

CLABSI. Results: Over the 2-year period, 147 CLABSIs were identified among the 2 hospitals, 66 (44.9%) of which occurred in an ICU. Most CLABSIs were pCLABSIs, making up 99 CLABSIs (67.3%). In comparison, 20 cases were categorized EOL-CLABSIs (13.6%), although 26 cases were dCLABSIs (17.7%), and 2 cases could not be classified. There was no difference in the distribution of CLABSI types in an ICU versus a non-ICU setting ($\chi^2 P = .265$). However, we detected microbiologic differences between pCLABSIs, EOL-CLABSIs, and dCLABSIs ($\chi^2 P < .001$), with gram-positive cocci making up the large majority of pCLABSIs (62.6%), followed by *Candida* spp (24.2%). Gram-negative bacilli (GNR) made up 11.1% of pCLABSIs. In comparison, GNRs were more prevalent in EOL-CLABSIs and dCLABSIs, making up 30.0% and 38.5% of each CLABSI type, respectively. **Conclusions:** Two-thirds of CLABSIs were deemed preventable. Central lines are important for managing critically ill patients, many of whom have inherent risk factors for bloodstream infections. EOL-CLABSIs highlight the potential for early care discussions to avoid CLABSIs at the end of a patient's life and to avoid unnecessary blood cultures for patients on comfort care. Additionally, the pCLABSI distinction allows hospital epidemiology teams to focus on the CLABSI cases that can realistically be prevented with appropriate central-line care, techniques, and hand hygiene. Creating these categories allows hospital systems to use more targeted approaches for improving CLABSI rates.

Funding: None
Disclosures: None

Antimicrobial Stewardship & Healthcare Epidemiology 2022;2(Suppl. S1):s30-s31
 doi:10.1017/ash.2022.113

Presentation Type:

Poster Presentation - Poster Presentation

Subject Category: CLABSI

The effectiveness of a dedicated central venous access care team to prevent catheter-related bloodstream infections

Fortune Charles Fil de Lara; Maria Jesusa Mano; Karl Evans Henson; Jia An Bello and Cybele Lara Abad

Background: Catheter-related bloodstream infection (CRBSI) rates remain high despite the use of an insertion bundle. We hypothesized that line care and maintenance by a dedicated team would help decrease CRBSI rates. This study was conducted in The Medical City (TMC), is a 526-bed, private, tertiary-care center in Pasig City, Philippines. **Methods:** All adult hospitalized patients from October 1, 2020, to October 31, 2021, with a newly inserted temporary central venous catheter (CVC) were eligible for inclusion. CRBSI rates before the intervention (October 2019 to March 2020) and after the intervention (April to October 2021) were compared. The intervention arm consisted of a dedicated central venous access

team (CVAT) who provided education and performed daily line care and dressing changes per protocol. A series of χ^2 and Wilcoxon rank-sum tests were performed to compare characteristics between exposure groups. Incidence rates of CRBSI before and after the intervention were compared using an incidence rate ratio approach. **Results:** In total, 209 CVCs were enrolled in the study, with 103 CVCs (49.28%) in the preintervention arm and 106 CVCs (50.72%) in the postintervention arm. Baseline patient characteristics were similar. CRBSIs were more frequent in the preintervention arm than the postintervention arm (39 of 103 vs 28 of 106; $P = .08$). The CRBSI incidence density rate was higher in the preintervention arm than the postintervention arm, but the difference was not statistically significant (37.46 per 1,000 patient days vs 25.97 per 1,000 patient days; $P = .14$). Median time to CRBSI was similar in both groups (9 vs 8 days). **Conclusions:** Baseline CRBSI rates were high and risk of infection increased by day 8 after line insertion. We detected a decreasing trend in rates of CRBSI with a dedicated CVAT, but multiple interventions are likely needed to influence overall rates.

Funding: None

Disclosures: None

Antimicrobial Stewardship & Healthcare Epidemiology 2022;2(Suppl. S1):s31
 doi:10.1017/ash.2022.114

Presentation Type:

Poster Presentation - Poster Presentation

Subject Category: CLABSI

Hospital-acquired bloodstream infections in patients with and without hepatic failure

Jordan Bosco; Patrick Burke; Francisco Marco Canosa; Stephen Wilson; Steven Gordon and Thomas Fraser

Background: The NHSN parameter estimate for predicted number of central-line-associated bloodstream infection (CLABSI) is the same for gastroenterology wards as other specialty wards, such as behavioral health and gerontology. We conducted this study to contribute to the body of knowledge surrounding the risk for hospital-acquired bloodstream infection (HABSI) in patients with and without hepatic failure. The Cleveland Clinic is a 1,200-bed, multispecialty hospital with a solid-organ transplant service. Patients with hepatic failure who do not require critical care are housed on 36-bed unit A. On unit A, 43% of patients are under hepatology or gastroenterology service, although 51% of patients are under general internal medicine. Overall, unit A has a high incidence of HABSI. **Methods:** Surveillance for HABSI and CLABSI is performed at the Cleveland Clinic per NHSN protocol. All patients with a midnight stay on unit A from January 2019 through September 2021 were dichotomized as having hepatic failure (yes or no) if they ever received the *International Classification of Diseases Tenth Revision* code for "hepatic failure, not elsewhere classified." We joined the diagnostic code to patient days and central-line-days databases and summarized the data using Microsoft Excel software. We stratified the number of patients, patient days, device days, infection classification, and hospital length of stay by whether the patient had hepatic failure, and we compared the incidence of HABSI and CLABSI between the 2 groups using OpenEpi version 3.01 software. **Results:** We identified 72 HABSIs among 4,285 patients who stayed on unit A for 30,910 patient days during the study period. The incidences of HABSI in patients with and without hepatic failure were 39.0 and 13.9 per 10,000 patient days, respectively ($P < .001$). The incidence of CLABSI was 5.4 and 1.9 per 1,000 line days, respectively ($P = .01$). Patients with hepatic failure stayed longer (11.5 vs 5.9 days), yet the central-line utilization ratios were not substantially different (0.25 vs 0.24). *Enterococcus* was the most common pathogen involved in CLABSI in both groups (Table 2). **Conclusions:** Patients with hepatic failure experienced CLABSI more frequently than patients without hepatic failure, stayed longer in the hospital, and were less likely have HABSI attributed to another primary focus of infection according to NHSN definitions. Although hepatic failure may be among the most severe conditions among patients in a gastroenterology

| CHARACTERISTIC | Pre-Intervention | Post-Intervention | p-value |
|-------------------------------------|---------------------|---------------------|---------|
| N, catheters (%) | 103 (49.28) | 106 (50.72) | - |
| Age (yr) | 61.64 ± 16.20 | 62.92 ± 17.53 | 0.59 |
| Sex, female | 42 (40.78) | 52 (49.06) | 0.23 |
| Reason for CVC | | | |
| Hemodialysis | 23 (22.33%) | 29 (27.36%) | 0.40 |
| Access | 80 (77.67%) | 77 (72.64%) | |
| CRBSI | | | |
| Infection, n | 39 (37.86) | 28 (26.42) | 0.08 |
| Catheter days, n | 1,041 | 1,078 | - |
| Incidence density rate | 37.46 (26.64-51.21) | 25.97 (17.26-37.54) | 0.14 |
| Time to CRBSI, median, days (range) | 9 (3, 15) | 8 (4, 11) | 0.42 |
| Pathogen | | | |
| Gram positive | 10 (25.64) | 3 (10.71) | |
| Gram negative | 17 (43.59) | 14 (50) | 0.12 |
| Both | 3 (7.69) | 7 (25) | |
| Fungal | 9 (23.08) | 4 (14.29) | |
| Adverse events | | | |
| Occlusion | 1 (0.97) | 2 (1.89) | 0.58 |
| Others | - | 1 (0.94) | 0.32 |
| Outcome | | | |
| Alive | 61 (59.22) | 49 (46.23) | 0.07 |
| Expired | 42 (40.78) | 57 (53.77) | |

Table 1: Baseline Characteristics and Outcomes Pre vs. Post-Intervention Groups