

Enteric Outbreak Control Measures Information Package (for Institutions)

Introduction

Outbreaks occur when the usual level of disease in a Long Term Care Home (LTCH) is exceeded at a given time. Early identification of an outbreak is essential since the implementation of precautions and therapeutic interventions can prevent the spread of infection and decrease the morbidity and mortality of a very frail, compromised population¹.

This package includes:

Sections

- A) Definition of an Outbreak
- B) General Outbreak Control Measures^{2,3}
- C) Admissions Policy
- D) Transfers Policy
- E) Visitors Policy

Attachments

- Stool Collection and Delivery Procedure
- Sample “Stop” Sign
- Enteric Outbreak Checklist (For Institutional Use)

A) Definition of an Outbreak

An outbreak is usually defined as **two** or more cases of illness with compatible symptoms occurring **within 48 hours** in a geographic area².

A case must present with a minimum of one of the following signs/symptoms^{4,5}:

1. Two or more episodes of vomiting in a 24 hour period with no evidence of a non-infectious cause, or
2. Two or more loose or watery stools (diarrhea) above what is normal for the case within a 24 period and no evidence of a non-infectious cause, or
3. Stool culture positive for a pathogen (e.g. Salmonella, Shigella, Campylobacter species, or Clostridium difficile, etc.) with a compatible clinical symptom.

The following non-infectious causes must be ruled out:

1. For diarrhea: laxative, change in tube feeds, medication or diet.
2. For vomiting: change in medication or peptic ulcer disease.

B) What are General Outbreak Control Measures?

There are several measures that can be used to control the spread of an outbreak.

1. Handwashing

Handwashing is the single most important procedure for preventing infections. Most enteric viruses and bacteria can be spread through contaminated hands.

During an enteric outbreak, handwashing frequency amongst staff and visitors must be increased. Implement use of hand antiseptics in areas where hand sinks are not readily available.

2. Enhanced Cleaning and Disinfecting

Thorough and frequent cleaning of equipment and environmental surfaces should be reinforced during an outbreak. Areas of concern are, but not limited to, all washrooms, handrails, tables, doorknobs, elevator buttons, call bells, telephones, bed rails, light switches, toilet handles and commodes.

Ensure that the chemical concentration of disinfectant is appropriate and the cleaning solutions containing the chemical disinfectant is changed frequently. Pay special attention to the contact time needed for the disinfectant being used. Follow as per manufacturer's recommendation. Consult your Infection Control Inspector from the Health Protection Division for specific requirements.

3. Excluding ill Staff and Volunteers from Work

- Staff and volunteers experiencing diarrhea and vomiting of a probable infectious nature should be excluded from work until they have been symptom free for 48 hours.
- Symptom free carriers of enteric pathogens including *Campylobacter* sp., *Salmonella* sp. (excluding typhi and paratyphi), *Entamoeba histolytica*, *Yersinia* and *Giardia* may continue to work as long as personal hygiene is good and the pathogens they carry **are not** the outbreak pathogen.
- People who are positive with *Salmonella typhi*, paratyphi, Hepatitis A, Norwalk like diseases, *Shigella* or Verotoxin producing *E. coli* (VTEC *E. coli* O157:H7) should contact York Region Health Services to discuss the exclusion requirements.

Note: In certain enteric outbreak situations, asymptomatic foodhandlers and health care workers may be asked to submit stool samples for laboratory testing.

4. Use of Gloves, Masks and Gowns

- Masks are recommended for direct contact with an ill resident who presents with vomiting as one of the symptoms, or when caring for an ill resident with respiratory symptoms during an enteric outbreak.

- Gloves are recommended for direct contact with an ill resident.
- Gowning is necessary if the caregiver's clothing is likely to become grossly contaminated.

Gloves, masks and gowns should be changed between clients and/or when heavily contaminated.

5. Enhanced Ventilation

It is important to make sure that ventilation systems are properly maintained. Poor air quality may aggravate chronic health conditions.

6. Posting a STOP Sign at all Entrances to the Facility

Visitors should be advised of the potential risk of acquiring illness within the facility. Visitors should be advised not to enter the facility if they are having symptoms of diarrhea or vomiting.

7. Confining ill Cases

Cases should be confined to their room until 48 hours after last episodes of vomiting or diarrhea. Confining an ill resident to their room should not be done if it causes the resident undue stress or agitation and can be done without applying restraints.

Confining cases on one unit helps prevent the spread of the illness to the rest of the facility.

8. Cohorting Staff and Patients

Attempts should be made to minimize the movement of staff between floors/wings. If possible, designate staff members to look after only ill residents and other staff to look after only well residents.

9. Stopping Communal Meetings

As much as possible, restrict all residents to their units. If possible, reschedule events. As the outbreak progresses, this control measure should be evaluated on a continual basis.

10. Advise Staff and Volunteers who Work at Other Facilities

Ill staff/volunteers should be advised against working in any health care setting.

11. Education

- All staff should be educated about the existence of an outbreak.
- Provide information sessions to staff, volunteers, and family to address precautions required.
- Instruct family and visitors on the use of protective clothing, when necessary.

12. Reschedule Non-urgent Appointments

Non-urgent appointments made before the outbreak should be rescheduled.

C) What is the Admissions Policy?

1. New Admissions:

Admission of new residents to the affected unit during the outbreak is **generally not permitted**.

If required, this measure may be altered as the outbreak comes under control. Changes to this outbreak control measure should be made in consultation with your liaison from the Infectious Diseases Control Division in York Region Health Services.

2. Re-admission of Cases:

The re-admission of residents who met the case definition is **permitted** provided appropriate accommodation and care can be provided.

3. Re-admission of Non-cases:

The re-admission of residents who have not been line listed in the outbreak (i.e. are not known cases) is **generally not permitted** during an outbreak. If required, this measure may be altered as the outbreak comes under control.

Factors to assess if re-admission of non-cases is being considered include:

- The outbreak is under control;
- The resident's attending physician has agreed to the re-admission based on a review of the current health status of the resident in hospital;
- Adequate staff are available at the facility to care for the re-admitted resident;
- Appropriate accommodation is available for the returning resident;
- The patient/resident or their substitute decision-maker has been given informed consent for the return.

D) What is the Transfers Policy?

1. When a resident with a confirmed or suspected case of a notifiable communicable disease is being transferred to hospital, it is the responsibility of the Charge Nurse/delegate to inform the Emergency Medical Services (EMS), receiving hospital and next of kin, as follows:

- **Emergency Medical Services** - the Charge Nurse or delegate on duty must notify the EMS Dispatcher. Give specific information about his/her condition (e.g. Tuberculosis, MRSA). EMS has its own procedure for collection and transportation of infected cases and they will initiate the necessary protection plans from the facility to the receiving agency.

- **Receiving Hospital** - Give specific information about his/her condition (e.g. Tuberculosis, MRSA). All hospitals have their own isolation programs and the involved department will put their own programs into action, in readiness for receiving the resident.
 - **Next of Kin.**
2. Non-urgent appointments made before the outbreak should be rescheduled.
 3. Resident transfers (from anywhere in the facility) to another Long Term Care Home are NOT permitted during an outbreak.

E) What is the Visitors Policy?

1. Visitors should be advised of the potential risk of acquiring illness within the facility.
2. Ill visitors should not be permitted in the facility.
3. Notices should be placed on the door of the rooms of ill residents or in other visible locations advising all visitors to check at the nursing station before entering the rooms.
4. Complete closure of visitation is not justified, as it may cause emotional hardship to both the residents and the relatives.
5. Visitors are to be advised of the following by the nursing staff:
 - Hand sanitizers should be applied on arrival and just before leaving the resident's room;
 - Ill residents should be visited in their rooms only;
 - Visit only one resident and exit the facility immediately after the visit;
 - Visitors do not need to wear gloves or masks unless they are providing personal care to a symptomatic case;
 - During the outbreak period, food from outside sources is not recommended. However, this should also be exercised with care as not to cause emotional hardship to both the residents and the relatives.

References

- ¹ Last, J.M. (Ed.). (1995). *A dictionary of epidemiology* (3rd Ed.). New York: Oxford University Press.
- ² Public Health Branch, Ontario Ministry of Health and Long-Term Care. (Oct. 2004). *A Guide to the Control of Respiratory Infection Outbreaks in Long-Term Care Homes*.
- ³ Public Health Branch, Ontario Ministry of Health and Long-Term Care, (Oct. 2001). *A Guide to the Control of Respiratory Disease Outbreaks in Long-Term Care Facilities*. pp. 20-24.
- ⁴ Ontario Nursing Home Association. (August 1991). *An Infection Control Surveillance Protocol for Long Term Care Facilities*, p.11.
- ⁵ BC Centre for Disease Control (2003). *Managing Outbreaks of Gastroenteritis*, p.6.

Stool Collection and Delivery Procedure

The following equipment will be needed:
Gloves
Enteric outbreak kit
Test requisition form
Brown paper bag

1. Remove the bottles from the plastic bag.
 - Check to ensure the bottles are intact and not leaking.
 - Check expiry dates on the bottles. Expired bottles should not be used.
2. Complete the patient information on the main label on the bag with a ballpoint pen. The following information is required:
 - patient's name
 - date of collection
 - onset date: if known
 - outbreak number

Do not peel off the stickers on the covering label.
3. The following information must be completed on each bottle:
 - patient's name
 - date of collection
4. Have the patient deposit a stool into a clean collection pan.
5. Put on gloves.
6. Use the spoon from the green capped bottle and add 2 to 3 spoonfuls of faeces. Mix into the transport medium. Replace and tighten the cap
7. Use the spoon from the white capped bottle and add faeces up to the line indicated. Replace and tighten the cap
8. Use the spoon from the yellow capped bottle and add faeces up to the line indicated. Mix into the transport medium. Replace and tighten the cap
9. Place all bottles into the plastic bag. Seal the plastic bag by peeling off the blue strip.
10. Refrigerate immediately and contact courier to pick up the specimens for delivery to the Ontario Public Health Laboratory as soon as possible, but within 48 hours. **DO NOT FREEZE THE SPECIMENS.**
11. Fill out the test requisition form with all pertinent patient information including:
 - Patient's name
 - Long term care home address
 - York Region Health Services address

- Physician ID: (905) 940-1333
 - Fax: (905) 940-4541
 - Test(s) requested: **B02, P04 and V42**
 - Specimen type: Stool
 - Date collected
 - Reason for test: to diagnose disease
 - Clinical information
 - Comments: OB 2270- - , Attention: IDCD Inspector.
12. Complete a requisition form for each “enteric outbreak kit” and place the requisition form into the outer sleeve of the plastic bag.
13. Place the sealed enteric kit(s) in a brown bag. Label the brown bag with the following details:
- Stool Sample(s)
 - To: Public Health Laboratory
 - From: York Region Health Services
 - Outbreak number
14. Inform the Public Health Investigator that specimens have been collected.
15. Send specimens to the Ontario Public Health Laboratory (PHL) by courier, call:

TRANS-ONTARIO EXPRESS AT 416-298-1060.

Inform them of the following:

- The specimens are going to the Public Health Laboratory at 81 Resources Road (Weston), Toronto, Ontario
- Please quote our account name and number, which is:

**York Region Health Services Department
Infectious Diseases Control Division**

Account Number: YOR008

Type of Service: Car – Rush

Sample "Stop" Sign



**Enteric Outbreak Checklist
(For Institutional Use)**

- Notify York Region Health Services
 - During Business Hours (905) 895-4511, Ext. 4020
 - After Business Hours (905) 830-3375 (pager)
- Complete line listing daily and fax to York Region Health Services
 - During Business Hours (905) 940-4541
 - If the outbreak was declared during a weekend or holiday, complete line listing daily and update the on-call inspector: (905) 830-3375 (pager)
- Collect stool specimens.
- Ensure availability of control food samples for collection.
- Restrict activity of ill residents.
- Begin Outbreak Control Measures.
- Place STOP sign at all entrances.
- Consult Outbreak Management Team for Admissions, Transfers and Discharges.
- Once the outbreak is declared over, complete Enteric Outbreak Evaluation form.