created a family medicine AS lecture series to increase awareness of stewardship, improve antimicrobial prescribing throughout the state, and ultimately combat antimicrobial resistance. **Methods:** All family medicine residency programs in South Carolina (n=17) were contacted to determine interest in a four 1-hour long lecture series regarding various AS topics provided by infectious diseases physicians and pharmacists. The introductory AS lecture included topics such as interpreting minimal inhibitory concentrations, utilizing antibiograms, guidelines for diagnosing and treating common infections, and antibiotic essentials. Lectures were given on-site, and eight identical pre- and post-lecture questions were asked to assess baseline knowledge and efficacy of the introductory lecture. Not all the attendees answered all the pre- and post-lecture questions. A Chi-square analysis was used to determine statistical significance. **Results:** To date, 7 family medicine residency programs were given the introductory antimicrobial stewardship lecture and were included in the total analysis. Respondents included 1st year (25 of 99 responses, 25%) and 2nd year family medicine residents (17 of 99 responses 17%). When asked "How familiar are you with the concept of antimicrobial stewardship?", 43 of 106 (41%) respondents were at least familiar or very familiar prior to the lecture compared to 81 of 93 (87%) after the lecture ($p < 0.001$). When asked "How confident are you in using antibiograms for antimicrobial decisions?", 41 of 107 (38%) were confident or very confident pre-lecture and 83 of 101 (82%) post-lecture ($p < 0.001$). When given a case-based question on using an antibiogram to determine an appropriate empiric agent for inpatient pyelonephritis, 59 of 107 (55%) respondents were able to answer the question correctly pre-lecture compared to 85 of 99 (86%) post-lecture ($p < 0.001$). Among those who answered the question incorrectly, 60% selected the agent with the highest percentage susceptible rate in the antibiogram, despite it being an inappropriate agent for pyelonephritis. **Conclusion:** The ASC-SC lecture series was an effective tool to increase awareness and knowledge of antimicrobial stewardship to family medicine providers. This lecture series survey data helps determine what family medicine residents commonly misunderstood in AS concepts and helps guide future initiatives.

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Infectious Diseases Consultation Reduces Antibiotic Duration for Uncomplicated Gram-Negative Bacteremia

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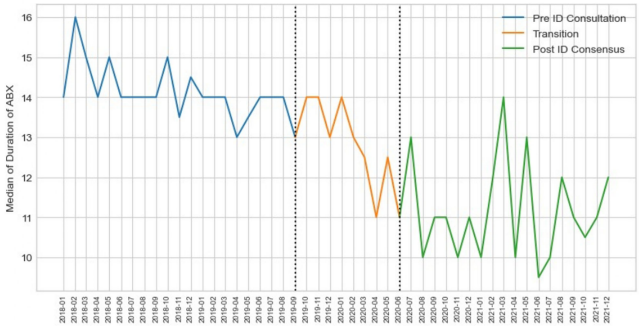
Background: Unlike Staphylococcus aureus bacteremia, the impact of ID consultation for gram negative bacteremia (GNB) has not been well studied. Recent literature has supported shorter courses of antibiotics in adults with uncomplicated GNB. We examined duration of therapy for adult patients with uncomplicated GNB over a period of time during which ID consultation for GNB was made mandatory. **Method:** NorthShore University HealthSystem is a 4 hospital, 828 bed hospital system located in the northern suburbs of Chicago. Data were collected retrospectively from 1/1/2018 through 12/31/2021 for patients 18 years or older hospitalized with an uncomplicated bloodstream infection due to Escherichia coli, Klebsiella species or Proteus species. This study was approved by the Institutional Review Board. All sources of infection were included. Days of effective antibiotic therapy were extracted manually by two pharmacists and an infectious diseases physician. During the study period, two major changes occurred: 1) the Physician Practice Council of NorthShore University Healthsystem voted in favor of a mandatory ID consultation for GNB and 2) the ID division developed a treatment algorithm for GNB management with an emphasis on shorter antibiotic duration in uncomplicated cases. This study was divided into three time periods:

	Overall n=1026	Pre ID Consultation n=399	Transition n=236	Post ID Consensus n=391	P-Value
Age in yrs	77.9 [66.8,85.9]	76.6 [65.8,85.8]	78.3 [66.1,84.9]	78.5 [67.4,86.4]	0.534
Gender					
F	566 (55.2)	220 (55.1)	136 (57.6)	210 (53.7)	0.633
M	460 (44.8)	179 (44.9)	100 (42.4)	181 (46.3)	
Race					
African American	57 (5.6)	27 (6.8)	9 (3.8)	21 (5.4)	0.472
Asian	74 (7.2)	26 (6.5)	23 (9.7)	25 (6.4)	
Caucasian	690 (67.3)	266 (66.7)	148 (62.7)	276 (70.6)	
Declined/Unknown	4 (0.4)	2 (0.5)	1 (0.4)	1 (0.3)	
Hispanic/Latino	78 (7.6)	31 (7.8)	20 (8.5)	27 (6.9)	
Other	123 (12.0)	47 (11.8)	35 (14.8)	41 (10.5)	
BMI	26.6 [23.0,31.1]	25.9 [22.7,31.2]	26.6 [23.1,30.8]	27.0 [23.3,31.2]	0.472
Organism Name					
Escherichia coli	681 (66.4)	281 (70.4)	147 (62.3)	253 (64.7)	0.578
Escherichia coli, ESBL-producing strain	92 (9.0)	30 (7.5)	25 (10.6)	37 (9.5)	
Klebsiella aerogenes	7 (0.7)	2 (0.5)	1 (0.4)	4 (1.0)	
Klebsiella oxytoca	27 (2.6)	7 (1.8)	11 (4.7)	9 (2.3)	
Klebsiella pneumoniae	141 (13.7)	51 (12.8)	35 (14.8)	55 (14.1)	
Klebsiella pneumoniae - ESBL-producing strain	10 (1.0)	4 (1.0)	2 (0.8)	4 (1.0)	
Klebsiella pneumoniae CRE	2 (0.2)		1 (0.4)	1 (0.3)	
Klebsiella variicola	6 (0.6)	3 (0.8)	2 (0.8)	1 (0.3)	
Proteus hauseri	1 (0.1)		1 (0.4)		
Proteus mirabilis	46 (4.5)	16 (4.0)	8 (3.4)	22 (5.6)	
Proteus species	13 (1.3)	5 (1.3)	3 (1.3)	5 (1.3)	
Outcomes					
LOS	4.0 [3.0,7.0]	4.0 [3.0,6.0]	5.0 [3.0,7.0]	5.0 [3.0,7.0]	0.098
Readmission	161 (15.7)	60 (15.0)	38 (16.1)	63 (16.1)	0.9
Mortality	3 (0.3)	1 (0.3)	1 (0.4)	1 (0.3)	0.913
Duration Days	14.0 [10.0,15.0]	14.0 [13.0, 15.0]	13.0 [8.0, 14.0]	11.0 [10.0,14.0]	<0.001

Figure 1:



Pre-ID consultation – 1/1/2018 – 8/31/2019; Transition – 9/1/2019 – 5/31/2020 (after mandatory ID consultation, before ID division consensus achieved); Post-ID Consensus – 6/1/2020 – 12/31/21. Primary outcome was duration of antibiotic therapy. Secondary outcomes included in-hospital all-cause mortality and 30 day readmission. Continuous variables were described using median and interquartile range, and categorical data using frequency and prevalence. Kruskal-Wallis rank sum test for continuous and $\chi 2$ for categorical variables was used to verify similarity among the pre-ID consultation, transition and post-ID consensus periods. The analysis was performed using Python. **Result:** 1026 patients were included in the study. Pathogens included 773 E. coli (75.4%), 193 Klebsiella species (18.8%) and 60 Proteus species (5.9%). Length of stay, 30 day readmission and in-hospital mortality were not statistically significantly different when comparing pre-ID consultation and post-ID consensus time periods. Total duration of therapy was statistically significantly shorter in the post-ID consensus period ($p < 0.001$). **Conclusion:** Mandatory ID consultation and development of an ID consensus approach can shorten antibiotic duration in uncomplicated GNB. Further analysis will explore timing of transition to oral therapy and syndromic differences.

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