



CLOSTRIDIUM DIFFICILE (C. DIFFICILE)

The C. difficile bacterium can be found almost anywhere in the environment for example in soil, water and on most surfaces. It is one of the bacteria that can be commonly found in the gastrointestinal tract of healthy babies, young children and some adults. The bacteria can be found in hospitals, long-term care facilities and child care facility environments.

C. difficile is kept in check by the normal, 'good' bacterial population of the intestine. However, when antibiotics kill the 'good' bacteria in the intestine, the C. difficile bacterium can grow out of control. As the C. difficile grows, it produces toxins which can damage the bowel and may cause watery diarrhea, fever and abdominal pain and tenderness. Certain people are at increased risk for acquiring C. difficile. These risk-factors include a history of antibiotic usage, prolonged hospitalization, increased age and serious underlying illness.

Rates of Hospital Acquired C. difficile Infections at HHS

	2010	2011											
Georgetown Hospital	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Cases	0	0	0	0	0	0	1	1	0	0	1	0	2
Rate	0.00	0.00	0.00	0.00	0.00	0.00	0.66	0.72	0.00	0.00	0.68	0.00	1.37
Outbreak Designation	No	No	No	No	No	No	No	No	No	No	No	No	No

	2010	2011											
Milton District Hospital	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Cases	0	0	0	0	0	2	0	0	0	1	5	2	1
Rate	0.00	0.00	0.00	0.00	0.00	1.06	0.00	0.00	0.00	0.58	2.58	1.12	0.54
Outbreak Designation	No	No	No	No	No	No	No	No	No	No	No	No	No

	2010	2011											
Oakville-Trafalgar Memorial Hospital	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Cases	6	3	4	5	5	12	5	8	5	3	6	3	8
Rate	0.59	0.29	0.42	0.51	0.51	1.20	0.53	0.85	0.56	0.34	0.64	0.34	0.92
Outbreak Designation	No	No	No	No	No	No	No	No	No	No	No	No	No



How is HHS working to keep C.difficile rates low?

While *C. difficile* rates at HHS have improved since 2008, we continue to track our infection rates, investigate each case and regularly review the measures in place to reduce the transmission of *C. difficile* within our hospital. Our current measures to prevent this disease include the following:

- Regular meetings of a multi-disciplinary *C. difficile* committee with representation from the Halton Region Public Health Department
- An active infection prevention and control surveillance program
- Aggressive environmental cleaning processes using sporicidal cleaning agents, microfibre cloths, specialized isolation room cleaning and environmental cleaning audits
- Multiple education sessions for all staff and physicians on the importance of early diagnosis and treatment of this infection
- Enhanced waste disposal process including the installation of automated waste disposal systems on selected medical units and the Emergency Department at OTMH to reduce the potential for transmission
- Addition of new isolation carts for all HHS hospitals including patient-specific dedicated equipment
- A wide range of communication tools to provide education for visitors and patients regarding the disease and hospital control measures
- A proactive Antibiotic Stewardship Program
- A comprehensive HHS Hand Hygiene Program including a widespread use of Hand Hygiene dispensers, healthcare provider *Just Clean Your Hands* educational program and regular monitoring (hand hygiene audits)
- Following the most current Provincial Infectious Diseases Advisory Committee's Guidelines to implement best practices
- Collaboration with the Ministry of Health, Halton Public Health and the Mississauga Halton Local Health Integration Network to develop a proactive surveillance auditing strategy, implement best practices for environmental cleaning and further antibiotic stewardship efforts.

Cases

The number of new hospital acquired *C. difficile* infections will be reported on a monthly basis.

Infection Rate per 1,000 Patient Days

The *C. difficile* infection rate is calculated as a rate per 1,000 patient days. The total patient days represents the sum of the number of days during which services were provided to all inpatients, over one year of age, during the given time period.

Rates in Smaller Facilities

The smaller the facility, the greater the rates will vary — this is because a change in even one case in a small facility will cause the rate to go up or down considerably.

Target Rate

The target rate is not currently available but it is anticipated that this will be established by the MOHLTC for hospitals of comparable size in the near future.