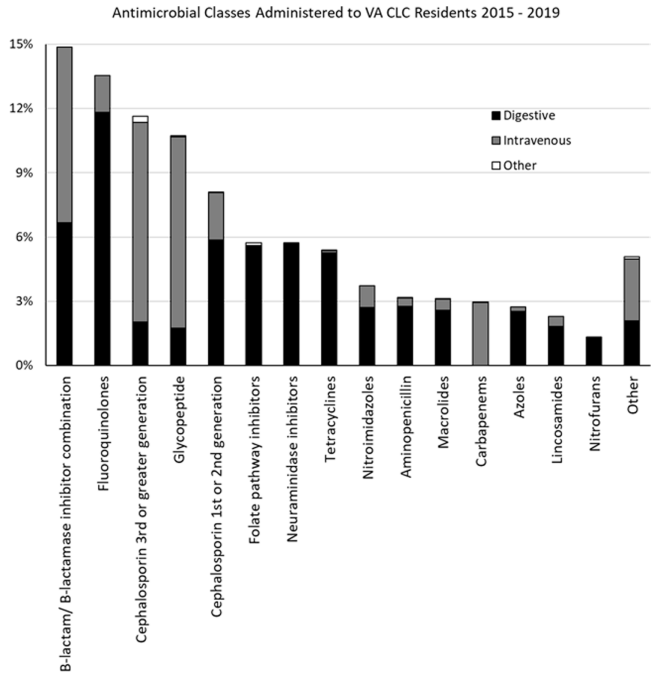
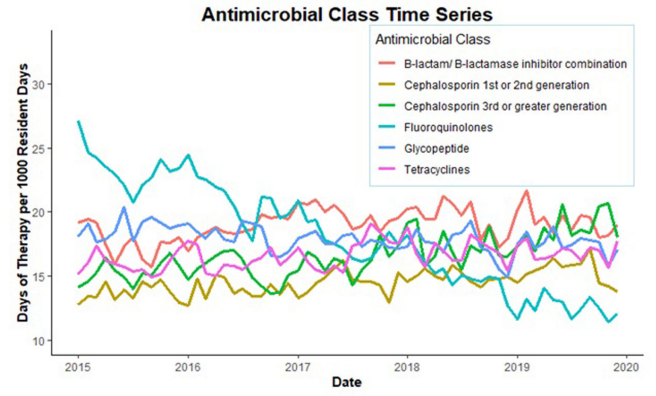




fluroquinolone use may have application for other antibiotic classes, both in VA and non-VA PALTC settings.

Disclosure: Robin Jump: Research support to my institution from Merck and Pfizer; Advisory boards for Pfizer

Antimicrobial Stewardship & Healthcare Epidemiology 2024;4(Suppl. S1):s6–s7

doi:10.1017/ash.2024.102

Presentation Type:
Poster Presentation - Top Poster Abstract

Subject Category: Antibiotic Stewardship

The Uncharted Patterns of Antibiotic Prescribing in Urology Ambulatory Practices: A Four-Year Analysis

Sonal Munsiff, University of Rochester; Kathleen Holt, Staff; Sucharu Ghosh, University of the Pacific and Ghinwa Dumyati, University of Rochester Medical Center

Background: Urinary tract infections (UTIs) represent a prevalent indication for outpatient antibiotic usage, yet limited data exist regarding antibiotic prescriptions within urology specialties. This study aimed to assess antibiotic prescribing patterns in urology offices over a four-year period, providing insights for potential stewardship interventions. **Methods:** The analysis focused on antibiotic prescribing trends in adults between 2018 and 2021 during both visit and non-visit (e.g. telephone and chart messages) encounters across 15 ambulatory Urology clinics in an academic medical center in Western New York. Exclusions were made for antivirals, antiparasitics, antifungals, oral suspensions, selected non-UTI antibiotics, duplicate orders on the same day or week, and prescriptions exceeding 28 days. Prescriptions were categorized into single doses administered in the clinic and those prescribed for 2-28 days, with descriptive statistics and trend analyses conducted using SAS v9.14. **Results:** Over the four-year period, 54,282 prescriptions were analyzed. Of these, 26,944 (49.7%) were single doses administered in the clinic, predominantly for pre-procedure prophylaxis. The most commonly prescribed antibiotics for prophylaxis were fluoroquinolones (FQ) (47.5%), followed by ceftriaxone (19.2%), nitrofurantoin (13.2%), trimethoprim/sulfamethoxazole (8.6%), and gentamicin (4.2%). Among the 27,288 prescriptions for 2-28 days, 72.3% were from non-visit encounters, with 61.6% prescribed by advanced practice providers (APPs) (Figure 1). The mean number of prescriptions per patient was 2.07, with women receiving more prescriptions than men (2.39 vs. 1.88, $P < 0.001$). FQ remained the most commonly prescribed antibiotics during all encounters (23.7%), followed by nitrofurantoin (23.0%) (Figure 2). The antibiotic duration was longer for visit-based compared to non-visit-based prescriptions (mean 10 vs. 7 days, $P < 0.001$). Notably, there was a significant decrease in fluoroquinolone use between Q1 2018 and Q4 2019 for both male and female patients, followed by insignificant changes thereafter. **Conclusions:** Antibiotic use in urology outpatient settings is substantially underestimated if only prescriptions made during visit encounters are considered. More than two-thirds of prescriptions for 2-28 days were from non-visit encounters, with the majority originating from APPs. The average therapy duration exceeded guideline recommendations. Moreover, approximately half of the

Figure 1: Comparing Antibiotics prescribed during visit vs. non-visit encounters

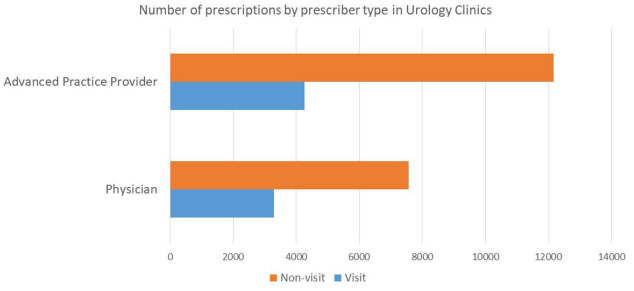
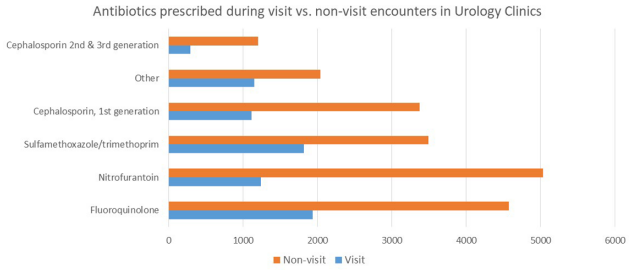


Figure 2: Comparing Antibiotics prescribed during visit vs. non-visit encounters



antibiotics were administered in the office for pre-procedure prophylaxis. To enhance antibiotic prescribing in these specialized clinics, interventions should focus on non-visit prescriptions and provide education for APPs, alongside adjustments to default durations in electronic orders. Further evaluation is essential to assess the appropriateness of single doses for pre-procedure prophylaxis.

Antimicrobial Stewardship & Healthcare Epidemiology 2024;4(Suppl. S1):s7–s8
doi:10.1017/ash.2024.103

Presentation Type:
Poster Presentation - Top Poster Abstract
Subject Category: Antibiotic Stewardship

Evaluation of Predictors Associated with Slow Clinical Response with Extension of Outpatient Parenteral Antimicrobial Therapy

Kristen McSweeney, Tufts Medical Center; Fang Yu Liu, Tufts Medical Center; Rachel Erdil, Tufts Medical Center; Majd Alsoubani, Tufts Medical Center; Tine Vindenes, TUSM; Shira Doron, Tufts Medicine and Kap Sum Foong, Tufts Medical Center, Tufts University School of Medicine

Background: Outpatient parenteral antimicrobial therapy (OPAT) provides a safe and effective alternative to prolonged hospitalization for patients with infectious diseases requiring elongated antimicrobial therapy. One study found that 35.6% of OPAT episodes met the composite definition for treatment failure, with unplanned extension of OPAT as the most common reason for treatment failure. Our study sought to identify factors predicting higher likelihood of extension of OPAT due to slow clinical response to treatment and determine how therapy extension relates to complications. **Method:** This retrospective cohort study included all patients aged ≥18 years discharged on OPAT between April 2022 and October 2022. Demographic, treatment, outcome, and complications data were extracted through chart review. The primary outcome was the proportion and predictors of OPAT extension due to slow clinical response to treatment. The secondary outcomes were OPAT complication rate, 30-day ED visit and 30-day readmission rates related to OPAT complications. We used univariable and multivariable logistic regression models for the primary outcome of slow clinical response requiring OPAT extension. Variables with $p < 0.1$ in the univariable analyses were included in the multivariable model. **Result:** 231 patients received OPAT during the six-month study. Among them, 40 (17.3%) patients required an extension of therapy. In univariable analysis, patients who had slow clinical response requiring extension of OPAT were more likely to have intraabdominal infection (odds ratio [OR], 2.435; 95% confidence interval[CI], 1.053–5.628), receipt of metronidazole (OR, 3.729; 95% CI, 1.413–9.842), and were more likely to be followed up through office visit (OR, 5.033; 95%CI, 1.164–21.759) or combination of office visit and telemedicine (OR, 2.223; 95%CI 1.041–4.747). Other variable comparisons are detailed in Figure 1. In the multivariable regression analysis, the independent predictor associated with extended of OPAT was follow-up via office visit (adjusted OR, 4.630; 95% CI, 1.024-20.694). Rates of complications related to intravenous access and antibiotic were similar between patients with and without extension; 15% vs. 11% (p=0.430) and 7.5% vs. 7.3% (p=1.000), respectively. There were no significant differences in 30-day ED visits and readmission rates between the 2 groups: 7.5% vs. 5.8%(p=0.715) and 12.5% vs. 7.3% (p=0.338). **Conclusion:** Our study highlights patient's office visit follow-up is associated with the OPAT extension due to slow clinical response. However, extended therapy did not result in a significant increase in complications or hospital readmissions. These findings suggest the importance of careful patient selection and monitoring for OPAT, potentially guiding more efficient and targeted healthcare practices.

Antimicrobial Stewardship & Healthcare Epidemiology 2024;4(Suppl. S1):s8
doi:10.1017/ash.2024.104

Figure 1. Characteristics and comparison of risk factors of Slow Clinical Response Requiring OPAT Extension

Characteristics	Slow Clinical Response with OPAT extension		Univariable regression		Multivariable regression	
	Yes n= 40	No n= 191	OR (95% CI)	*p* value	aOR (95% CI)	*p* value
Age in years, median (IQR)	63 (52, 78)	62 (52, 73)	1.005 (0.982 – 1.028)	0.679	-	-
Gender				0.969	-	-
• Female	15 (37.5)	71 (37.2)	Reference			
• Male	25 (62.5)	120 (62.8)	0.986 (0.488 – 1.994)			
Race				0.734	-	-
• White	30 (75.0)	148 (77.5)	Reference			
• Others	10 (25.0)	43 (22.5)	1.147 (0.550 – 2.533)			
Ethnicity						
• Non-Hispanic	38 (95.0)	173 (90.6)	Reference			
• Hispanic	2 (5.0)	18 (9.4)	0.506 (0.113 – 2.273)	0.374	-	-
Charlson comorbidity index						
• 0	5 (12.5)	21 (11.0)	Reference		-	-
• 1-2	8 (20.0)	49 (25.7)	0.868 (0.201-2.343)	0.547	-	-
• 3-4	8 (20.0)	55 (28.8)	0.611 (0.179 – 2.080)	0.431	-	-
• >5	19 (47.5)	66 (34.6)	1.203 (0.402 – 3.635)	0.735		
SUD	2 (5.0)	16 (8.4)	0.576 (0.127 – 2.609)	0.474	-	-
IVDU	0	9 (4.7)	0	0.999	-	-
Insurance						
• Commercial	13 (32.5)	66 (34.6)	Reference			
• Medicare	22 (55.0)	93 (48.7)	1.201 (0.565 – 2.555)	0.634	-	-
• Medicaid	4 (10.0)	28 (14.7)	0.725 (0.217 – 2.419)	0.601	-	-
• Others	1 (2.5)	4 (2.1)	1.269 (0.131-12.292)	0.837	-	-
Primary language						
• English	36 (90.0)	1175 (91.6)	Reference			
• Non-English	4 (10.0)	16 (8.4)	1.215 (0.384 – 3.849)	0.740	-	-
Penicillin allergy	5 (12.5)	34 (17.8)	0.660 (0.241 – 1.807)	0.418	-	-
Discharge location						
• Home	29 (72.5)	123 (64.4)	Reference			
• SNF	11 (27.5)	68 (35.6)	0.686 (0.323 – 1.459)	0.328	-	-
Indications						
• B&J	14 (35.0)	76 (39.8)	0.815 (0.400 – 1.660)	0.573	-	-
• Primary PSI	9 (22.5)	63 (33.0)	0.590 (0.265 – 1.314)	0.197	-	-
• SSTI	8 (22.0)	29 (15.2)	1.397 (0.585 – 3.332)	0.452	-	-
• IAI	10 (25.0)	23 (12.0)	2.435 (1.053 – 5.628)	0.037	2.181 (0.865 – 5.500)	0.098
• IE/CIED infection	5 (12.5)	17 (8.9)	1.462 (0.506 – 4.225)	0.483	-	-
• Others	5 (12.5)	24 (12.6)	0.994 (0.355 – 2.785)	0.991	-	-
Access						
• Central	30 (75.0)	141 (73.8)	Reference			
• Peripheral	10 (25.0)	50 (26.2)	0.940 (0.429 – 2.061)	0.877	-	-
Antibiotic class						
• Penicillin	8 (20.0)	40 (20.9)	0.944 (0.404 – 2.207)	0.894	-	-
• Cephalosporin	22 (55.0)	93 (48.7)	1.288 (0.650 – 2.554)	0.469	-	-
• Carbapenems	7 (17.5)	24 (12.6)	1.475 (0.588 – 3.707)	0.407	-	-
• Glycopeptides	8 (20.0)	43 (22.5)	0.860 (0.369 – 2.005)	0.728	-	-
• Metronidazole	8 (20.0)	12 (6.3)	3.729 (1.413 – 9.842)	0.008	2.091 (0.605 – 7.230)	0.244
• Others	4 (10.0)	28 (14.7)	0.647 (0.214 – 1.959)	0.441	-	-
Number of Antibiotics						
• 1	21 (52.5)	131 (68.8)	Reference			
• 2	17 (42.5)	56 (29.3)	1.894 (0.929 – 3.859)	0.079	1.490 (0.651 – 3.411)	0.345
• 3	2 (5.0)	4 (2.1)	3.119 (0.537 – 18.107)	0.205	1.390 (0.170 – 11.350)	0.758
Frequency						
• <=2 /day	22 (55.0)	103 (53.9)	Reference			
• >2 /day	18 (45.0)	88 (46.1)	0.958 (0.483 – 1.899)	0.901	-	-
Office visit						
• No (n=42)	2 (4.8)	40 (95.2)	Reference			
• Yes (n=189)	38 (20.1)	151 (79.9)	5.033 (1.164 – 21.759)	0.031	4.630 (1.024 – 20.694)	0.047*
Telehealth visit						
• No (n=161)	25 (15.5)	136 (84.5)	Reference			
• Yes (n=70)	15 (21.4)	55 (78.6)	1.484 (0.728 – 3.026)	0.278	-	-
Both office and telehealth visit						
• No (n=184)	27 (14.7)	157 (85.3)	Reference			
• Yes (n=47)	13 (27.7)	34 (72.3)	2.223 (1.041 – 4.747)	0.039	1.462 (0.645 – 3.312)	0.363
Time from hospital discharge to first OPAT follow up, days, median (IQR)	10 (7, 15)	9 (7, 12)	1.023 (0.984 – 1.063)	0.251	-	-
Missed appointment						
• 0	32 (80.0)	155 (81.2)	Reference			
• 1	6 (15.0)	21 (11.0)	1.384 (0.517 – 3.702)	0.517	-	-
• >1	2 (5.0)	15 (7.9)	0.646 (0.141 – 2.964)	0.574	-	-
Missing OPAT labs	4 (10.0)	32 (16.8)	0.549 (0.128 – 1.649)	0.285	-	-

Presentation Type:
Poster Presentation - Top Poster Abstract
Subject Category: Antibiotic Stewardship

Implementing an Antimicrobial Stewardship Lecture Series for Family Medicine Residency Programs in South Carolina

Kayla Antosz, ASC-SC, University of South Carolina College of Pharmacy; Pamela Bailey, Prisma Health Midlands/University of South Carolina; Majdi Al-Hasan, University of South Carolina School of Medicine; Brandon Bookstaver, Prisma Health-Midlands; Hana Winders, Prisma Health-Midlands and Sarah Battle, Prisma Health-Midlands

Background: Family medicine physicians are one of the leading prescribers of antimicrobials in both the inpatient and ambulatory setting, however appropriate education on antimicrobial stewardship (AS) is lacking. The Antimicrobial Stewardship Collaborative of South Carolina (ASC-SC)