pharmacist) to note an indication for continuation or plan for discontinuation. Within the alert, a dashboard was developed to include relevant patient information (e.g., temperature, white blood cell count, microbiology, etc). We sought to evaluate the impact of the ATO alert on the duration of therapy (DOT) of cefepime (CFP), ceftazidime (CTZ) and vancomycin (VAN), for the treatment of pneumonia (PNA) and urinary tract infections (UTI) for adult and pediatric patients.

Methods. This quasi-experimental, retrospective analysis included adult and pediatric patients that received ≥48 hours of CFP, CTZ, or VAN for UTI or PNA between April 1, 2017 and July 31, 2017 (pre-48H ATO) and October 1, 2018–December 31, 2018 (post-48H ATO). Fields at order-entry to specify an antibiotic indication were not available prior to our EHR interventions. A randomized subset from the Pre-48Hr ATO group was selected for detailed analysis. The primary endpoint was to evaluate the average DOT of CFP/CTZ combined, VAN alone, and the combination of CFP/CTZ/VAN. We also evaluated length of stay (LOS), all-cause inpatient mortality, and 30-day readmissions.

Results. A total of 157 antibiotic orders (n = 94 patients) were evaluated in the pre-48h ATO group, and 2093 antibiotic orders (n = 521 patients) post-48H ATO group. Pre-48H ATO, 85 patients received CFP/CTZ and 72 VAN. Post-48H ATO, 322 patients received CFP/CTZ and 198 VAN. PNA was the most common indication pre- and post-48H ATO. DOT significantly decreased pre- vs. post-48H ATO (Figure 1). LOS was 2 days shorter (P = 0.01) in the post-48H ATO group, mortality and 30-day readmissions was similar between groups (Table 1).

Conclusion. Average antibiotic DOT for CFP/CTZ, and VAN significantly decreased following the implementation of the 48H ATO at our medical center. LOS was reduced by 2 days, while mortality and 30-day readmissions were similar before and after.

Figure 1: Average Duration of Cefepime/Ceftazidime and Vancomycin Initiated for UTI or PNA

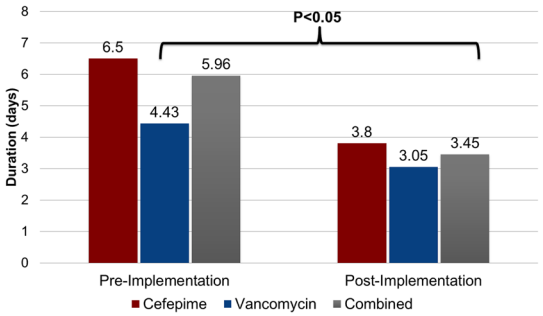

Table 1: Clinical outcomes

	Pre-48H ATO (n=94)	Post-48H ATO (n=521)	P-value
LOS (days, median)	18	15	0.01
30d readmissions (%)	32 (34)	126 (24)	0.08
Mortality (%)	7 (7.4)	64 (12.3)	0.16

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

1040. Effects of An Antimicrobial Stewardship Team-led *Staphylococcus aureus* Bacteremia Management Bundle: A Quasi-Experimental Study

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Background. Mortality associated with *Staphylococcus aureus* bacteremia (SAB) has prompted the development of "bundle"-based approaches to improve outcomes. Components of bundled strategies include appropriate antibiotic selection, early source control, documenting negative cultures, echocardiogram, and adequate treatment duration. In 7/2016, the UNC Antimicrobial Stewardship Program (ASP) began prospective monitoring of SAB patients. Here we describe the impact of these ASP efforts.

Methods. Quasi-experimental study of patients ≥16 years with SAB 9/2015-3/2016 (pre-intervention) and 9/201/2017 (post-intervention). Patients were excluded if the bloodstream infection was polymicrobial, therapy began at an outside hospital, or the patient was discharged or died within 72 hours of positive blood culture. Minimum adequate treatment duration was defined as 14 days for uncomplicated SAB; 28 days for complicated SAB; 42 days if endovascular disease or osteomyelitis present. Categorical variables were compared using the chi-squared test, significance level of $P < 0.05$. The study was approved by the UNC IRB.

Results. 217 treatment courses were included; 114 pre- and 103 post-intervention. Rates of adequate empirical antibiotics were consistently high throughout the study (Table 1). Pre-intervention, individual bundle components occurred frequently: negative culture documented (95%), echocardiogram (80%), and adequate duration of an appropriate antibiotic (71%; Table 2). After ASP intervention, echocardiography and adequate treatment duration rates increased to 92% ($P < 0.05$, both outcomes), as did ID consultation rates (59% to 67%; P = 0.04). Overall bundle achievement increased from 54% to 82%. ASP interventions were documented for 11 (10%) and 32 (31%) of patients during the periods. Mortality and readmission within 6 months of discharge were unchanged (12% and 11%; 41% and 42%, respectively).

Conclusion. ASP intervention was associated with increased rates of bundle achievement but did not impact mortality or 6-month readmission. Despite adequate empiric therapy and relatively high rates of adherence to best-evidenced practices, SAB continues to be associated with significant mortality and high rates of 6-month readmission.

Table 1: Patient and Infection Characteristics

	Pre-Intervention N = 114	Post-Intervention N = 103
Sex, male	58 (51%)	58 (56%)
Age, yr (median, IQR)	56 (43-69)	56 (40-66)
Admitting Service		
Medicine	51 (45%)	66 (64%)
Surgery	37 (32%)	16 (16%)
Oncology	10 (9%)	8 (8%)
Family Medicine	7 (6%)	5 (5%)
Other	9 (8%)	8 (8%)
S. aureus		
MSSA	61 (54%)	47 (46%)
MRSA	53 (46%)	56 (54%)
Adequate Empiric Therapy	114 (100%)	102 (99%)
Source of Bacteremia		
Endovascular	18 (16%)	11 (11%)
Respiratory	8 (7%)	6 (6%)
Gastrointestinal	2 (2%)	7 (7%)
Genitourinary	3 (3%)	3 (3%)
Skin and soft tissue	24 (21%)	7 (7%)
Bone/joint related	15 (13%)	14 (14%)
Catheter	28 (25%)	20 (19%)
Other	3 (3%)	2 (2%)
Unknown	13 (11%)	33 (32%)

Table 2: Achievement of Best Practices for *S. aureus* Bloodstream Infection

	Pre-Intervention, N = 114	Post-Intervention, N = 103	p-value
Blood Cultures Repeated Until Negative	108 (95%)	97 (94%)	ns
Source Control Procedure, if Applicable	62/70 (89%)	49/60 (82%)	ns
Echocardiogram	**91 (80%)**	**95 (92%)**	**0.009**
Adequate Treatment Duration*	**68/96 (71%)**	**87/95 (92%)**	**0.0002**
ID consultation	**63 (55%)**	**71 (69%)**	**0.04**
Complete Bundle Achievement	**62 (54%)**	**78 (76%)**	**0.001**

*Adequate minimum treatment duration defined as: 14 days for uncomplicated SAB, 28 days for complicated SAB, and 42 days if endovascular disease or osteomyelitis present. Patients who died or transitioned to palliative care prior to the end of therapy were not evaluated for this outcome.

Table 3: Patient Outcomes Following SAB

	Pre-Intervention, N = 114	Post-Intervention, N = 103
Death During Admission	14 (12%)	11 (11%)
Readmission Within 6 Months	47 (41%)	43 (42%)

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

1041. *Staphylococcus aureus* Bacteremia Bundle Adherence Pre- and Post-Implementation of Mandatory Infectious Diseases Consultation and Antimicrobial Stewardship Pharmacist Intervention

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