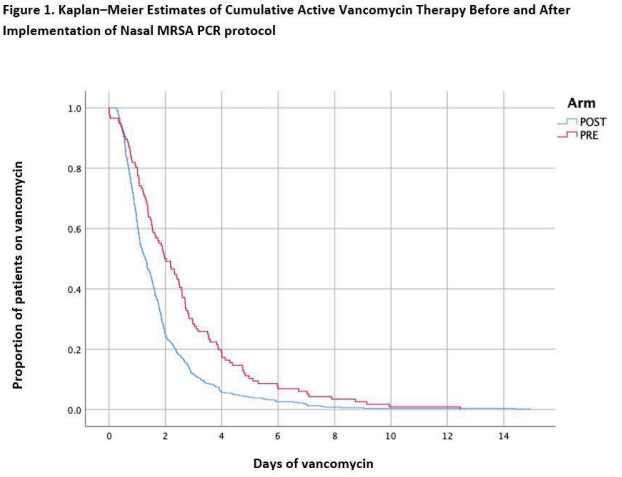
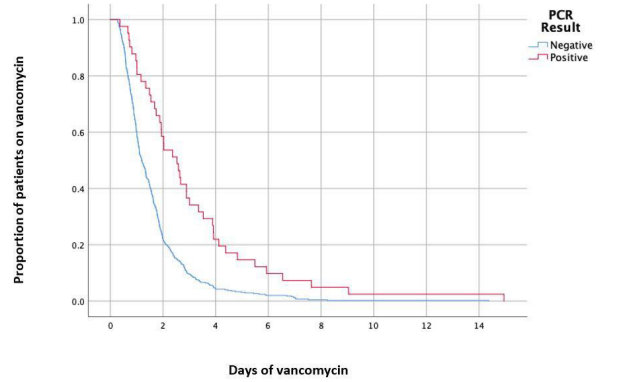
Figure 1. Primary Outcome: Kaplan–Meier Estimates of Cumulative Active Vancomycin Therapy Before and After Implementation of Nasal MRSA PCR protocol




Log-rank test **p <0.0005**. Median 1.29 days (95% CI 1.13-1.45) vs 1.98 days (95% CI 1.49-2.46) in POST vs PRE group

Figure 2. Secondary Outcome: Figure 2. Kaplan–Meier Estimates of Cumulative Active Vancomycin Therapy in Patients with Negative vs Positive Nasal MRSA PCR




Log-rank test **p <0.0005**. Median 1.20 days (95% CI 1.08-1.33) in POST group with negative nasal MRSA PCR vs 2.53 days (95% CI 1.77-3.29) in POST group with positive nasal MRSA PCR.

***Conclusion:*** Pharmacist-driven nasal MRSA PCR testing is effective and safe in early de-escalation of empiric vancomycin used for pneumonia treatment in a diverse population including critically ill and immunocompromised patients.

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

**1490. Serious Infections Caused by Carbapenem Susceptible and Carbapenem Resistant *Acinetobacter baumannii-calcoaceticus* Complex - A Retrospective Review**

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**Session:** P-67. Respiratory Infections - Bacterial

***Background.*** Increasing resistance to available antibiotics, including carbapenems, is limiting effective treatment options for serious *Acinetobacter baumannii-calcoaceticus* (ABC) complex infections that are associated with high mortality. This multi-center retrospective analysis is to describe the natural history and outcomes of serious ABC infections.

***Methods.*** This was a retrospective review of 125 cases of ABC infections from United States (US), Israel, Turkey and Russia. Baseline, microbiologic, treatment and outcomes data were collected from patients with hospital-acquired (HABP, n=23) or ventilator-associated bacterial pneumonia (VABP, n=26), bacteremia (n=36), urinary tract infections/acute pyelonephritis (n=16), and wound ABC infections (n=24) between 2017-2019.

***Results.*** Fifty percent of cases reviewed were from the US. The median age of patients was 63 years (range 18-93), 46% were > 65 years old, 69% were male, 31% had renal failure, and 22% had septic shock. The most common co-morbidities observed were cardiac disease (41%), diabetes (32%) and moderate or severe renal disease (26%). Rates of resistance were observed as follows: ciprofloxacin 74%, ceftazidime 67%, amikacin 52% and colistin 0%. Carbapenem resistance (CR) was observed in 49% of patients. Most patients (73%) received combination therapy with 37% receiving at least 4 antibiotics. Carbapenems (40%) and penicillin/b-lactamase inhibitors (42%) were mostly used for treatment. Polymyxins were used in 18% of cases. Overall, the 28-day mortality was 34% and was highest in bacteremia (56%) and VABP (50%). CR appears to be a factor in mortality and other outcomes, as well as hospital days (table). In patients who received monotherapy, all 5 patients with CR infection died compared to 29% mortality in patients with carbapenem sensitive (CS) infection. Mortality was 70% in 20 cases when colistin was used for treatment.

| Category | CR (n=60) | CS (n=63) |
|---|---|---|
| 28-day Mortality | 45% | 24% |
| *A. baumannii* Eradicated | 38% | 56% |
| Clinical Cure | 50% | 63% |
| Hospital Days (mean) | 16.9 d | 13.7 d |

***Conclusion:*** Serious ABC infections are associated with substantial comorbidities and a high mortality rate despite treatment with combination therapy. CR appears to be a major factor in mortality. New antibiotics are urgently needed to treat serious ABC infections.

***Disclosures.*** Khurram Rana, PharmD, Entasis Therapeutics (Employee) Galia Rahav, MD, AstraZeneca (Scientific Research Study Investigator) Kathleen Maloney, CCRP, Entasis Therapeutics (Employee) Subasree Srinivasan, MD MPH, Entasis therapeutics (Employee)

**1491. Standard- vs. High-dose Trimethoprim-Sulfamethoxazole for *Stenotrophomonas maltophilia* pneumonia**

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**Session:** P-67. Respiratory Infections - Bacterial

***Background.*** *Stenotrophomonas maltophilia* is a multidrug-resistant pathogen known to cause pneumonia with associated mortality rates up to 44%.[1,2] Trimethoprim-sulfamethoxazole (TMP-SMX) is the drug of choice based on available clinical evidence and excellent in-vitro susceptibility rates.3 High-dose TMP-SMX strategies recommend between 15-20mg/kg/day of the TMP component, however this has been associated with increased adverse drug events (ADE).[4,5] The optimal dosing strategy remains unclear and it is unknown whether lower doses of TMP-SMX would achieve similar outcomes.

***Methods.*** Patients with positive respiratory cultures for *S. maltophilia* who received at least 72 hours of TMP-SMX therapy for hospital-acquired or ventilator-associated pneumonia from January 2010 to March 2020 were included. Doses were categorized as standard-dose (SD) TMP-SMX (< 15 mg/kg/day TMP) or high-dose (HD) TMP-SMX (≥ 15 mg/kg/day TMP) after adjusting for renal function. The primary outcome was clinical success, defined as the composite of resolution of signs/symptoms of pneumonia, in-hospital survival, and no escalation of care. Secondary outcomes included hospital length of stay (LOS), 30-day mortality, 30-day readmission, and ADE.

***Results.*** Of the 44 patients meeting inclusion criteria for the study, 27 received SD and 17 received HD TMP-SMX therapy. Patients received 12 mg/kg/day (IQR 11-14) and 16 mg/kg/day (IQR 16-19) in the SD and HD groups, respectively. There was no difference in clinical success between the SD and HD group (41% vs 59%, p=0.24). Secondary outcomes were similar between both groups except for 30-day hospital readmission; the SD group had significantly lower readmission rates (6% vs 69%, p < 0.01). Rates of adverse events were not statistically different between the two groups.

***Conclusion.*** This study provides evidence that SD TMP-SMX may achieve similar clinical efficacy to HD TMP-SMX. We found no significant difference in clinical success, LOS, 30-day mortality, or adverse events between groups. Although HD TMP-SMX is the current recommendation for *S. maltophilia* infections, concerns about tolerability and adverse effects suggest that further clinical and pharmacodynamic research is needed.

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

**1492. Targeted Substitution of Omadacycline in Place of Standard of Care for CABP Treatment is Associated with a Risk Reduction of Clostridioides difficile Infection and Financial Cost Savings in the Acute Care Setting**

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**Session:** P-67. Respiratory Infections - Bacterial

***Background.*** Real-world evidence studies indicate that around 3% of hospitalized patients with community-acquired pneumonia (CAP) develop *Clostridioides difficile* infection (CDI; Chalmers et al, *J Infect* 2016;73:45–53). Factors associated with increased CDI risk include Davis risk score (DRS) ≥ 6, and treatment with high-risk antibiotics such as fluroquinolones (FQ) and ceftriaxone (CTX). Omadacycline (OMC) is indicated for the treatment of community-acquired bacterial pneumonia (CABP) and has demonstrated a low propensity to induce CDI in preclinical and clinical studies. In the phase 3 OPTIC study, 2% of CABP patients who received moxifloxacin (MOX) developed CDI vs 0% for OMC (Stets et al, *N Engl J Med* 2019;380:517–27); 14% of MOX patients with DRS ≥ 6 developed CDI vs 0% in the OMC group (**Table 1;**