Background
Annually, there are 500,000 *Clostridium difficile* (CDI) cases and 15,000 related deaths in the United States.
- UC Davis Health (UCDH), a 625 bed academic acute care hospital, exceeded internal and national hospital-onset CDI (HO-CDI) benchmarks.
- In 2013 there was no national standardized target.
- 2015: National Healthcare Safety Network (NHSN) established Standardized Infection Ratio (SIR) goal of 1.0 for HO-CDI.
- UCDH multi-disciplinary team developed an original CDI prevention bundle combining innovative and evidence based strategies to combat CDI.
- UCDH team has sustained significant reduction in HO-CDI that has evolved over a period of 5 years.

Purpose
Reduce and sustain HO-CDI in our UCDH acute care hospital to a SIR less than 1.0 to improve and save lives.

**PICO Question**
In the academic hospital setting, can the implementation of a multi-pronged innovative and evidence-based CDI prevention bundle decrease and maintain HO-CDI below the SIR?

**Design & Methods**
2013-14: We launched an innovative quality improvement project designed to identify and isolate patients with asymptomatic *C. difficile* colonization. These “carriers” are a known reservoir of CDI transmission.

While a 20% reduction in HO-CDI was achieved, stakeholders agreed there was more work to be done. With full administrative support, a multi-disciplinary team was chartered in 2017 to “go back to the drawing board,” identify gaps in care, and develop a plan of action.

**Implementation Plan**
- **Identify practice gaps:**
  - Injudicious use of Antimicrobials
  - Inappropriate Diagnostic Testing
  - Inconsistent Infection Prevention Practices
  - Ineffective Environmental Disinfection Practices

**Develop strategies:**
- Innovative
  - Screening for Carriers
  - isolation/ASP for Carriers
- Evidence-Based
  - Antimicrobial Stewardship
  - Diagnostic Stewardship
  - Hospital C.DI Bundling
  - Environmental Disinfection bundle practices

**Outcomes**
- **Bundle for Prevention of Hospital Onset C. difficile**
- **CDI Work Order**
- **ASP, MIPS, NDNAC**

**Conclusions**
- Combining evidence-based approaches with cutting edge strategies has led to a desirable and sustainable outcome.
- Once all bundle elements were fully implemented, our HO-CDI rate and SIR decreased dramatically.
- We have met and sustained our improvement goals for the past seven quarters.
- Beautiful job by our staff of educating our patients with an emphasis on patient safety and protection.
- Our team effort, which involved nearly every hospital department, could not have succeeded without the unwavering support of our administration.
- Vital role of antimicrobial and diagnostic stewardship.
- Home grown EMR tools led to faster, more effective tracking and intervening.
- When we leverage administrative backing and break down organizational silos to effect change, our patients reap the benefit in the form of lives improved and saved.

**References**

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