



**Long Term Care (LTC)  
Infection Prevention and Control Program**

**Surveillance: Targeted Infection Surveillance Program**

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**Operational Guideline**

**Approval Signature:**

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**1.0 PURPOSE:**

- 1.1 To assess the frequency and type of infections acquired within Long Term Care Facilities (LTCFs) in the Winnipeg Health Region in order to institute quality improvement initiatives that minimize the number of healthcare-associated infections (HAI) that occur.
- 1.2 To establish a program that assists in the detection of clusters of infection, outbreaks, and emerging trends in infection transmission to intervene as appropriate and improve the safety of care provided within the Winnipeg Health Region.
- 1.3 To ensure the surveillance program in the Winnipeg Health Region LTCFs is evidence based and meets Manitoba Health Personal Care Home Standards under the Personal Care Homes Standards Regulation of The Health Services Insurance Act C.C.S.M. c. H35.

**2.0 DEFINITIONS:**

- 2.1 **Denominator:** the number representing the total population at risk when calculating rates. It appears as the lower portion of the mathematical equation used to calculate a rate or ratio (e.g., the equation used to generate surveillance rates is patient/resident bed days (# of infections x 1000/ resident days for the quarter))
- 2.2 **Health Care Associated Infection (HAI):** Infections that are transmitted within a health care setting (also referred to as nosocomial) during the provision of health care.
- 2.3 **Immunocompromised Individuals:** Individuals whose immune mechanisms are deficient because of immunologic disorders (e.g. Human Immunodeficiency virus [HIV] infection, congenital immune deficiency syndrome, chronic diseases [e.g. diabetes mellitus, cancer, emphysema, or cardiac failure], or immunosuppressive therapy [e.g. radiation, cytotoxic chemotherapy, anti-graft rejection medication, steroids]).
- 2.4 **Incidence rate:** A measurement of new cases of infection within a population over a

given period of time. The numerator is the number of new cases detected and the denominator is the initial population at risk for developing the particular infection or event during the same period of time (e.g. # of infections x 1000/ resident days for the quarter).

- 2.5 **Nosocomial Infection:** See Health Care Associated Infection (HAI).
- 2.6 **Numerator:** The number representing events occurring in a given period of time. It appears as the upper portion of a mathematical equation used to calculate a rate or ratio. (e.g. the numerator used to generate surveillance rates is the number of infections that occur in a given surveillance period (usually monthly and/or quarterly (every 3 months)
- 2.7 **Long Term Care Facility (LTCF):** Residential facilities providing health care for persons with chronic illness and/or disability across the age spectrum. For example, personal care homes (also called nursing homes), hybrid facilities containing acute care, chronic care and personal care beds.
- 2.8 **Rate:** An expression of the frequency with which an event occurs in a defined population over a period of time.
- 2.9 **Surveillance:** The ongoing systematic collection, collation and analysis of data.
- 2.10 **Targeted Surveillance:** Surveillance that is carried out only in specific areas or is targeted at specific infections or procedures.

### 3.0 OPERATIONAL GUIDELINE:

- 3.1 There shall be an evidence informed [Targeted Surveillance](#) program for infections that is consistent throughout the [Long Term Care Facilities](#) (LTCFs) within the Winnipeg Health Region.
- 3.2 The data for [Surveillance](#) purposes shall be collected using current evidence based guidelines contained in [Targeted Surveillance](#) definitions for LTC (reverse side of Appendix A: *Infection Surveillance Report Form*).
- 3.3 The Infection Control Professional (ICP) or individual designated as the ICP in each [LTCF](#) shall be responsible for the coordination, implementation, and analysis of the site data collected for the [Targeted Surveillance](#) program.
- 3.4 The nurse/nurses who are responsible for providing care to patients/residents shall be responsible for reporting infections included in the [Targeted Surveillance](#) program as they identify them in their clinical practice using the Infection Surveillance Report Form (Appendix A).
- 3.5 Each LTCF site within the Winnipeg Health Region shall submit the rates to the Manager of the WRHA LTC Infection Prevention & Control Program on a quarterly basis. Confidential patient/resident information shall not be submitted in any format.

3.6 The WRHA LTC Infection Prevention & Control Program shall provide:

3.6.1 A database to facilitate the collation and analysis of surveillance data for each [LTCF](#) (see example Appendix B).

- The database will calculate infection rates and generate graphs upon data entry to allow for timely reporting and prompt identification of emerging trends.
- A site specific database will be customized for and distributed to each [LTCF](#).

3.6.2 Quarterly comparative report of the [Targeted Surveillance](#) rates for the Winnipeg Health Region [LTCFs](#).

3.7 Case counts are calculated monthly and [Incidence Rates](#) quarterly when data is entered into the targeted surveillance database. These rates shall be shared by the ICP/designate with site senior management and other relevant stakeholders (as determined by the site) at least quarterly.

3.8 Site management is responsible to share the rates with frontline staff.

3.9 The ICP/designate shall analyze and interpret infection surveillance data to identify quality improvement opportunities in both clinical care and infection prevention and control practices.

3.10 The [Numerator](#) for the purposes of calculating [Rates](#) for [Surveillance](#) represents the number of patients/residents who meet the definition for infection as identified in Appendix A. The [Denominator](#) represents the number of realized patient/resident days in the quarter for each unit/area of the [LTCF](#).

#### 4.0 **PROCEDURE:**

4.1 All **health care workers** shall report to the nurse responsible for the affected resident's care, in a timely fashion, changes in resident's health status that may indicate an infection.

4.2 The **nurse** or designate will be responsible for:

4.2.1 Assessing for signs and symptoms of infection (the *Infection Surveillance Report Form* (Appendix A) can be used as an assessment guide).

4.2.2 Documenting signs and symptoms of infection in the resident's Integrated Progress Notes (IPN).

4.2.3 Reporting the [HAIs](#) included in the [Targeted Surveillance](#) Program by completing the Infection Surveillance Report Form (Appendix B) and submitting it either via email or paper copy to the site ICP.

#### 4.3 The ICP/ designate will:

- 4.3.1 Receive all reports for [HAIs](#) included in the [Targeted Surveillance](#) Program and
- Validate an infection has occurred by determining if the definition has been met.
  - Verify the signs/symptoms reported have been documented in the IPN.
- 4.3.2 Ensure the data is entered into the database which will generate infection rates and a graphic representation.
- 4.3.3 Examine or analyze the data to determine patterns or trends including but not limited to:
- Types of infections.
  - Areas within the facility that may be experiencing a rise in the incidence of a certain type of infection.
  - Infections caused by a similar microorganism (potential outbreaks).
  - Infections that have occurred in a similar timeframe or associated with certain procedures/equipment.
- 4.3.4 Analysis shall be done as frequently as necessary, but at least monthly, in order to intervene as appropriate (e.g. interview staff, provide education, review policies, perform appropriate audits, and communicate to appropriate stakeholders and staff).
- 4.3.5 Submit rates calculated by the [Targeted Surveillance](#) database to the Manager of the WRHA LTC Infection Prevention & Control Program via email on a quarterly basis (by the 21<sup>st</sup> of January, April, July, October).
- 4.3.6 Monitor, record and report compliance rates for documentation of reported infections and submission of reports when an infection is suspected or confirmed using the site specific spreadsheet provided by the WRHA LTC Infection Prevention and Control program manager.
- Appendix B: *Surveillance Monthly Record Log* is an example of a tool that can be used to track the number of forms submitted and the results of documentation audits (which can be entered into the site specific spreadsheet to create rates and graphs to be used for reporting to WRHA LTC and internally in the site).
- 4.3.6 Communicate Infection rates within the site as identified in 3.6.
- 4.3.7 Present the business case for quality improvement initiatives and/or changes to clinical practice to site Senior Management and other implicated stakeholders.
- 4.3.8 As time and resources permit, review antimicrobial prescribing practices in sites where a formal antimicrobial stewardship program is not in place.

- 4.4 Site Senior **Management** (DOC, Executive Director) and frontline management/Resident Care Manager/Team Leader/designate will:
- 4.4.1 Facilitate communication of reported rates to the front line staff in collaboration with the ICP/designate.
  - 4.4.2 Support quality improvement initiatives arising out of the ICP's analysis of [Surveillance](#) data as resources permit.
- 4.5 WRHA **Manager, LTC of Infection Prevention and Control** will:
- 4.5.1 Create and distribute the customized [Surveillance](#) databases as well as compliance monitoring spreadsheets for each [LTCF](#) in the Winnipeg Health Region.
  - 4.5.2 Provide ongoing training and support for the maintenance of the [Surveillance](#) databases.
  - 4.5.3 Create and distribute reports as indicated in 3.6.
- 4.6 Additional [Surveillance](#) may be implemented either as it is needed or on an ongoing basis beyond the [Targeted Surveillance](#) program at the discretion of the facility. This may include:
- Specific types of infections, such as conjunctivitis or those caused by a particular organism that may be implicated in an outbreak.
  - Infections occurring during selected time frames.
  - Infections occurring in a selected geographic area of the facility for a given time frame.
  - Surveillance for the purposes of research (**Caution:** When research definitions do not match the evidence-informed guidelines included in the [Targeted Surveillance](#) Program, it can cause confusion. Ensure that staff understand the difference and purpose for the differences.)

## 5.0 REFERENCES:

- 5.1 Accreditation Canada, *Qmentum Infection Prevention & Control Standards*, 2010
- 5.2 Manitoba Health, Communicable Disease Control Unit, *Communicable Disease Management Protocol-Influenza*. October, 2006
- 5.3 Manitoba Health, The Health Services Insurance Act C.C.S.M. c. H35, *Personal Care Homes Standards Regulation*. 2005.
- 5.4 Manitoba Health, *Personal Care Homes Standards Visits Package; Standards for Personal Care Homes*.
- 5.5 Stone N, Muhammad SA, Calder J, Juthani-Mehta M, Lautenbach E, Loeb M, MacCannell T, Malani P, Mody L, Mylotte J, Nicolle LE, Roghmann M, Schweon SJ, Simor AE, Smith, PW. Et al. *Surveillance Definitions of Infections in Long-Term Care Facilities: Revisiting the McGeer Criteria*. Infection Control and Hospital Epidemiology; October 2012. 33, 10.
- 5.6 Meehan Arias, K (2009). *Surveillance*. In R. Carrico (Ed.), APIC text on infection control and epidemiology (3<sup>rd</sup> ed.)(pp.3-1-3-17) Washington DC: Association for Professionals in Infection Control and Epidemiology. Inc.
- 5.7 Provincial Diseases Advisory Committee (PIDAC). *Best Practices for Surveillance of Health Care Associated Infections Inpatient Resident Populations*. Ministry of Health and Long Term Care; June 2008

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