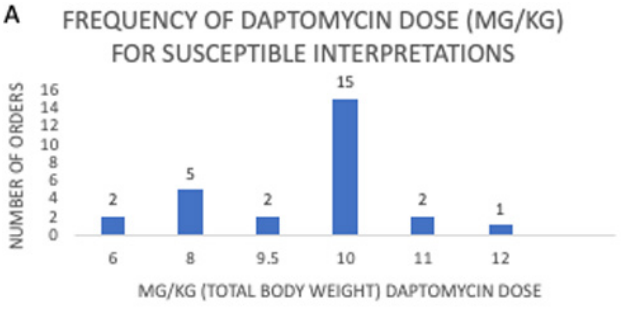
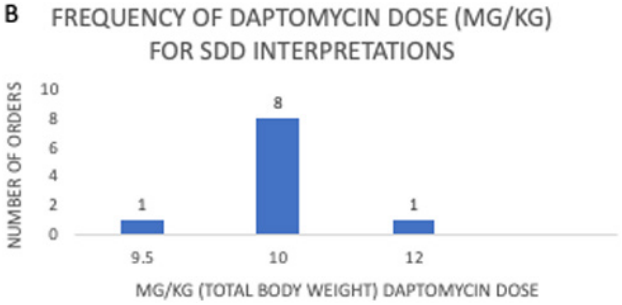
immunocompromising disease or medication. Of the cases in which it was a clinically appropriate option, clinicians selected daptomycin for definitive treatment in 81% of S and 71% of SDD cases (p = 0.46, Chi-square). Median daptomycin dose prescribed was 10mg/kg for both interpretations; dose range was 6-12mg/kg for S and 9.5-12mg/kg for SDD isolates. No temporal trend in prescribed dose noted over the 4-year study period. Repeat blood cultures performed in 50/56 (89%). Within 90 days, rates of relapse were low but mortality was 26/56 (46%).

Table 1. Infection and Treatment Characteristics

Characteristic	No. (%)
Age, mean (SD)	59 (11)
Sex	
Male	33 (59%)
Female	23 (41%)
Proportion with Obesity (>130% IBW)	29 (52%)
Immunocompromising condition	
Malignancy	24 (43%)
Solid Organ Transplant	7 (13%)
Hematopoietic Stem Cell Transplant	2 (4%)
Autoimmune Disease	1 (2%)
Immunocompromising medication	
None	29 (52%)
Active chemotherapy	25 (45%)
Chronic steroid use	6 (11%)
Calcineurin inhibitor	4 (7%)
Source of infection	
Unknown	25 (45%)
Central Venous Line	7 (13%)
Endocarditis	2 (4%)
Intrabdominal	16 (29%)
Pulmonary	1 (2%)
Osteomyelitis	2 (4%)
Skin and Soft Tissue Infection	1 (2%)
Urinary Tract Infection	2 (4%)
Enterococcal isolates	
E.faecium	51 (91%)
E.faecalis	5 (9%)
Daptomycin interpretation	
Susceptible	37 (66%)
SDD	14 (25%)
Intermediate	5 (9%)
Definitive treatment	
Daptomycin	44 (79%)
Linezolid	12 (21%)
Repeat blood cultures	50 (89%)
Duration of bacteremia, days median (range)	2 (0.75-11.32)
Clinical outcomes	
Relapse within 90 days	3 (5%)
Death within 90 days	26 (46%)

Chart 1. Frequency of prescribed daptomycin dose (mg/kg) for susceptible (A) and SDD (B) enterococci BSI isolates.





Conclusion. No difference detected in rate of daptomycin use nor median prescribed dose based on microbiologic interpretation. While the majority of doses were adequate (10mg/kg) based on current guidance for enterococcal BSI, the use of a directive comment to guide dosing and ID consultation may have recused outliers. Additional data is needed to characterize the impact of specific microbiologic interpretations on clinician prescribing and determine the most effective messaging strategies.

Disclosures. **David J. Weber, MD, MPH, PDI** (Consultant)

167. Incidence of Acute Kidney Injury with Aminoglycoside Impregnated Foreign Body Implantation

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Session: P-09. Antimicrobial Stewardship: Trends in Antimicrobial Prescribing

Background. During orthopedic surgeries, antibiotic impregnated cement is sometimes used to prevent infection. Elution from these cements can lead to systemically detectable levels of aminoglycosides, a known adverse effect of which is nephrotoxicity. The purpose of this study is to determine if the implantation of aminoglycoside impregnated cement is associated with subsequent development of Acute Kidney Injury (AKI).

Methods. A retrospective chart review from 1/1/2018-1/1/2021 was conducted to identify a relationship between aminoglycoside impregnated cement and subsequent development of AKI. Data were extracted from Electronic Health Records (Epic) and SAP Business Objects WebI. All patients with knee or hip arthroplasty or hardware removal procedures conducted at a Legacy Health facility during the specified time frame were included. Patients were excluded from the study if < 2 serum creatinine levels were drawn during that hospitalization, AKI occurred prior to the procedure, or dialysis was required at baseline. The primary outcome was development of AKI, a > 150% increase from baseline serum creatinine according to the Acute Kidney Injury Network (AKIN) criteria. The power level was set to 80% with an alpha level of 0.05. A multiple regression analysis was conducted to control for confounding variables

Results. A total of 2229 patients were included (591 received aminoglycoside cement,1638 did not). Aminoglycoside impregnated cement implantation was not associated with an increased incidence of AKI (1.5% versus 2.3%, P = 0.25). After controlling for covariates, aminoglycoside cement was not associated with development of AKI (adjusted OR 0.68, P = 0.32).

Table 1. Demographic information for the control and aminoglycoside groups

	Control (n=1638)	Aminoglycoside cement (n=591)	P value
Baseline SCr	0.86 (0.70 to 1.10)	0.86 (0.70 to 1.12)	0.44
Male sex	537 (32.8)	179 (30.3)	0.27
Non-white race	86 (5.3)	49 (8.3)	0.008
Age	73.7 +- 11.5	73.6 +- 11.7	0.73
NSAID use	1056 (64.5)	389 (65.8)	0.56
Obesity	243 (14.8)	162 (27.4)	<0.001
Diabetes	456 (27.8)	274 (46.4)	<0.001
CKD	146 (8.7)	62 (10.5)	0.20

Data presented as median (25th to 75th percentiles); number (%); or mean +- standard deviation

Table 2. Primary Outcome

	Control (n=1638)	Aminoglycoside cement (n=591)	P value
AKI (outcome)	38 (2.3)	9 (1.5)	0.25

Data are presented as number (%).

Conclusion. The results of this study suggest aminoglycoside impregnated foreign body implantation was not associated with a greater incidence of AKI development compared to implantation of foreign bodies lacking aminoglycosides. It is possible that development of AKI post-discharge was not identified in patients with uncomplicated procedures due to omission of lab draws once discharged. Patients admitted for longer durations were more likely to have multiple serum creatinine labs drawn during hospitalization, and likely had multiple comorbid conditions or complications, innately biasing and predisposing AKI development.

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

168. Syndrome-Based Analysis of Oral Antimicrobial Stewardship Opportunities at Hospital Discharge

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Session: P-09. Antimicrobial Stewardship: Trends in Antimicrobial Prescribing

Background. Suboptimal oral antibiotic prescriptions (OAPs) are prevalent at discharge and contribute to treatment failure, resistance, toxicity, and excess costs. Syndrome-specific prescribing patterns have not been widely described at discharge, nor have specific reasons for excessive treatment durations (the most commonly cited prescribing error).

Methods. Retrospective cohort of patients discharged from a general medicine service at an academic hospital with ≥1 OAP for urinary tract infection (UTI), skin and soft tissue infection (SSTI), or lower respiratory tract infection (LRTI). Study period varied to include a random sample of encounters occurring after the most recent institutional guideline update for each syndrome. Exclusions: multiple infectious indications, discharge against medical advice, parenteral antibiotics at discharge, pregnancy, cystic fibrosis, and immunocompromising conditions. Discharge OAPs were assessed for suboptimal selection, dose, frequency, or duration according to institutional guidelines (with secondary adjudication).

Results. Analysis included 160 encounters: 70 UTIs, 66 SSTIs, and 24 LRTIs. Of 71 (44%) culture-positive infections, Enterobacterales (61%) and *Streptococcus* spp. (15%) were most often identified. In total, 180 OAPs were issued – most commonly cefpodoxime (21%), cefadroxil (18%), and doxycycline (17%). Overall, 99 (62%) encounters were associated with a suboptimal discharge OAP. Of 138 suboptimal characteristics identified, suboptimal duration was most frequent (57%), specifically excessive duration (45%). Proportion of suboptimal OAPs and their underlying reasons are analyzed by syndrome in Figures 1 and 2, respectively. Miscalculation (39%), intentional selection of guideline-discordant duration (29%), and omission of inpatient antibiotic days (19%) were the most frequent reasons for suboptimal duration (Fig. 3).

Figure 1. Proportion of Suboptimal Oral Antibiotic Discharge Prescriptions According to Syndrome

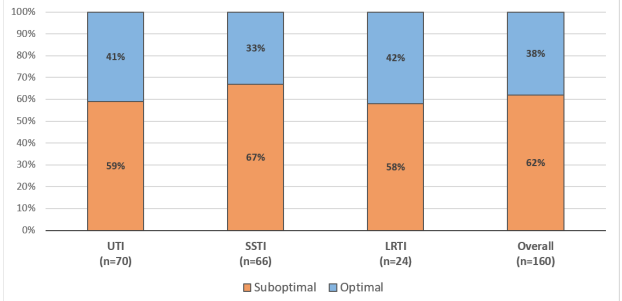


Figure 2. Reasons for Suboptimal Oral Antibiotic Discharge Presciptions According to Syndrome

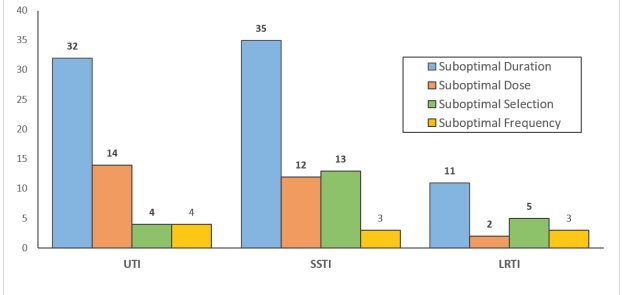
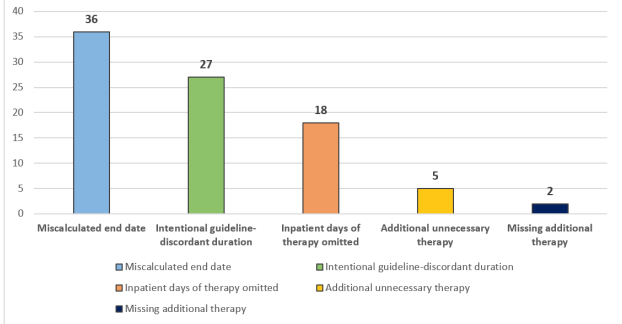


Figure 3. Identified Reasons for Suboptimal Duration



Conclusion. Suboptimal discharge OAPs were common for all studied syndromes, most notably SSTI. Excessive duration was a key driver, with reasons for inappropriate duration previously undescribed. Duration miscalculation and selection of appropriate treatment duration are key areas to focus electronic health record enhancements, provider education, and antimicrobial stewardship efforts.

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

169. Prevalence and Associated Patient Characteristics of Multi-Drug Resistant Organisms and Antibiotic Prescribing Patterns in Hospitalized Patients with Community-Acquired Pneumonia

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Session: P-09. Antimicrobial Stewardship: Trends in Antimicrobial Prescribing

Background. The 2019 Infectious Diseases Society of America/American Thoracic Society community-acquired pneumonia (CAP) guidelines eliminated the term healthcare-associated pneumonia (HCAP), and recommends to guide the use of broad-spectrum antibiotics by locally validating the prevalence and risk factors of multi-drug resistant organisms (MDROs). The objective of this study is to determine the prevalence and associated patient characteristics of MDROs, and to characterize antibiotic prescribing patterns.

Methods. This was a retrospective, cohort study in adult patients hospitalized from 1/1/19 to 12/31/19. Patients were randomly selected from a patient list of diagnosis codes suggestive of pneumonia. We excluded patients with antibiotic therapy < 48 hours, bacterial co-infections from another site, or transferred from another hospital with length of stay >24 hours. Endpoints evaluated include the percentage of MDRO isolated from a respiratory or blood culture collected within 2 days of admission, comparison of patient characteristics associated with MDROs with those who did not, treatment regimen and duration, and rate of overtreatment and undertreatment.

Results. A total of 220 patients were included. Prevalence of overall MDRO, methicillin-resistant *Staphylococcus aureus* (MRSA), and *Pseudomonas aeruginosa* (PSA) was 8%, 3%, and 5%, respectively. Patient characteristics associated with MDROs from are shown in Table 1. Prior MDRO history or recent intravenous (IV) antibiotic exposure during hospitalization was present in 39% of the MDRO cohort. Over half (58%) of the patients were initiated on antibiotics with MRSA and/or PSA coverage. Rate of overtreatment and undertreatment was 89% and 5%, respectively. Mean antibiotic duration was 9 ± 3 days.

Table 1. Patient characteristics associated with MDROs

N(%) unless otherwise noted	MDRO (N=18)	No MDRO (N=202)	P Value
Age, mean ± SD	68 ± 13.2	60 ± 14.3	0.0231
Congestive Heart Failure	8 (44)	43 (21)	0.0231
Interstitial lung disease (ILD)	3 (17)	7 (3)	0.0100
Tracheostomy present at time of admission	7 (39)	1 (0.5)	0.0001
Tube feeds at time of admission	7 (39)	5 (2)	0.0001
Gastric acid suppression at time of admission	10 (56)	64 (32)	0.0400
Nursing home or long-term care facility	6 (33)	13 (6)	0.0001
Antibiotic administration in the last 90 days	8 (44)	57 (28)	0.148
Total number of antibiotics, mean ± SD	3 ± 1	2 ± 1	<0.0001
Total antibiotic days, mean ± SD	33 ± 30	17 ± 27	0.0178
A: IV antibiotic administration and hospitalization for 2 days or more in the last 90 days	6 (33)	20 (10)	0.0032
B: MDR organism history within previous year	5 (28)	6 (3)	0.0001
A or B	7 (39)	24 (12)	0.0016
Severe CAP	8 (44)	43 (21)	0.0260

Conclusion. The low prevalence of MDROs, coupled with the high overtreatment and low undertreatment rate suggests most patients hospitalized with CAP at our institution can receive an antibiotic regimen targeting standard CAP pathogens. Antibiotic stewardship intervention to shorten the duration of therapy should be considered. In addition to microbiology history and recent IV antibiotic exposure during hospitalization, further studies are needed to validate other patient characteristics at risk for MDROs.

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

170. Antimicrobial Use Before and During COVID-19 – Data from 108 VA Facilities

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Session: P-09. Antimicrobial Stewardship: Trends in Antimicrobial Prescribing

Background. Increased antibiotic prescribing rates during the early phases of the COVID-19 pandemic have been widely reported. We previously reported that while both antibiotic days of therapy (DOT) and total days present (DP) declined in the first 5 months of 2020 at Veterans Affairs (VA) acute care facilities nationwide relative to the comparable period in 2019, antibiotic DOT per 1000 DP increased by 11.3%, largely reversing declines in VA antimicrobial utilization from 2015 – 2019. We now evaluate whether these changes in antibiotic use persisted throughout the COVID-19 pandemic.

Methods. Data on antibacterial use, patient days present, and COVID-19 care for acute inpatient care units in 108 VA level 1 and 2 facilities were extracted through the VA Informatics and Computing Infrastructure; level 3 facilities which provide limited acute inpatient services were excluded. DOT per 1000 DP were calculated and stratified by CDC-defined antibiotic classes.

Results. From 1/2020 to 2/2021, care for 34,096 COVID-19 patients accounted for 13% of all acute inpatient days of care in the VA. Following the onset of COVID-19 pandemic, monthly total acute care antibiotic use increased from 533 DOT/1000 DP in 1/2020 to a peak of 583 DOT/1000 DP in 4/2020; during that month COVID-19 patients accounted for 13% of all DP (Figure). In subsequent months, total antibiotic use declined such that for the full year the change of antibiotic use from 2019 to 2020 (a decrease of 18 DOT/1000 DP) was similar to the rate of decline from 2015 to 2019 (mean decrease of 13 DOT/1000 DP; Table). The decreased DOT/1000 DP from 5/2020 to 2/2021 occurred even as the percentage of all DP due to COVID-19 peaked at 14 - 24% from 11/2020 to 2/2021.