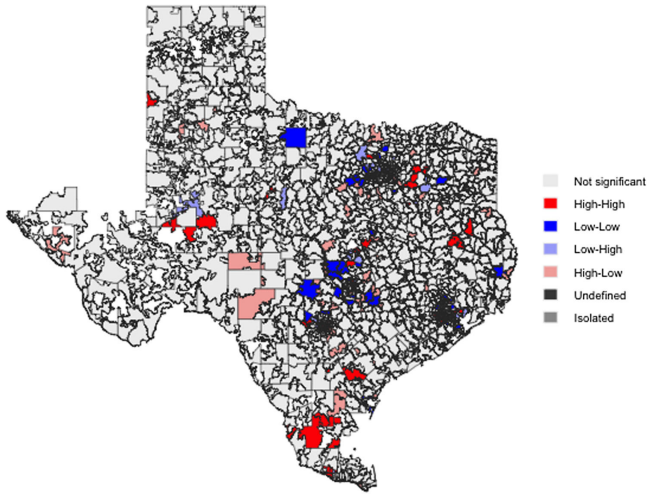

proportion of male patients (IRR 1.12, 95%CI 1.10-1.14), Black patients (IRR 1.05, 95%CI 1.03-1.07), or Medicaid beneficiaries (IRR 1.15, 95% CI 1.12-1.17). Effect modification was observed between SDI and rurality, with higher SDI in non-metropolitan areas associated with higher claim rates, whereas SDI in metropolitan areas was inversely related to claim rates. **Conclusion:** This study showed that the distribution of high and low SDI and rates of fluoroquinolone claims were more geographically clustered than expected by random chance alone. Lower fluoroquinolone claim rates among Texas Medicare providers were seen in metropolitan areas with higher SDI, indicating potential barriers to care. Conversely, higher claim rates were observed in rural areas with higher SDI, signifying a possible knowledge or attitude gap towards fluoroquinolone use. These findings provide opportunities for public health professionals to explore gaps in the knowledge and attitudes of patients and providers related to antimicrobial use, particularly in rural regions, and investigate barriers to healthcare access in metropolitan areas.

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Presentation Type:
Poster Presentation - Poster Presentation
Subject Category: DEI
Survey of Infectious Diseases and Infection Prevention Practitioners on Diversity, Equity, and Inclusion Experiences
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Background: Incorporating diversity, equity, inclusion, and justice into healthcare ensures equitable opportunity to achieve optimal health. Infectious diseases, antimicrobial stewardship, and infection prevention teams rely on consultative recommendations to improve patient care which may be influenced by implicit and explicit biases of the recipient treatment teams. Little is known about how race, ethnicity, and other characteristics impact stewardship and infection control recommendations. **Methods:** A survey of infectious diseases, antimicrobial stewardship, and infection prevention practitioners was developed through the Society of Healthcare Epidemiology of America (SHEA) Antimicrobial Stewardship Committee. The survey was sent electronically to members of the SHEA Research Network and was promoted to attendees of two sessions at IDWeek 2022 and SHEA Spring 2023. Survey questions included demographics, awareness of (and participation in) unconscious bias and microaggression training at their institutions, antibiotic prescribing bias observations, and perceptions of how race, ethnicity, and other characteristics have influenced participants' antimicrobial stewardship and infection prevention recommendations. Descriptive statistics were performed using SAS V.9.4 . **Results:** Among 175 survey respondents, 75% (n=129) were White, 16% (n=27) were Asian, 4% (n=7) were Black, 85% (n=150) were non-Hispanic, 5% (n=8) were Hispanic, and 3% (n=5) reported ethnicity as multiethnic. 76% of respondents identified as female, and 2% as non-binary or gender-fluid. 29% of respondents had a medical degree, 12% had a nursing degree, 7% had a pharmacy degree, and 52% had a degree listed as other (7% had a PhD, 23% had an MPH/MSPH degree, and 15% had an MS degree). 65% and 49% of respondents had participated in unconscious bias and microaggression training, respectively. 18% (n=22) of White respondents, 43% (n=3) of Black respondents, and 30% (n=8) of Asian respondents reported witnessing antimicrobial prescribing influenced by race, ethnicity, or other characteristics. 17% and 15% of respondents felt that their antimicrobial stewardship and infection prevention recommendations, respectively, had not been accepted due to their race, ethnicity, gender identity, or other personal identifiers. **Conclusion:** This survey showed demographic characteristics of professionals working in infectious diseases and their perceptions of how certain aspects of their identity have influenced their recommendations. Differences between racial groups were observed in how frequently respondents witnessed inequities in antimicrobial prescribing, and many respondents felt their recommendations had not been accepted due to their identity. A limitation of this analysis is that few Black individuals completed the survey, which makes comparisons by race difficult; however, the respondents were consistent with SHEA membership demographics.

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Subject Category: DEI
Patient First Strategies for Reducing Inequities in HAI Prevention
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Background: Inequities in healthcare-associated infections (HAI) incidence and prevention measures are critically important to understand (Chen,2021). While evaluations are beginning to characterize these disparities by infection type (Gettler, 2023), our work expands this by characterizing disparities by prevention strategies. By better understanding how evidence-based prevention strategies are implemented at the patient level, infection preventionists and hospital epidemiologists can better design strategies that provide equitable care to all patients. **Methods:** Beginning January 2023, gender, race, ethnicity, spoken language, and age group fields were added to daily chlorhexidine gluconate (CHG) treatment and C. difficile test order compliance data captured via electronic medical record. In July 2023, fields on recorded race, ethnicity, and gender were added to well-established foley and vascular access real-time peer audit tools that are used by infection preventionists (IPs). Each prevention strategy variable was summarized by demographic variables and differences in compliance were measured using chi-square tests. **Results:** 899 vascular audits and 420 foley audits were completed by IPs between July – December 2023. In 2023, there were 114,066 opportunities for CHG Treatment and 1,991 C. difficile test orders. Missing data varied by metric but ranged from 0-60%. Statistically significant differences by race were found in 3 of 8 components (i.e., intact seal, secured catheter and absence of dependent loop) in the foley audit ($p < 0.01$) and compliance with C. difficile test ordering ($p < 0.01$). No differences in race were found in vascular access audits or CHG treatment. No differences in gender or ethnicity were noted in foley, vascular access audits, CHG treatment compliance, or C. difficile testing. Differences in gender and age were found in CHG treatment compliance ($p < 0.001$). **Conclusions:** By focusing more on patient level process measures rather than only presenting stratified outcomes data, we can identify targeted

opportunities for improvement in health equity before our patients develop an HAI. Further evaluations should also focus on assessing the clinical relevance of statistical findings to better inform intervention strategies. Separately, efforts are needed to improve completeness and integrity of demographic data in the electronic medical record.

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Subject Category: Diagnostic Stewardship
Diagnostic Stewardship Opportunities for Emergency Department Evaluation of Children with Suspected Urinary Tract Infection
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Background: Among children who start antibiotics for suspected urinary tract infection (UTI) in emergency departments (EDs), 40-60% have negative urine cultures or other results inconsistent with UTI. Practices contributing to excess antibiotic exposure are not well understood. The goal of this study was to understand diagnostic and post-encounter follow-up processes in children who received antibiotics, in order to define targets for intervention. **Methods:** We identified encounters by children evaluated in two pediatric EDs, over 2 months in the first ED and 9 months in the second ED, to balance different visit volumes. Children 2 months-17 years old were included if they had a urinalysis (UA) and/or urine culture performed, were assigned a primary or secondary diagnosis code for UTI, and initiated antibiotics. Patients were excluded if they received antibiotics prior to the encounter, had prior urologic surgery or device placement, or were immunocompromised or pregnant. Data abstracted by chart review included demographics, documented symptoms, test results, and documented urine culture review and management. Possible UTI symptoms per pediatric criteria included fever, dysuria, urinary frequency, urgency, or hesitancy, suprapubic, abdominal or flank pain, foul smelling urine, or new urinary incontinence. In both EDs, nurses review urine cultures and document changes to treatment plans. Final urine culture results were considered inconsistent with UTI if there was 1) no growth or 2) only mixed growth reported with quantity < 1 00,000 colony forming units/ml. **Results:** Of 150 eligible children, 146 (97%) had at least one UTI symptom and 146 (97%) had abnormal UA **Results:** Urine cultures were not performed in 27 (18%) children. Of 123 encounters with urine cultures performed, 71 (58%) had results inconsistent with UTI. Though 67/71 cultures were marked as reviewed, 43/67 (64%) of the patients who could have stopped antibiotics per guideline recommendations did not have documented plans to stop. In those who had documented plans to stop antibiotics, nurses reached 20/23 (87%) caregivers by phone to communicate these recommendations. **Conclusion:** Many children suspected to have UTI at the time of ED evaluation do not meet criteria for UTI. We found that the most frequent departures from evidence-based practice recommendations were 1) not sending urine cultures, and 2) not stopping antibiotics when culture results did not support the suspected UTI diagnosis. Further investigation should explore barriers and facilitators to these evidence-based practices to develop population- and context-specific diagnostic stewardship strategies.

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Presentation Type:
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Subject Category: Diagnostic Stewardship
Impact of Streptococcus pneumoniae Urinary Antigen Testing in a Large Academic Medical Center
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Background: The Streptococcal pneumoniae urine antigen (SPUA) test was developed to increase microbiologic diagnosis of pneumonia. Concerns have been raised about the test's low sensitivity and failure to alter outcomes by de-escalating antibiotics (PMID:31956656). However, the cost-effectiveness and real-world clinical utility of the test remain unclear. **Methods:** From June 1, 2022 - May 31, 2023, all patients with a SPUA test in the MUSC Health System were identified via Epic SlicerDicer. Those with a positive test underwent chart review. Antibiotics were classified as a "broad" or "targeted" regimen for S. pneumoniae. Targeted regimens included penicillins without beta-lactamase inhibitors, 1st-3rd generation cephalosporins, doxycycline, levofloxacin or moxifloxacin (with or without azithromycin), as well as azithromycin monotherapy. Broad regimens included 4th generation or higher cephalosporins, carbapenems, penicillins with beta-lactamase inhibitors, and vancomycin. **Results:** In one year, 1,518 patients had a SPUA test ordered. 62 (4%) patients had a positive test. Of those 62 patients, 14 patients were discharged before the test resulted (Table). The average turnaround time for the test was 2.2 days. When comparing antibiotic therapy on the day before the SPUA test resulted to two days after the test resulted, only 7 additional patients were switched to a targeted regimen (Figure). **Conclusion:** Of 1,518 SPUA tests ordered in a year, most (1,456 or 96%) were negative, with minimal changes to antibiotic therapy based on positive **Results:** These results are similar to other real-world studies, which showed a positive test prevalence between 4-8% (PMID:30265290) with 15-30% of patients changed to targeted antibiotics following a positive result

Table: Characteristics of patients with a positive *Streptococcal pneumoniae* urine antigen test

Total patients with positive SPUA test	**62**
Male sex	33 (53%)
Average age	62
Time to SPUA result (days)	2.2
Patients with cultures positive for Streptococcus pneumonia	13 (21%)
Patients discharged before test resulted	14 (23%)
Patients with result mentioned in A&P	18 (29%)
Patients on targeted antibiotic regimen day before test result	22 (35%)
Patients on targeted antibiotic regimen two days after test result	29 (48%)

Abbreviations: SPUA (Streptococcus pneumoniae urine antigen test); A&P (Assessment and Plan)