health record (EHR) of patients discharged on oral antibiotics from the Medical Service at the William S Middleton VA Hospital for appropriateness of antibiotic choice and total duration of therapy. Depending on availability of team members, reviews occurred twice weekly and included patients discharged within the previous 4 days. If an antibiotic was felt to be inappropriate, the case was discussed with the prescribing service and/or pharmacist. Recommendations were documented in the form of a note placed in the EHR with an emphasis on education. These interventions were logged and information regarding prescribing team/provider, antibiotic, indication, and type of intervention was collected. Intervention types included (but were not limited to) antibiotic stop, change of antibiotic, dose, or duration, and laboratory recommendations.

Results. Stewardship rounds evaluated 463 patients discharged on oral antibiotics from the Medical Service over 177 hospital days. Forty-one interventions were logged in 38 (8.2%) patients, i.e., approximately 1 intervention for every 12 patients discharged on oral antibiotics. The most common intervention type was antibiotic stop (49%), followed by a change in duration (15%). Interventions occurred most commonly in patients treated for COPD (27%), UTI (22%), and pneumonia (15%). Azithromycin (27%), cefpodoxime (12%), and trimethoprim–sulfamethoxazole (12%) were the antibiotics most frequently intervened upon.

Conclusion. Assessing postdischarge antibiotic therapy with feedback to prescribers is an additional area where Stewardship programs can focus to better optimize usage of antimicrobials.

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238. Sharing Unit-Specific Stewardship Metrics With Front-line Providers to Improve Antibiotic Prescribing

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Background. Inpatient antibiotics are estimated 30–50% inappropriate and novel antimicrobial stewardship (AS) strategies to engage prescribers are needed. The objective of this study was to describe the implementation of a customized antibiotic use and outcome report with family medicine (FAM) providers and the impact on prescribing behaviors for routine infections in hospitalized adults.

Methods. Single-center quasiexperiment before and after AS/FAM collaborative intervention. January–March 2017 Standard of Care: routine audit and feedback. FAM leadership worked with AS pharmacists to design reporting process. January–March 2018 Monthly Interventions: reports of antimicrobial use, appropriateness, harms; positive-deviance cases highlighting successful stewardship; education and survey of rotating FAM providers; handheld prescribing tools/guidelines. Consecutive admissions to the adult FAM ward with respiratory, urinary, and skin infections were evaluated. Primary endpoint: duration of optimal prescribing. Each day of therapy (DOT) was classified as optimal, suboptimal, unnecessary, or inappropriate. Antimicrobials were stratified by spectrum and propensity to cause harm. Secondary endpoints: use of broad-spectrum agents, appropriate duration of therapy, and safety.

Results. Adults (n = 150, 76 pre, 74 post) were similar in age, comorbid conditions, and antimicrobial indications (Figure 1). Following intervention, unnecessary antimicrobial days decreased from 2 to 0 days ($P < 0.001$) per patient, optimal therapy selection increased from 25% to 58% ($P < 0.001$). Narrow-spectrum agents increased from 41% to 59% ($P = 0.05$) while use of broader (52 vs. 48%) and extended spectrum agents (57 vs. 44%) were not significantly different in the cohort. Guideline concordant duration of therapy improved from 37% to 57% ($P = 0.015$). Concurrent unit-wide DOTs of broad and extended agents decreased (Figure 2).

Conclusion. Reporting unit-specific antimicrobial use, harms and successes, without change in standard audit and feedback, improved antimicrobial prescribing and quality of care. These findings support the need to engage front-line providers like FAM in stewardship interventions and reporting.

Figure 1.

	Pre n=76	Post n=74	p-value
Age, years ±SD	60.9 ± 19.4	61.4 ±18.7	0.937
Charlson score, median (IQR)	2 (1—4)	2 (1—4)	0.537
Unit census, median (IQR)	77.9 (72.1—85.5)	81.4 (77.7—90.7)	0.009
Length of stay, median (IQR)	2 (2—4)	3 (2—4)	0.142
Infection, n (%)			
• Urinary tract	31 (40.8)	22 (29.7)	0.157
• Skin/soft tissue	10 (13.2)	13 (17.6)	0.454
• COPD exacerbation	9 (11.8)	14 (18.9)	0.229
• Community-acquired pneumonia	29 (38.2)	28 (37.8)	0.968
○ CURB-65, score (IQR)	2 (0—2.5)	2 (1—3)	0.437
Duration of therapy, days (IQR)	8 (6—10.75)	6 (5—8)	0.001
• Optimal	4.5 (1—7)	5 (4—7)	0.055
• Unnecessary	2 (0—6)	0 (0—1)	<0.001
• Inappropriate	0 (0—1)	0 (0—0)	0.341
Optimal empiric selection, n (%)	52 (68.4)	59 (79.7)	0.114
Optimal definitive selection, n (%)	19 (25)	43 (58.1)	<0.001
Guideline concordant duration, n (%)	28 (36.8)	42 (56.8)	0.015
○ Prolonged	42 (55.3)	23 (31.1)	0.003
○ Short	6 (7.9)	9 (12.2)	0.384
Severe adverse drug-event, n (%)	7 (9.2)	6 (8.1)	0.810
C. difficile, n (%)			
○ Tested	6 (7.9)	4 (5.4)	0.746
○ Positive	1 (1.3)	0 (0)	---
Clinical resolution at follow-up (when follow-up available), n (%)	49/61 (80.3)	51/55 (92.7)	0.053
30-day readmission, n (%)	18 (23.7)	13 (17.6)	0.355
○ Infection related	8 (10.5)	4 (5.4)	0.248

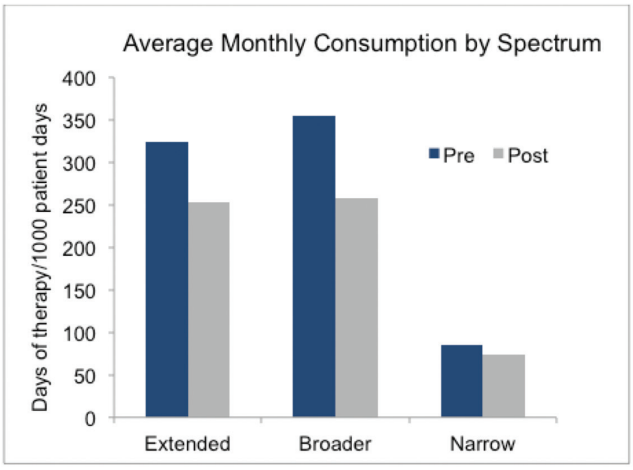

Figure 2: Monthly average of DOT/1000 patient days by spectrum of activity. Extended= carbapenems, antipseudomonal cephalosporins/penicillins, aminoglycosides, clindamycin, linezolid, vancomycin, daptomycin; broader= 2nd/3rd generation cephalosporins, ampicillin/amoxicillin + sulbactam/clavulanate, sulfonamides, macrolides; narrow= natural penicillins, aminopenicillins, nitrofurantoin, tetracyclines, 1st generation cephalosporins

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239. Implementation of a Vertical Antimicrobial Stewardship Intervention for Patients Colonized with *Clostridium difficile*

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Background. *Clostridium difficile* remains a pathogen of importance as global infections steadily rise. While traditionally thought of as a nosocomial infection, *C. difficile* prevalence is increasing in the community. This may be due partly to asymptomatic gastrointestinal colonization with *C. difficile*. Disruption of the gut microbiome in colonized patients (patients) through the use of antibiotics (ABX) and acid-suppressive therapy (AST) may lead to active colitis. In an effort to prevent progression to active disease, a novel vertical antimicrobial stewardship (AMS) intervention was initiated at our hospital on May 1, 2017. This study aims to describe our experience with this intervention.

Methods. This single-center, descriptive study evaluated the impact of a vertical AMS intervention for patients colonized with *C. difficile* as identified by surveillance nucleic acid amplification test (NAAT) upon hospital admission. Between May 1 and December 10, 2017, patients on five units [two hematology/oncology (HO), solid-organ transplant (SOT), intensive care unit (ICU), medicine ward (MED)] were screened, with surveillance results reported to the AMS team. Positive results prompted the AMS pharmacists to evaluate patients for potential ABX and AST de-escalation interventions (INTV) daily until discharge.

Results. Of the 37 patients who developed active colitis, ABX INTVs were made on 6 (16%) with 33% acceptance and AST INTVs were made on 10 (27%) with 50% acceptance.

Hospital Unit	Total Patients no.	Patients on ABX no. (%)	ABX INTV no. (%)	ABX INTV Accepted no. (%)	Patients on AST no. (%)	AST INTV no. (%)	AST INTV Accepted no. (%)	Patients that Developed Active Colitis no. (%)*
SOT	50	36 (72)	4 (11)	3 (75)	35 (70)	8 (23)	6 (75)	6 (12)
HO	106	86 (81)	15 (17)	9 (60)	84 (79)	23 (27)	16 (70)	18 (17)
MED	48	27 (56)	7 (26)	5 (71)	29 (60)	8 (28)	7 (88)	6 (13)
ICU	61	44 (72)	7 (16)	6 (86)	42 (69)	10 (24)	5 (50)	7 (11)
ALL Patients	265	193 (73)	33 (17)	23 (70)	190 (72)	49 (26)	34 (69)	37 (14)

*Active colitis: (NAAT+/Enzyme Immunoassay [EIA]+) or NAAT+/EIA– with symptoms.

Conclusion. The rate of progression from colonization to colitis was low in all patient populations studied, despite high rates of ABX and AST use. Further research into what causes progression from colonization to colitis is needed.

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