patient admissions, including 24,980 with community-onset and 1,510 with hospital-onset SARS-CoV-2 infections. The mean weekly ratio of new hospital-onset to community-onset SARS-CoV-2 infections rose from 2.6% before Omicron, to 8.5% (95% CI, 7.0–9.9%) during Omicron, to 17% (95% CI, 15–19%) after universal admission testing and masking ended (Figure 1). There was a significant immediate level change after the pre-Omicron-to-Omicron transition (140% relative increase; 95% CI, 40–240%) and after universal admission testing and masking ended (110% relative increase; 95% CI, 73–150%). On medical record review of 100 randomly selected hospital-onset SARS-CoV-2 cases after universal admission testing had ended, 89% had new symptoms at the time of testing, 80% had PCR cycle thresholds ≤30, 27% had a known COVID-19 exposure, and 97% met at least one of these criteria. In-hospital mortality occurred in 8% of the 100 reviewed cases. **Conclusion:** Stopping universal masking and admission testing of all hospitalized patients at five Massachusetts hospitals was associated with a significant increase in hospital-onset COVID-19. Nosocomial COVID-19 remains a common complication of hospital care. Preventing nosocomial infections in this vulnerable population remains an important safety goal.

Disclosure: Theodore Pak: Founder/CEO - The East Harlem Software Company, Inc.

Antimicrobial Stewardship & Healthcare Epidemiology 2024;4(Suppl. S1):s1–s2

doi:10.1017/ash.2024.97

Presentation Type:
Poster Presentation - Top Oral Abstract
Subject Category: DEI

Iterative Health Equity Analyses of Central Line-Associated Bloodstream Infection (CLABSI) Events at a Pediatric Hospital

Ana Vaughan-Malloy, Boston Children's Hospital; Phillip Hahn, Boston Children's Hospital, Program for Patient Safety and Quality; Paula Lamagna, Boston Children's Hospital; Jenny Chan Yuen, Boston Children's Hospital; Dionne Graham, Boston Children's Hospital and Jennifer Ormsby, Boston Children's Hospital

Background: Per the Centers for Disease Control and Prevention, health equity stipulates all have a fair, just opportunity to attain their highest level of health. Limited evidence exists for disparities in health equity and healthcare-associated infections (HAI), with no evidence on language or primary insurance payor. While reviewing quality metrics, a disparity signal in central line-associated bloodstream infections (CLABSIs) prompted a multidisciplinary deep dive, with iterative analyses to understand potential inequities to identify improvement opportunities. **Methods:** CLABSI data was stratified and analyzed for evidence of disparity by race/ethnicity, primary insurance payor, and preferred spoken language utilizing an internal methodology. Subsequent analyses included a root cause analysis (RCA), case mix index (CMI) analysis, analysis of CLABSI Kamishibai card (K-card) rounding to monitor maintenance bundle reliability, and comparison of distribution of central venous catheter (CVC) line days to K-card audits [Figure 1]. Chi-square tests were used to test for significant differences for categorical variables in RCA and K-card analyses. ANOVA was used to compare CMI between demographic groups. Multiple logistic regression was used to compare K-card compliance rates by demographic groups. **Results:** When stratifying CLABSI rate by primary payor, pairwise comparisons indicated patients with a public payor had a statistically higher rate of CLABSI compared to private (p=0.02) [Figure 2A]. RCA analysis revealed when compared to patients with private payors, those with public had significantly higher rates of overdue needless connector changes (p = 0.03) and increased number of daily CVC entries (p = 0.05), while patients speaking another language (p = 0.02) were significantly more likely to have CVC contamination events. CMI analyses on CLABSI cases did not show patient acuity to vary significantly between demographics. Bivariate analysis of K-card data revealed minor differences in reliability with 7 Core Maintenance Bundle Elements by demographics; adjusting for all demographics and accounting for unit, pairwise comparisons indicated public payors had significantly higher compliance than international [Figure 2B]. We found no major differences in demographic distribution of CVC line days compared to K-card audits, suggesting we representatively audit maintenance bundle process measures. **Conclusions:** Our review of health equity in CLABSI events ultimately led to subsequent questions requiring analysis of other data sets. Utilizing an exploratory approach and assembling a multidisciplinary team to identify potential drivers of identified disparities adds value to health equity analyses. This is the first description of HAI data beyond race and ethnicity and can assist other institutions in their process of evaluating healthcare disparities and HAIs.

Figure 1. CLABSI Health Equity Workflow. CLABSI: central line-associated bloodstream infection; CVC: central venous catheter; RCA: root cause analysis; CMI: case mix index; PHIS: Pediatric Health Information System; K-card: Kamishibai card; IPC: Infection Prevention and Control.

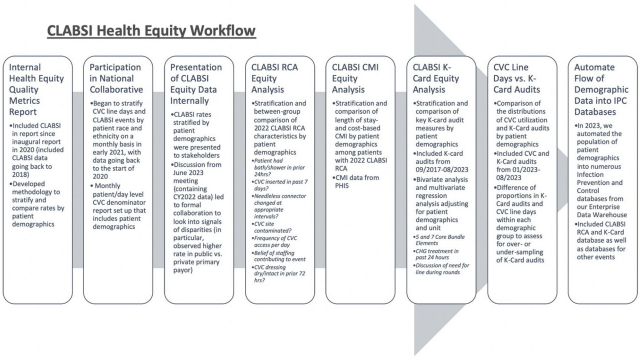
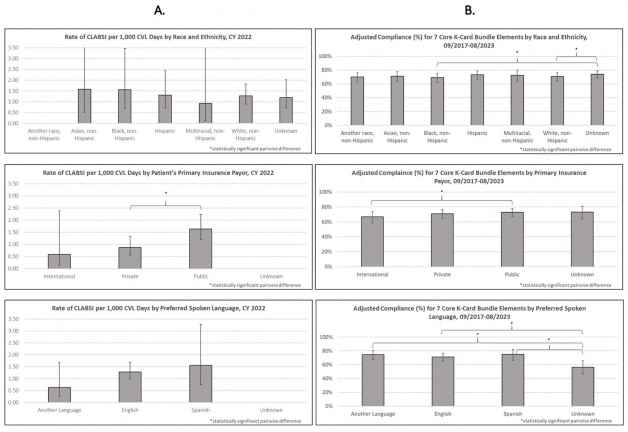


Figure 2. A) Rates of CLABSI per 1,000 CVL days by patient demographics, 01/2022-12/2022 and **B)** Adjusted compliance (%) for 7 core K-card bundle elements by patient demographics, 09/2017-08/2023. CLABSI: central line-associated bloodstream infection; CVL: central venous line; CY: calendar year; K-card: Kamishibai card.



Presentation Type:
Poster Presentation - Top Oral Abstract
Subject Category: DEI

Exploring Socioeconomic Disparities in Surgical Site Infections

Michael Dewitt, Wake Forest University School of Medicine; Caroline Reinke, Atrium Health; Michael Inman, Atrium Health; Werner Bischoff, Wake Forest School of Medicine; Shelley Kester, Atrium Health; Mindy Sampson, Stanford University; Anupama Neelakanta, Carolinas HealthCare System and Katie Passaretti, Atrium Health

Introduction: Social disparities have been shown to impact a wide variety of healthcare outcomes. Surgical site infections (SSIs) are associated with