

## APPENDIX “A”

### ***Clostridium difficile* Associated Disease (CDAD) Infection Rate**

#### **Case Definition<sup>1</sup>:**

1. Laboratory confirmation of a positive toxin assay (A/B) for *C. difficile* together with diarrhea  
OR
2. Visualization of pseudomembranes on sigmoidoscopy or colonoscopy, or histological/pathological diagnosis of pseudomembranous colitis.

Diarrhea is defined as:

- loose/watery bowel movements (conform to the shape of the container), and
- the bowel movements are unusual or different for the patient, and
- there is no other recognized etiology for the diarrhea (for example, laxative use)

#### a) New nosocomial case associated with the reporting facility

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 case has not had CDAD in the past 8 weeks.

#### b) New nosocomial case associated with other health care facility

The infection was present on admission (i.e., onset of symptoms < 72 hours after admission) and the patient was exposed to another health care facility (including LTC) other than the reporting facility within the last 4 weeks and the case has not had CDAD in the past 8 weeks.

#### c) New case associated with a source other than a health care facility or unknown/indeterminate source

The infection was present on admission (i.e., onset of symptoms < 72 hours after admission) and the patient was not exposed to any health care facility (including LTC) within the last 4 weeks or the source of infection cannot be determined and the case has not had CDAD in the past 8 weeks.

#### **Method of calculation:**

The calculation of the CDAD rate for the reporting period is:

$$\text{CDAD rate} = \frac{\text{Number of new nosocomial cases associated with reporting facility}}{\text{Number of patient days}} * 1,000$$

The **numerator** is the total number of new nosocomial cases in the reporting period among patients 1 year or older associated with the reporting facility.

The **denominator** is the total number of patient days spent in-hospital for a reporting period, excluding the patient days for patients less than 1 year of age.

Data are aggregated for monthly administrative reporting periods identified in section 'Reporting' below.

#### **Rationale<sup>2</sup>:**

- Since 2000 there has been an increase in the rates of CDAD in health care settings. Many of these outbreaks are associated with the appearance of an epidemic strain of *C. difficile*.
- Outbreaks have been experienced in Europe, the US and in Canada (Quebec).
- The increase in CDAD has resulted in significant additional costs to the health care system.

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#### **Data capture:**

Data will be collected directly from Ontario hospitals using the Web-enabled Reporting System (WERS).

#### **Reporting:**

##### Timeframe:

Period 1 represents the initial reporting timeframe and begins August 1, 2008. Timeframes for subsequent monthly reporting periods are outlined below.

Administrative periods for aggregating and reporting data are defined as:

<u>Period</u>	<u>Period end date</u>	<u>WERS reporting date</u>	<u>Public website reporting date</u>
1	31-Aug-08	15-Sep-08	30-Sep-08
2	30-Sep-08	15-Oct-08	31-Oct-08
3	31-Oct-08	15-Nov-08	30-Nov-08
4	30-Nov-08	15-Dec-08	31-Dec-08
5	31-Dec-08	15-Jan-09	31-Jan-09

... Etc.

##### Public website reporting:

At the end of each month hospitals will report the previous month's data on their website by hospital site including;

- (i) the number of new nosocomial CDAD cases **totalling 10 or more** associated with that hospital site, and
- (ii) the nosocomial CDAD rate as calculated above.

If (i) above is less than 10 cases then hospitals should post “< 10 cases” as their result.

##### MOHLTC WERS reporting:

By the 15<sup>th</sup> of each month hospitals will report the previous month's data to the MOHLTC using WERS. These data include among other administrative data such as the facility unique identifier:

- o All cases, including:
  - a. cases associated with the reporting facility (i.e. the numerator for the rate calculation),
  - b. cases associated with other health care facilities, and
  - c. cases associated with a source other than a health care facility or unknown/indeterminate source.
- o Patient days within the reporting facility (i.e. denominator for the rate calculation), and
- o The calculated CDAD rate.

##### Reporting eligibility:

- All public hospital sites
- Inpatient data

##### References:

1. Ministry of Health and Long-Term Care, RICN Training Session, July 21, 2008. The Sutton Place Hotel, Toronto, ON.
2. Best Practices Document for the Management of *Clostridium difficile* in all health care settings. November 2007. Ministry of Health and Long-term Care/Provincial Infectious Diseases Advisory Committee (PIDAC), Toronto, Canada.