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**IV0100: Surveillance for Healthcare Associated Infections (HAI)**

**EFFECTIVE DATE:** September 2006  
**REVISED DATE:** November 2010  
**REVIEWED DATE:** October 2019

**1.0 PURPOSE**

To reduce the occurrence of healthcare associated infections across the continuum of care (acute, residential, community) and monitor the effectiveness of the Infection Prevention and Control program.

**2.0 DEFINITIONS**

**Community-Acquired Infections** – infections present or incubating at the time of admission and with no association to a recent hospitalization.

**Denominator** – the population at risk of acquiring a specific infection.

**Healthcare Associated Infections (HAIs)** – infections that are not present or incubating at the time of admission to the facility or program but are associated with admission to or a procedure performed in a healthcare facility or program.

**Surveillance** – the comprehensive ongoing systematic collection, analysis and interpretation of outcome- specific data for use in planning, implementing and evaluating healthcare practices closely integrated with the timely dissemination of this data to those who need it.

**3.0 GUIDING PRINCIPLES**

**3.1** Surveillance activities identify risk factors for infection and other adverse events, implement of risk reduction strategies and monitor the effectiveness of the interventions.

**3.2** HAIs are a major and continuing challenge in hospitals and Long-term Care homes. It is estimated that 220,000 infections are acquired in hospitals each year in Canada, resulting in 8,000 deaths.

**3.3** It is estimated that between 30% and 50% of HAIs are preventable. Therefore, an infection prevention and control program that is effective in preventing HAIs can substantially reduce healthcare costs and, more importantly, the morbidity and mortality associated with HAIs. The ultimate goal of surveillance is to have zero HAIs (while recognizing that not all HAIs are preventable).

**3.4** The use of surveillance data does not only measure clinical outcomes such as infections, but also guides performance improvement activities and demonstrates improvements in both clinical outcomes and healthcare practices.

**3.5** HAIs are expressed as a rate, (e.g.: the number of persons at risk over a particular period of time). Three elements are required to generate these HAI rates:

- the number of cases (i.e. persons developing a particular infection);
- the number of persons at risk (i.e. population at risk for development of that infection);
- the time period involved.

**3.6** It is a recommended practice to adjust rates of HAIs for patient length of stay by using the number of patient days as the denominator, rather than number of admissions or number of beds.

**3.7** It is a recommended best practice to calculate rates of device associated infection that are adjusted for duration of exposure to the device.

#### **4.0 PROCEDURE**

**4.1** Surveillance for HAIs is an Interior Health wide program that is carried out by trained Infection Prevention and Control Practitioners (ICP).

**4.2** A computerized surveillance system is in place to track potential infection cases across the continuum of care. In Acute Care settings, the system identifies potential infection cases based on predetermined HAI case definitions.

**4.3** In Long-term Care and Community Care settings, ICPs collect data based on predetermined HAI case definitions and enter the data into the computerized surveillance program.

**4.4** Standardized electronic reports are generated on a regular basis and reviewed at site specific and corporate infection control committees. Analysis and interpretation of infection data may be done with a facility's infection prevention and control committee or other advisory body to the infection control team. Information is also disseminated to additional stakeholders with the ability to change infection prevention and control practice.

#### **5.0 REFERENCES**

- 1) Ontario Agency for Health Protection and Promotion (Public Health Ontario), Provincial Infectious Diseases Advisory Committee. (PIDAC), 2014, *Best Practices for Surveillance of Healthcare Associated Infections in Patient and Resident Populations*, 3<sup>rd</sup> Edition, July 2014. <https://www.publichealthontario.ca/-/media/documents/bp-hai-surveillance.pdf?la=en> accessed on October 4, 2019
- 2) Teresa C. Horan, Mary Andrus, Margaret A. Dudeck, CDC/NHSN surveillance definition of health care–associated infection and criteria for specific types of infections in the acute care setting; *American Journal of Infection Control*; Volume 36, Issue 5, June 2008.