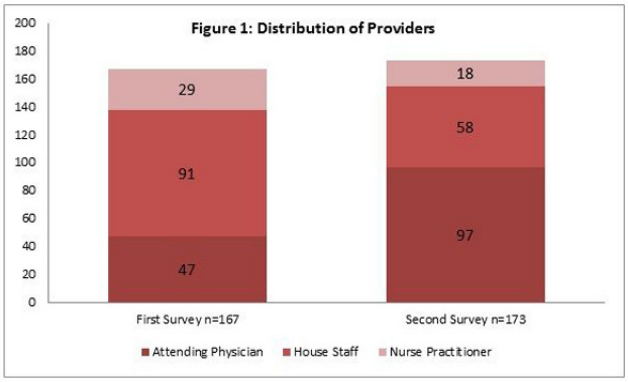
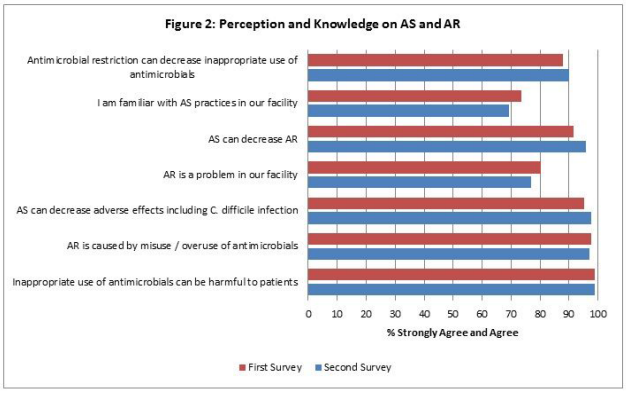
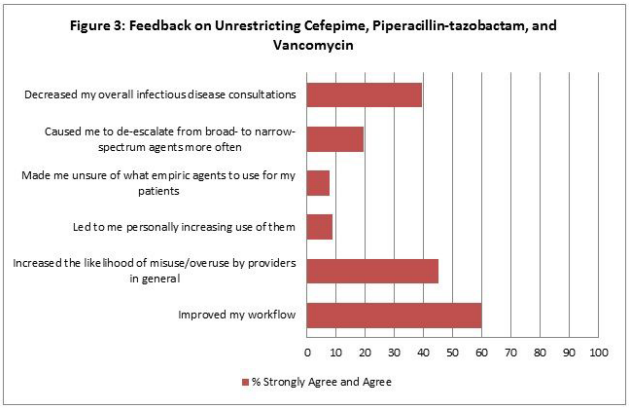
Methods. In January 2018, a voluntary online survey was created and disseminated to all providers at LUMC to evaluate their baseline knowledge and perception of AS and AR, as well as to solicit feedback on current AS practices at LUMC. Based on the results of the survey, our AS team implemented the following changes to the AS program: removed prior-authorization of cefepime, piperacillin–tazobactam and vancomycin; required documentation of antimicrobial indications and duration upon order entry in the electronic medical record; and provided education to all providers via newsletters and lectures. In January 2019, a second survey was distributed to all providers with the primary goal of evaluating changes in the providers' knowledge and perception of AS and AR post-program modifications. The secondary goal was to gather feedback on the major changes we have implemented in our program.

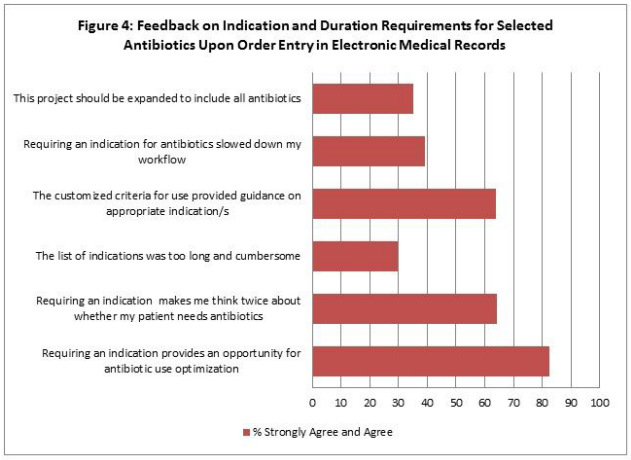
Results. A total of 167 providers completed the first survey and 173 completed the second survey. Over 95% of providers were aware that inappropriate use of antimicrobials can be harmful to patients, and that AS can decrease AR. Unfamiliarity with AS practices remains an issue. More than half agreed that unrestricting antibiotics improved their workflow, though almost half agreed that it led to inappropriate use by providers in general but not their own. Finally, most providers agreed that documenting indications and duration of antibiotics facilitated antibiotic optimization with no interference in their workflow.

Conclusion. Hospital-specific surveys on providers' perception and knowledge on AS and AR can be used to guide future ASP interventions, as well as to evaluate the effectiveness of these interventions. Our ASP at LUMC implemented strategies to improve antimicrobial utilization based on our providers' feedback. Our team will continue to use surveys to further guide our AS efforts.









Disclosures. **All authors:** No reported disclosures.

1052. Antimicrobial Stewardship: On Board with Lean Daily Management System

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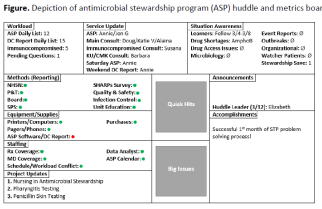
Background. Limited guidance exists on how to design and measure the efficiency and effectiveness of an antimicrobial stewardship program (ASP). Our established ASP sought to broaden interprofessional accountability and enhance our programmatic efficiency by employing Lean Daily Management System (DMS) procedures.

Methods. To improve ASP communication, a visual and systematic approach to identify, address, and resolve ASP projects while quantifying nontraditional metrics measuring the efficiency and effectiveness was developed. Through shared discussions, an interdisciplinary group of stakeholders produced the following deliverables: (a) established shared programming goals/metrics; (b) improved prioritization methods and project tracking through completion; (c) developed readiness and metric boards to display achievements, current activity, and metrics; (d) identified programming threats and strategies to strengthen our provided services.

Results. At 6 months following DMS adoption, our ASP has disbanded monthly meetings in lieu of weekly, 15 minute huddles utilizing the readiness and metric boards. We achieved consistent and interprofessional representation where each member is accountable for leading huddles, providing reports, and owning projects. Using a stoplight color system to indicate status, potential ASP influencers are tracked and reported: clinical workload/demands, organizational awareness, equipment/supplies, staffing, project updates, and announcements. The visual identification allows the team to address "quick hits" or escalate resource allocation to solve "big issues" (figure). Program metrics are codified under the domains of delivery, people, quality, safety, and financial stewardship. Administrative leadership has attended huddles and provided positive and constructive feedback to foster a process of continuous improvement.

Conclusion. Integration of Lean DMS huddles provides a collaborative, interactive and interdisciplinary approach to enhance shared awareness and to broaden the reach and efficiency of our ASP. With project tracking mechanisms in place, our team is refining our problem-solving abilities to ensure a congruent plan between issues raised and established program metrics.

Figure. Depiction of antimicrobial stewardship program (ASP) huddle and metrics board



	Safety	People	Quality	Delivery	Stewardship
Outcomes	ASP DC report prompts	ASP schedule discrepancies	ASP recommendation disagreement rate	ASP educational reach	Antimicrobial cost
Process	Unintended antimicrobial "fall-offs" and missed doses	Physician & pharmacist schedule abnormality tracker	Disagreement by service and indication	Education availability abnormality tracker	Antimicrobial waste
Projects	Default antimicrobial durations for prophylaxis indications	Situation-target-proposal board	ASP recommendations for tracheitis in high risk populations	Nursing antimicrobial education modules	Reducing cefazolin wasted doses

Disclosures. **All authors:** No reported disclosures.

1053. De-Implementing Low-Value Antibiotic Prescribing Across Levels of Care

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Background. Performing urinalyses and urine cultures in asymptomatic patients is one of the most common reasons for inappropriate antibiotic use. However, de-implementing this practice has been difficult, especially for clinical scenarios deemed to be high risk for infectious complications, such as among patients with delirium or those undergoing orthopedic implant surgery.

Methods. Using the dual-process theory framework "Developing De-Implementation Strategies Based on Un-Learning and Substitution," an educational intervention citing new IDSA guidelines and providing a pneumonic "ABCs of ASB" was created and delivered didactically to providers. The goal was to increase performance of evidence-based prevention actions in place of low-value urine screening and treating of asymptomatic patients. Clinical providers and staff (MD, RN, APRN, trainees) in 3 different levels of care (acute inpatient, long-term, and outpatient) were included. A web-based anonymous and confidential pre- and post-question format was delivered to assess influence on provider behavior.

Results. Responses from a range of 250–279 unique providers were collected. For scenario #1 (patient with delirium and a positive urine culture and no other infectious symptoms), the option to give antibiotics was reduced by 45% pre to 4% post, Chi-square $P < 0.01$). For scenario #2 (patient having a knee replacement and positive pre-operative urine culture, no other symptoms) the option to give antibiotics was reduced by the same magnitude (~50%) but a lower absolute number (67% pre and 33% post, chi-square $P < 0.01$). Changes in predicted behavior were similar across levels of care.

Conclusion. Substituting evidence-based practices in place of low-value practices is an appealing framework for influencing provider behavior. Our work demonstrates that education can successfully reduce the intention to use antibiotics for asymptomatic patients with positive urine cultures.

Disclosures. **All authors:** No reported disclosures.

1054. Impact of Prospective Review and Feedback with Peer Comparison on Carbapenem Utilization by Physicians Practicing at a Community Teaching Hospital
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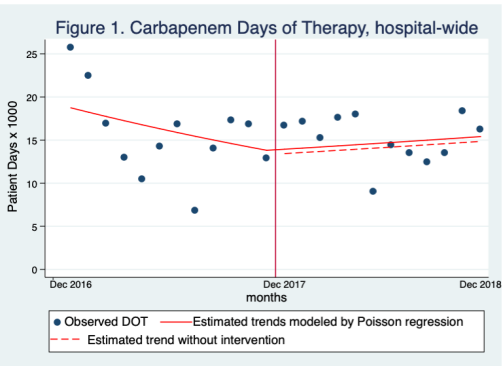
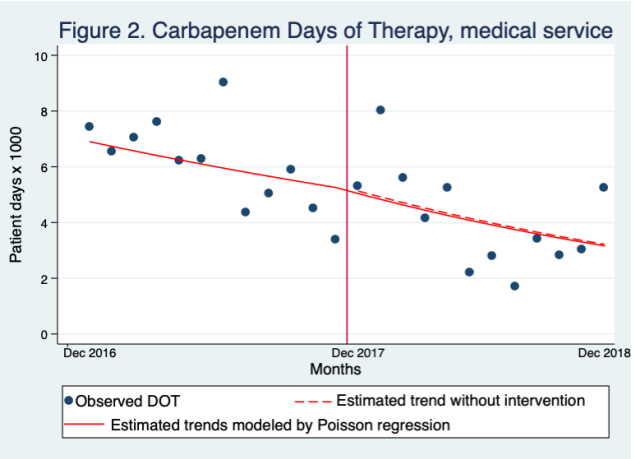
Background. Behavioral interventions such as peer comparison have shown to reduce inappropriate antibiotic utilization in outpatient settings. We aimed to estimate the impact of prospective review and feedback with periodic peer comparison on carbapenem use by physicians in an inpatient setting.

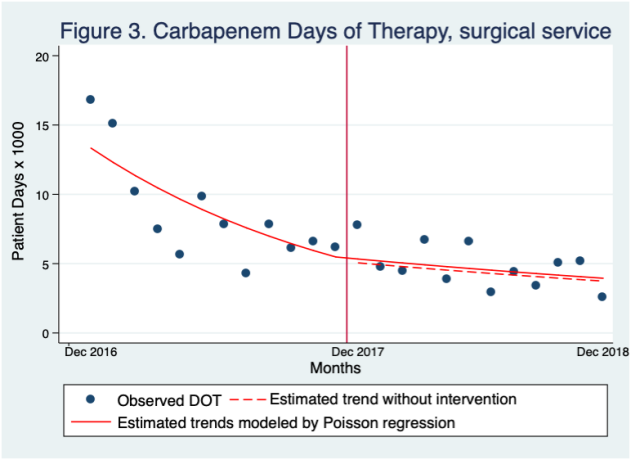
Methods. Interrupted time series study conducted at a 400-bed community teaching hospital with an Antimicrobial Stewardship Program (ASP) in place since 2012. Prospective review and feedback is the ASPs main strategy. Carbapenem use is not restricted. The intervention was limited to internal medicine residents, system-employed hospitalists, critical care specialists, surgery residents and surgery attendings directly supervising residents. Each carbapenem day of therapy (DOT) was reviewed by an infectious diseases (ID) physician or ID pharmacist and classified as adequate, suboptimal unnecessary or inappropriate. For the purposes of peer comparison, each DOT was attributed to the physician directly responsible for patient care on the day a carbapenem was administered. Among patients admitted to teaching services, both the resident and their supervising attending were deemed responsible. Individual physicians' proportions of adequate use were calculated and compared with the aggregate proportion of adequate use by service, i.e., hospitalists were compared with other hospitalists. An email summarizing utilization metrics and comparing to their peers was sent on a monthly basis. The main outcome of interest was hospital-wide carbapenem use measured in DOT per thousand patient-days. Carbapenem DOT use by service was a secondary outcome. Changes in post-intervention trends were calculated as incidence rate ratios (IRR).

Results. Following the onset of the intervention there were no changes in hospital-wide trends of carbapenem use (IRR 1.04; 95% CI 0.98–1.10; $P = 0.21$) (Figure 1). Analysis of carbapenem use by service showed prescribing trends remained stable within services, with IRR in medical service of 0.98 (95% CI 0.92–1.05; $P = 0.61$) and IRR in the surgical service of 1.05 (95% CI 0.99–1.13; $P = 0.11$) (Figures 2 and 3). No changes were seen in proportions of adequate use.

Conclusion. Addition of peer comparison to an ASP utilizing prospective review and feedback did not decrease carbapenem use.







Disclosures. **All authors:** No reported disclosures.

1055. Addition of Antimicrobial Stewardship Program Weekend Coverage Increases Interventions while Reducing Antimicrobial Duration and Cost
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Background. Expansion of Antimicrobial Stewardship Program (ASP) activities to include coverage of weekends has been shown to facilitate further optimization of antimicrobial usage. Beginning July 2018, we implemented full ASP coverage on weekends from 0700–1530 by infectious diseases (ID) clinical pharmacists and pharmacy residents. We sought to evaluate the impact of the addition of weekend ASP coverage on the number of interventions, antimicrobial duration and cost of target broad-spectrum antimicrobials.

Methods. Antimicrobials reviewed by ASP on a weekend day between July 14, 2018 and December 16, 2018 were included in the analysis. The primary outcome was the number and type of documented interventions associated with the antimicrobials reviewed. Secondary outcomes included the total duration of meropenem, daptomycin, and micafungin initiated on a weekend, estimated expenditures on these target broad-spectrum antimicrobials, and comparison of the average number of interventions performed per day by ID clinical pharmacists vs. pharmacy residents. For comparison, we also evaluated these secondary outcomes prior to ASP weekend coverage, between July 16, 2017 and December 9, 2017.

Results. A total of 688 antimicrobials were reviewed on weekend days during the included time-frame with 753 interventions (average number of interventions/day: 37). Table 1 summarizes the type of interventions. The acceptance rate for interventions was 99%. The average number of interventions per day for ID clinical pharmacists vs. pharmacy residents was 57.9 and 26.2, respectively. Table 2 shows the total duration of therapy (DOT) and total expenditures on target antimicrobials before and after ASP weekend coverage. The total DOT of target antimicrobials agents decreased from 21 days to 7 days, with an estimated 3,165 dollar decrease in expenditures during the included time-frame.

Conclusion. Expansion of ASP coverage to include weekends allowed us to provide 753 interventions over 4 months that would not otherwise have been made when no ASP coverage was available. This was associated with a reduction in broad-spectrum antimicrobial duration of therapy and expenditures when compared with weekends where ASP weekend coverage was not available.