Background. It is essential to recognize the true burden of community-onset (CO) *Clostridium difficile* infections (CDI) in hospital. Not only because it prevents late diagnosis of CO-CDI as being classified as a hospital-onset (HO) event, but also in part secondary to no longer diagnosing patients who actually had CDI. This could have significant consequences for clinical care and the reporting of hospital-acquired infections.

**Disclosures.** All authors: No reported disclosures.

530. The Perfect Storm for Improved Standardized Infection Ratio (SIR)—Recognizing More Community-onset *Clostridium difficile* Infections Increases the Expected Number of *C. difficile* Cases While Also Helping to Decrease the Actual Observed Number of Hospital Onset *C. difficile* Cases

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**Session:** 59. Healthcare Epidemiology: Updates in *C. difficile*

**Thursday, October 4, 2018: 12:30 PM**

**Background.** It is essential to recognize the true burden of community-onset (CO) *C. difficile* infection (CDI) in hospital, not only because it prevents late recognition of CO CDI as being classified as a hospital-onset (HO) event, but also to assure appropriate contact precautions and therapeutic measures are deployed in a timely fashion. We recognized that our timely diagnosis of CO-CDI was suboptimal to assure appropriate contact precautions and therapeutic measures are deployed in a timely fashion. We recognized that our timely diagnosis of CO-CDI was suboptimal to assure appropriate contact precautions and therapeutic measures are deployed in a timely fashion. We recognized that the use of the CGI panel for CDI testing decreased 47%, from 358 to 188 tests per month (Figure 1). CDI rates decreased 39% in 1 year (from 141 to 83), reducing the rate of infection below expected (Figure 2). Despite improvement, 40–60% of CDI testing still occurs during laxative use. ES staffing rates were associated with 5.2% of CDI rate changes (P < 0.05); adequate staffing reduced CDI rates 44% (Figure 3).

**Conclusion.** Implementation of a new EMR brought to light over-diagnosis of hospital-acquired CDI, resulting in unnecessary isolation and treatment of patients without significant illness. Inadequate ES staffing correlates with increased CDI rates. These factors also contribute to vulnerability to CMS Hospital-Acquired Condition (HAC) penalties. Revising laboratory testing and laxative EMR orders is laborious but significantly reduces inappropriate testing. It is essential to have senior leadership endorsement to marshal quality improvement and EMR resources.

**Figures.**

| Figure 1. Number of *C. difficile* Tests Performed |
|--------------------------------------------------|
| **Negative** | **Positive** |
| [Image 62x68 to 276x227] |

| Figure 2. *C. difficile* Rates Associated with Changes in Epic Hospital-Associated CDI |
|---------------------------------|
| [Image 331x242 to 521x382] |
532. Recurrent *C. difficile* in Children: Not Easy to Cure

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**Background.** Little is known about the clinical characteristics and appropriate treatment of children with repeated *C. difficile* infections (rCDI). Current IDSA treatment recommendations for rCDI include oral vancomycin (VAN) or metronidazole (MTZ) based on weak/low-quality evidence.

**Methods.** We performed a retrospective chart review of children hospitalized at CHAM with rCDI from September 2008 to October 2017. This cohort was extracted using ICD 9 or 10 codes from the electronic health record. Subsequent full chart review was performed to identify patients with rCDI, which was defined as symptomatic diarrhea in the context of repeat positive *C. difficile* toxin assay and diarrhea. Recurrence (recr), relapse (rspd), and cure with relapse (CWR) were defined based on time to new CDI >14–60, ≤365, and >365 days, respectively. Global cure (GC) was defined as the absence of rCDI up to April 2018. Symptoms severity was graded based on the presence of WBC >12 or <2 k/μL, elevated creatinine adjusted by age, and serum albumin <3 mg/dL. Fisher’s exact, χ2, Mann–Whitney were used for analyses.

**Results.** We identified 28 children with rCDI (12 males and 16 females) with an average age of 9 ± 6 years. The threemost common diseases associated with rCDI were absence of rCDI up to April 2018. Symptoms severity was graded based on the presence of WBC >12 or <2 k/μL, elevated creatinine adjusted by age, and serum albumin <3 mg/dL. Fisher’s exact, χ2, Mann–Whitney were used for analyses.

**Discussion.** Multiple rCDI occurred in a significant proportion of children with relatively poor clinical response. MTZ was disproportionately used in the treatment of rCDI. The use of NTZ appears to be associated with a high rate of GC although our numbers were very small. Additional multi-site study is indicated to determine the optimal treatment of children with rCDI.

**Disclosures.** All authors: No reported disclosures.