Appendix B: Provincial Case Definitions for Reportable Diseases

Disease: Influenza

Revised December 2014

Ontario

Influenza

1.0 Provincial Reporting

Confirmed cases of disease

2.0 Type of Surveillance

Case-by-case

3.0 Case Classification

3.1 Confirmed Case

Clinically compatible signs and symptoms with:

- Laboratory confirmation by detection or isolation of influenza virus from appropriate clinical specimen(s) (e.g., nasopharyngeal/ throat swabs)

  OR

- Demonstration of a significant (i.e., fourfold or greater) rise in antibody titres to influenza between acute and convalescent sera[1]

  OR

- An epidemiologic link to a laboratory-confirmed case[2]

  OR

- Detection of influenza-specific ribonucleic acid (RNA)

4.0 Laboratory Evidence

4.1 Laboratory Confirmation

Any of the following will constitute a confirmed case of influenza:

- Positive influenza virus culture
- Positive for influenza virus antigen
- Significant (i.e., fourfold or greater) rise in influenza antibody titre between acute and convalescent sera
- Positive for influenza-specific RNA by nucleic acid amplification test (NAAT)

4.2 Approved/Validated Tests

- Standard culture for influenza virus
- Influenza direct or indirect fluorescent antibody (DFA or IFA) antigen test

[1] Serology is not offered for clinical testing
[2] An epidemiologic link to a laboratory-confirmed case applies to institutional respiratory infection outbreaks only

- Influenza serology tests[3]
- NAAT for influenza virus RNA
- Rapid enzyme immunoassay (EIA)/immunochromatographic (ICT) antigen test kits

4.3 Indications and Limitations

- NAAT primers and probes should be validated to detect the current strains of influenza
- A proportion of influenza isolates will be forwarded to the National Microbiology Laboratory by Public Health Ontario to be strain typed and tested for antiviral resistance, as appropriate, for epidemiological, public health and control purposes
- Rapid antigen testing is indicated only during the influenza season due to low positive predictive value

5.0 Clinical Evidence

Clinically compatible signs and symptoms are defined as influenza-like illness (ILI) and are characterized as having a temperature > 38 degrees Celsius and cough and one or more of the following: sore throat, arthralgia, myalgia or prostration. In children under 5 years of age, gastrointestinal symptoms may also be present. In patients less than 5 years or > 65 years fever may not be prominent

6.0 ICD Code(s)

6.1 ICD-10 Code(s)

J10 Influenza due to identified influenza virus
- J10.0 Influenza with pneumonia, influenza virus identified
- J10.1 Influenza with other respiratory manifestations, influenza virus identified
- J10.8 Influenza with other manifestations, influenza virus identified

6.2 ICD-9/ICD-9CM Code(s)

487 Influenza
- 487.0 Influenza with pneumonia
- 487.1 Influenza with other respiratory manifestations
- 487.8 Influenza with other manifestations

7.0 Comments

N/A

8.0 Sources

Ontario Agency for Health Protection and Promotion (Public Health Ontario), Provincial Infectious Diseases Advisory Committee. Annex B: best practices for prevention of

[3] Serology is not offered for clinical testing

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

Advisory Committee on Epidemiology; Health Canada. Case definitions for diseases under national surveillance. Can Commun Dis Rep. 2000;26 Suppl 3:i-iv, 1-122. Available from: http://publications.gc.ca/collections/Collection/H12-21-3-26-3E.pdf

9.0 Document History

Table 1: History of Revisions

Revision Date	Document Section	Description of Revisions
December 2014	General	New template. Title of Section 8.0 changed from "References" to "Sources". Section 9.0 Document History added. Acronym for nucleic acid amplification test changed from "NAT" to "NAAT".
December 2014	3.1 Confirmed Case	Second bullet: change from "…rise in complement fixation antibody titres…" to "…rise in antibody titres…" Insertion of footnote for second bullet: "Serology is not offered for clinical testing".
December 2014	4.1 Laboratory Confirmation	Third bullet: change from "Immunoglobulin G (IgG)" to "antibody".
December 2014	4.2 Approved/Validated Tests	Second bullet changed from: "Influenza direct fluorescent antibody (DFA) antigen test" to "Influenza direct or indirect fluorescent antibody (DFA or IFA) antigen test". Third bullet changed from "Influenza IgG serology tests" to "Influenza serology tests". End of fifth (last) bullet changed from "…immunoassay (EIA) test kits" to "…immunoassay (EIA)/immunochromatographic (ICT) antigen test kits".
December 2014	4.3 Indications and	Second bullet changed from "A proportion of influenza isolates should be

Revision Date	Document Section	Description of Revisions
	Limitations	typed for strain identification, as appropriate, for epidemiological, public health and control purposes" to "A proportion of influenza isolates will be forwarded to the National Microbiology Laboratory by Public Health Ontario to be strain typed and tested for antiviral resistance, as appropriate, for epidemiological, public health and control purposes". "Rapid" added to beginning of third bullet.
December 2014	8.0 Sources	Updated.