

susceptibility data were available for 4,620 samples: 3,558 adult (77.0%) and 1,062 pediatric (23.0%). The predominant adult and pediatric ribotypes (RT) were 106 (12.2/16.2%), 027 (11.4/3.2%), and 014 (8.8/8.2%). Overall, RT027 prevalence significantly decreased from 17.9% in 2015 to 3.2% in 2022 (p=0.003), while RT106 increased from 8.5% to 14.4%. Resistance rates among adult and pediatric isolates were similar for all antimicrobials tested except moxifloxacin (16.2% vs. 6.2%, p < 0.0001, respectively). Adult moxifloxacin resistance decreased from 30% to 6.3% from 2015 to 2022 (p=0.006). Adults with moxifloxacin-resistant CDI were older (median: 74 vs. 69 years, p < 0.001) and had higher thirty-day all-cause mortality (13% vs. 9.8%, p=0.041) and recurrence (10% vs. 5.7%, p < 0.001) compared to those with moxifloxacin non-resistant CDI, while these trends were not observed in pediatric patients. Among RT027 strains, moxifloxacin resistance decreased from 91.0% in 2015 to 7.1% in 2022. There was one metronidazole-resistant pediatric sample in 2018 and no resistance to vancomycin or tigecycline in either population. **Conclusion:** We have found differences in the epidemiological and molecular characteristics of adult and pediatric CDI, with higher thirty-day all-cause mortality among adults. Overall, RT106 has replaced RT027 as the predominant ribotype with a concomitant decrease in fluoroquinolone resistance.

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Poster Presentation - Top Poster Abstract

Subject Category: CLABSI

Impact of Vascular Access Teams on Central Line Associated Bloodstream Infections

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Background: During the COVID-19 pandemic, rates of central line bloodstream infections (CLABSI) increased nationally. Studies pre-pandemic showed improved CLABSI rates with implementation of a standardized vascular access team (VAT).[PL1] [PL2] [mi3] Varying VAT resources and coverage existed in our 10 acute care facilities (ACF) prior to and during the pandemic. VAT scope also varied in 1) process for line selection during initial placement, 2) ability to place a peripherally inserted central catheter (PICC), midline or ultrasound-guided peripheral IV in patients with difficult vascular access, 3) ownership of daily assessment of central line (CL) necessity, and 4) routine CL dressing changes. We aimed to define and implement the ideal VAT structure and evaluate the impact on CLABSI standardized infection ratios (SIR) and rates prior to and during the pandemic. **Methods:** A multidisciplinary workgroup including representatives from nursing, infection prevention, and vascular access was formed to understand the current state of VAT responsibilities across all ACFs. The group identified key responsibilities a VAT should conduct to aid in CLABSI prevention. Complete VAT coverage[mi4] was defined as the ability to conduct the identified responsibilities daily. We compared the SIR and CLABSI rates between hospitals who had complete VAT (CVAT) coverage to hospitals with incomplete VAT (IVAT) coverage. Given this work occurred during the pandemic, we further stratified our analysis based on a time frame prior to the pandemic (1/2015 – 12/2019) and intra-pandemic (1/2020 - 12/2022). **Results:** The multidisciplinary team identified 6 key components of complete VAT coverage: Assessment for appropriate line selection prior to insertion, ability to insert PICC and midlines, daily CL and midline care and maintenance assessments, daily assessment of necessity for CL, and weekly dressing changes for CL and midlines[NA5] . A cross walk of VAT scope (Figure 1) was performed in October 2022 which revealed two facilities (A and E) which met CVAT criteria. Pre-pandemic, while IVAT CLABSI rates and SIR were

Vascular Access Team Crosswalk

	A	B	C	D	E	F	G	H	I	J
Licensed Beds	457	658	207	282	101	100	59	241	142	109
Assess line appropriateness prior to insertion	Green	Red	Red	Green	Green	Green	Green	Green	Red	Red
PICC insertion	Green	Red	Red	Green	Green	Red	Green	Green	Red	Red
Midline insertion	Green	Red	Red	Green	Green	Green	Green	Green	Red	Red
Daily CL/midline assessment	Green	Red	Red	Green	Green	Green	Green	Green	Red	Red
Daily CL assessment of need	Green	Red	Red	Green	Green	Green	Green	Green	Red	Red
Dressing changes CL/Midline	Green	Red	Red	Green	Green	Green	Green	Green	Red	Red

■ VAT performing
■ VAT not performing

Table 1: Comparison of Central Line Utilization Ratios, CLABSI Standardized Infection Ratios and CLABSI Rates prior to and during the COVID-19 Pandemic Stratified by Vascular Access Team Coverage

	CL Standardized Utilization Ratio (SUR)				CLABSI Rate per 1000 CL Days				CLABSI Standardized Infection Ratio (SIR)			
	CVAT	IVAT	Rate Ratio IVAT compared to CVAT (95% CI)	P Value	CVAT	IVAT	Rate Ratio IVAT compared to CVAT (95% CI)	P Value	CVAT	IVAT	Relative Ratio IVAT compared to CVAT (95% CI)	P Value
Pre-pandemic	0.63	1.15	1.8 (1.0, 3.0)	<0.001	0.95	1.03	1.1 (0.7, 1.7)	0.7	1.05	1.22	1.2 (0.8, 1.7)	0.5
Intra-pandemic	0.65	0.81	1.26 (1.25, 1.27)	<0.001	0.95	1.38	1.5 (1.1-2.0)	0.01	1.05	1.48	1.4 (1.1-1.9)	0.02

CL Central Line, CVAT Complete Vascular Access Team Facility, IVAT Incomplete Vascular Access Team Facility, 95% CI 95% Confidence Interval, p value considered significant if p < 0.05

higher than in CVAT units, the difference was not statistically significant. During the pandemic, however, CLABSI rates and SIR were 40-50% higher in IVAT compared to CVAT facilities (Incident Rate Ratio 1.5, 95% CI 1.1-2.0 and SIR Relative Ratio 1.4, 95% CI 1.1-1.9 respectively) (Table 1). **Conclusions:** CLABSI rates were lower in facilities with complete VAT coverage prior to and during the COVID-19 pandemic suggesting a highly functioning VAT can aid in preventing CLABSIs, especially when a healthcare system is stressed and resources are limited.

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The Impact of COVID-19 on Healthcare-Associated Infections: A Survey of Acute Care Hospitals

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Background: The COVID-19 pandemic has placed an enormous strain on the healthcare system, including infection prevention and control. The response to the COVID-19 pandemic required extraordinary resources, which were often diverted from routine infection prevention and control activities and may have contributed to increased rates of HAI in the acute care setting. However, the impact of the COVID-19 pandemic on infection prevention and control departments, including staffing and resources, and on routine infection prevention and control activities is not well-described. The objective of this study was to describe the impact of the COVID-19 pandemic on IPC departments and department response to the pandemic. **Methods:** Between August and December of 2023, we conducted an electronic survey of all acute care facilities participating in the National Healthcare Safety Network. Survey data were analyzed using descriptive statistics. **Results:** Over 594 infection control departments participated in the survey, representing 1,400 NHSN facilities (20% response rate based on number of eligible NHSN facilities). Half of the respondents reported that their hospital experienced increases in the following HAI rates during the first two years of the pandemic: central-line associated bloodstream