

# Appendix A: Disease-Specific Chapters

**Chapter: Respiratory Infection Outbreaks in  
Institutions and Public Hospitals**

Effective: February 2019

# Respiratory Infection Outbreaks in Institutions and Public Hospitals

Communicable

Virulent

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

## 1.0 Aetiologic Agent

Respiratory infection outbreaks in institutions and public hospitals 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 *Chlamydophila pneumoniae*, *Legionella spp.* and *Mycoplasma pneumoniae* (Atypical Pneumonia).

## 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).

For further information on outbreak case definitions for respiratory infection outbreaks in institutions, please refer to: Control of Respiratory Infection Outbreaks in Long-Term Care Homes, 2018 (or as current).<sup>1</sup>

## 3.0 Identification

For the following sections refer to: Control of Respiratory Infection Outbreaks in Long-Term Care Homes, 2018 (or as current).<sup>1</sup>

### 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/patient 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 diagnostic criteria relevant to the Case Definitions.

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 and public hospitals 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 (PHO) Ontario Respiratory Pathogen 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>.

For additional national and international epidemiological information, please refer to the Public Health Agency of Canada and the World Health Organization.

## 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 Host Susceptibility and Resistance

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

## 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 case are specified in the following:

- *Ontario Regulation 569* (Reports) under the *Health Protection and Promotion Act* (HPPA);<sup>2</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

For this section refer also to the *Institutional/Facility Outbreak Management Protocol, 2018* (or as current) and to *Control of Respiratory Infection Outbreaks in Long-Term Care Homes, 2018* (or as current).<sup>1,3</sup>

## 6.2 Infection Prevention and Control Strategies

Please refer to PHO's website at [www.publichealthontario.ca](http://www.publichealthontario.ca) to search for the most up-to-date infection prevention and control information.

## 6.3 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 recommendations included in the Control of Respiratory Infection 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, 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 *the Infectious Disease Protocol, 2018* (or as current) and recommendations included in Control of Respiratory Infection Outbreaks in Long-Term Care Homes, 2018 (or as current).<sup>1</sup>

## 6.5 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.

Further recommendations for outbreak management is outlined in Control of Respiratory Infection Outbreaks in Long-Term Care Homes 2018 (or as current) as well as the *Institutional/Facility Outbreak Management Protocol, 2018* (or as current).<sup>1,3</sup>

## 7.0 References

1. Ontario, Ministry of Health and Long-Term Care. Control of Respiratory Infection Outbreaks in Long-Term Care Homes, 2018. 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. Health Protection and Promotion Act, R.S.O. 1990, Reg. 569, Reports, (2018). Available from: <https://www.ontario.ca/laws/regulation/900569>

3. 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**

<b>Revision Date</b>	<b>Document Section</b>	<b>Description of Revisions</b>
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: <a href="http://www.publichealthontario.ca/en/ServicesAndTools/LaboratoryServices/Pages/default.aspx">http://www.publichealthontario.ca/en/ServicesAndTools/LaboratoryServices/Pages/default.aspx</a> ".
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 Laboratory Based Respiratory Pathogen Surveillance Report and other infectious diseases reports for more information on disease trends in Ontario, available at: <a href="http://www.publichealthontario.ca/en/DataAndAnalytics/Pages/DataReports.aspx">http://www.publichealthontario.ca/en/DataAndAnalytics/Pages/DataReports.aspx</a> ".
April 2015	5.1 To local Board of Health	Removed "Confirmed" from "Confirmed and suspected outbreaks shall be reported..."

<b>Revision Date</b>	<b>Document Section</b>	<b>Description of Revisions</b>
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...”
April 2018	General	Updates reflect changes to the Disease of Public Health Significance list and the addition of public hospitals.
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.

