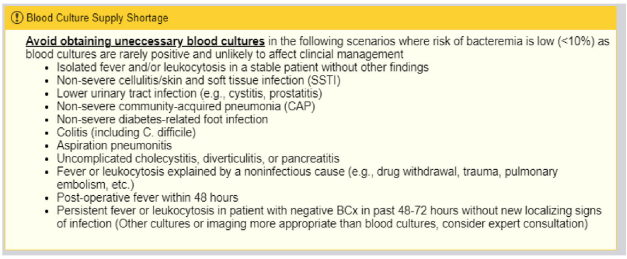
Figure 1



Presentation Type:
Poster Presentation
Subject Category: C. difficile
Discordance between symptom presentation and testing for Clostridioides difficile among hospitalized VA patients
Geneva Wilson[1], Neill Bates[2], Ravyn Jackson[2], Felicia Bixler[3], Rebecca Cooper[3], Lishan Cao[4], Margaret Fitzpatrick[5], Katie Suda[6] and Charlesnika Evans[7]
[1]Edward Hines Jr. VA Hospital; [2]Department of Veterans Affairs; [3]Rebecca Cooper, Edward Hines Jr. VA Hospital; [4]None; [5]University of Colorado Anschutz Medical Center; [6]University of Pittsburgh School of Medicine and [7]Northwestern University Department of Veterans Affairs

Background: Presence and documentation of clinical symptoms of Clostridioides difficile infection (CDI) prior to diagnostic testing is not well-described. The Infectious Diseases Society of America (IDSA) guidelines recommend that patients have ≥3 episodes of unexplained loose stool in the previous 24 hours before testing. In populations predisposed to chronic non-infectious diarrhea, such as those undergoing chemotherapy or with chronic gastrointestinal (GI) illness, more explicit signs of infection may be needed. Our objective was to evaluate CDI symptoms that proceeded testing in a cohort of inpatient Veterans with chronic GI illness or undergoing chemotherapy. **Methods:** This retrospective cohort study included Veterans hospitalized at 8 VA facilities from January 1st, 2019-December 31st, 2022, who were tested for CDI, and were receiving chemotherapy or had chronic GI illness. Charts reviewed identified the following symptoms in the 24 hours prior to testing: greater than 3 loose stools in 24 hours, bloody stool, nausea, vomiting, abdominal pain, fever (temperature ≥100.4°F), and white blood cell count >10,000/mm3. The presence of 3 loose stools in 24 hours alone was deemed the minimal indication for CDI testing, while the presence of any additional symptoms was considered high indication for testing. CDI treatment was defined as at least one dose of metronidazole, oral vancomycin, or fidaxomicin ±7 days from testing. Chi-square tests assessed the association between indication for CDI testing and test positivity. **Results:** A total of 676 tests for 577 unique patients were reviewed (69.1% White, 94.5% male, mean age=68.3 years). Most had a chronic GI illness (90%); colitis, and presence of a gastrostomy were the most frequently reported. Only 14% of CDI tests were positive. The minimal indication for CDI testing was present for 243 tests (36%). 190 tests (28%) were ordered for patients with symptoms highly indicative of CDI. Of the negative tests, 55% were associated with at least one dose of CDI treatment. There was no association between test indication and test positivity (p-value=0.82). **Conclusion:** In a population predisposed to chronic non-infectious diarrhea, nearly two thirds (64%) of those tested did not meet the minimum requirement (3 documented loose stools in 24 hours). This may partly explain the low-test positivity rate of 14%. Over half of negative tests were associated with CDI treatment. Future work should focus on diagnostic stewardship to improve documentation of loose stool and other CDI symptoms prior to testing to reduce unnecessary testing and overtreatment.

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Characteristics of Patients with Hospital Onset Clostridioides difficile Infections in a Safety Net Hospital
Lujain Malkawi[1] and Ume Abbas[2]
[1]Infectious Diseases Department, University of Missouri-Kansas City and [2]University of Missouri- Kansas City

Background: Clostridioides difficile infections (CDI) are a leading cause of health-care associated morbidity and costs. University Health Truman Medical Center is a longstanding 238-bed safety net hospital in Kansas City, MO, where there was an increase in hospital-onset (HO) CDIs in 2024. To improve our infection prevention and control measures, we sought to study these HO CDI cases. **Methods:** Using a retrospective cohort study design and electronic health records, we retrieved data for inpatients who were identified as having HO CDI by our department of infection prevention and control in 2024. HO CDI was defined as a positive test for toxigenic Clostridioides difficile (C. difficile) polymerase chain reaction (PCR) performed on unformed stool collected on hospital day > 3 (with preagreed intuitional criteria in place). Data included demographic and epidemiological variables, comorbidities, onset of diarrhea and timing of stool collection, length of stay (LOS) and exposures (within prior 6 months) to hospitalization, surgery, and/or medications including laxatives, proton-pump inhibitors, immunosuppressants and antimicrobials. **Results:** In 2024 there were 20 HO CDI cases (versus 9 in 2023) with consequent increase in the CDI rate per 10,000 patient days and the standardized infection ratio. The characteristics of the CDI cases (percentage; mean ± standard deviation) were as follows. Most cases were females 60%. The mean age was 61 ± 18 years and BMI 28 ± 11 kg/m2. Recent hospitalization was common; 50% of cases had been hospitalized within 28 days and 70% within 6 months of their positive C difficile test. All cases had one or more comorbid conditions while one patient (5%) had past history of CDI. The median LOS was 18 days with frequent room changes and 35% of cases had an intensive care unit exposure. All had received systemic antibiotics either singly or in combination and the most commonly used agents included cephalosporins (90%) and penicillins with beta-lactamase inhibitor (35%). Laxative use was common (65%) as were history of surgery (55%) and intravenous contrast exposure (50%). Most cases (70%) were treated with oral vancomycin with three cases receiving a taper/prophylaxis, while five cases received fidaxomicin; there was one case of recurrence. **Conclusions:** Recent hospitalization and laxative use were high among HO CDI cases in a safety net hospital, raising concern for potential over-diagnosis. Switching to a two-step C difficile stool testing algorithm (PCR+ toxin enzyme immunoassay), though more costly, would be a useful mitigation strategy.

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Optimizing Diagnostic Stewardship: Reducing CAUTI Rates Through Urine Culture Decision-Making in the ICU
Nicole Wiltfang[1], Karen Brust[2], Oluchi Abosi[3], Takaaki Kobayashi[4] and Elizabeth Krigbaum[5]
[1]University of Iowa Health Care; [2]University of Iowa Health Care; [3]University of Iowa Hospital and Clinics; [4]University of Kentucky and [5]University of Iowa Healthcare

Background: Approximately half of all fevers in intensive care units (ICUs) are attributed to noninfectious causes. Despite this, most providers routinely culture urine from patients with indwelling urinary catheters who develop a new fever, which can lead to overdiagnosis and unnecessary antibiotic use. This study evaluated the impact of transitioning from a urinalysis (UA) with reflex to culture order to a stand-alone UA with microscopy in the Surgical and Neurosciences Intensive Care Unit (SNICU) on the frequency of urine cultures ordered and Catheter-Associated Urinary