studied the clinical characteristics of **Candida auris** catheter-related septic thrombosis as well as the appropriate management and duration of treatment.

**Methods.** We conducted this retrospective study where we included patients with CLABSI due to **Staphylococcus aureus** who had a concomitant radiographic evidence of thrombosis at the level of catheter placement between the years 2005 and 2017. We collected demographic, microbiological, clinical, and presentation data. The time to treatment and outcome within 3 months of bacteremia onset. Failure was defined as persistence of signs and symptoms at 72 hours, persistence bacteremia at 48–96 hours, relapse, complications or overall mortality.

**Results.** A total of 28 patients were included. The median age was 55 years. Total relapse/recurrence rate was 8% and all-cause mortality within 3 months was 16%. We found no significant difference in overall outcome between patients who had deep vs. superficial thrombosis. Patients with superficial thrombosis were found to have higher rate of persistent bacteremia (65% vs. 18%, p = 0.002) and bacteremia complications (35% vs. 5%, p = 0.027) compared to deep thrombosis. Patients who received less than 28 days of intravenous antibiotic therapy had higher all-cause mortality (31 vs. 5%, p = 0.001). A multivariable logistic regression analysis identified two independent predictors of treatment failure: presence in the community at any point during their illness (OR = 2.1, 95% CI = 0.9–5.4), and not receiving anticoagulation (OR = 0.24, 95% CI = 0.11–0.54, p < 0.01).

**Conclusion.** Intravenous anticoagulant therapy for 28 days or longer carries a survival advantage over shorter duration therapy and anticoagulation as an adjunctive treatment is an independent predictor of successful anticoagulation therapy.

**Disclosures.** I. Raad, The University of Texas MD Anderson Cancer Center: Shareholder, Licensing agreement or royalty. The University of Texas MD Anderson Cancer Center: Shareholder; Dr. Raad is a co-inventor of the Nitroglycerin-Citrate-Ethanol catheter lock solution technology which is owned by the University of Texas MD Anderson Cancer Center (UTMDACC) and has been licensed to Novel Anti-Infective Technologies LLC, in which UTMDACC and Licensing agreement or royalty.

2100. Nitroglycerin-Citrate-Ethanol Catheter Lock Solution Is Highly Effective in Eradicating Candida auris Biofilms

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**Background.** Blood stream infections due to **Candida auris** is a significant public health concern due to increased patient mortality, frequent misidentification, and high rates of antibiotic resistance. **C. auris** is known to be azole resistant, however several strains have been identified with elevated MICs to all classes of antifungals. Current treatment options for a pan-resistant strain of **C. auris** are azole resistant, however several strains have been identified with elevated MICs to all classes of antifungals.

**Methods.** Biofilm of **C. auris** biofilm was evaluated in 10 strains while **C. auris** biofilm was grown on silicone discs for 24 hours. Discs were then washed to remove any non-adherent organisms and exposed for 2 hours to various antifungal lock solutions including NiCE, Echinocandins, Azoles, and Amphotericin B. Discs were exposed to Muller-Hinton broth as a control. Subsequently discs were sonicated for 15 minutes in 5 mL of saline and quantitatively cultured onto sabouraud dextrose agar. Plates were incubated at 37°C for 48 hours and counted for growth. All testing was conducted with 6 replicates.

**Results.** NiCE and Caspofungin were significantly more effective in eradicating **C. auris** biofilms compared with control (P = 0.002 and 0.008, respectively). However, Caspofungin failed to eradicate a few strains of **C. auris** biofilm while NiCE completely eradicated all 10 strains. Micafungin, Amidafungin, Fluconazole, and Voriconazole were significantly different than control (P = 0.05) for all strains.

**Conclusion.** NiCE catheter lock solution was capable of completely eradicating all **C. auris** biofilms within 2 hours indicating high potential for preventing CRBSI caused by **C. auris**. Caspofungin eradicated some strains of **C. auris** biofilm, but failed to eradicate all. Other commonly used antifungals were no different than control.

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2101. Catheter-related Infections Complicating Central Venous Catheter Access Device Insertion: A Retrospective Audit and Comparison of Two Cohorts

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**Background.** Central venous access devices (CVAD) are essential for long-term intra-venous treatment of malignancies and other conditions. Catheter-related infections (CRI) are time-consuming and costly to manage. Use at risk of CVAD insertion and intervention are in a single institution to examine the role of antibiotic prophylaxis in prevention. **Methods.** A retrospective audit was carried out on CVAD insertions (tunnelled central venous catheter (CVC) or subcutaneous port) by the Vascular Surgery and Radiology Departments at a tertiary teaching hospital in Sydney, Australia from January 2014 to December 2016. Data were collected on patient demographics, antibiotic prophylaxis, skin preparation and CRIs. Rates of CRIs were compared by chi-square test (α = 0.05).

**Results.** Ninety-five (11 tunnelled CVC; 84 subcutaneous ports) and 222 (21 tunnelled CVC; 201 subcutaneous ports) CVAD insertions were performed by vascular surgeons and radiologists, respectively. Median age was 56 years (IQR 45–66) in the vascular cohort and 64 years (IQR 55–72) in the radiology cohort. Females were predominant in both vascular (70; 73.7%) and radiology (119, 53.6%) cohorts and the most common indication was chemotherapy (vascular 84; 86.4% and radiology 205; 92.8%, n = 121). Antibiotic prophylaxis was used in 88 (92.6%) vascular insertions but only 2 (0.95%, n = 12 missing) insertions by radiology. Iodine skin preparation was preferred for vascular insertions (92; 98.9%, n = 2 missing) compared with chlorhexidine for radiology insertions (214; 97.7%, n = 3 missing). CRIs occurred in 4 (2.4%) of the vascular cohort and 8 (3.6%) of radiology cohort (P = 0.80). **Conclusion.** Rates of CRIs complicating CVAD procedures were similar in a vascular cohort where most received antibiotic prophylaxis, and in a radiology cohort where antibiotic prophylaxis was rarely used. There was no evidence to support antibiotic prophylaxis in prevention of CRIs, although choice of skin preparation and other factors may have confounded findings.

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

2102. Peripherally Inserted Central Catheter (PICC) Placement: Indications and Financial Impact

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**Background.** Although PICCs are important for venous access, they pose risk of infection, venous thrombosis, and are costlier relative to other forms of vascular access. We conducted a preliminary quality improvement study to assess the indications for PICC placement at our institution and also to evaluate our associated healthcare cost.

**Methods.** We obtained data on all PICCs placed by the vascular access team over a representative 2-month period (November and December 2017) at Allegheny General Hospital. Indications entered during order entry for PICC placement were collected. Additionally, charts of all central line-associated blood stream infections (CLABSI) in 2017 were reviewed to determine the number of events where PICC may have been implicated. We calculated the cost incurred for PICC placement and that for treating infection in PICC-associated CLABSI. The cost of each PICC insertion is $4,700 and that of each CLABSI approximates $25,000.

**Results.** A total of 451 PICCs were inserted over the 2-month period. Documented indications for PICC insertion included: “poor venous access” (128, 28.3%), “receipt of antibiotic prophylaxis in prevention of CRIs” (259, 57.4%) and “other factors may have confounded findings.”

**Conclusion.** All authors: No reported disclosures.
2103. Clinical Profile of Patients with *Burkholderia cepacia* complex Bacteremia and Contaminated Ultrasound Gel as Possible Source of Infection

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**Background.** *Burkholderia cepacia* complex (Bcc) is Gram-negative bacteria commonly affecting those with cystic fibrosis, causing pneumonia and also a nosocomial pathogen. We looked at the clinical profile and possible source of Bcc bacteremia in patients without cystic fibrosis, admitted to a tertiary care hospital in South India.

**Methods.** Retrospective chart review was done of patients with Bcc bacteremia over the period 2012–2017. Patient risk factors, outcome, sensitivity profile were looked into. Possible sources for Bcc were analysed.

**Results.** Twenty-two patients with Bcc bacteremia were identified during this period. Age of patients ranged from 16 months to 83 years, averaging 47 years. 89.5% were nosocomial, 77.3% had indwelling vascular catheter, either CVC, dialysis catheter or permcath. When 30 days mortality was looked at, 17 patients survived and five patients expired. Those who expired had high Pitt's bacteremic score (scoring done either prior to or within 48 hours of positive culture). Four patients had underlying pneumonia, among whom two patient's respiratory sample grew Bcc, three also had had underlying vascular catheters. Sensitivity pattern of Bcc was noted as follows: trimethoprim-sulfamethoxazole was uniformly sensitive (100%), ceftazidime was sensitive in 86.5%, minocycline in 73% of isolates. Meropenem was tested in 19 and was found sensitive in 15 isolates (79%), fluoroquinolone was tested only in eight isolates and was sensitive in 7.

As majority was CLABSI, the bundle compliance and common products used for cvc were audited. Feedback and training for bundle compliance were given. The ultrasound gel, even the unoxygen bottle used for cvc insertion grew Bcc. Despite sterile cover around the probe after the application of contaminated gel, an associated risk was considered and was replaced with sterile gel sachet. At 3 months follow-up there is no further incidence of Bcc bacteremia, though longer follow-up is needed.

**Conclusion.** Bcc bacteremia is found to be an important nosocomial pathogen, commonly associated with intravascular catheters with 22.7% mortality in this study. Cotrimoxazole was 100% sensitive. Good infection control practices, including early removal of unnecessary catheters are important to prevent Bcc CLABSI. Ultrasound gels can harbour Bcc and poses a serious risk of infection.

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

2104. Impact of a Supervision and Education Directed Bundle in Ventilator-Associated Pneumonia (VAP) on a Pediatric Critical Care Unit of a Teaching Hospital

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**Background.** Proven measures to prevent VAP include 35–45° inclination of the head, prompt extubation, hand hygiene prior to intubation, oral hygiene with chlorhexidine, minimize secretion pooling above the endotracheal tube cuff. Adherence to these measures is crucial in an academic medical center (January 1, 2013–June 30, 2016) to determine prior patient and care factors that discriminate risk for incident VAP. VAP were defined by surveillance criteria from the CDC. Patient and care data were extracted via the EMR.

**Results.** A generalized linear mixed effects model found an increase of 1.1 (95% CI 0.53–1.7) subglottic suction events per day (SS/day) on the day before VAE diagnosis, relative to the 4 prior days. Of the 90 VAE included in the study, 41 were infectious (IVAC or VAP), and 49 were labeled ventilator-associated complication (VAC). In the IVAC/VAP group, mean SS/day was 8.0 on the day of VAE diagnosis, 7.5 one day prior, and 6.2 two days prior, compared with 6.6, 6.4, and 5.5 SS/day in the VAC group. Change in antibiotic prescription (87.8% (36) of patients in the IVAC/VAP group vs. 46.9% (23) in the VAC group) (P = 0.023) and acute liver injury (mean AST and ALT 52.9 and 43.6± 3 days before IVAC/VAP vs. 1,035.4 and 523.9 before VAC) also differed between the groups (P = 0.0065 and 0.0025).

**Conclusion.** Increased daily subglottic suctioning predicts both non-infectious and infectious VAE, but the observed increase is greater prior to IVAC/VAP Change in antibiotic prescription and acute liver injury also discriminated IVAC/VAP from non-infectious VAE in this study.

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

2106. What Metrics Should We Use to Evaluate CAUTI Performance for Inpatient Rehabilitation Units? An Evaluation of a Large, National Healthcare System

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**Background.** Mechanical ventilation is a life-sustaining therapy for critically ill patients, but is associated with increased hospital costs and risk for significant complications with poor outcomes. Adverse ventilator-associated events (VAEs) can be broadly divided into infectious (ventilator-associated complication (IVAC) or ventilator-associated pneumonia (VAP)) and non-infectious (ventilator-associated complication (VAC)) types. We sought to identify factors that predict both types, and factors that discriminate risk for infectious vs. non-infectious VAE, using electronic medical record (EMR) data available prior to index event.

**Methods.** We evaluated 90 consecutive adverse VAEs in the medical intensive care unit (MICU) of a large, national healthcare system. In patients with VAE, we identified prior patient and care factors that discriminate risk for incident VAE. VAE were defined by surveillance criteria from the CDC. Patient and care data were extracted via the EMR.

**Results.** A generalized linear mixed effects model found an increase of 1.1 (95% CI 0.53–1.7) subglottic suction events per day (SS/day) on the day before VAE diagnosis, relative to the 4 prior days. Of the 90 VAE included in the study, 41 were infectious (IVAC or VAP), and 49 were labeled ventilator-associated complication (VAC). In the IVAC/VAP group, mean SS/day was 8.0 on the day of VAE diagnosis, 7.5 one day prior, and 6.2 two days prior, compared with 6.6, 6.4, and 5.5 SS/day in the VAC group. Change in antibiotic prescription (87.8% (36) of patients in the IVAC/VAP group vs. 46.9% (23) in the VAC group) (P = 0.023) and acute liver injury (mean AST and ALT 52.9 and 43.6± 3 days before IVAC/VAP vs. 1,035.4 and 523.9 before VAC) also differed between the groups (P = 0.0065 and 0.0025).

**Conclusion.** Increased daily subglottic suctioning predicts both non-infectious and infectious VAE, but the observed increase is greater prior to IVAC/VAP Change in antibiotic prescription and acute liver injury also discriminated IVAC/VAP from non-infectious VAE in this study.

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