

Appendix A: Disease-Specific Chapters

Chapter: Gastroenteritis, institutional outbreaks

Gastroenteritis, institutional outbreaks

- Communicable
 Virulent

**Health Protection and Promotion Act:
Ontario Regulation 558/91 – Specification of Communicable Diseases**

**Health Protection and Promotion Act:
Ontario Regulation 559/91 – Specification of Reportable Diseases**

1) Aetiologic Agent:	Outbreaks of gastrointestinal illness in institutions are most frequently caused by viruses such as noroviruses, rotaviruses, astroviruses, enteric adenoviruses, caliciviruses and other viruses. However, bacteria and other pathogens may cause outbreaks as well.
2) Case Definition:	
Surveillance Case Definition	See Appendix B
Outbreak Case Definition	<p>The outbreak case definition varies with the outbreak under investigation. Consideration should be given to the following in establishing an outbreak case definition:</p> <ol style="list-style-type: none">1. Clinical, laboratory and/or epidemiological criteria2. The time frame for occurrence3. The geographic location(s) or place(s) where cases live or became ill/exposed4. Special attributes of cases (e.g. age, underlying conditions) and/or aetiologic agent <p>Cases should also be classified by levels of probability (e.g. confirmed, probable and/or suspect).</p>
3) Identification:	
Clinical Presentation	The most common presentation of gastroenteritis is, but is not limited to, abdominal pain, vomiting and diarrhoea, along with nausea, headache, chills and myalgia.
Diagnosis	<p>See Appendix B</p> <p>Laboratory diagnosis depends on the aetiologic agent.</p> <p>When viral agents are suspected, specimens should be collected very early in the course of clinical illness.</p> <p>It is good practice for institutions to retain 200-gram ready-to-eat,</p>

	potentially hazardous food samples from each meal, frozen at or below -4°C, for 10 days. During an outbreak, food samples should not be discarded and should be submitted for testing.
4) Epidemiology:	
Occurrence	In Ontario, gastroenteritis outbreaks in institutions occur most frequently between November and May, but may occur at any time during the year.
Reservoir	Varies depending on the agent; frequently humans.
Modes of Transmission	Primarily transmitted through fecal-oral route. May also be transmitted from person-to-person, foodborne, waterborne and airborne. Transmission may also occur through contact with fomites.
Incubation Period	Varies depending on the agent
Period of Communicability	Varies depending on the agent
Susceptibility and Resistance	All persons are susceptible; however susceptibility is greater among the elderly (1).
5) Reporting Requirements:	
To local Board of Health	All suspect and confirmed gastroenteritis institutional outbreaks shall be reported to the medical officer of health by persons required to do so under the <i>Health Protection and Promotion Act R.S.O., 1990</i> .
To Public Health Division (PHD)	<p>Individual cases of gastroenteritis in institutions are not reportable. Community outbreaks of gastroenteritis are also not reportable.</p> <p>Outbreaks in institutions that are caused by Reportable Diseases (e.g. <i>salmonellosis</i>, <i>E. coli</i>, etc.) shall be reported under their respective Reportable Disease(s).</p> <p>Report only aggregate case counts for gastrointestinal outbreaks in institutions to the ministry using the integrated Public Health Information System (iPHIS), or any other method specified by the Ministry within five (5) business days of receipt of initial notification as per iPHIS Bulletin Number 17: Timely Entry of Cases (2).</p> <p>The minimum data elements to be reported for each outbreak is specified in the following sources:</p> <ul style="list-style-type: none"> • <i>Ontario Regulation 569 (Reports)</i> under the Health Protection and Promotion Act (HPPA); • The disease-specific User Guides published by the Ministry, and • Bulletins and directives issued by the Ministry.

6) Prevention and Control Measures:

Personal Prevention Measures	Proper hand washing techniques and proper use of routine practices and additional precautions are key to prevent the risk of transmission of organisms from the client to the health care provider, from the health care provider to the client, and between clients.
Infection Prevention and Control Strategies	<ul style="list-style-type: none">• Use routine practices, and additional precautions (contact precautions for all enteric diseases and droplet precautions for those diseases transmitted by droplets, for example Norovirus) as necessary to prevent transmission• Suspend communal activities• Use personal protective equipment as appropriate• Use enhanced environmental cleaning and disinfection practices
Management of Cases	<p>Cases are managed as part of the outbreak.</p> <p>Cases should be maintained on disease-specific isolation precautions for up to 48 hours after cessation of symptoms as long as it does not cause the resident undue stress and can be implemented without using restraints (in long-term care homes).</p> <p>Cohorting of confirmed and suspected cases should be implemented. Cohort nursing staff where feasible. Symptomatic staff should be off work for 48 hours after cessation of diarrhea and should receive hygiene counselling before returning to work.</p>
Management of Contacts	<p>Monitor contacts for development of symptoms.</p> <p>Restrict visitors or admissions to the institution during an outbreak.</p>
Management of Outbreaks	<p>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.</p> <p>As per this Protocol, outbreak management shall comprise of but not be limited to the following general steps:</p> <ul style="list-style-type: none">• Confirm diagnosis and verify the outbreak;• Establish an outbreak team;• Develop an outbreak case definition;• Implement prevention and control measures;• Implement and tailor communication and notification plans depending on the scope of the outbreak;• Conduct epidemiological analysis on data collected;• Conduct environmental inspections of implicated premise where applicable;• Coordinate and collect appropriate clinical specimens where applicable;• Prepare a written report, and

	<ul style="list-style-type: none"> • Declare the outbreak over in collaboration with the outbreak team.
7) References	<p>(1) Heymann D, editor. Control of communicable diseases manual. 18th ed. Washington: American Public Health Association; 2004.</p> <p>(2) Ministry of Health and Long-Term Care. Timely entry of cases. iPHIS Bulletin. 2007 May 11;17.</p>
8) Additional Resources	<p>Ministry of Health and Long Term Care. Institutional/facility outbreak prevention and control protocol. Toronto: Queen’s Printer for Ontario; 2008. Available from http://www.health.gov.on.ca/english/providers/program/pubhealth/oph_standards/ophs/progstds/protocols/institutional_facility_outbreak.pdf. (or as current)</p> <p>Ministry of Health and Long-Term Care. A guide to the control of enteric disease outbreaks in health care facilities. Toronto, ON: Queen’s Printer for Ontario; 1993. (or as current)</p> <p>Gregg MB, editor. Field epidemiology. 2nd ed. New York: Oxford University Press; 2002.</p> <p>Ministry of Health and Long-Term Care. Infectious diseases protocol. Toronto: Queen’s Printer for Ontario; 2009. Available from http://www.health.gov.on.ca/english/providers/program/pubhealth/oph_standards/ophs/infdispro.html (or as current)</p> <p><i>Health Protection and Promotion Act</i>, R.S.O. 1990, c. H.7. Available from http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_90h07_e.htm.</p>

