

not aware of their high risk of infection. Although many were willing to expend a lot of effort to prevent an infection, this willingness decreased during an infection prevention intervention. There were few PVI side effects and most patients stated that PVI felt neutral/pleasant, yet many patients chose to not use PVI. Future research should aim to improve patient education on their risk of infection and assess barriers to adherence with infection prevention interventions.

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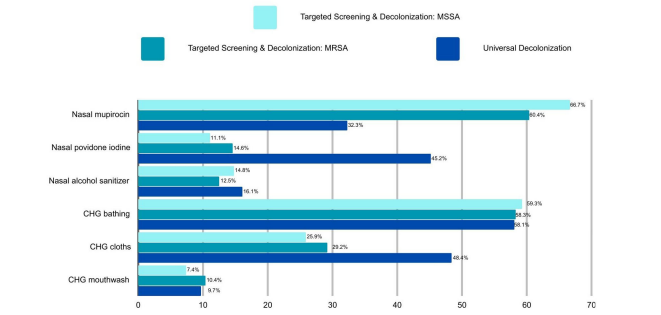
Subject Category: Decolonization Strategies

Heterogeneity in Pre-operative Staphylococcus aureus Screening and Decolonization Strategies among Healthcare Institutions

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Background: Staphylococcus aureus (SA) is the most common pathogen causing surgical site infections (SSIs). In the past decade, strategies incorporating new SA decolonization products have been implemented to prevent SSIs in surgical patients. The objective of this cross-sectional study was to determine which pre-operative screening and decolonization strategies are currently utilized in healthcare institutions. **Methods:** A survey was programmed in REDCap and emailed to members of the Society for Healthcare Epidemiology of America Research Network, the Minnesota chapter of the Association of Practitioners in Infection Control and Epidemiology, and the Minnesota Hospital Association between May-August 2023. We report the prevalence of institutional screening and decolonization strategies and decolonization products used for the prevention of SA SSIs. **Results:** A total of 153 unique institutions initiated the survey and 111 provided complete data on their institutional screening and decolonization strategies. The most commonly reported strategies included universal decolonization (decolonization of pre-operative patients without screening for carrier status) (n=31, 27.9%), no screening or decolonization (n=24, 21.6%), targeted screening for methicillin-sensitive Staphylococcus aureus (MSSA) or methicillin-resistant Staphylococcus aureus (MRSA) and decolonization based on carrier status (n=24, 21.6%), or MRSA only screening and decolonization (n=11, 9.9%) (Figure 1). Institutions that utilized targeted screening and decolonization strategies frequently reported using nasal mupirocin (n=18, 66.7%MSSA, n=29, 60.4%MRSA), chlorhexidine gluconate (CHG) bathing (n=16, 59.3%MSSA, n=28, 58.3%MRSA), and CHG cloths (n=7, 25.9%MSSA, n=14, 29.2%MRSA) (Figure 2). Among the 31 institutions that reported implementing the universal decolonization strategy, CHG bathing (n=18, 58.1%), CHG cloths (n=15, 48.4%), and nasal povidone iodine

Figure 2. Prevalence of products utilized to decolonize pre-operative patients by strategy.



MSSA: methicillin-sensitive Staphylococcus aureus; MRSA: methicillin-resistant Staphylococcus aureus; Targeted screening and decolonization includes screening pre-operative patients for MSSA or MRSA carriage and decolonizing accordingly; Universal decolonization includes decolonization of all pre-operative patients regardless of carrier status; CHG: chlorhexidine gluconate; Note: percentages may not all apply for decolonization products used at their maximum dose or not added to 100%

(n=14, 45.2%) were the most prevalent decolonization products. Additionally, a smaller percentage of institutions used nasal alcohol gel (n=5, 16.1%) for universal decolonization. **Conclusion:** Compared to the survey we conducted in 2012, we report a new shift towards universal decolonization and a small increase in targeted SA screening and decolonization. In the 2012 survey we reported 37% of respondents' institutions screened pre-operative patients for SA carriage and the majority of those institutions decolonized carriers. Universal decolonization was not reported in the 2012 survey. We highlight the continued heterogeneity in practice at this time, which may reflect the ongoing uncertainty in optimal decolonization practices and emphasizes the need for future research. References: 1. Kline, S. et al. *Infect Control Hosp Epidemiol* 2014;35(7):880-882.

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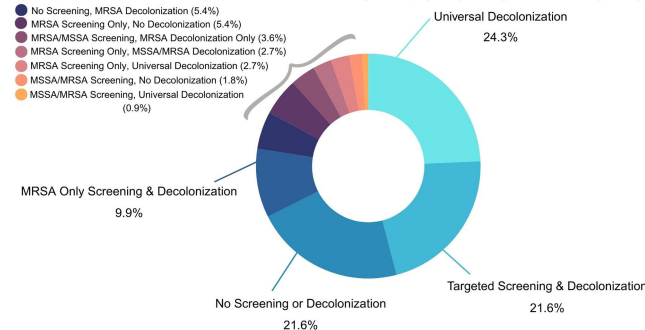
Subject Category: DEI

Analyzing the Relationship Between Socioeconomic Deprivation and Outpatient Medicare Part D Fluoroquinolone Claims in Texas

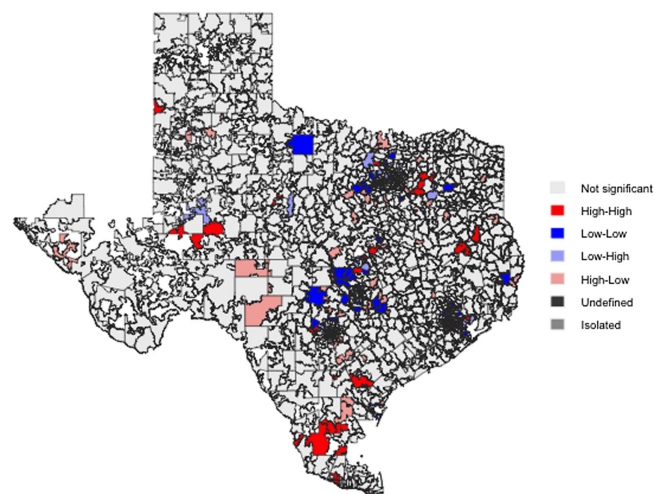
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Background: Only a few studies have assessed the relationship between deprivation and excessive antibiotic use. In Texas, antimicrobial prescription is particularly high compared with the rest of the US. This study analyzed the association between local area socioeconomic deprivation and providers' fluoroquinolone claim rates among beneficiaries 65 years and older in Texas. **Method:** This ecological study utilized provider- and area-level data from Medicare Part D Prescribers and the Social Deprivation Index (SDI) repositories. To identify geographic patterns and autocorrelation in and between SDI and fluoroquinolone claims, spatial dependence of these two variables was assessed by bivariate Local Indicators of Spatial Association (LISA) cluster mapping along with the global and local Moran's I analyses. Negative binomial regression models were employed to evaluate the relationship between provider- and area-level characteristics (prescriber's gender, specialty, rural-urban community area, beneficiaries' demographics, area-level population, and normalized SDI) and fluoroquinolone claim rates per 1,000 beneficiaries. **Result:** A total of 11,996 providers were included. There was no spatial dependence between SDI and rates of fluoroquinolone claims in Texas (Global Moran's I = 0.01, P = 0.618). Bivariate LISA maps showed 85 high-high and 38 low-low spatial clusters. Higher SDI (incidence rate ratio (IRR) 0.98, 95% confidence interval (CI) 0.97-0.99 per 1-unit increment) and male providers (IRR 0.96, 95%CI 0.94-0.99) were associated with lower claim rates. In contrast, several factors were associated with higher claim rates, including non-metropolitan areas (1.04, 95%CI 1.00-1.09), and practices with a high

Figure 1. Distribution of screening and decolonization strategies employed by surveyed institutions (N=111).



MRSA: methicillin-resistant Staphylococcus aureus; MSSA: methicillin-sensitive Staphylococcus aureus; Targeted screening and decolonization includes screening pre-operative patients for MSSA or MRSA carriage and decolonizing accordingly; Universal decolonization includes decolonization of all pre-operative patients regardless of carrier status



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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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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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