

Hospital-associated clostridium difficile infections (CDI) rate

Resource for Indicator Standards (RIS)
Health Analytics Branch, Ministry of Health and Long-Term Care

Indicator description

RIS indicator name

Hospital-associated clostridium difficile infection (CDI) rate

Other names for this indicator

- Clostridium difficile-associated disease (CDAD) infection rate
- Rate of hospital-acquired clostridium difficile infections
- Clostridium difficile infection (CDI)

Indicator description

A measure of the incidence of disease and is the number of hospital-acquired CDI cases per 1,000 patient days.

Accountability agreement(s) or ministry initiative(s) the indicator supports

- Hospital Sector Accountability Agreement (HSAA), 2017-2018
- Patient Safety Public Reporting
- The Quarterly

Numerator

Data source

Self-Reporting Initiative (SRI) (June 2012 to present), and Web-Enabled Reporting System (WERS) (2008 to March 2012), Ontario Ministry of Health and Long-Term Care (MOHLTC)

Inclusion/exclusion criteria

Includes:

1. All publicly funded hospitals;
2. Inpatient beds;

3. Laboratory-confirmed CDI cases (i.e. confirmation of a positive toxin assay (A/B) for *Clostridium difficile* together with diarrhea OR visualization of pseudomembranes on sigmoidoscopy or colonoscopy, or histological/pathological diagnosis of pseudomembranous colitis);
4. New nosocomial cases associated with the reporting facility, where the infection was not present on admission (i.e., onset of symptoms > 72 hours after admission) or the infection was present at the time of admission but was related to a previous admission to the same facility within the last 4 weeks and the patient has not had CDI in the past 8 weeks.

Excludes:

1. Patients less than 1 year of age;
2. Long-term care (LTC) beds located in a separate facility (i.e. LTC/chronic beds not located in hospital acute/inpatient units).

Note: Other inclusion/exclusion criteria may exist depending on any variables used for stratification.

Calculation

Steps:

1. Sum the total number of hospital-acquired CDI cases.
2. Multiple by 1,000.

Denominator

Data source

Self-Reporting Initiative (SRI) (June 2012 to present), and Web-Enabled Reporting System (WERS) (2008 to March 2012), MOHLTC

Inclusion/exclusion criteria

Includes:

1. All publicly funded hospitals;
2. Inpatient beds.

Excludes:

1. Patients less than 1 year of age;
2. Long-term care beds located in a separate facility (i.e. LTC/chronic beds not located in hospital acute/inpatient units).

Calculation

Steps:

1. Sum the total number of patient days for the reporting period.

Timing and geography

Timing/frequency of release

How often and when data are being released (e.g., be as specific as possible...data are released annually in mid-May)

Data are reported monthly and available by the 15th of the following month. Data may be aggregated across reporting periods to generate more stable rates.

Trending

Years available for trending

Data are available from September 2008.

Levels of comparability

Levels of geography for comparison

Data are available at provincial, LHIN and hospital levels.

Additional information

Limitations

Specific limitations

Data are self-reported by hospital.

No individual patient data are available, therefore indicator cannot be broken down by age, gender, income or education.

Comments

Additional information regarding the calculation, interpretation, data source, etc.

Since CDI is expected to fluctuate seasonally, baseline data should include 1 year's worth of data.

Hospitals can vary considerably by size, populations served and overall patient volumes. As such, trending and comparisons are most valid within hospital type (e.g. small, large community, acute teaching, chronic care and rehab and mental health).

Hospital CDI rates can fluctuate significantly from one reporting period to another for a variety of reasons. For example, a small hospital with relatively few patient days may see its rates vary dramatically based on one or two cases in any given month, compared to a larger institution. These types of fluctuations may level out over a longer period of time.

Effective December 2012, patient safety indicator results, as well as other patient safety information, are available on Health Quality Ontario's (HQO) website.

References

Provide URLs of any key references (e.g., Diabetes in Canada, HTTP:// ...)

1. [Health Quality Ontario's Patient Safety Website](#)

Contact information

For more information about this indicator, please contact RIS@ontario.ca.

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2012-12-10

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