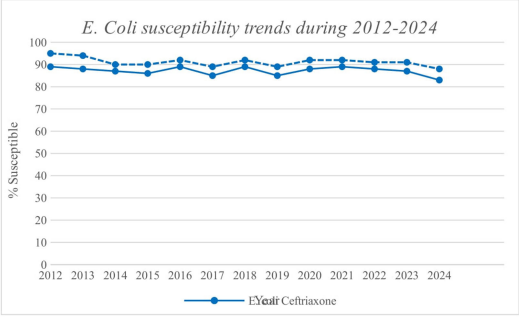
Table 1: Annual percent susceptibility of *Escherichia coli* and *Klebsiella pneumoniae* to ceftriaxone, cefepime, and piperacillin-tazobactam from 2012–2024. Percent susceptibility was determined using Clinical and Laboratory Standards Institute (CLSI) breakpoints. Median annual isolate counts were 1,532 (range 1,028–1,727) for *E. coli* and 561 for *K. pneumoniae* (range 406–601).

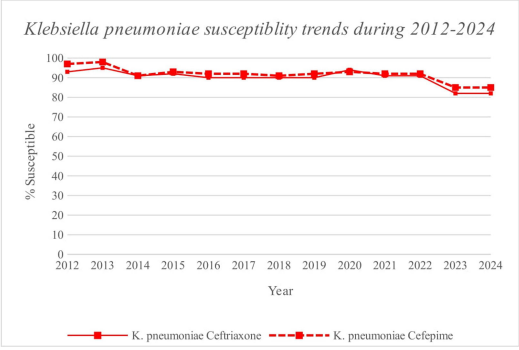
ORGANISM	DRUG	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Escherichia coli	Ceftriaxone	83	87	88	89	88	85	89	85	89	86	87	88	89
	Cefepime	88	91	91	92	92	89	92	89	92	90	90	94	95
	Piperacillin/ tazobactam	96	96	96	96	96	97	98	96	97	96	95	95	96
Klebsiella pneumoniae	Ceftriaxone	82	84	91	91	94	90	90	90	90	92	91	95	93
	Cefepime	85	85	92	92	93	92	91	92	92	93	91	98	97
	Piperacillin/ tazobactam	92	89	94	95	94	94	97	93	94	93	92	96	95

Figure 1. Trends in ceftriaxone and cefepime susceptibility among *E. coli* (Panel A, blue) and *K. pneumoniae* (Panel B, red), 2012–2024; solid lines= ceftriaxone, dashed lines= cefepime; annual isolate counts for 2019–2024: *E. coli* n = 1170, 1028, 1727, 1557, 1506, 1624; *K. pneumoniae* n = 470, 406, 601, 567, 583, 555; institutional inpatient antibiogram, Mayo Clinic Rochester; susceptibility interpreted according to CLSI guidelines.

PANEL A

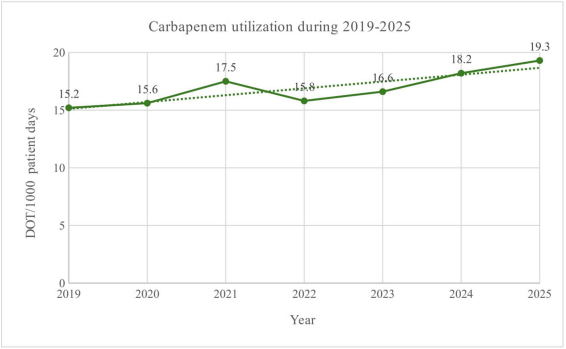


PANEL B



from 93% to 82% for K. pneumoniae, while cefepime susceptibility declined from 95% to 88% and 97% to 85% respectively (Figure 1). During the overlapping years 2019–2024, Pearson correlation showed modest downward susceptibility trends for ceftriaxone (E. coli r = −0.900, p = 0.014; K. pneumoniae r = −0.840, p = 0.036) and cefepime (E. coli r = −0.780, p = 0.067; K. pneumoniae r = −0.850, p = 0.033). Institutional carbapenem use increased from 15.2 to 19.3 DOT per 1,000 patient days between 2019 and 2025 (r = 0.79, p = 0.035) (Figure 2). Upon review, carbapenem use was substantially higher in hematology-oncology services (23.7–25.9 DOT/1000 patient-days, during 2022–2025) compared with overall institutional use (15.2–19.3 DOT/1000 patient-days). **Conclusion:** Ceftriaxone and cefepime susceptibility among Enterobacterales declined over the past decade, coinciding with a modest increase in institutional carbapenem use without a corresponding increase in carbapenem resistance during 2019-2024. Local susceptibility patterns

Figure 2: Institutional carbapenem utilization (meropenem and ertapenem) from 2019–2025, expressed as days of therapy (DOT) per 1,000 patient-days. Annual DOT are shown as solid circles connected by a solid line; the median utilization over this period (trend line) is shown as a dotted line. Data represents cumulative inpatient use across all indications and organisms. Antimicrobial utilization data were available beginning 2019 following implementation of electronic medical record (EMR)–based antimicrobial utilization dashboards.



and antimicrobial utilization data provide critical context for stewardship prioritization, especially in high-risk hematology-oncology populations.

Antimicrobial Stewardship & Healthcare Epidemiology 2026;6(Suppl. S1):s46–s47
doi:10.1017/ash.2026.10493

Presentation Type:
Poster Presentation
Subject Category: Antibiotic Stewardship

Missing Pieces? SAAR Coverage and Its Role in Facility-Wide Antimicrobial Use Interpretation‡

Jenna Preusker[1], M. Salman Ashraf[2], Trevor Van Schooneveld[2], Scott Bergman[2], Danny Schroeder[3], Rabia Syed[4], Lacey Pavlovsky and Juan Teran Plasencia[2]
[1]Nebraska Medicine; [2]University of Nebraska Medical Center; [3]Nebraska Medicine / Nebraska ASAP and [4]California Department of Public Health

Background: Antimicrobial stewardship programs use the NHSN standardized antimicrobial administration ratio (SAAR) to monitor antimicrobial use (AU) and direct activities, but only certain locations generate SAAR values. We explored the correlation between hospital SAAR coverage using days present (DP) and facility-wide AU measured in days of therapy per 1,000 days present (DOT/1,000DP). **Methods:** We included Nebraska hospitals reporting at least one adult location and at least six months of AU data that generated a SAAR during 7/2024-6/2025. We classified hospitals by bed size [large: <150, medium: 26–150, and critical access hospitals: ≤25]. Days present from SAAR eligible locations were divided by total facility DP to calculate the SAAR coverage proportion. We categorized hospitals in the upper third as having high SAAR coverage and those in the lower two-thirds as low SAAR coverage. We calculated Spearman correlation coefficients to evaluate the strength of the association between SAAR and AU rates in the high and low SAAR coverage groups. **Results:** Overall, 45 hospitals were included (median 25 beds, range 7-641) with large variability among total days present (473-228,051). Regarding SAAR coverage, 14 hospitals were classified as low coverage and 31 had high coverage (representing 47% and 83% of total DP, respectively), with an overall median SAAR coverage of 91% (Figure 1). When comparing the all-antimicrobial SAAR with the total AU rate of the top 14 antimicrobials, hospitals with low SAAR coverage showed weak correlation (? 0.163, p-value=0.57) compared to those with high coverage (? 0.901, p-value=<0.001) (Figure 2). Performance varied for other NHSN SAAR categories and AU rates in the low coverage group, with higher correlation between the GRAMPOS SAAR category and vancomycin DOT/1,000DP, and lower correlation between the BSHO SAAR category and the total AU rate of cefepime/piperacillin-tazobactam/meropenem use (Figure 3). **Conclusion:** In hospitals with low SAAR coverage,

‡The abstract titles in this supplement have been corrected since original publication. A notice detailing the changes has been published at https://doi.org/10.1017/ash.2026.10802.

https://doi.org/10.1017/ash.2026.10494 Published online by Cambridge University Press

Figure 1: Hospital Characteristics

	Overall	Low SAAR Coverage	High SAAR Coverage
Number of Hospitals (%)			
All Hospitals	45	14 (31.1%)	31 (68.9%)
Critical Access Hospitals	25 (55.6%)	2 (14.3%)	23 (74.25%)
Medium Hospitals	11 (24.4%)	6 (42.9%)	5 (16.1%)
Large Hospitals	9 (20%)	6 (42.9%)	3 (9.7%)
Median [IQR]			
Beds	25 [17 – 120]	112 [57 – 292]	19 [16 – 35]
SAAR Coverage	91% [64 – 100%]	50% [41-62%]	100% [91 – 100%]
Total Days Present	5,266 [1,714 – 30,185]	27,300 [16,821 – 88,319]	2,375 [1,309 – 5,463]
SAAR Days Present	3,923 [1,205 – 15,028]	14,090 [6,946 – 33,506]	2,059 [1,309 – 5,218]
All-Antimicrobials SAAR	0.99 [0.88 – 1.10]	0.96 [0.89 – 1.01]	1.05 [0.87 – 1.21]
Top 14 Antimicrobials DOT/1,000DP*	475 [399 – 558]	440 [390 – 475]	531 [403 – 582]
BSHO SAAR	1.11 [0.72 – 1.30]	0.88 [0.74 – 1.25]	1.12 [0.74 – 1.35]
Cefepime DOT/1,000DP	26 [20 – 47]	27 [18 – 34]	26 [22 – 64]
Piperacillin-Tazobactam DOT/1,000DP	54 [34 – 73]	64 [53 – 81]	47 [31 – 72]
Meropenem DOT/1,000DP	11 [7 – 20]	16 [10 – 19]	10 [6 – 17]
GRAMPOS SAAR	0.80 [0.51 – 1.01]	0.78 [0.67 – 0.89]	0.81 [0.51 – 1.08]
Vancomycin DOT/1,000DP	47 [35 – 66]	48 [43 – 59]	44 [30 – 79]
BSCA SAAR	0.86 [0.72 – 1.04]	0.76 [0.62 – 0.93]	0.89 [0.78 – 1.08]
Ceftriaxone DOT/1,000DP	86 [72 – 127]	71 [55 – 84]	110 [83 – 138]
Levofloxacin DOT/1,000DP	16 [10 – 22]	15 [10 – 18]	19 [12 – 29]

*Top 14 antimicrobials most commonly used in Nebraska hospitals during this timeframe (in no particular order: ceftriaxone, azithromycin, vancomycin, cefazolin, doxycycline, cefepime, piperacillin-tazobactam, amoxicillin-clavulanate, metronidazole, ampicillin-sulbactam, levofloxacin, sulfamethoxazole-trimethoprim, fluconazole, meropenem)

Figure 2: Facility-Wide All-Antimicrobial SAAR Values and Top 14 Antimicrobial Usage Rates Stratified by High and Low SAAR Coverage

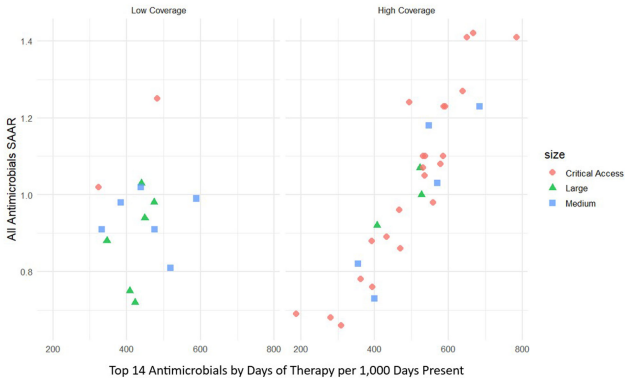


Figure 3: Correlation of NHSN Facility-Wide SAAR and Antimicrobial Usage Rates

SAAR Category / Antimicrobial Usage Rates (DOT/1,000DP)	Lower SAAR Coverage ρ	p-value	Higher SAAR Coverage ρ	p-value
All Antimicrobials SAAR / Top 14 Antimicrobials	0.16	0.57	0.901	<0.001
GRAMPOS / Vancomycin	0.64	0.0163	0.79	<0.001
BSHO / Cefepime/Piperacillin-Tazobactam/Meropenem	0.407	0.15	0.815	<0.001
BSCA / Ceftriaxone/Levofloxacin	0.43	0.122	0.742	<0.001

BSHO: Broad-spectrum antibacterial agents predominantly used for hospital-onset infections
BSCA: Broad-spectrum antibacterial agents predominantly used for community-acquired infections
GRAMPOS: Antibacterial agents predominantly used for resistant Gram-positive infections

SAAR values may not accurately reflect overall facility-wide AU. This discrepancy is especially evident when evaluating overall antimicrobial use. We hypothesize that the weak correlation is likely a result of substantial AU in locations that do not generate a SAAR. We noted variation in AU rates in hospitals with similar SAAR values which may stem from the CDC's predictive model although incomplete capture of antimicrobial use may be playing some role as well. These findings support CDC efforts to expand the SAAR to include new locations.

Antimicrobial Stewardship & Healthcare Epidemiology 2026;6(Suppl. S1):s47–s48

doi:10.1017/ash.2026.10494

Presentation Type:
Poster Presentation
Subject Category: Antibiotic Stewardship
Antibiotic Stewardship Capacity and Needs Among Consultant Pharmacists Serving Skilled Nursing Facilities in Philadelphia‡

Lea Widemann[1], Tiina Peritz[1] and Jane Gould[1]
[1]Philadelphia Department of Public Health

Background: Antibiotics are among the most frequently prescribed medications in skilled nursing facilities (SNFs), yet an estimated 40-75% of these prescriptions may be inappropriate or unnecessary. Vulnerability of SNF residents to antibiotic resistance, C. difficile, and adverse drug events make antibiotic stewardship programs (ASPs) crucial in these settings. Pharmacists are central to the success of ASPs, yet the scope of their responsibilities within Philadelphia SNFs is not known. Our team designed a survey to evaluate how consultant pharmacists are embedded in SNF ASPs, barriers to providing AS services, and interest in receiving further education. **Methods:** We designed a REDCap survey using the CDC Core Elements for AS in Nursing Homes and the Centers for Medicare & Medicaid Services' Revised Long-Term Care Surveyor Guidance, which included facility-specific questions for each SNF served, as well as general questions. The survey was disseminated through a multi-modal approach to consultant pharmacists (n=26) identified through previous program activities and all Philadelphia SNFs (n=46) via email, phone, and collaborative meetings. Responses were summarized using descriptive statistics. **Results:** Fourteen pharmacists completed the survey, covering 23/46 (50%) Philadelphia SNFs. Eight pharmacists (57%) reported providing consulting services to <1 SNF in Philadelphia. Six pharmacists (43%) reported having formal training in AS or infectious diseases, and five (36%) served as the lead or co-lead of ASPs, covering 9/23 SNFs (39%). In 83% of SNFs, pharmacists were contracted to provide AS services for <5 hours per week. Limited contracted hours to perform AS activities was the most common consultant-related barrier to providing AS services, reported by 50% of pharmacists. The most commonly reported facility-related barriers were high rate of staff turnover (36%) and staff time constraints (29%). Pharmacists reported supporting a penicillin allergy delabeling program in 17% of SNFs and reported using antibiotic timeouts to assess antibiotic use in 13% of SNFs. Among the 79% of pharmacists interested in receiving further AS education, priority topics were building engagement and collaboration among staff, residents, and leadership (50%), clinical patient care (43%), and tracking, analyzing, and reporting AS metrics (30%). **Conclusion:** Health departments have an opportunity to enhance AS services delivered by SNF consultant pharmacists through educational outreach. Our survey identified penicillin allergy delabeling, initiating antibiotic timeouts, and AS metric reporting as priority topics. Systemic barriers, such as limited time for AS activities and staff turnover, were frequently reported. Addressing these barriers will be essential to enable sustained improvements in SNF ASPs.

Antimicrobial Stewardship & Healthcare Epidemiology 2026;6(Suppl. S1):s48

doi:10.1017/ash.2026.10495

Presentation Type:
Poster Presentation
Subject Category: Antibiotic Stewardship
Urinary Tract Infection Treatment Guidelines vs. resistance in Poland: Epidemiologic Insights from Southern Poland‡

Mateusz Gajda[1], JADWIGA WÓKOWSKA-MACH[2], Dariusz Hareza[3], Cezary Kapturkiewicz, Monika Pomorska-Weso Åowska[4] and Dominika Kapustka
[1]Jagiellonian Univeristy / Univeristy Hospital in Cracow; [2]Jagiellonian University Medical School; [3]Northwestern University and [4]Analytical and Microbiological Laboratory of Ruda Slaska KORLAB

‡The abstract titles in this supplement have been corrected since original publication. A notice detailing the changes has been published at https://doi.org/10.1017/ash.2026.10802.

https://doi.org/10.1017/ash.2026.10494 Published online by Cambridge University Press