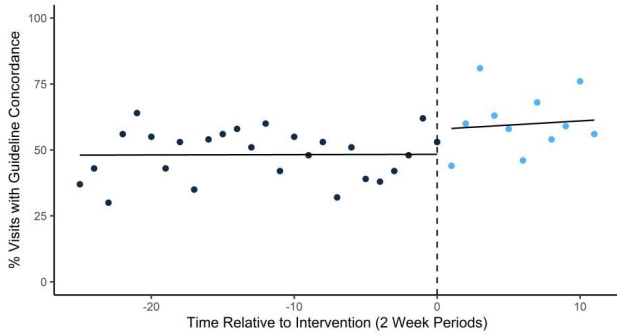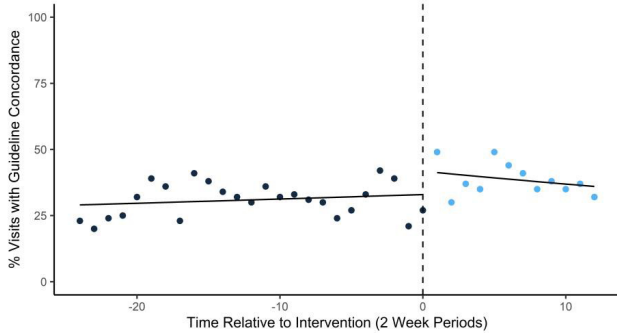with a UTI diagnosis did not differ following the intervention. Interestingly, guideline concordance was greater in the academic ED, compared to the community hospitals.
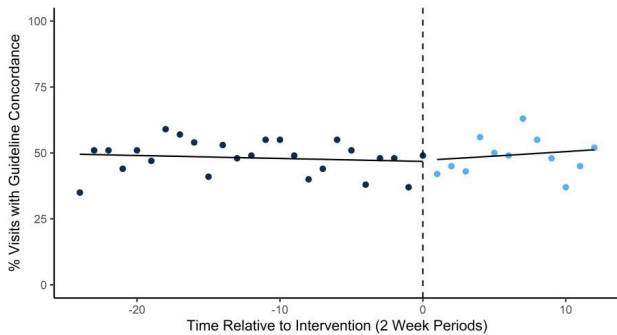
### Guideline Concordant Antibiotics in Academic Emergency Department



### Guideline Concordant Antibiotics in Community Emergency Department #1



### Guideline Concordant Antibiotics in Community Emergency Department #2



***Conclusion:*** Although guideline concordant prescribing for UTI increased in all three ED settings with education and email correspondence feedback, these results were not statistically significant. A variety of methods may be required to realize improved antibiotic prescribing across a diverse group of clinicians.

***Disclosures:*** Rebekah W. Moehring, MD, MPH, Agency for Healthcare Quality and Research (Grant/Research Support)Centers for Disease Control and Prevention (Grant/Research Support)

### 46. Antimicrobial Stewardship's Selective Antibiotic Suppression Does Not Lead to Adverse Outcomes in Neutropenic Patients with Gram-Negative Bacteremia

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**Session:** P-3. Antimicrobial Stewardship: Outcomes Assessment (clinical and economic)

***Background:*** An antimicrobial stewardship program (ASP) strategy to minimize the use of overly broad antimicrobials is to suppress specific antimicrobial susceptibility results when isolates are sensitive to narrow antibiotics. There is limited data on possible adverse outcomes of this method. Patients with febrile neutropenia (FN) and gram-negative bacteremia (GNB) whose culture is sensitive to non-pseudomonal antibiotics still require broader pseudomonal coverage to treat the syndrome of FN. We evaluated if ASP suppression of anti-pseudomonal antibiotics adversely affects patients with FN and GNB.

***Methods:*** In February 2018, our institution's ASP began suppressing cefepime and meropenem susceptibility results from *E. coli*, *Klebsiella* spp, and *Proteus* spp when sensitive to cefepime (MIC ≤ 2), ceftriaxone and ceftazidime. We performed a retrospective analysis of patients with FN and GNB from 2016 – 2020 to evaluate the appropriateness of antibiotic regimens before and after the ASP intervention. Antibiotic regimens were deemed inappropriate if the patient was de-escalated to a narrow-spectrum, non-pseudomonal agent while neutropenic. Of 338 inpatient encounters identified with any bacteremia and FN, 49 were due to non-*Pseudomonas*, non-ESBL GNB, 20 before and 29 after the intervention. Sixteen of the 29 post-intervention patients were excluded, as their isolates did not meet suppression criteria. This resulted in a total of 13 patients in the post-intervention group.

***Results:*** After culture susceptibility reports were released, 3 out of 20 patients in the pre-intervention group (15%) and 4 out of 13 patients in the post-intervention group (30.8%) were inappropriately tailored to narrow-spectrum antibiotics (p=0.39). There was no significant difference in 30-day mortality, 10.0% pre- and 0% post-intervention (p=0.50), or amount of meropenem prescribed, 45% pre- and 38.5% post-intervention (p=0.74).

**Table 1. Characteristics of Pre and Post Meropenem and Cefepime Suppression**

| | Pre-intervention (n=20) | Post-intervention (n=13) | p-value |
|---|---|---|---|
| Average age (years) | 54.3 | 62.6 | 0.08 |
| Average ANC at time of positive blood culture (K/uL) | 0.00 | 0.00 | 1 |
| 30-Day Mortality (%) | 10.0 | 0 | 0.50 |
| Inappropriate definitive antibiotic regimens (%) | 15.0 | 30.8 | 0.39 |
| Total definitive regimens with Meropenem (%) | 45.0 | 38.5 | 0.74 |
| Organisms Isolated | | | |
| *Escherichia coli* (n) | 17 | 12 | |
| *Klebsiella* spp (n) | 2 | 1 | |
| *Enterobacter* spp (n) | 2 | 0 | |

***Conclusion:*** These data show no significant difference in inappropriate antibiotic regimens prescribed for patients with FN and GNB after ASP antibiotic suppression was implemented. 30-day mortality was also not affected. The ASP intervention did not decrease meropenem prescriptions in this patient group, which may be appropriate. Larger studies are needed to verify these findings.

***Disclosures:*** Ryan K. Dare, MD, MS, Accelerate Diagnostics, Inc (Research Grant or Support) Mary Burgess, MD, Pfizer Inc (Grant/Research Support)

### 47. Assessing Viability and Outcomes following the Redistribution of Antibiotic Stewardship Tasks to the Clinical Pharmacist Team

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**Session:** P-3. Antimicrobial Stewardship: Outcomes Assessment (clinical and economic)

***Background:*** Methodist Hospital and Cardinal Health determined that the TJC-mandated ASP program could be further improved. In February 2018, the program was restructured and ASP responsibilities were extended to all Clinical Pharmacists. Changing the ASP structure can improve the program efficiency via increased number of interventions/day, antibiotics' days of therapy (DOT)/1000 patient-days, total antibiotics' cost, and antibiotics' cost/patient day.

***Methods:*** A retrospective review was conducted for before and after data. The primary endpoints included number of ASP interventions/day, antibiotics DOT, and antibiotics' cost/adjusted patient day. The secondary endpoints included effect on resistance of antibiotics for *Pseudomonas aeruginosa*, 48-hours antibiotic stop review, number of cultures reviewed, 7-days antibiotics review, and restricted antibiotics review.

Reports were obtained from Cardinal Health's Drug Cost Opportunity Analytics program and Electronic Medical Record (EMR). Intervention types analyzed included: de-escalation, 48-hours review, 7-days review, cultures review, and restricted antibiotics review. Efficiency between pre and post implementation was compared via adjusted interventions/day. Resistance pattern of *Pseudomonas aeruginosa*, was also trended.

Interventions were trended and mean/day (SD) was calculated using Wilcox Rank Sum Test.

***Results:*** The results showed improved efficiency with ASP interventions/day of 9.87 versus 4.73 (P≤0.0001). The DOT/1000 PD decreased from 1098 to 989 days. Antibiotics' costs/adjusted patient day reduced from $16.62 to $9.16.