infection prevention to continue isolation of infected and colonized cases to reduce the spread of *C. difficile* spores.

Funding: No
Disclosures: None

Antimicrobial Stewardship & Healthcare Epidemiology 2021;1(Suppl. S1):s42–s43
doi:10.1017/ash.2021.78

Presentation Type:
Poster Presentation
Subject Category: *C. difficile*

Did *Clostridioides difficile* Testing and Infection Rates Change During the COVID-19 Pandemic?

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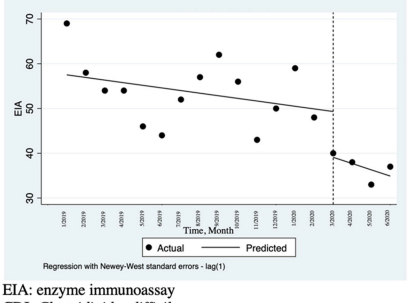
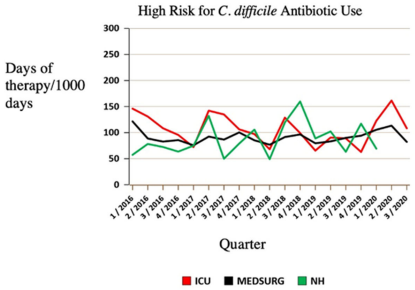
Background: The COVID-19 pandemic has underscored the importance of ongoing infection prevention efforts. Increased adherence to infection prevention recommendations, increased antibiotic use, improved hand hygiene, and correct donning and doffing of personal protective equipment may have influenced healthcare-associated infections (HAIs) in the United States during the pandemic. In this study, we investigated testing for *Clostridioides difficile* infection (CDI) and incidence during the initial surge of the pandemic. We hypothesized that strict adherence to contact precautions may have resulted in a decreased incidence of CDI in hospitalized patients during the first peak of the COVID-19 pandemic and that CDI testing may have increased even in the absence of directed diagnostic stewardship efforts. **Methods:** We conducted a single-center, retrospective, observational study at the Veterans' Affairs (VA) Hospital in Ann Arbor, Michigan, between January 2019 and June 2020. We compared data on CDI tests from January 2019 through February 2020 to data from March 2020 (the admission of the first patient with COVID-19 at our institution) through June 2020. Pre-peak and peak periods were defined by confirmed cases in Washtenaw County. No novel diagnostic or CDI-focused stewardship interventions were introduced by the antimicrobial stewardship program during the study period. An interrupted time series analysis was performed using STATA version 16.1 software (StataCorp LLC, College Station, TX). **Results:** There were 6,525 admissions and 34,533 bed days between January 1, 2019, and June 30, 2020. Also, 900 enzyme immunoassay (EIA) tests were obtained and 104 positive cases of CDI were detected between January 2019 and June 2020. A statistically significant decrease in EIA tests occurred after March 1, 2020 (the COVID-19 peak in our region) compared to January 1, 2019–March 1, 2020 (Figure 1). After March 1, 2020, the number of EIA tests obtained decreased by 10.2 each month (95% CI, −18.7 to −1.7; $P = .02$). No statistically significant change in the incidence of CDI occurred. The use of antibiotics that were defined as high risk for CDI increased in the months of April–June 2020 (Figure 2). **Conclusions:** In this single-center study, we observed a stable incidence of CDI but decreased testing during the first peak of the COVID-19 pandemic. Understanding local HAI reporting is critical because changes in HAI reporting structures and exemptions during this period may have affected national reporting. Further research should be undertaken to investigate the effect of COVID-19 on other HAI reporting within the US healthcare system.

Figure 1: Impact on Incidence of Enzyme Immunoassay Tests Obtained for *Clostridioides difficile*



EIA: enzyme immunoassay
CDI: *Clostridioides difficile*

Figure 2: High Risk for *Clostridioides difficile* Antibiotic Use



High risk for *Clostridioides difficile* Antibiotics: clindamycin, cefotaxime, ceftriaxone, ceftazidime, cefepime, cefdinir, cefpodoxime, cefixime, ciprofloxacin, gemifloxacin, levofloxacin and moxifloxacin

ICU: intensive care unit
Medsurg: medical and surgical floors
NH: nursing home

Funding: No
Disclosures: None

Antimicrobial Stewardship & Healthcare Epidemiology 2021;1(Suppl. S1):s43
doi:10.1017/ash.2021.79

Presentation Type:
Poster Presentation
Subject Category: CLABSI

Inequities in CLABSI Rates in a Children's Hospital by Race, Ethnicity, and Language Preference

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Background: Systemic racism results in health inequities based on patient race, ethnicity, and language preference. Whether these inequities exist in pediatric central-line–associated bloodstream infections (CLABSIs) is unknown. **Methods:** This retrospective cohort study included patients with central lines hospitalized from October 2012 to June 2019 at our tertiary-care children's hospital. Self-reported race, ethnicity, language preference, demographic, and clinical factors were extracted from the electronic health record. The primary outcome was non–mucosal barrier injury (non-MBI) CLABSI episodes as defined by the NHSN. CLABSI rates between groups were compared using χ^2 tests and Cox proportional hazard regression. We adjusted for care unit, age, immunosuppressed status, diapered status, central-line type, line insertion within 7 days, daily CLABSI maintenance bundle compliance, number of blood draws and IV medication doses, and need for total parental nutrition, extracorporeal membrane oxygenation, and renal replacement therapy. In mid-2019, we engaged stakeholders in each care unit to describe preliminary findings and to identify and address potential drivers of observed inequities. **Results:** We included 337 non-MBI CLABSI events over 230,699 central-line days (CLDs). The overall non-MBI CLABSI rate during the study period was 1.46 per 1,000 CLDs. Unadjusted CLABSI rates for black or African American (henceforth, "black"), Hispanic, non-Hispanic white, and Asian (the 4 largest race or ethnicity groups by CLDs) patients were 2.74, 1.53, 1.42, 1.24 per 1,000 CLDs, respectively ($P < .001$) (Table 1). Unadjusted CLABSI rates for patients with limited-English proficiency (LEP) and English-language preference were 1.98 and 1.38 per 1,000 CLDs, respectively ($P = .014$). After adjusting for covariates, the hazard ratio (HR) point estimate for CLABSI rate remained higher for black patients (HR, 1.50; 95% CI, 0.99–2.28) and patients with LEP (HR, 1.33; 95% CI, 0.87–2.05), compared to the reference group based on largest CLD. The differences in CLABSI rate by race or ethnicity and language were more pronounced in 2 of