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Preventing and Controlling *Clostridium difficile* Infections: An Implementation Checklist

Introduction

Clostridium difficile infection (CDI) is the most frequent cause of healthcare associated infectious diarrhea. CDI presents as a spectrum of disease ranging from diarrhea to severe bowel complications that may result in death. Recent reports have highlighted the presence of a more virulent strain of *C. difficile* that poses a particular risk to the elderly.

Purpose

This document provides a guide to the infection prevention and control and operational measures that should be implemented to not only decrease cases of healthcare associated CDI, but to minimize the risk of complications. While the document is organized by environmental, administrative, patient and individual measures to control CDI, an important principle is that the prevention and management of CDI requires a coordinated and consistent multidisciplinary organizational approach. Change management, resources and strategies to ensure sustainability should be a part of the control measures.

Strategies Required

1. *Environmental controls*

- ☐ Twice daily cleaning of all CDI patient rooms using the recommended agents and procedures in the PICNet Toolkit (http://picnetbc.ca/CDI_Toolkit.htm) and/or the Ontario Provincial Infectious Disease Advisory Committee's Best Practices for Environmental Cleaning for Prevention and Control of Infections (http://www.health.gov.on.ca/english/providers/program/infectious/diseases/ic_enviro_clean.html)
- ☐ Enhanced cleaning when the patient is removed from isolation precautions (48 to 72 hours after diarrhea has resolved) as well as upon discharge.
- ☐ Decluttering initiatives to facilitate thorough cleaning of surfaces, and separation of clean and dirty items and equipment.
- ☐ Regular cleaning and inspection of commodes for cleanliness and integrity of surfaces.
- ☐ Labelling of patient equipment to provide an easy indicator of what is clean and what is dirty
- ☐ Clear separation of clean and dirty areas in utility rooms with minimal possibility of cross contamination.
- ☐ Removal of spray hoses on patient toilets.
- ☐ Audits of cleaning to include a) process reviews, and b) audits of cleaning efficacy (e.g. UV light, qualitative or quantitative protein indicators),
- ☐ Assessment of the effectiveness of patient waste systems (e.g. macerators, bedpan disinfectors) to include: a) user compliance with appropriate loading and use, b) proper functioning through regular maintenance schedule and c) visual inspection of cleaned items.

2. *Administrative controls*

- ☐ A method (e.g. gastroenteritis algorithm) to immediately identify and isolate patients with potentially infectious diarrhea even prior to a diagnosis being made. If automated systems are used, an electronic alert/flag that is sent daily to Infection Control is suggested.
- ☐ Early notification to Infection Control of any suspected cases of gastroenteritis or CDI.
- ☐ Readily accessible Gastroenteritis and/or CDI toolkits that assist any healthcare worker in a) placing patients on isolation, b) using appropriate personal protective equipment, c) providing education on the disease and its prevention and management, and d) providing appropriate signage and instructions for posting. Ideally, these should be located on the facility intranet. If an automated Order Entry system is used, a flag that links the order for *C. difficile* to the appropriate intranet location of the toolkit is advised.
- ☐ Regular and ongoing review of all cleaning audits by persons external to the audit itself.
- ☐ Use of clinical guidelines for CDI management. Ideally, these guidelines should be available on the facility intranet. The laboratory information system should also link to the clinical guidelines whenever a positive laboratory results is posted; or direction be included on the laboratory report.
- ☐ Regular review of patients with CDI by Pharmacy and clinicians to ensure compliance with the clinical guidelines (this includes appropriate anti-CDI antimicrobials, discontinuation of unnecessary antibiotics, motility agents and proton pump inhibitors and daily monitoring/examination of the patient for complications). Reasons for deviation from accepted practice should be documented in the chart.
- ☐ CDI surveillance using PICNet BC methodology with weekly reporting of results to units if incidence or outbreaks increase, with summary reports to senior administration. Routine monthly reports of CDI activity to units. Interventions by the units to address issues related to CDI should be documented.
- ☐ Surveillance of hand hygiene compliance using provincial or national accepted methodologies with regular reporting to the units and senior administration as above.

3. *Patient Specific Controls*

- ☐ Compliance with the principles of <u>dedicated</u> patient personal care items (e.g. pericare items, commodes).
- ☐ Cleaning of shared equipment between patients.
- ☐ Decrease patient room moves.
- ☐ Providing patient with means to clean hands frequently throughout the day, and specifically after toileting and before meals.
- ☐ Maintaining a clean and clutter free work environment. Cleaning of all tabletop surfaces immediately after direct care is provided (e.g. bathing, pericare).
- ☐ Removing of personal waste, urinals, and bedpans from the patient environment immediately after use.
- ☐ Early specimen collection for any suspected cases of gastroenteritis or CDI.
- ☐ Early treatment for highly suspected or confirmed symptomatic infection and aggressive treatment for severe/life threatening cases.
- ☐ Patient chart documentation to include date and type of precautions implemented and when discontinued, as well as inclusion of a Stool Chart.
- ☐ Education of the patient and family, emphasizing how CDI is transmitted and emphasizing hand hygiene.

4. Individual Health Care Worker Controls

- ☐ Use readily available educational materials or attend in-services.
- ☐ Compliance with appropriate personal protective equipment for isolation.
- ☐ Compliance with hand hygiene protocols.

Summary

Management, medical and infection control experts, and front-line staff must work together to decrease the patient impact of CDI. The strategies noted above can be the basis for tailored facility-based checklists that responsible multidisciplinary teams can use to guide province-wide best practices.