Conclusion. Observed cases were similar regardless of CDI-SIR score, although approximately 75% of ACHs had a CDI-SIR < 1. HAC-RP penalizes short-term ACHs with a CDI-SIR ≥ 1 and appears to be effective in reducing CDI cases. However, the observed increase of cases over the 4-year period among ACHs with CDI-SIR < 1 post HAC-RP implementation is concerning. Greater focus is needed to reduce CDI cases across all ACHs, irrespective of CDI-SIR given the burden of disease and associated morbidity and mortality.

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Table 1. Patient Demographics and Characteristics

| Age (Years) | Median | Range |
|-------------|--------|-------|
|              |        |       |
| Sex          |        |       |
| Male         | 55     | 59.1  |
| Female       | 38     | 40.9  |
| Race/Ethnicity |      |       |
| White, Non-Hispanic | 55 | 59.1 |
| White, Hispanic | 16 | 17.2 |
| Black/African American | 17 | 18.3 |
| Asian        | 4      | 4.3   |
| Native American/Alaskan Native | 1 | 1.1 |
| BMI          |        |       |
| <18.5        | 6      | 6.5   |
| 18.5 to 24.9 | 32     | 34.4  |
| 25 to 29.9   | 28     | 30.1  |
| 30 to 34.9   | 10     | 10.8  |
| Greater than 35 | 17 | 18.3 |
| DM           |        |       |
| No           | 69     | 24.2  |
| Yes          | 24     | 25.8  |
| Cancer       |        |       |
| No           | 53     | 57    |
| Yes          | 11     | 11.8  |
| Solids       |        |       |
| No           | 18     | 19.4  |
| Yes          | 20     | 21.5  |
| Bone Marrow Transplant |        |       |
| No           | 86     | 92.5  |
| Yes          | 7      | 7.5   |
| Neutropenia  |        |       |
| No           | 11     | 11.8  |
| Yes          | 77     | 82.8  |
| Yes          | 16     | 17.2  |
| LVAD         |        |       |
| No           | 92     | 98.9  |
| Yes          | 1      | 1.1   |
| ECMO         |        |       |
| No           | 87     | 93.5  |
| Yes          | 6      | 6.5   |
| Recent Surgery |      |       |
| No           | 81     | 87.1  |
| Yes          | 12     | 12.9  |
| Location     |        |       |
| ICU          | 50     | 53.8  |
| Ward         | 43     | 46.2  |

769. Risk Factors of Central Line-associated Bloodstream Infection in an Academic Medical Center

Zane Conrad, MD, Thomas Kang, MD, Elizabeth Thomas, n/a; Doramie Arocha, PhD; Julie B. Trivedi, MD; UT Southwestern, Dallas, Texas; UT Southwestern Medical Center - University Hospitals, Dallas, TX; UT Southwestern Medical Center, Dallas, TX

Session: P-37: HAI - Device-Associated (CLABSI, CAUTI, VAP)

Background. Central line-associated bloodstream infections (CLABSI) are one of the leading healthcare-acquired infections (HAI) with significant morbidity and mortality. We aimed to identify risk factors of CLABSI at an academic medical center to determine high-risk populations and target interventions.

Methods. This is an observational retrospective cohort study at William P. Clements Jr. University Hospital from January 1, 2017 to December 31, 2020. Retrospective chart review was conducted to identify demographics and co-morbidities of hospitalized patients diagnosed with CLABSI as defined by National Healthcare Safety Network (NHSN). Infections due to mucosal barrier injuries were excluded. Means were compared using independent samples T-test and proportions were compared using chi-square.

Results. Ninety-three CLABSI events were identified with an increase in the standardized infection ratio from 0.38 in 2017 to 0.74 in 2020 (Figure 1). Bacterial organisms were identified in 71 (76%) cases while fungal organisms were identified in 22 (24%) (Table 2). There was no significant difference in the timing of CLABSI after line insertion (p=0.09) or organism identified (p=0.61) in PICC lines (n=33, 34%) vs all other central lines (n=60, 67%). When comparing immunocompromised patients with CLABSI (n=47, 51%) vs non-immunocompromised (n=46, 50%), there was a significant difference in the indication for line (chemotherapy), but no difference was seen in the number of line days prior to event (p=0.57), line type (p=0.17), or organism identified (p=0.94). Of all CLABSI, 46% (n=43) were in the intensive care unit (ICU) with significantly more Candida species (p=0.018) identified compared to non-ICU patients (p=0.94).