

# Appendix A: Disease-Specific Chapters

**Chapter: Gastroenteritis Outbreaks in Institutions and  
Public Hospitals**

Effective: February 2019

# Gastroenteritis Outbreaks in Institutions and Public Hospitals

Communicable

Virulent

**Health Protection and Promotion Act:  
O. Reg. 135/18 (Designation of Diseases)**

## 1.0 Aetiologic Agent

Gastrointestinal illness is caused by a variety of pathogens that affect the gastrointestinal tract and is typically acquired through consuming contaminated food, or water, or contact with infected animals, environments, or people.

Gastrointestinal illness outbreaks in health care facilities are most frequently caused by viruses such as noroviruses, and rotaviruses; however, bacteria and other pathogens may cause outbreaks as well.

Note that *Clostridium difficile* Infection (CDI) outbreaks in public hospitals are a separate disease of public health significance with supporting Appendices under the *Infectious Diseases Protocol, 2018* (or as current). CDI outbreaks in other institutions are covered by the Control of Gastroenteritis Outbreaks in Long-Term Care Homes (2018, or as current) reference document.<sup>1</sup>

## 2.0 Case Definition

### 2.1 Surveillance Case Definition

Refer to [Appendix B](#) for Case Definitions.

### 2.2 Outbreak Case Definition

The outbreak case definition varies with the outbreak under investigation. Please refer to the *Infectious Diseases Protocol, 2018* (or as current) for guidance in developing an outbreak case definition as needed.

The outbreak case definitions are established to reflect the disease and circumstances of the outbreak under investigation. The outbreak case definitions should be developed for each individual outbreak based on its characteristics, reviewed during the course of the outbreak, and modified if necessary, to ensure that the majority of cases are captured by the definition. The case definitions should be created in consideration of the outbreak definitions.

Outbreak cases may be classified by levels of probability (*i.e.* confirmed and/or probable).

## 3.0 Identification

### 3.1 Clinical Presentation

The clinical presentation is dependent on aetiology; however, the most common presentation of gastroenteritis is, but is not limited to, abdominal pain, vomiting, diarrhea\* that is unusual or different for the patient/resident without other recognized aetiology, along with nausea, headache, chills, fever and/or myalgia.

### 3.2 Diagnosis

See [Appendix B](#) for diagnostic criteria relevant to the Case Definitions.

Laboratory diagnosis depends on the aetiological agent.

Clinical specimens should be collected from symptomatic cases early in the course of clinical illness to increase the likelihood of detecting a causative agent.

For institutions and public hospitals who implement a food retention policy, 200 grams of potentially hazardous food samples from each meal, frozen at or below -18°C, for 10 days can be submitted to the laboratory for testing if a bacterial pathogen is suspected.<sup>1</sup> If the causative agent of the outbreak is suspected or confirmed to be caused by norovirus, laboratory testing of food retention samples is not recommended.

For further information about human diagnostic testing, contact the Public Health Ontario Laboratories or refer to the Public Health Ontario Laboratory Services webpage: <http://www.publichealthontario.ca/en/ServicesAndTools/LaboratoryServices/Pages/default.aspx>

For more information regarding specimen collection and testing, please refer to the Public Health Inspector's Guide to Environmental Microbiology Laboratory Testing: [https://www.publichealthontario.ca/en/ServicesAndTools/LaboratoryServices/Pages/PHI\\_Guide.aspx](https://www.publichealthontario.ca/en/ServicesAndTools/LaboratoryServices/Pages/PHI_Guide.aspx)

## 4.0 Epidemiology

### 4.1 Occurrence

In Ontario, gastroenteritis outbreaks in health care facilities occur most frequently between November and May, but may occur at any time during the year.

### 4.2 Reservoir

Varies, depending on the agent; frequently humans.

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\* Diarrhea is defined as loose/watery stool that conforms to the shape of its container.

### 4.3 Modes of Transmission

Primarily transmitted through fecal-oral route. May also be transmitted from person-to-person, foodborne, waterborne, and droplet contact of vomitus (for norovirus). Transmission may also occur through contact with contaminated fomites.<sup>1</sup>

### 4.4 Incubation Period

Varies, depending on the agent.

### 4.5 Period of Communicability

Varies, depending on the agent.

### 4.6 Host Susceptibility and Resistance

All persons are susceptible.<sup>2</sup>

## 5.0 Reporting Requirements

As per Requirement #3 of the “Reporting of Infectious Diseases” section of the *Infectious Diseases Protocol, 2018* (or as current), the minimum data elements to be reported for each outbreak are specified in the following sources:

- *Ontario Regulation 569 (Reports)* under the *Health Protection and Promotion Act (HPPA)*;<sup>3</sup>
- The iPHIS User Guides published by PHO; and
- Bulletins and directives issued by PHO.

## 6.0 Prevention and Control Measures

### 6.1 Personal Prevention Measures and Infection Prevention and Control Strategies

For personal prevention measures and infection prevention and control (IPAC) strategies, please refer to:

- *Institutional/Facility Outbreak Management Protocol, 2018* (or as current);<sup>4</sup>
- *Control of Gastroenteritis Outbreaks in Long-Term Care Homes* (2018, or as current);<sup>1</sup>
- PHO’s website at [www.publichealthontario.ca](http://www.publichealthontario.ca) to search for the most up-to-date information on IPAC.

## 6.2 Management of Cases

In addition to the requirements set out in the Requirement #2 of the “Management of Infectious Diseases – Sporadic Cases” and “Investigation and Management of Infectious Diseases Outbreaks” sections of the *Infectious Diseases Protocol, 2018* (or as current), the board of health shall investigate cases to determine the source of infection. Refer to Section 5: Reporting Requirements above for relevant data to be collected during case investigation.

The board of health should also refer to the Control of Gastroenteritis Outbreaks in Long-Term Care Homes (2018, or as current).<sup>1</sup>

If the outbreak is caused by a specific disease of public health significance, (e.g., salmonellosis) refer also to the relevant disease-specific chapter.

## 6.3 Management of Contacts

Conduct surveillance of residents/patients and staff for development of symptoms.

Implement control measures for visitors in the institution or public hospital during an outbreak. For more information on management of contacts, please refer to Control of Gastroenteritis Outbreaks in Long-Term Care Homes (2018, or as current).<sup>1</sup>

## 6.4 Management of Outbreaks

Please see the *Infectious Diseases Protocol, 2018* (or as current) for the public health management of outbreaks or clusters in order to identify the source of illness, manage the outbreak and limit secondary spread.

## 7.0 References

1. Ontario, Ministry of Health and Long-Term Care. Control of Gastroenteritis Outbreaks in Long-Term Care Homes. Toronto, ON: Queen’s Printer for Ontario; 2018. Available from: [http://www.health.gov.on.ca/en/pro/programs/publichealth/oph\\_standards/reference.aspx](http://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/reference.aspx)
2. Heymann DL, editor. Control of Communicable Diseases Manual. 20 ed. Washington, D.C: American Public Health Association; 2015.
3. Health Protection and Promotion Act, R.S.O. 1990, Reg. 569, Reports, (2018). Available from: <https://www.ontario.ca/laws/regulation/900569>
4. Ontario, Ministry of Health and Long-Term Care. Institutional/Facility Outbreak Management Protocol, 2018. Toronto, ON: Queen's Printer for Ontario; 2018. Available from: [http://www.health.gov.on.ca/en/pro/programs/publichealth/oph\\_standards/protocolsguidelines.aspx](http://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/protocolsguidelines.aspx)

## 8.0 Document History

Table 1: History of Revisions

Revision Date	Document Section	Description of Revisions
April 2015	General	New template. Section 9.0 Document History added.
April 2015	1.0 Aetiologic Agent	Removal of “astroviruses, enteric adenoviruses, calciviruses and other viruses.” Addition of “and rarely other viruses.” Addition of “Note that <i>Clostridium difficile</i> Infection (CDI) outbreaks in public hospitals are covered in separate Appendices under the <i>Infectious Diseases Protocol, 2008</i> (or as current).”
April 2015	2.2 Outbreak Case Definition	Last sentence: “Cases should also be classified by levels of probability” revised to “Outbreaks should also be classified by levels of probability”.
April 2015	3.1 Clinical Presentation	Entire section revised.
April 2015	3.2 Diagnosis	Entire section revised.
April 2015	4.3 Modes of Transmission	Second sentence: “airborne” replaced with “droplet contact of vomitus (for norovirus).”
April 2015	4.6 Host Susceptibility and Resistance	Section name changed to include “Host”. Removal of “however susceptibility is greater among the elderly.”
April 2015	5.2 To the Ministry of Health and Long-Term Care (the ministry) or Public Health Ontario (PHO), as specified by the ministry	Title of the section changed from “To Public Health Division (PHD)”. Addition of “as per the integrated Public Health Information System (iPHIS) requirements”. “The disease-specific User Guides published by the Ministry, and...” replaced with “The iPHIS User Guides published by PHO; and Bulletins and directives issued by PHO.”
April 2015	6.0 Infection Prevention and	Section title changed from “Prevention and Control Measures”.

Revision Date	Document Section	Description of Revisions
	Control (IPAC) Measures	
April 2015	6.1 Personal Prevention Measures	Entire section revised.
April 2015	6.2 IPAC Strategies	Entire section revised.
April 2015	6.3 Management of Cases	Entire section revised.
April 2015	6.4 Management of Contacts	Entire section revised.
April 2015	6.5 Management of Outbreaks	<p>First paragraph, removed “For gastroenteritis outbreaks in institutions, public health works collaboratively with the staff of the institution, in particular the infection control practitioner, in order to identify the source of illness, stop the outbreak and limit secondary spread.” And replaced with “Public health units assist in the management of gastroenteritis outbreaks in institutions. However, it is ultimately the responsibility of the institution to manage the outbreak.”</p> <p>Fourth bullet, revised “prevention and control measures” to “IPAC measures”.</p>
April 2015	7.0 References	Updated.
April 2015	8.0 Additional Resources	Updated.
August 2015	1.0 Aetiologic Agent	Last sentence, addition of “however CDI outbreaks in other institutions are covered by <i>Control of Gastroenteritis Outbreaks in Long-Term Care Homes, 2013</i> (or as current)”.
April 2018	General	Updates reflect changes to the Disease of Public Health Significance list and the addition of public hospitals, effective May 1, 2018.
February 2019	General	Common text included in all Disease Specific chapters: Surveillance Case Definition, Outbreak Case Definition, Diagnosis, Reporting Requirements, Management of Cases, and Management of Outbreaks.

