

Appendix A: Disease-Specific Chapters

Chapter: Respiratory Infection Outbreaks in Institutions

Revised August 2015

Respiratory Infection Outbreaks in Institutions

☒ 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

1.0 Aetiologic Agent

Respiratory infection outbreaks in institutions are caused by a variety of respiratory viruses such as influenza A and B, respiratory syncytial virus (RSV), parainfluenza, rhinovirus, human metapneumovirus, coronaviruses and adenovirus. Bacteria that occasionally cause respiratory outbreaks in institutions are *Chlamydomphila pneumoniae*, *Legionella spp.* and *Mycoplasma pneumoniae* (Atypical Pneumonia).

2.0 Case Definition

2.1 Surveillance Case Definition

[See Appendix B](#)

2.2 Outbreak Case Definition

The outbreak case definitions are established to reflect the disease and circumstances of the outbreak under investigation. The outbreak case definitions should be created in consideration of the provincial surveillance case definition. For example, confirmed outbreak cases must at a minimum meet the criteria specified for the provincial surveillance confirmed case classification. Consideration should also be given to the following when establishing outbreak case definitions:

- Clinical and/or epidemiological criteria;
- The time frame for occurrence (i.e., increase in endemic rate);
- A geographic location(s) or place(s) where cases live or became ill/exposed;
- Special attributes of cases (e.g., age, underlying conditions); and
- Outbreaks may be classified as confirmed or suspect.

For further information on outbreak case definitions for respiratory infection outbreaks in institutions, please refer to:

A Guide to the Control of Respiratory Infection Outbreaks in Long-Term Care Homes, 2014 (or as current).¹

3.0 Identification

For the following sections refer to:

A Guide to the Control of Respiratory Infection Outbreaks in Long-Term Care Homes, 2014 (or as current).¹

3.1 Clinical Presentation

These viruses often cause similar acute respiratory symptoms. Clinical evidence could include, but is not limited to, the following:

- Upper respiratory tract illness (includes common cold, pharyngitis);
- Runny nose or sneezing;
- Stuffy nose (i.e., congestion);
- Sore throat, hoarseness or difficulty swallowing;
- Dry cough;
- Swollen or tender glands in the neck (cervical lymphadenopathy);
- Fever/abnormal temperature for the resident may be present, but is not required;
- Tiredness (malaise);
- Muscle aches (myalgia);
- Loss of appetite;
- Headache; and
- Chills.

3.2 Diagnosis

[See Appendix B](#)

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>.

4.0 Epidemiology

4.1 Occurrence

Worldwide. Seasonal peaks during fall, winter and early spring.

Respiratory infection outbreaks in institutions in Ontario show a seasonal distribution similar to that seen worldwide. While there is variation from year to year, the season generally begins in September and ends in April.

Outbreaks due to certain organisms are more common during different points in the season.

Please refer to Public Health Ontario's Ontario Respiratory Virus Bulletin and Laboratory Based Respiratory Pathogen Surveillance Report and other infectious diseases reports for more information on disease trends in Ontario, available at:

<http://www.publichealthontario.ca/en/DataAndAnalytics/Pages/DataReports.aspx>.

4.2 Reservoir

Humans

4.3 Modes of Transmission

Person to person; droplet transmission as well as contact with fomites may also occur depending on causative agent.

4.4 Incubation Period

Varies, depending on the causative agent.

4.5 Period of Communicability

Varies, depending on the causative agent.

4.6 Susceptibility and Resistance

All persons are susceptible; however susceptibility is greater in the very young and the institutionalized elderly.

5.0 Reporting Requirements

5.1 To local Board of Health

Confirmed and suspected outbreaks shall be reported as soon as possible to the medical officer of health by persons required to do so under the *Health Protection and Promotion Act*, R.S.O. 1990 (HPPA).²

5.2 To the Ministry of Health and Long-Term Care (the ministry) or Public Health Ontario (PHO), as specified by the ministry

Report only outbreaks as specified in the case definition using the integrated Public Health Information System (iPHIS), or any other method specified by the ministry. The **preliminary report** of outbreaks shall be made **within one (1) business day of receipt of initial notification**. The **final outbreak report** shall be submitted **within fifteen (15) business days of the outbreak being declared over** as per iPHIS Bulletin Number 17: Timely Entry of Cases.³ Laboratory confirmed outbreak associated cases in institutions that are caused by Reportable Diseases (e.g., influenza, legionellosis) shall be reported under their respective Reportable Diseases and linked to the institutional outbreak.

The minimum data elements to be reported for each outbreak are specified in the following sources:

- *Ontario Regulation 569* (Reports) under the HPPA;^{4,2}
- The disease-specific User Guides published by PHO; and

- Bulletins and directives issued by PHO.

6.0 Infection Prevention and Control (IPAC) Measures:

6.1 Personal Prevention Measures

For this section refer also to the *Institutional/Facility Outbreak Prevention and Control Protocol, 2008* (or as current) and to *A Guide to the Control of Respiratory Infection Outbreaks in Long-Term Care Homes, 2014* (or as current).^{5, 1}

6.2 IPAC Strategies

Refer to Public Health Ontario's website at www.publichealthontario.ca to search for the most up-to-date Provincial Infectious Diseases Advisory Committee (PIDAC) best practices on IPAC. PIDAC best practice documents can be found at:

http://www.publichealthontario.ca/en/BrowseByTopic/InfectiousDiseases/PIDAC/Pages/PIDAC_Documents.aspx.

6.3 Management of Cases

Cases are managed as part of the outbreak as per this Protocol and *A Guide to the Control of Respiratory Infection Outbreaks in Long-Term Care Homes, 2014* (or as current).¹

If the outbreak is caused by a reportable disease, (e.g., influenza) refer also to the disease-specific chapter for that disease.

6.4 Management of Contacts

Contacts are managed as part of the outbreak as per this Protocol and *A Guide to the Control of Respiratory Infection Outbreaks in Long-Term Care Homes, 2014* (or as current).¹

6.5 Management of Outbreaks

Outbreaks are managed in collaboration with the institution and as per this Protocol and *A Guide to the Control of Respiratory Infection Outbreaks in Long-Term Care Homes, 2014* (or as current) as well as the *Institutional/Facility Outbreak Prevention and Control Protocol, 2008* (or as current).^{1, 5}

7.0 References

1. Ontario. Ministry of Health and Long-Term Care, Public Health Division and Long-Term Care Homes Branch. *A Guide to the control of respiratory infection outbreaks in long-term care homes* [Internet]. Toronto, ON: Queen's Printer for Ontario; 2014 [cited 2009 Feb 3]. Available from: http://www.health.gov.on.ca/en/pro/programs/publichealth/flu/docs/resp_infectn_ctrl_guide_ltc_2014_en.pdf
2. Health Protection and Promotion Act, R.S.O. 1990, c. H.7. Available from: http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_90h07_e.htm
3. Ontario. Ministry of Health and Long-Term Care. Timely entry of cases. iPHIS Bulletin. Toronto, ON: Queen's Printer for Ontario; 2014:17.

4. Reports, R.R.O. 1990, Reg. 569. Available from:
http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_900569_e.htm
5. Ontario. Ministry of Health and Long Term Care. Institutional/facility outbreak prevention and control protocol. Toronto, ON: Queen's Printer for Ontario; 2008. Available from:
http://www.health.gov.on.ca/english/providers/program/pubhealth/oph_standards/ophs_protocols/protocols/institutional_facility_outbreak.pdf

8.0 Additional Resources

Ontario Agency for Health Protection and Promotion (Public Health Ontario), Provincial Infectious Diseases Advisory Committee. Annex B: Best Practices for prevention of transmission of acute respiratory infection. 2013 revision. Annexed to: Routine practices and additional precautions in all health care settings. Toronto, ON: Queen's Printer for Ontario; 2013. Available from: http://www.publichealthontario.ca/en/eRepository/PIDAC-IPC_Annex_B_Prevention_Transmission_ARI_2013.pdf

Health Canada. Prevention and control of occupational infections in health care. An infection control guideline. Can Commun Dis Rep. 2002;28S1:1-264. Available from: <http://publications.gc.ca/collections/Collection/H12-21-3-28-1E.pdf>

9.0 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	Entire section revised.
April 2015	2.2 Outbreak Case Definition	Entire section revised.
April 2015	3.2 Diagnosis	Addition of "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 ".
April 2015	4.1 Occurrence	Addition of "fall" in first sentence. Removed "For example rhinovirus outbreaks are more common early in the season while influenza B outbreaks are more common toward the end of the season." Addition of "Please refer to Public Health Ontario's Ontario Respiratory Virus Bulletin and

Revision Date	Document Section	Description of Revisions
		Laboratory Based Respiratory Pathogen Surveillance Report and other infectious diseases reports for more information on disease trends in Ontario, available at: http://www.publichealthontario.ca/en/DataAndAnalytics/Pages/DataReports.aspx ”.
April 2015	5.1 To local Board of Health	Removed “Confirmed” from “Confirmed and suspected outbreaks shall be reported...”
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	Section title changed from “To Public Health Division”. Revised “Report only outbreaks as specified in the case definition to PHD” to “Report only outbreaks as specified in the case definition using the integrated Public Health Information System (iPHIS), or any other method specified by the ministry.”
April 2015	6.2 IPAC Strategies	Revised section title. Entire section revised.
April 2015	7.0 References	All references updated.
April 2015	8.0 Additional Resources	Section added.
August 2015	5.1 To local Board of Health	“Suspect outbreaks shall be reported...” revised to “Confirmed and suspected outbreaks shall be reported...”

