Presentation Type:
Poster Presentation
Subject Category: Antibiotic Stewardship
Appropriateness of Antibiotic Duration at the Time of Hospital Discharge
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Background: Antimicrobial stewardship initiatives usually occur in the inpatient setting, and they are often lacking at transitions of care (TOC), including hospital discharge. We assessed the appropriateness of antibiotic treatment duration at the time of discharge from our institution. **Methods:** This retrospective chart review included 300 adult patients discharged on oral antibiotics for acute infections during a 3-month period in 2019. The primary outcome was the duration of antibiotic therapy (DOT). To assess appropriateness, we compared the prescribed DOT (1) to that recommended by clinical guidelines, (2) to the minimum supported by clinical trials, and (3) to the period beyond the point of clinical stability, defined as normal vital signs with improvement in symptoms present from diagnosis. Each indication and antibiotic was assessed using standards appropriate for the combination. **Results:** Results are shown in Tables 1 and 2 and Figure 1. **Conclusions:** Antibiotics were often given longer than necessary on hospital discharge. In this study, patients received a median 2 days of excess antibiotics compared to recommended guidelines and 6 days after reaching clinical stability. A pilot TOC stewardship program was initiated to address this problem.
Funding: No
Disclosures: None

Table 1. Patient Characteristics

	Value
Total (n)	300
Age, years (Median, IQR)	59 (48-68)
Male (n, percentage)	129 (43%)
Charlson Comorbidity Index (Median, IQR)	3.5 (1-6)
Duration of hospitalization, days (Median, IQR)	4 (2-5)
Route of inpatient antibiotic administration, number of patients	
IV (n, percentage)	218 (73%)
Oral (n, percentage)	228 (76%)
Was the oral antibiotic on discharge given in the hospital first?	
Yes (n, percentage)	211 (70%)

Table 2. Antibiotic Duration

	Days of therapy, median (IQR)								
	Total (n=300)	Cystitis (n=33)	CAP (n=67)	SSTI (n=80)	IAI (n=15)	COPD (n=58)	Pyelonephritis (n=30)	HAP (n=9)	Other (n=8)
Total duration	8 (6-11)	7 (5-7)	7 (7-9)	10 (8-14)	10 (8.5-17)	5 (5-7)	13 (10-14)	7 (7-8)	9 (7.8-13.3)
Duration of oral outpatient antibiotics	5 (3-7)	4 (2-5)	5 (3.5-5)	7 (5-10)	7 (5-9.5)	3 (2-4)	7.5 (5.3-10)	3.5 (3-5)	6 (4.5-7.8)
Excess duration compared to guidelines	2 (0-4)	3 (0-5)	2 (2-3.5)	3 (1-6)	3 (1.5-10)	0 (0-0)	1 (0-4)	0 (0-1)	7.5 (5-8)
Excess duration compared to minimum possible	3 (1-5)	4 (2-6)	2 (2-4)	4 (2-6)	7 (5-13.5)	0 (0-1.8)	4 (1.3-5.8)	0 (0-1)	7.5 (5-8)
Antibiotic duration received after point of clinical stability	6 (4-8)	5.5 (4-7)	6 (4.5-7)	8 (6-10)	8 (6.5-12.5)	4 (3-5)	9.5 (8-11.8)	5 (4-5)	7.5 (5.5-13)

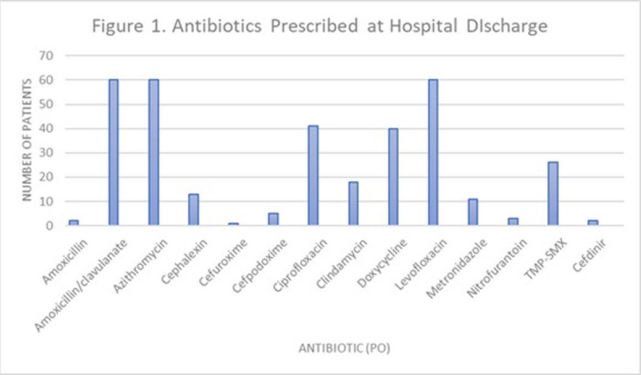

Figure 1.

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Subject Category: Antibiotic Stewardship
Adherence to Antibiotic Stewardship Program Associated with Shorter Course of Treatment and Fewer Adverse Events
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Background: Prolonged antibiotic use has been attributed to an increased incidence of adverse drug events (ADEs). Cessation of unnecessary antibiotics would decrease length of treatment and may help prevent these adverse events. We evaluated whether an antibiotic stewardship intervention aimed at stopping unnecessary antibiotic usage would both shorten

Table 1.

NO INFECTION INTERVENTION RECCOMENDATIONS			
	FOLLOWED RECOMMENDATION		
	NO N=90	YES N=78	P-value
Demographics			
Age, in years	84.9 [76.1 - 90.3]	85.8 [74.6 - 89.8]	0.749
Female	75 (83.33%)	59 (75.64%)	0.296
Patient Ethnicity			
Hispanic/Latinx	3 (3.33%)	2 (2.56%)	1.000
African American	2 (2.22%)	3 (3.85%)	0.664
Asian	0 (0.00%)	3 (3.85%)	0.098
Caucasian	77 (85.56%)	60 (76.92%)	0.215
Other	11 (12.22%)	12 (15.38%)	0.712
BMI	26.09 (6.11)	26.25 (5.93)	0.870
APACHE II IP Score	12.21 (3.38)	12.09 (4.49)	0.847
Surgical Patient	9 (10.00%)	9 (11.54%)	0.943
ICU Admission	10 (11.11%)	2 (2.56%)	0.065
Inpatient	59 (65.56%)	49 (62.82%)	0.836
OUTCOMES			
Total ADEs [a, b]	21 (23.33%)	6 (7.69%)	**0.011**
Antibiotic Days (Inpatient only) [a]	1.99 (1.01)	1.40 (0.86)	**0.000**
Individual ADEs			
Cardiac	1 (1.11%)	0 (0.00%)	1.000
Dermatologic	1 (1.11%)	0 (0.00%)	1.000
Hematologic	10 (11.11%)	5 (6.41%)	0.427
Nausea	7 (7.78%)	1 (1.28%)	0.069
Neurologic	1 (1.11%)	0 (0.00%)	1.000
Non Cdiff Diarrhea	3 (3.33%)	0 (0.00%)	0.249
Renal	3 (3.33%)	0 (0.00%)	0.249

[a] Median (IQR)
[b] P-value < 0.05. All other p-values ≥ 0.05.