

Appendix B: Provincial Case Definitions for Reportable Diseases

Disease: Respiratory infection outbreaks in institutions

Respiratory infection outbreaks in institutions

1.0 Provincial Reporting

Confirmed outbreaks

2.0 Type of Surveillance

Outbreak summary data

3.0 Outbreak Classification

3.1 Confirmed Outbreak Definition

Confirmed respiratory infection outbreak in a Long-Term Care Home:

- Two cases of acute respiratory tract illness within 48 hours, at least one of which must be laboratory-confirmed

OR

- Three cases of acute respiratory illness (laboratory confirmation not necessary) occurring within 48 hours in a geographic area (e.g., unit, floor)

OR

- More than two units having a case of acute respiratory tract illness within 48 hours

Confirmed influenza outbreak in a hospital:

- Two or more cases of nosocomially acquired influenza-like illness occurring within 48 hours on a specific hospital unit, with at least one case laboratory-confirmed as influenza

3.2 Suspect Outbreak Definition

Suspect respiratory infection outbreak:

- Two cases of acute respiratory tract illness occurring within 48 hours in a geographic area (e.g., unit, floor)

OR

- More than one unit having a case of acute respiratory illness within 48 hours

Suspect influenza outbreak:

- One laboratory-confirmed case of influenza

OR

- Two cases of acute respiratory tract illness occurring within 48 hours in a geographic area (e.g., unit, floor)

OR

- More than one unit having a case of acute respiratory illness within 48 hours

4.0 Laboratory Evidence

4.1 Laboratory Confirmation

Laboratory confirmation is not required to be classified as a confirmed institutional respiratory infection outbreak

4.2 Approved/Validated Tests

- Standard culture for influenza virus, respiratory syncytial virus (RSV) and rhinovirus
- Influenza, RSV, parainfluenza, adenovirus direct fluorescent antibody (DFA) antigen test
- Influenza IgG serology tests
- Nucleic acid amplification test (NAT) for influenza virus, RSV, rhinovirus/enterovirus, parainfluenza virus, adeno virus, human metapneumovirus, corona virus ribonucleic acid (RNA)
- Rapid enzyme immunoassay (EIA) or immunochromatographic (ICT) test kits for influenza virus and RSV

4.3 Indications and Limitations

- NAT primers and probes should be validated to detect the current strains of influenza, RSV, rhinovirus/enterovirus, parainfluenza virus, adeno virus, human metapneumovirus and coronavirus.
- A proportion of influenza isolates should be typed for strain identification, as appropriate, for epidemiological, public health and control purposes.
- Antigen testing for influenza virus and RSV is indicated only during the influenza season due to low positive predictive value.

5.0 Clinical Evidence

Clinically compatible signs and symptoms include but are not limited to the following:

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

6.0 ICD Code(s)

ICD 10 Code J22a

7.0 Comments

Different respiratory viruses often cause similar acute respiratory symptoms. The above case definitions are general; **each respiratory outbreak requires its own definition.** The case definition 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. Whenever there are **two cases of acute respiratory tract illness within 48 hours on one unit**, an outbreak should be suspected and tests should be done to determine the causative organism.

8.0 References

- Ministry of Health and Long-Term Care, Public Health Division. iPHIS manual. Toronto, ON: Queen's Printer for Ontario; 2005.
- Ministry of Health and Long-Term Care, Public Health Division & Long-Term Care Homes Branch. A Guide to the control of respiratory infection outbreaks in long-term care homes. Toronto, ON: Queen's Printer for Ontario; 2004.
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http://www.health.gov.on.ca/english/providers/pub/pubhealth/ltc_respoutbreak/ltc_respoutbreak.pdf.

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