768. Gaining Compliance-Getting Results
Sharon Staton, MS-SSEM, BSN, CPHON, BMTCN1; Janet Dejean, MSN, CPHON1;
1Texas Children’s Hospital, Pearland, Texas
Session: P-37. HAI: Device-Associated (CLABSI, CAUTI, VAP)

Background. Compliance with the chlorhexidine gluconate (CHG) daily application component of the CLABSI prevention bundle potentially could negatively affect infection rates. In an attempt to increase CHG compliance, a 3-month trial for soap based CHG bathing was undertaken on two pediatric oncology units with long term central line patients.

Methods. The current bathing process involved 2 steps, a soap and water bath followed one hour later by a CHG wipe. It was time consuming and received complaints from staff and parents resulting in lower documented compliance rates. A one step soap based CHG was $161.50 and the CHG wipe cost $960.75; a difference of $799.25 per week or $41,561.00 annually.

Conclusion. Any infection prevention strategy needs to involve staff and parents for compliance and outcome success.

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Table 1: Patient Demographics and Characteristics

| Age (Years) | Median | Range |
|-------------|--------|-------|
| Men         | 41     | 21 to 101 |
| Women       | 55     | 25 to 84 |
| Race/Ethnicity |       |      |
| White, Non-Hispanic | 55 | 25 to 84 |
| Asian        | 4      | 1 to 10 |
| BMI          |        |       |
| BMI < 25     | 21.5   | 18.5 to 24.9 |
| 25 to 29.9   | 28     | 22 to 34.5 |
| > 30         | 10.8   | > 30 |
| DM           |        |       |
| No DM        | 24.8   | No DM to DM |
| Cancer       |        |       |
| No Cancer    | 53     | No Cancer to Cancer |
| Solid        | 18.4   | Solid to Solid |
| Hematologic  | 21.5   | Hematologic to Hematologic |
| Other        | 2      | Other to Other |
| Solid Organ Transplant | No  | No to No |
| Bone Marrow Transplant | Yes | Yes to Yes |
| Neutropenia  | No     | No to No |
| Yes          | 11     | Yes to Yes |
| LVAD         | No     | No to No |
| Yes          | 92     | Yes to Yes |
| ECMO         | No     | No to No |
| Yes          | 87.5   | Yes to Yes |
| Recent Surgery | No  | No to No |
| Yes          | 81     | Yes to Yes |
| Location     | ICU    | ICU to ICU |
| Ward         | 50     | Ward to Ward |

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%). Some organisms were identified in only one patient. There was a 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 with CLABSI (n=50, 54%).
**Conclusion.** Candida species were more likely to be found in ICU patients with CLABSI as compared to non-ICU counterparts with further investigation in the ICU population revealing lack of flushing after administration of total parenteral nutrition. Otherwise, this observational cohort of CLABSI events did not identify any difference in immunosuppression status or line type. Given this information, infection prevention efforts will continue to be directed towards proper central line maintenance and removal when no longer indicated.

**Disclosures.** All Authors: No reported disclosures

770. Impact of COVID-19 Pandemic on Central Line-associated Bloodstream Infections in Metropolitan Detroit

Geehan Suleyman, MD1; Nicholas sturla, MD1; Smitha Gudipati, MD2; Indira Brar, MD2; Ramesh Mayur, MD1; 1Henry Ford Hospital, Detroit, Michigan; 2Henry Ford Health System, Detroit, Michigan

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

**Background.** We observed an increase in central line-associated bloodstream infections (CLABSI) associated with the 2020 COVID-19 pandemic and performed a retrospective analysis to better understand the impact of COVID-19 on CLABSI rates.

**Methods.** This was a retrospective cross-sectional study comparing CLABSI rate per 1,000 central line (CL) days, blood culture (BC) utilization rate per 1,000 CL days, CL utilization rate per 1,000 patient days, Standardized Infection Ratio (SIR) and Standardized Utilization Ratio (SUR) in the pre-COVID-19 period from January 1, 2019 to December 31, 2019 to the COVID-19 period from April 1, 2020 to March 31, 2021 at an 877-bed tertiary care hospital in Detroit, Michigan. CLABSI, and BC and CL utilization rate were extracted from the electronic medical record (Epic® Bugsy). SIR and SUR data were extracted from National Healthcare Safety Network (NHSN).

**Results.** The average CLABSI rate per 1,000 CL days increased 24% from 1.66 to 2.06. Twenty percent of patients were hospitalized for COVID-19. The BC utilization rate per 1,000 CL days decreased from 0.43 to 0.32 with a 26% reduction. However, CL utilization increased by 28% from 0.25 to 0.32 (Figure 1). However, CLABSI to common commensals decreased from 13.8% to 10.9%. The SIR increased significantly from 1.055 to 1.795 (P-value 0.008), resulting in a 70% increase. The overall SUR also increased from 0.900 to 0.988 (P-value < 0.001). Figure 2 is a control chart of the CLABSI rate from July 2019 to April 2021.

**Conclusion.** During the COVID-19 pandemic, there was a significant increase in CL utilization, CLABSI rate, SIR and SUR likely due to higher acuity in COVID-19 patients despite a decrease in BC orders.

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771. COVID-19 on the Line: A Significant Increase in CLABSI in Hospitalized Patients with COVID-19 at a Major Teaching Hospital

Pishoy Haroun, MD1; Michael Ben-Aderet, MD1; Meghan Madhusudhan, MPH1; Matthew J Almario, MPH JD1; Ryan C Raypon, MPH, MS5; Sharon E. Fawcett, MSN, RN, CIC2; Jonathan Green, MD3; 1UCLA, Sherman Oaks, CA; 2Cedars Sinai Medical Center, Los Angeles, CA; 3Cedars-Sinai Medical Center, Los Angeles, CA

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

**Background.** Recent publications suggest that central line-associated bloodstream infections (CLABSI) associated with the 2020 COVID-19 pandemic and performed a retrospective analysis to better understand the impact of COVID-19 on CLABSI rates.

**Methods.** This was a retrospective cross-sectional study comparing CLABSI rate per 1,000 central line (CL) days, blood culture (BC) utilization rate per 1,000 CL days, CL utilization rate per 1,000 patient days, Standardized Infection Ratio (SIR) and Standardized Utilization Ratio (SUR) in the pre-COVID-19 period from January 1, 2019 to December 31, 2019 to the COVID-19 period from April 1, 2020 to March 31, 2021 at an 877-bed tertiary care hospital in Detroit, Michigan. CLABSI, and BC and CL utilization rate were extracted from the electronic medical record (Epic® Bugsy). SIR and SUR data were extracted from National Healthcare Safety Network (NHSN).

**Results.** The average CLABSI rate per 1,000 CL days increased 24% from 1.66 to 2.06. Twenty percent of patients were hospitalized for COVID-19. The BC utilization rate per 1,000 CL days decreased from 0.43 to 0.32 with a 26% reduction. However, CL utilization increased by 28% from 0.25 to 0.32 (Figure 1). However, CLABSI due to common commensals decreased from 13.8% to 10.9%. The SIR increased significantly from 1.055 to 1.795 (P-value 0.008), resulting in a 70% increase. The overall SUR also increased from 0.900 to 0.988 (P-value < 0.001). Figure 2 is a control chart of the CLABSI rate from July 2019 to April 2021.

**Conclusion.** During the COVID-19 pandemic, there was a significant increase in CL utilization, CLABSI rate, SIR and SUR likely due to higher acuity in COVID-19 patients despite a decrease in BC orders.

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A comparison of CLABSI rates (displayed in infections/1000 catheter days) in all adult inpatients at our institution for calendar-years 2019 and 2020