

Disclosures. All authors: No reported disclosures.

2088. Cross-sectional Analysis of Administrative Structure and Practices for Hospital Antimicrobial Stewardship Programs (ASPs) in a Large Metropolitan City

David Ha, PharmD, BCIDP¹; Thomas Lee²; Timothy Gauthier, PharmD, BCPS-AQ ID³; Kelsey OYong, MPH, CIC⁴; James McKinnell, MD⁴; ¹Keck Graduate Institute School of Pharmacy/Pomona Valley Hospital Medical Center, Los Angeles, California; ²Keck Graduate Institute School of Pharmacy, Claremont, California; ³Miami Veterans Affairs Healthcare System, Miami, Florida; ⁴Los Angeles County Department of Public Health, Los Angeles, California

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Background. Los Angeles (LA) County is large and diverse urban southern California county with a population of over 10 million and a multitude of hospitals. The state of California required hospitals to implement ASPs in July 2015. This collaborative with the LA County Department of Public Health sought to characterize administrative structure and practices of hospital ASPs in the county.

Methods. A survey of LA County hospital ASPs was conducted from November 2018 to April 2019. Initial telephone and email screenings were performed to confirm individuals' involvement in hospital ASPs prior to survey participation.

Results. Overall, 40 of 87 (46%) hospitals responded. Of these, 90% (36/40) were private hospitals and 68% (27/40) were part of a multi-hospital network. All hospitals (40/40) reported an active ASP with 53% (21/40) established for 5 years or longer. Only 65% (26/40) reported meeting all seven CDC core elements of hospital ASPs and 85% (34/40) reported having an ASP committee. Of those with ASP committees, individuals who chaired or co-chaired the committee were predominantly ID physicians (33/34, 97%). Most held meetings quarterly (18/34, 53%). Committee member meeting attendance "all or most of the time" was highest for pharmacists (34/34, 100%) and ID physicians (33/34, 97%) and lowest for information technology (IT) personnel (9/34, 27%) and non-ID physicians (12/34, 35%). ASP committees reported to a mean of 2.4 other committees, most frequently to pharmacy and therapeutics (P&T) (32/34, 94%) and infection control (IC) (24/34, 71%). ASP committees received reports from a mean of 2.3 committees, most frequently from IC (22/34, 65%). Few ASP committees (<20%) reported to any of patient/medication safety, quality, sepsis, laboratory, risk management or nursing committees. Risk assessments and strategic planning were performed by only 35% (12/34) and 56% (19/34), respectively.

Conclusion. Our study demonstrates additional need in LA County hospital ASPs to meet CDC core measures as well as enhance ASP administrative structure. Notably, ASP committees appear to be siloed with P&T and IC with minimal reporting to other committees, do not frequently perform risk assessments or strategic planning, and have low meeting attendance by IT personnel and non-ID physicians.

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2089. Effect of the Duke Antimicrobial Stewardship Outreach Network (DASON): A Multi-Center Time Series Analysis

Michael E. Yarrington, MD¹; Elizabeth Dodds Ashley, PharmD, MHS¹; Melissa D. Johnson, PharmD, MHS¹; Angelina Davis, PharmD, MS²; April Dyer, PharmD, MBA, MSCR¹; Travis M. Jones, PharmD¹; Daniel J. Sexton, MD¹; Deverick J. Anderson, MD, MPH¹; Rebekah W. Moehring, MD, MPH¹; ¹Duke Center for Antimicrobial Stewardship and Infection Prevention, Durham, North Carolina; ²Duke Antimicrobial Stewardship Outreach Network, Durham, North Carolina

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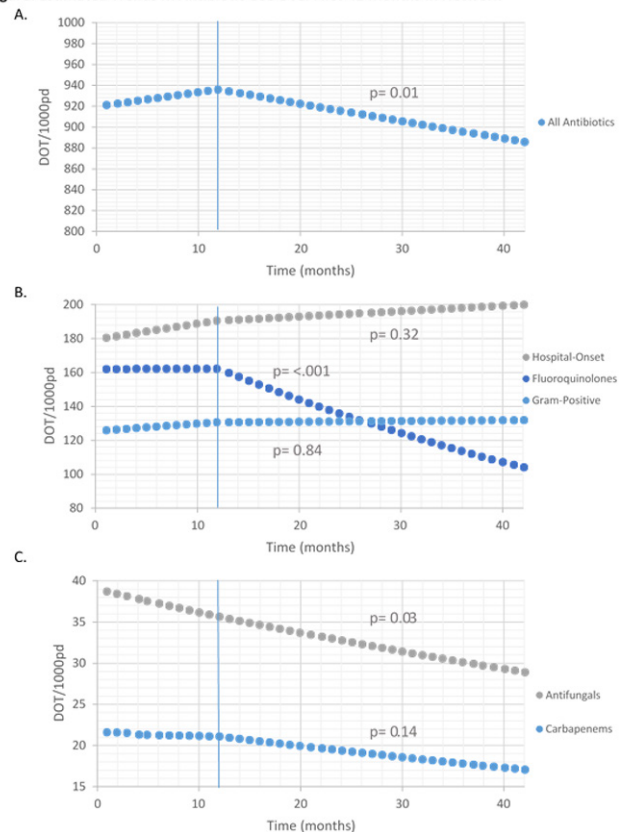
Background. DASON is a 30-member, community hospital network in the southeastern United States that supports the development and growth of local antibiotic stewardship programs (ASPs). Collaborative activities include on-site visits from liaison clinical pharmacists, data sharing for routine feedback and benchmarking, and educational programs.

Methods. We performed a retrospective cohort analysis of antibiotic use (AU) in 17 hospitals that participated in DASON for a minimum of 42 months during 2013–2018. Segmented negative binomial regression models were used to estimate the change in facility-wide AU after an initial 1-year assessment, planning, and ASP intervention initiation period. Baseline AU trend (1 to 12 months) was compared against AU following the first year (13 to 42 months). Monthly AU rates were measured in days of therapy (DOT) per 1,000 patient-days (pd). Models assessed overall AU and specific antibiotic groups, as defined by the National Healthcare Safety Network AU option. The models controlled for hospital size, presence of a pre-existing formal ASP upon network entry, and year of network entry.

Results. Hospital data included a total of 2,988,930 pd over 5 years. Facility-wide AU was increasing during the first year of network entry and then began decreasing by 0.2% per month ($P = 0.01$, figure). Fluoroquinolone use was stagnant in year one and then decreased by 1.5% per month ($P \leq 0.001$, figure). Antifungal agents were decreasing in year one and continued to decrease 0.7% per month thereafter ($P = 0.03$, figure). Agents predominantly used for resistant Gram-positive infections and broad-spectrum agents used for hospital-onset infections were increasing during year one and then attenuated afterward, though the slope change did not reach statistical significance. The presence of a pre-existing formal ASP was not a significant covariate in any model, while bed size and year of network entry significantly contributed to models of some antibiotic groups.

Conclusion. Participation in DASON was associated with a decline in total AU and fluoroquinolone use, and a trend toward attenuated use of other broad-spectrum agents in community hospitals. Collaborative network experiences can help local ASPs achieve reductions in AU.

Figure: Estimated Trends in Antibiotic Use Over First 42 Months in Network



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