Quality Improvement Project: Reducing Hospital-acquired CDI Using a Multi-disciplinary Approach

Podium Presentation

Mary Shanks, MSN, RN, CIC, Jessica Woodruff, BSN, RN, CCRN, Adam Haslam, MHA

Background

Clostridium difficile is estimated to cause more than 453,000 infections and 29,300 deaths annually in the United States (NEJM, 2015). Symptoms of *Clostridium difficile* infections (CDI) may range from diarrhea to life-threatening inflammation of the colon. Usually occurring after the use of antibiotics, CDI commonly affects individuals who have stayed in a hospital or long-term healthcare facility.

For hospitals, positive test results for C diff have been reportable in Oregon since 2012, and to CMS since 2013. Many facilities use internal rates as a Quality Measure.

Clostridium difficile Definitions (CDC) LabID Event

1. Community-Onset: collected as outpatient or inpatient 3 or less days post admit. Day 1,2 or 3 with day 1 being admission.

2. Community-Onset Healthcare facility –associated: collected as outpatient less than 4 weeks post discharge. (not included)

3. Healthcare Facility Onset: Positive lab test collected after day 3.

Call to action !!

Early Efforts 2014-15

Focus on lab testing to rule in or out.

IT tool- BPA pop-up when diarrhea documented, MD order set for testing

Review of cases revealed:

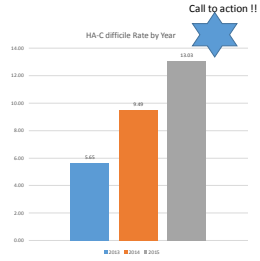
Any/all loose stools sent:

- GI prep
- Laxatives
- Single episodes of diarrhea

This approach lead to over-testing

- Also- missed opportunities- collected day 4 or later when s/s present earlier in admission

Needed to refine testing criteria to avoid false positive cases and promote timely collection



2015-16 QI Efforts: Multidisciplinary Approach

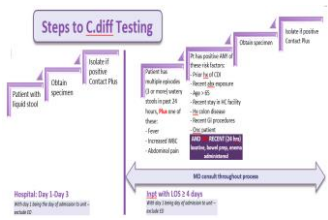
IP/ Nursing/Informatics:

Reduce unnecessary testing
- Steps to C diff testing- placed in every BR
- Changes in BPA

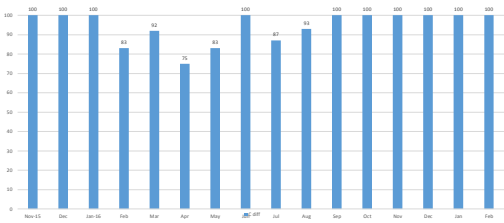
Improve timeliness of testing
- Specimen collection equipment placed in every pt bathroom

Infection Prevention:
- Daily rounding high risk patients
- Share data with staff- look for opportunities to improve
- Observation of isolation and hand hygiene practices

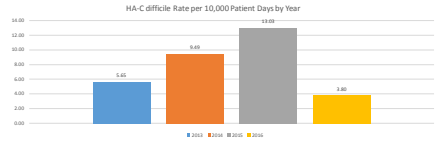
EVS/IP/Administration:
- Obtained funding for purchase UV disinfection system- 2 units
- Tested and implemented new sporicidal disinfectant for environmental surfaces- housewide
- Develop program to UV disinfect every Contact Isolation room at time of patient discharge
- Monitor effectiveness of cleaning



EVS UV Disinfection Rate: C diff isolation rooms Nov 2015-Feb 2017



Infection Prevention + Nursing+ Informatics + EVS+ Administration + Antibiotic Stewardship Teamwork.



C difficile Best Practice Alert (BPA)- triggered by documentation of diarrhea or loose stool in I&O fields