**Combating Clostridium Difficile Infection**

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**Problem**

Concerning Increase in hospital acquired *C. difficile* infection

Infection rate: 2.6 /10,000 inpatient days

- **63** Hospital Acquired *C. difficile* cases from July 2015- June 2016
- **6** Deaths related to *C. difficile* from July 2015- June 2016

The North Zone of Alberta Health Services experienced an increase in the rate of Hospital Acquired *C. difficile* infection (CDI) in the fall of 2015. Furthermore, unusually high rates of CDI attributable mortality were noted.

**Methods**

A Patient Safety Review was completed using a systems analysis methodology to identify factors and processes that may have contributed to the adverse event.

Following System Issues were identified:
- Environmental Services Processes
- Commode cleaning
- Antimicrobial stewardship
- Outbreak management
- Facility communication
- Cleaning and disinfection of reusable equipment
- Management of patients with CDI
- Communication with patients and family members

The Infection Prevention and Control program developed the following Tools and Strategies:

- **Tiered Management Documents** clearly identified the best practice measures to be taken by each member of the healthcare team.

- **The Pre-Printed Care Order Set** provided evidence based guidelines to the prescriber regarding case severity classification, antimicrobial stewardship and treatment.

- **The Patient Follow up Algorithm** outlines the process used by Infection Control Practitioners (ICPs) to engage with the care team and to provide guidance on patient management.

**Achievement**

Significant Decrease in hospital acquired *C. difficile* infection

Infection rate: 1.5/10,000 inpatient days, observed during the first year of implementing the new tools and strategies

- **39** Hospital Acquired *C. difficile* cases from July 2016- June 2017
- **1** Death related to *C. difficile* from July 2016- June 2017

**Lessons Learned**

- Adopting an **Interactive Approach** with best practice guidelines and clearly identified responsibilities reduced transmission, promoted patient safety and improved outcome.

- The implementation of the new tools required the involvement of all **Stake Holders**, including Site Leadership, Environmental Services, Frontline Staff, Pharmacists, Physicians and ICPs.

- Regular **Interaction and Follow up** by ICPs was essential to ensure the effective implementation of the new tools.

- Providing **Timely Surveillance** reports to site leadership and frontline staff was crucial in order to obtain a sustained improvement.