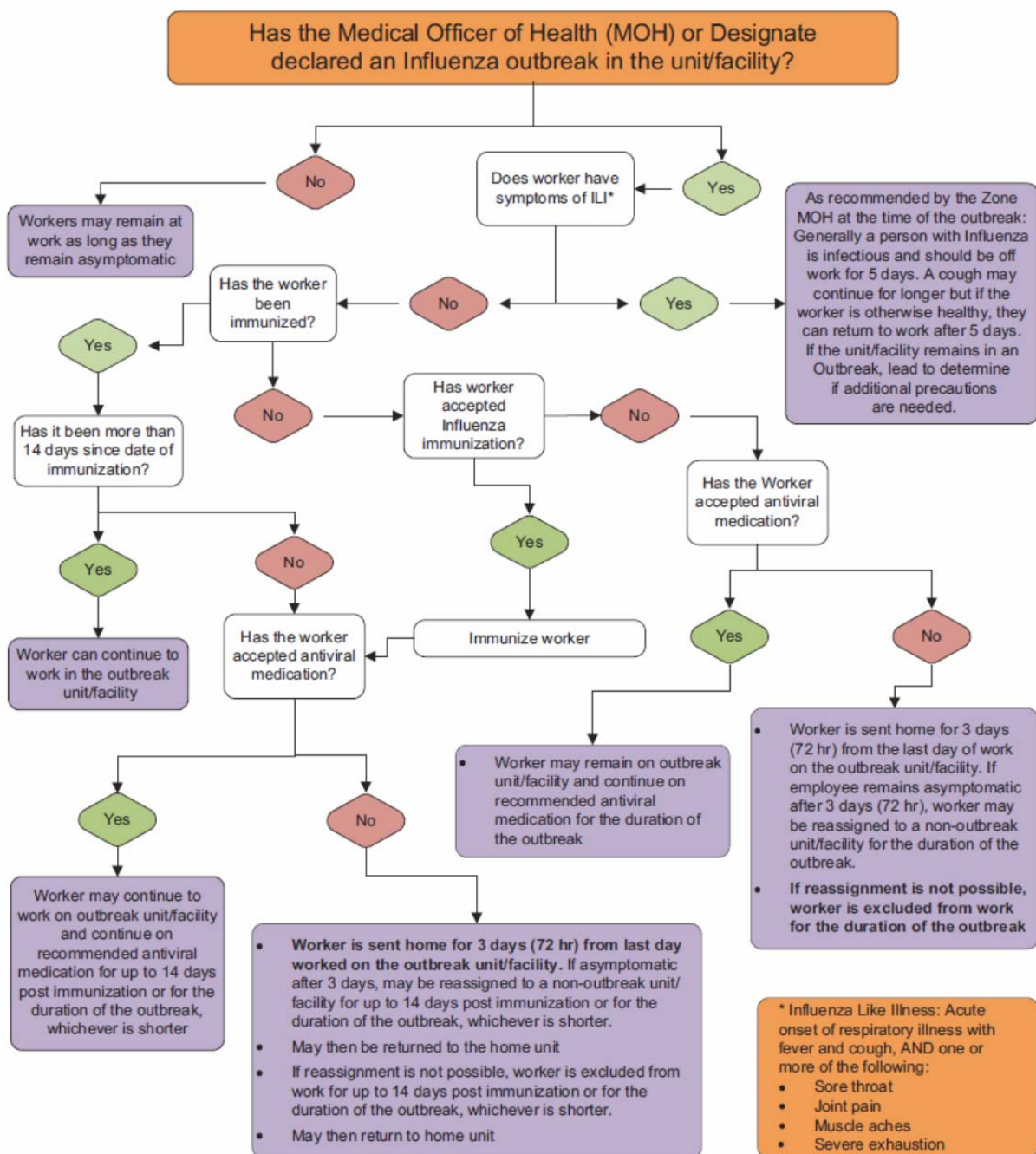
If you have questions about this exclusion, please contact your manager.

Medical Officer of Health



## Attachment II.5 WHS Influenza Outbreak Algorithm

### Influenza Outbreak Algorithm



Updated August, 2013

## SECTION III – POST EXPOSURE ANTIVIRAL CHEMOPROPHYLAXIS GUIDELINES DURING INFLUENZA OUTBREAKS

### General Guidelines

Alberta Health Services (AHS) supports the National Advisory Committee on Immunization (NACI) recommendations for influenza control published annually in the Canada Communicable Disease Report.

Influenza immunization is the primary strategy for prevention of influenza infection and illness. **Antiviral prophylaxis should not replace annual influenza immunization;** instead, it should be used as an adjunct to immunization during influenza outbreaks.

Both oseltamivir and zanamivir can be used for the prevention of influenza A and B. The mechanism of action of these neuraminidase inhibitors is to prevent release of influenza virus from infected cells. Because of high levels of amantadine resistance in recent years amantadine is not recommended for prophylaxis against influenza; in addition to increasing resistance of influenza A, influenza B is inherently resistant to it. Neither oseltamivir nor zanamivir are effective for prophylaxis in preventing respiratory infections other than influenza (e.g. RSV, Parainfluenza).

**The recommendation to implement antiviral prophylaxis for outbreak management is made by the Zone MOH.**

- Symptomatic individuals do not require antiviral prophylaxis. **Early treatment** with antiviral medication may be considered for patients/residents or staff who have had symptoms for less than 48 hours.
- During a facility outbreak, antiviral prophylaxis is recommended for all exposed, asymptomatic patients/residents (regardless of their influenza immunization status), and unimmunized staff unless a contraindication is present.
- Each attending physician is responsible for prescribing antiviral medication, either for prophylaxis or treatment for their individual patients (in Facility Living sites, pre-written patient orders may be helpful in the event of an outbreak).
- HCWs who require antiviral prophylaxis should consult with WHS or Designate or their own family physician for prescriptions and monitoring.
- For prescribing purposes, the recommended length of antiviral prophylaxis is 10 days. If the outbreak continues past 10 days, antiviral prophylaxis should be extended until the outbreak is declared over. If the outbreak duration is less than 10 days, antiviral prophylaxis may be discontinued – consult with Public Health. If cases persist, consult with Public Health promptly for further direction.
- During outbreaks caused by influenza strains that are not well matched by the vaccine, prophylaxis should also be considered for exposed, asymptomatic HCWs regardless of their immunization status.
- When antiviral prophylaxis is administered simultaneously to all eligible patients/residents and staff as soon as an outbreak is confirmed, the number of new cases usually decreases quickly. If cases continue beyond the first 72 hours after initiating prophylaxis, consult with Public Health promptly for further direction.

## **Antivirals for Early Treatment**

Treatment decisions are the responsibility of the attending physician. Antivirals for early treatment of symptomatic patients/residents and staff must be started within 48 hours of onset of symptoms to be effective in reducing the duration and severity of illness, and decreasing the rate of complications. Current recommendations will be discussed at the time of the outbreak.

### Attachment III.1 – Antiviral (Oseltamivir) Dosing Recommendations

From TAMIFLU Product Monograph, Roche Canada, January 2015

<b>Adults and adolescents (13 years and older)</b>		
<b>Creatinine clearance</b>	<b>Prophylaxis (10 days or duration of outbreak, whichever is longer*)</b>	<b>Treatment (5 days)</b>
Over 60 mL/min	75 mg once daily	75 mg twice daily
31- 60 mL/min	30 mg once daily or 75 mg every other day**	30 mg twice daily or 75 mg once daily**
10-30 mL/min	30 mg every other day	30 mg once daily
Less than 10 mL/min and not on dialysis	30 mg PO suspension/capsule x 1 dose for duration of outbreak	75 mg PO x 1 dose for duration of illness
On routine hemodialysis	Initial 30 mg prior to dialysis, with 30mg after alternate hemodialysis sessions for duration of outbreak	Initial 30 mg prior to dialysis, with 30 mg after every dialysis session over 5 days
On peritoneal dialysis	Initial 30 mg, with 30 mg after every 7 days for duration of outbreak	Single 30 mg dose prior to dialysis
Continuous Renal Replacement Therapy (CRRT)	30 mg once daily	30 mg twice daily
<b>Pediatrics (1-12 years) Normal Renal Function</b>		
<b>Body Weight</b>	<b>Prophylaxis (10 days or duration of outbreak, whichever is longer*)</b>	<b>Treatment (5 days)</b>
Less than or equal to 15 kg (less than or equal to 33 lbs)	30 mg once daily	30 mg twice daily
greater than 15 kg to 23 kg (greater than 33 lbs to 51 lbs)	45 mg once daily	45 mg twice daily
greater than 23 kg to 40 kg (greater than 51 lbs to 88 lbs)	60 mg once daily	60 mg twice daily
Greater than 40 kg (greater than 88 lbs)	75 mg once daily	75 mg twice daily
<i>Commercially manufactured TAMIFLU for Oral Suspension (6 mg/mL) is the preferred product for pediatric and adult patients who have difficulty swallowing capsules or where lower doses are needed.</i>		
Reviewed by U. Chandran, S. Fryters and Dr. L. Saxinger, AHS Antimicrobial Stewardship Committee		

\* If influenza outbreak duration is less than 10 days, oseltamivir prophylaxis may be discontinued. Consult with Public Health.

\*\* If supply of 30 mg preparations is not available or accessible.

***In the event of antiviral resistance in the outbreak influenza strain, alternate recommendations for antiviral prophylaxis will be provided by the Zone MOH.***

## SECTION IV – GASTROINTESTINAL (GI) ILLNESS OUTBREAK MANAGEMENT

### 1. GI Illness Case and Outbreak Definitions

#### Case Definition

At least ONE (1) of the following criteria must be met and not be attributed to another cause (e.g. *Clostridium difficile* diarrhea, medication, laxatives, diet or prior medical condition etc.):

- 2 or more episodes of diarrhea (i.e. loose or watery stools) in a 24 hour period, above what is normally expected for that individual

OR

- 2 or more episodes of vomiting in a 24 hour period

OR

- 1 or more episodes of vomiting AND diarrhea in a 24 hour period

OR

- Positive stool culture of a known enteric pathogen AND at least one symptom compatible with a GI infection i.e. nausea, vomiting, diarrhea, abdominal pain or tenderness

OR

- One episode of bloody diarrhea

**NOTE:** Laboratory confirmation is not required

#### Outbreak Definition

Two (2) or more cases of GI illness with a common epidemiological link (e.g. same location or same care giver, and evidence of healthcare-associated transmission within the facility), with initial onset within one 48 hour period.

While it is recognized that *Clostridium difficile* and multi-drug resistant organisms (e.g., MRSA, VRE) can be responsible for clusters or outbreaks, and that some of the measures outlined in this protocol may be applicable in preventing or controlling them, it is beyond the scope of this document to include these organisms, due to their unique epidemiological properties.

## 2. Outbreak Control Strategies for GI Illness Outbreaks

Outbreaks of infectious GI illness in healthcare facilities can result in high morbidity and a strain on operations. Typically, the majority of these outbreaks are attributable to norovirus (or viruses that cause similar illnesses, such as sapovirus, rotavirus, astrovirus or adenovirus). Norovirus is extremely communicable and outbreaks are common. Outbreaks can present in sporadic episodes, or as intensely concentrated events occurring all at once. Attack rates can be quite high (> 50%) in both staff and residents. Although GI illness outbreaks in healthcare facilities can occur at any time of year, in Alberta most outbreaks occur between October and April.

Most GI illness cases are mild and self-limiting; however, serious dehydration and/or aspiration pneumonia secondary to vomiting can occur in debilitated individuals. Symptoms of GI illness include any combination of nausea, vomiting, diarrhea, and/or abdominal pain, which may be accompanied by myalgia, headache, low-grade fever, and malaise. An outbreak control program is aimed at early detection and elimination of any common sources of exposure. Despite stringent IPC, outbreak control can be difficult. It is vital that infection control measures are implemented promptly, without waiting for laboratory confirmation of an etiologic agent. Transmission usually occurs via the fecal/oral or vomitus/oral route, but can also include contact or droplet spread.

### 2.1 Infection Prevention and Control Measures - See [Table 5](#)

- Consult with ICP/ICD for assistance with IPC issues:
- Ensure adequate availability of all supplies including
  - Personal Protective Equipment (PPE) – see 2.1.1
  - Hand Hygiene Products - see 2.1.2
  - Environmental Cleaning - see 2.1.3
  - Linen/laundry - 2.1.4
  - laboratory testing supplies - 2.2
- In addition to Routine Practices, implement **Contact Precautions** for when providing direct care for symptomatic patients/residents.
- Implement **Contact and Droplet Precautions** if patient/resident is actively vomiting.
- Maintain at least one (1) metre of physical separation between bed/stretchers spaces.
- Place signage on the patient/resident's room door indicating that Contact Precautions or Contact & Droplet Precautions are required.

NOTE: If contact precaution signage on patient/resident room doors is not routinely used in Facility Living, there must be an effective alternate method of communicating required precautions to all visitors and staff.

#### 2.1.1 PPE: for more information, visit the AHS website, and search 'PPE'.

- **Don Gloves to:**
  - enter patient/resident room or bed-space
  - provide direct care to symptomatic patients/residents
  - handle contaminated patient/resident items in the room
  - clean an area contaminated with feces or vomitus
  - gather/handle specimens.
- **Don Gown to:**
  - enter patient/resident room or bed-space
  - provide direct care to symptomatic patients/residents
  - handle contaminated patient/resident items in the room



- clean areas contaminated with feces or vomitus so as to protect against possible contamination of clothing.
- **Don Mask/Face protection to:**
  - protect your face ( eyes, nose & mouth ) when there is any risk of sprays of body fluids
  - care for patients/residents who are actively vomiting.

**All PPE must be removed and hand hygiene must be performed before leaving the patient/resident's room.**

### **2.1.2 Strict hand hygiene**

- Hand hygiene should be performed in accordance with the AHS Hand Hygiene Policy and Procedure which provides direction on product selection, location, and use.
- Alcohol-based hand rubs containing a minimum of 70% alcohol are as effective as soap and water when hands are not visibly soiled. They should be clearly labeled with a DIN, or a claim as being effective and used prior to expiry date.
- Wash hands with soap and water when:
  - Hands are visibly soiled
  - After removal of gloves when caring for a patient/resident that has diarrhea and/or vomiting
- Frequent and thorough hand hygiene should be performed by staff:
  1. Before and after providing care to patients/residents
  2. After touching used patients/resident care equipment
  3. After touching soiled environmental surfaces
  4. When handling food
- Staff should assist the patient/resident with hand hygiene if required.

#### **Statement on use of Alcohol-based Hand Rub during GI illness Outbreaks**

Alcohol-based hand rubs (minimum 70% alcohol) are an acceptable alternative to hand washing during GI illness outbreaks, when used according to label directions.

### **2.1.3 Environmental Cleaning**

Environmental surfaces often become contaminated with feces or vomitus (and norovirus) during GI illness outbreaks. Thorough cleaning and disinfection of frequently touched surfaces and equipment can help interrupt disease transmission during GI illness outbreaks.



### **Recommended disinfectants**

It should be emphasized that thoroughness of cleaning is more important in outbreak control than the choice of disinfectant used. However, based on study findings in the literature, effectiveness of norovirus inactivation varies by disinfectant category. Many disinfectants in wide use in AHS facilities have active ingredients known as quaternary ammonium compounds, or “quats.” Quats may not be effective for complete disinfection of surfaces contaminated with norovirus at the concentrations recommended for general disinfection by the manufacturer. AHS facilities should consider making disinfectants available that are known to be effective in inactivating norovirus (see below) during outbreak situations.

The following disinfectant categories/concentrations are recommended for disinfecting surfaces and equipment during GI illness outbreaks (follow manufacturer’s directions for use):

1. Hypochlorite at a concentration of 1000 parts-per-million. Commercially-available hypochlorite-containing solutions are recommended.
2. A surface disinfectant with a Drug Identification Number (DIN) issued by Health Canada with a specific label claim against norovirus, feline calicivirus or murine norovirus.

An example of a product with this label claim currently in wide use in AHS facilities is 0.5% accelerated hydrogen peroxide. There are other products available with this label claim.

### **NOTES:**

1. Equipment should be cleaned and disinfected only with a product listed in and following the procedures outlined in the manufacturer’s directions for that equipment.
2. Surfaces must first be cleaned prior to disinfection (2 step process). If the surface disinfectant product used has cleaning properties (detergent/disinfectant) it may be used for both steps. Follow manufacturer’s directions for use.

Follow recommended cleaning and disinfection protocols, such as:

- Use a “wipe twice” procedure (a 2-step process) to clean and then disinfect surfaces (i.e. wipe surfaces thoroughly to clean visibly soiled material then wipe again with a clean cloth saturated with disinfectant to disinfect)
- Immediately clean and disinfect areas soiled with emesis or fecal material.
- Use fresh mop head, cloths, cleaning supplies and cleaning solutions to clean affected rooms, and after cleaning large spills of emesis or fecal material.
- The frequency of cleaning and disinfecting “high touch” surfaces (e.g. doorknobs, light switches, call bells, handrails) in patient/resident rooms, care areas and common areas such as dining areas and lounges should be more than the minimum of once daily. Recommendations for enhanced cleaning may be made by the OMT.
- Clean and disinfect shared patient/resident care equipment (e.g. commodes, blood pressure cuffs, thermometers) prior to use by a different patient/resident.

- Consider discarding all disposable patient-care items and laundering unused linens (e.g., towels, sheets) from patient/resident rooms when the isolation precautions for GI illness are lifted.
- Privacy curtains should be changed if visibly soiled and when isolation precautions for GI illness are lifted.
- Conduct a thorough, enhanced cleaning in all affected areas at the end of the outbreak.

Note: upholstered furniture and rugs or carpets should be cleaned and disinfected when contaminated with emesis or stool, but may be difficult to clean and disinfect completely. Consult manufacturer's recommendations for cleaning and disinfection of these surfaces. If manufacturer's recommendations are not available, consult Public Health. Consider discarding items that cannot be appropriately cleaned/disinfected, when possible/appropriate.

#### **2.1.4 Laundry**

- Appropriate PPE (e.g. gowns) should be worn if there is a risk of contamination of employee clothing from body fluids or secretions
- Gloves are not needed to transport the laundry bag to the soiled laundry room.
- PPE including gloves should be removed and hands cleaned once soiled laundry has been placed in the laundry bag.
- If laundry is done in resident laundry rooms (vs. a central laundry room) dedicate one laundry room for soiled laundry from residents sick with the outbreak illness.
- All linen that is soiled with body fluids should be handled using the same precautions regardless of the source.
- Remove gross soiling (e.g. feces) with a gloved hand and dispose into toilet. Do not remove excrement by spraying with water.
- Bag or contain soiled laundry at point of care.
- Do not sort or pre rinse soiled laundry in patient/resident care areas
- Handle soiled laundry with minimum agitation to avoid contamination of surfaces & people. ( e.g.- roll up )
- Contain wet laundry before placing it in a laundry bag (e.g. wrap in a dry sheet or towel).
- Double bagging is not necessary & not recommended.
- Laundry bags should be tied securely & not over-filled.
- Transport, wash & dry as per routine laundering practices.

#### **2.2 Specimen Collection**

Stool specimen results do not typically impact outbreak management strategies for GI illness outbreaks. However, from a public health perspective it is valuable to collect stool specimens from cases during outbreaks to try and identify the etiology, if possible. Typical GI illness outbreak stool specimen collection procedures are found in [Attachment IV.I](#).

#### **2.3 Administrative Measures**

- Post outbreak signage ([Attachment I.1](#)) at the entrance of the facility/unit advising staff and visitors of necessary precautions.
- Ensure proper collection of appropriate specimens as directed by Public Health including adequate supplies and timely transport to ProVLab following internal established procedure.
- Advise the housekeeping supervisor of enhanced environmental cleaning of affected area as outlined above.
- Advise staff to report symptoms of GI illness in themselves during the outbreak to the unit/facility Manager, so that their illness can be tracked for the scope of the outbreak.

- Ensure all recommended staff restrictions are implemented - see **Staff Restrictions** below.
- Advise staff about relevant work restrictions including working at other health care facilities.
- Ensure adequate availability of all supplies through notification of appropriate departments
- Notify Laundry Services and Distribution Services of the increased need for supplies.
- Notify Transition Services and Admitting.
- Consult with the Zone MOH or MOH designate when issues pertaining to admission, discharge and transfers arise during an outbreak.
- Complete daily case listings during the outbreak, for both patients/residents and staff. See [Attachment IV.2](#) for required data elements to be reported to Public Health daily (and to IPC as per Zone requirements).

## 2.4 Restrictions on Affected Units/Site

- Decisions regarding GI illness outbreak unit restrictions will be made by the OMT or Public Health in consultation with the facility/unit administration.
- Restrictions regarding patient/resident admissions/readmission/transfer and activities during an outbreak are **ONLY** modified or lifted by the Zone MOH or MOH designate. In the event that restriction of admissions/transfers is unduly impacting the availability of acute care beds for individuals requiring urgent care, the Zone MOH or MOH designate will assess the circumstances surrounding the restriction. The review will assess the degree of risk to the full spectrum of individuals requiring care, considering both those awaiting acute care as well as the residents in the outbreak facility.
- Admission restrictions may be amended if, in the judgment of the Zone MOH or MOH designate, it is appropriate for all parties involved.
- Even when admission restrictions are lifted at the recommendation of the OMT or Public Health, some residents may still be symptomatic with GI illness. Isolation precautions for symptomatic patients/residents should remain in effect to prevent further spread of infection.
- The scope of unit restrictions is typically dependent on the extent of the outbreak activity within the facility (one unit, one floor, one wing or the entire facility), the ability to cohort staff to affected areas and severity of the outbreak (e.g. many patients/residents and staff affected, new cases continue to develop in spite of implemented control measures).
- Restrictions typically remain in place until the outbreak has been declared over by the MOH or designate. The guideline for declaring an outbreak over is:
  - 48 hours from symptom resolution in the last case,
  - OR**
  - 96 hours from onset of symptoms in the last case**whichever occurs first**

### 2.4.1 Patient/Resident Restrictions

- Whenever possible, symptomatic patients/residents should be isolated (i.e. remain in their rooms) with meals delivered to them for the duration of the acute illness, and until 48 hours after the last episode of vomiting or diarrhea.
- Symptomatic patients/residents should only leave the outbreak unit/facility when it is medically necessary; in which case the receiving site should be alerted that the patient/resident is symptomatic and coming from a facility experiencing a GI illness outbreak and that contact precautions are to be implemented by the receiving site.
- Use of disposable plates and cutlery by symptomatic patients/residents is not required for GI illness outbreak management.
- If an outbreak is confined to a unit, all patients/residents on that unit should remain on their own unit to avoid contact with other patients/residents in the facility. Patients/residents requesting a pass to leave a facility that is under restrictions due to a GI illness outbreak may do so if the patient/resident is asymptomatic. Patients/residents should be advised that if they become symptomatic while away

from their facility, they should return to/contact their facility, or seek medical attention.

#### **2.4.2 Staff Restrictions**

- Symptomatic staff are required to report to their manager/designate and to WHS or Employee Health as per internal protocol.
- Cohort staff to affected areas if practical, or assign staff to care for asymptomatic patients/residents before symptomatic patients/residents.
- Consider minimizing movement of staff, students, and volunteers between floors/units, especially if some units are not affected.
- Consider excluding non-essential staff, students, and volunteers from working in affected areas of the facility (if any can be deemed “non-essential”).
- Symptomatic staff that fit the case definition for GI illness should be **excluded from work at all care facilities until 48 hours following the last episode of vomiting and/or diarrhea**.
- Staff with symptomatic household members can report to work, provided the staff member is asymptomatic and practices appropriate personal hygiene.
- Staff that have no gastrointestinal symptoms during the outbreak, or are free of vomiting and diarrhea for at least 48 hours, may **return/continue to work at any care facility**, even if they are employed at a facility with an ongoing GI illness outbreak.

#### **2.4.3 Visitor Restrictions**

- Post outbreak signage ([Attachment I.1](#)) at the entrance of the facility/unit advising staff and visitors of necessary precautions.
- All visitors should report to the nursing desk before visiting patients/residents.
- Symptomatic visitors should be discouraged from visiting.
- Visitors should be advised of the potential risk of acquiring illness, and advised to practice hand hygiene before and after visiting.
- Those visiting symptomatic patients/residents must be advised to practice Contact Precautions to protect themselves.
- Visitors who choose to visit during an outbreak should be advised to practice good hand hygiene, visit only one (1) patient/resident and exit the facility immediately after the visit.
- Complete restriction of visitation during GI illness outbreaks is typically not recommended by AHS as it may cause emotional hardship to both patients/residents and families. However, if a facility is having difficulty controlling an outbreak, Public Health will support the facility’s decision to limit visitors.

#### **2.4.4 Volunteer Restrictions**

- Volunteers should be advised of the potential risk of acquiring illness.
- Volunteers who continue to help during an outbreak would be managed in the same manner as staff (see above for staff exclusion recommendations).
- Exclude non-essential volunteers from working in affected areas of the facility (if any can be deemed “non-essential”).

#### **2.4.5 Admission Restrictions**

- Facility/unit status (e.g. open or restricted admissions) will be determined by the MOH or Designate at the time the outbreak is declared.
- The scope of unit restrictions is typically dependent on the extent of the outbreak activity within the facility (one unit, one floor, one wing or the entire facility), the ability

- to cohort staff to affected areas and severity of the outbreak (e.g. many patients/residents and staff affected, new cases continue to develop in spite of implemented control measures).
- For GI illness outbreaks, restrictions typically remain in place until the outbreak has been declared over. The guideline for declaring an outbreak over is:
    - 48 hours from symptom resolution in the last case.
    - OR**
    - 96 hours from onset of symptoms in the last case,
    - whichever occurs first.**
  - When a facility/unit is restricted, admissions and transfers to and from other facilities/sites are generally not permitted; however, they can be considered in consultation with Public Health on a case-by-case basis during time of urgent need.

Restrictions regarding patient/resident admissions/re-admissions/transfer and activities are **ONLY** modified or lifted by the MOH or MOH designate. In the event that restriction of admissions/transfers is unduly impacting the availability of acute care beds for individuals requiring urgent care, the MOH or MOH designate will assess the circumstances surrounding the restriction including the degree of risk to the full spectrum of individuals requiring care. Refer to Admission, Discharge and Transfers During Outbreaks – Sample Risk Assessment Worksheet ([Attachment I.2](#)).

#### **2.4.6 Admissions/Transfers from an Acute Care to an Outbreak Facility Living Site**

A patient/resident who is hospitalized at another facility prior to the outbreak should not be transferred back to the facility until the outbreak is declared over. **EXCEPTION:** if a patient/resident from the outbreak facility was hospitalized due to GI illness, he/she may return to the outbreak facility upon discharge without a risk assessment being completed.

If an admission/transfer to a Facility Living site must occur during a GI illness outbreak at the site, following the assessment of the circumstances and consultation with Public Health (as described in the box in 2.4.5), Facility Living staff should collaborate with the acute care staff before the patient/resident is discharged. The patient/resident should not be transferred until the Facility Living site staff can ensure that the patient/resident/guardian has information on risks associated with the outbreak and consents to the transfer.

#### **2.4.7 Transfers from an Outbreak Facility to Acute Care**

If a patient/resident requires acute medical attention or treatment off site (e.g. E.R, Urgent Care, dialysis), the outbreak facility must notify the transport staff and the receiving care facility that the patient/resident is being transferred from a facility experiencing a GI illness outbreak. The facility receiving the patient/resident can then ensure IPC measures are in place when the patient/resident arrives there.

#### **2.4.8 Treatment within the Outbreak Facility**

During an outbreak, consideration should be given to providing treatment such as physiotherapy or occupational therapy in the patient/resident's room instead of a centralized area; however patients/residents may be allowed to attend medically necessary activities or appointments provided measures are taken to minimize transmission.



#### **2.4.9 Group/Social Activities and Other Events**

It is recommended that previously scheduled patient/resident social and special events/activities (e.g. entertainers, school groups, community presentations, and/or communal meals for special holidays) on the affected unit(s) be canceled/postponed for the duration of the outbreak. Consult Public Health with any questions about group/social activities during outbreaks.

Non-patient events (e.g. meetings) previously booked for areas in proximity to areas under restriction in the outbreak facility should be cancelled or postponed.

#### **2.4.10 Food Safety Precautions**

Close the kitchen/nourishment areas accessed by patients/residents/visitors and ensure there is no communal sharing of food in outbreak areas.

In Facility Living Sites, in discussion with Public Health:

- Implement measures to minimize patient/resident handling of shared food and surfaces that may touch another patient/resident's food:
  - Close buffet lines, or, have staff dispense foods from the buffet onto plates for patients/residents
  - Pre-set the tables in common dining areas to minimize patient/resident handling of multiple sets of cutlery
  - Remove shared food containers from dining areas (e.g. shared pitchers of water, shared coffee cream dispensers, salt & pepper shakers, etc.)
  - For snack programs, dispense snacks directly to patients/residents and use pre-packaged snacks only
  - If using single service packets of condiments, provide packet directly to each patient/resident, rather than self-serve in a bulk container
  - Other measures as necessary/appropriate
- Ensure that food handling staff:
  - Practice meticulous hand hygiene
  - Are excluded from work if symptomatic (see Staff Restrictions 2.4.2)
- Use of disposable plates and cutlery by symptomatic patients/residents is not required for GI illness outbreak management.
- Normal dishwashing practices are appropriate during GI outbreaks, i.e. no additional/different disinfection of dishes is needed over and above what is normally done.
- Use dining table coverings that can be easily cleaned and disinfected (i.e. discontinue use of cloth/linen table coverings until the outbreak is over).
- Ensure that all touch surfaces of the tables and chairs (including the underneath edge of the chair seat) are cleaned and disinfected after each use.
- Staff assigned to housekeeping duties should not be involved in food preparation or food service. Consult Public Health with any questions.

#### **2.4.11 CHOICE/C3 Program or Day Program during an Outbreak**

If the outbreak facility operates a CHOICE/C3 Program or Day Program, discuss this with the OMT/PH at the time the outbreak is first reported. As a general rule, Public Health will recommend that CHOICE/C3 Program/Day Programs continue to operate in a facility with an ongoing GI illness outbreak **IF**:

- the Day Program is operated in an area physically separate from areas of the facility in which there have been patient/resident cases with GI illness symptoms
- patients/residents attending the CHOICE/C3 Program/Day Program do not mix with the patients/residents from the outbreak facility



- CHOICE/C3 Program/Day Program staff do not provide care in areas of the facility in which there have been outbreak cases

## 2.5 Management of “Relapse” Cases

GI illness cases frequently “relapse,” i.e. experience onset of vomiting or diarrhea after being asymptomatic for 24 to 48 hours. The relapse is likely due to malabsorption during an existing norovirus infection rather than being a new infection. AHS recommends that “relapse” GI illness cases:

- be isolated until they are free of vomiting and diarrhea for 48 hours, as they may still be infectious.
- should NOT be counted as new outbreak cases (and should therefore NOT be included on daily case listings) - these are not new outbreak cases, and a patient/resident should only be counted as a new case once on a daily case listing. Therefore, relapse case(s) alone would not result in the extension of admission restrictions.

**Note:** If a previously identified GI illness case has onset of GI illness symptoms after being symptom free for **at least seven (7) days**, it is considered a new case.

## 2.6 Post-Outbreak

### 2.6.1 Heightened surveillance

A 48-hour period from symptom resolution of the last case OR 96 hours from the onset date of the last case (whichever occurs first) is usually indicative of the end of a GI illness outbreak. However, it is strongly recommended that heightened GI illness surveillance be maintained for at least 72 hours after restrictions are lifted, in the event that unrecognized transmission is occurring in the facility.

Report any new cases during this period in the same manner that an outbreak is reported. The Zone Outbreak Response Lead will assess to determine if restrictions should again be implemented.

### 2.6.2 End-of-outbreak cleaning

Conduct a thorough, enhanced cleaning in all affected areas at the end of the outbreak.

## 3. Attachments

Attachment IV.1 - Stool Specimen Collection for GI illness Outbreaks

Attachment IV.2 - Data Collection for Gastrointestinal Illness Outbreak Management

## **Attachment IV.1 - Stool Specimen Collection for GI Illness Outbreaks**

Stool specimen results do not typically impact outbreak management strategies for GI illness outbreaks. However, from a public health perspective it is valuable to collect stool specimens from cases during outbreaks to try and identify the etiology, if possible. Please note that norovirus cannot presently be isolated from vomitus, therefore the collection of vomitus specimens is not recommended for GI illness outbreak management.

A unique EI# is assigned to each specific outbreak. Public Health will obtain an EI# from the ProvLab when a GI illness outbreak is reported. Stool specimens submitted without an EI# on the requisition will not be analyzed for norovirus; therefore it is important that an EI# be obtained **prior to** collection of outbreak stool specimens. The typical turnaround time for norovirus PCR results from the ProvLab (i.e. time between receipt of the specimen at the lab and report of results) is 48 hours. Results are also available on Netcare within 48 hours. Public Health will report the result to the ICP/ICD within one business day of receipt of results from the lab.

### **Procedures to collect stool specimens**

Check ProvLab Bulletins for most current information on specimen collection, testing and interpretation of lab results.  
<http://www.provlab.ab.ca/> or <http://www.albertahealthservices.ca/3290.asp>

**ProvLab Bulletin (May 11, 2011) - New Laboratory Policy, Acceptance of Laboratory Samples and Test Requests.**

**ProvLab Bulletin (August 22, 2011) – Reminder Laboratory Policy, Acceptance of Laboratory Samples and Test Requests.**

- As directed by Public Health, collect stool specimens from patients/residents that are acutely ill with diarrhea, preferably within 24-48 hours of onset of symptoms.
- Collect one stool specimen from up to 5 symptomatic patients/residents per outbreak investigation (EI#), preferably during the acute phase of illness. This number of specimens is usually sufficient to determine the etiology of the outbreak.
- Collect stool in a specimen collection “hat” or other clean and dry receptacle (i.e. bed pan, margarine container).
- Do not mix stool with urine or water.
- Place the stool in a dry sterile container by using a scoop from stool collection kit, or a disposable tongue depressor or plastic spoon, keeping the outside of the container clean. Fill the container with stool up to one third or at least one-tablespoon full, and discard the remaining stool. (Sterile container may include container from stool collection kit or sterile urine container).
- Screw the lid tightly to avoid leakage.
- Put the container with the stool into the plastic (biohazard) bag, and seal the bag.
- Complete the ProvLab requisition form to include the EI# and the patient/resident’s full first and last names; Personal Health Number (PHN) or unique numerical assigned equivalent; patient/resident demographics to include date of birth (DOB), gender, address, phone number; physician full name and complete address/location; test orders clearly specified including body site and sample type; date and time of collection.
- Label the sample container with the EI#, patient/resident’s full first and last names, PHN or unique numerical equivalent, and date of sample collection.
- Keep stool specimens in the fridge (not the freezer) until ready for transport.
- Batch specimens together and transport to the ProvLab within 24 hours.
- If one or more of these samples are positive and an etiological agent has been identified, then further specimens should not be collected. If additional specimens are received under the same EI#

at some later period, these will not be tested unless Public Health has contacted the ProvLab point person for the EI# (e.g., MOC/VOC/Designate).

- If all batched samples received have been tested and if all are negative for a particular EI#, additional samples will not be tested unless there is consultation between Public Health and the ProvLab.
- Public Health will contact the ProvLab if the clinical situation for the outbreak has changed and additional testing needs to be done.

**Specimen Transport:**

- Follow current Provincial Laboratory standards for transporting specimens.
- AHS is reviewing current transportation processes within Zones to identify gaps and make appropriate recommendations.

## Attachment IV.2 – Data Collection for Gastrointestinal Illness Outbreak Management

It is important that as soon as an outbreak is suspected, front line staff assess and track symptomatic patients/residents and staff for surveillance, monitoring and reporting purposes. Accurately completed lists of cases should be reported to Public Health (and to Infection Prevention and Control as per Zone requirement) on a **daily basis** once an outbreak has been declared. Outbreak data elements that should be reported daily to Public Health include:

**Outbreak Facility/Site** (name, unit/floor, contact person, phone and fax)

**Date of Report**

**Population affected at the time outbreak is reported** (total patient/resident and staff population at risk on the outbreak unit/site, number of patients/residents and staff who meet the case definition)

**Outbreak/EI number** (as provided by Public Health)

### Demographics of Cases

- Patients/residents: name, personal health number, date of birth, gender, unit/room #
- Staff: initials, gender, occupation, unit they work on

### Signs and Symptoms

- Onset date
- Signs and symptoms meeting case definition (vomiting, diarrhea, bloody diarrhea)
- Duration of illness

### Lab tests/Results

- Stool specimen (date sent)
- Results

### Hospitalization or Death of Cases

- cases hospitalized (name, personal health number, date of admission, name of hospital)
- cases who died (name, personal health number, date and cause of death)

Zones may already have established methods or tools for tracking illness during outbreaks compatible with current Information Technology (IT) systems. For Zones that do not currently have tools for collecting and reporting outbreak data or if they would like to see other tracking forms being used, they can contact Public Health offices in the other Zones.