In-Hospital Infection and Other Patient Safety Indicators at CIHI

In recent years, there has been increasing interest in the rates of resistance to commonly used antimicrobials in the hospital setting. In response to this and requests from clients, the Canadian Institute for Health Information (CIHI) has developed the following In-Hospital Infections indicators:

- In-Hospital Enterocolitis Due to *Clostridium difficile* (*C. difficile*)
- In-Hospital Infections Due to Methicillin-Resistant *Staphylococcus aureus* (MRSA)

The In-Hospital Infections indicators measure the risk-adjusted rate of infections due to *C. difficile* or MRSA identified during a hospital stay in all acute care hospitals across Canada. CIHI engaged with clinical expert advisors across the country to develop definitions and risk-adjustment methodologies that will ensure comparability of the indicator results across acute care facilities.

Many jurisdictions have surveillance programs to capture these infections, and some report this information publicly; however, each jurisdiction has its own set of case definitions, thus hampering comparability. CIHI's In-Hospital Infections indicators are designed to complement existing surveillance programs by 1) enabling pan-Canadian reporting at the national, provincial, regional and facility levels; 2) helping facilities and jurisdictions monitor their in-hospital infections rates and allowing them to compare with their peers; and 3) enabling facilities and jurisdictions with limited capacity to monitor and report on in-hospital infections in a more efficient and less resource-intensive manner.

A number of patient safety indicators have also been developed or are in development by CIHI to help clients monitor their patient safety performance and improvement efforts (see the appendix). They include individual (stand-alone) indicators such as Obstetric Trauma as well as a global hospital harm measure that captures occurrences of harm related to health care– and medication-associated conditions, health care–associated infections, patient accidents and procedure-associated conditions.

While the majority of individual patient safety indicators may be completely or partially captured in the hospital harm measure, they are intended to be used as flags that can be monitored over time and compared across jurisdictions/facilities in order to identify targeted areas for improvement and to help identify targeted processes of care that require hospital evaluation.

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Appendix

Table 1 List of CIHI's selected patient safety performance indicators and definitions

Available to clients via Your Health System: In Depth or upon request	In development
Acute inpatient care	
• In-Hospital Hip Fracture in Elderly (65+) Patients: The rate of in-hospital hip fractures among acute care inpatients age 65 and older*, †	• Hospital harm measure: The rate of hospitalizations with at least 1 occurrence of unintended harm during a hospital stay†
• In-Hospital Sepsis: The rate of sepsis that is identified after admission*	• In-Hospital Enterocolitis Due to Clostridium difficile (C. difficile): The rate of C. difficile infections identified during a hospital stay*
• Nursing-Sensitive Adverse Events for Medical Patients: The rate of nursing-sensitive adverse events (urinary tract infections [UTIs], pressure ulcers, in-hospital fractures and pneumonia) for all medical patients*, †	• In-Hospital Infections Due to Methicillin-Resistant Staphylococcus aureus (MRSA): The rate of MRSA infections identified during a hospital stay*
• Nursing-Sensitive Adverse Events for Surgical Patients: The rate of nursing-sensitive adverse events (UTIs, pressure ulcers, in-hospital fractures and pneumonia) for all surgical patients*, †	• Hospitalized Surgical Site Infections (SSIs): the rate of hospitalized SSIs occurring within 30 or 90 days after specific surgical procedures*
• Obstetric Trauma (With Instrument): The rate of obstetric trauma (third-degree lacerations or greater in severity) for instrument-assisted vaginal deliveries*	
• Obstetric Trauma: Vaginal Delivery Without Instrument: The rate of obstetric trauma (third-degree lacerations or greater in severity) for vaginal deliveries without instrument assistance*	
Other sectors of care	
• Potentially Inappropriate Medication Prescribed to Seniors: The rate of seniors who take a medication identified as potentially inappropriate†	Not applicable
• Falls in the Last 30 Days in Long-Term Care: The percentage of residents who fell in the last 30 days†	
• Worsened Pressure Ulcer in Long-Term Care: The percentage of residents whose stage 2 to 4 pressure ulcer worsened†	

Notes

* Individual (stand-alone) patient safety indicators include cases completely or partially captured by the hospital harm measure. Where possible, case definitions and selections were aligned between the hospital harm measure and the individual patient safety indicator. All indicators were/are developed in close consultation with experts in the field.

† Some Canadian jurisdictions are not included or are partially included because of differences in data collection and data availability.