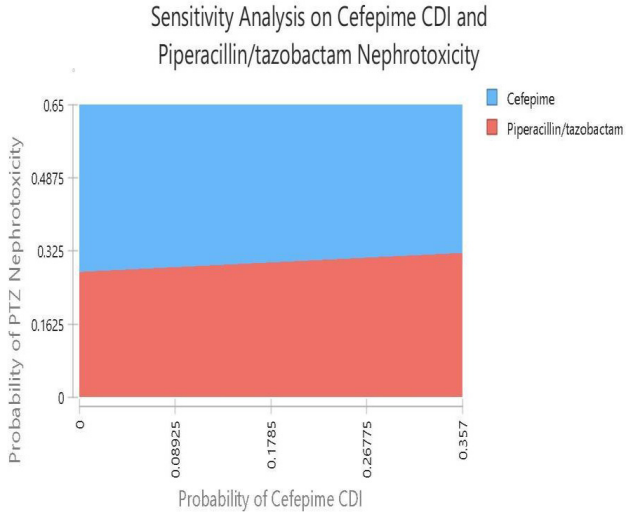
hospital perspective. Model variables were populated utilizing published clinical and economic data including incidence of AKI and CDI, their associated costs and mortality, and the cost of antibiotic therapy. Secondary and univariate sensitivity analyses tested the impact of model uncertainties and the robustness of our model. A willingness to pay (WTP) threshold of $0 was utilized.

Results: Results of our base-case model predicted that the use of CFP dominated PTZ as empiric utilization was less expensive ($7690 vs. $9331) and associated with a higher quality-adjusted life-years (QALY) (0.9193 vs. 0.9191) compared to the use of PTZ. Several variables had the potential to impact base case results. PTZ became cost-effective at our WTP threshold if CFP nephrotoxicity rates increased to 17.3%, the PTZ nephrotoxicity decreased to 28.5%, or if the cost of nephrotoxicity was less than $17,457. No other model variables, including incidence of CDI, impacted base case results.

Sensitivity Analysis on Cefepime Clostridioides difficile Infection Incidence and Piperacillin/tazobactam Nephrotoxicity



Conclusion: Results of our model showed that CFP dominated PTZ for the empiric treatment of nosocomial infections. The model was sensitive to variation in CFP and PTZ nephrotoxicity rates.

Disclosures: **All Authors**: No reported disclosures

81. Physicians' Knowledge, Attitude, and Practice regarding Prolonged Antimicrobial Use

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

Background: To reduce unnecessary long-term antibiotic therapies, pharmacist-led intervention followed by the involvement of infectious diseases (ID) specialist was implemented. In addition, a survey for the prescribers was conducted to find the gaps for improvement.

Methods: The "less is better" intervention was implemented between August 1, 2018 and February 28, 2019, which was focused on those to whom antibiotics had been administered for over 15 days. However, the following patients were excluded: patients having hematologic diseases, patients in the neonatal intensive care units, and patients who were recommended to maintain antibiotics by ID specialist. Treatment duration according to the indications was compared between pre-intervention period (Aug to Sep 2017) and post-intervention period. A questionnaire based on clinical vignettes was distributed among 140 prescribers.

Results: Among 500 prescriptions assessed as a prolonged treatment, 475 (95%) were stopped after intervention. Over the pre- and post-intervention period, pneumonia was the most common indication of prolonged antibiotic use (43.8 versus 43.0%). The treatment durations decreased from 21.0 (interquartile range [IQR], 27.3-18.0) days pre-intervention to 16.0 (IQR, 20.0-15.0) days post-intervention (p=0.000).

The survey response rate was 76.4% (107/140). Regarding community-acquired pneumonia, there was a significant difference between knowledge and practice, showing that 53% were aware of the standard duration, but 72% actually prescribed for a longer duration. There was a similar trend for the treatment of urinary tract infection (30% versus 83%, p=0.024). The reasons why the physicians prescribed antibiotics of a prolonged duration in spite of adequate knowledge were not only the lack of symptom alleviation in patients but also organizational factors.

Conclusion: The duration of long-term antibiotic treatment was shortened by active participation of pharmacist as well as ID specialists. However, gaps between the knowledge and practice on the duration of antibiotic treatment were also found. Therefore, it is necessary to implement appropriate feedback and education based on clinical scenario in order to improve the physicians' antibiotic prescription.

Disclosures: **All Authors**: No reported disclosures

82. Post-Prescription Review with Threat of Infectious Disease Consultation and Sustained Reduction in Meropenem Use Over Four Years

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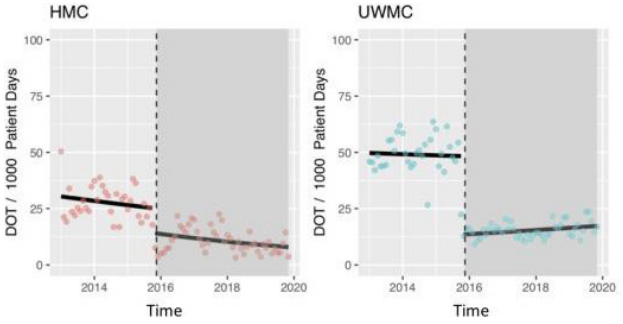
Session: P-3. Antimicrobial Stewardship: Outcomes Assessment (clinical and economic)

Background: Following a meropenem shortage, we implemented a post-prescription review with feedback (PPRF) in November 2015 with mandatory infectious disease (ID) consultation for all meropenem and imipenem courses > 72 hours. Providers were made aware of the policy via an electronic alert at the time of ordering.

Methods: A retrospective study was conducted at the University of Washington Medical Center (UWMC) and Harborview Medical Center (HMC) to evaluate the impact of the policy on antimicrobial consumption and clinical outcomes pre- and post-intervention during a 6-year period. Antimicrobial use was tracked using days of therapy (DOT) per 1,000 patient-days, and data were analyzed by an interrupted time series.

Results: There were 4,066 and 2,552 patients in the pre- and post-intervention periods, respectively. Meropenem and imipenem use remained steady until the intervention, when a marked reduction in DOT/1,000 patient-days occurred at both hospitals (UWMC: percentage change -72.1%, (95% CI -76.6, -66.9), $P < 0.001$; HMC: percentage change -43.6%, (95% CI -59.9, -20.7), $P = 0.001$). Notably, although the intervention did not address antibiotic use until 72 hours after initiation, there was a significant decline in meropenem and imipenem initiation ("first starts") in the post-intervention period, with a 64.9% reduction (95% CI 58.7, 70.2; $P < 0.001$) at UWMC and 44.7% reduction (95% CI 28.1, 57.4; $P < 0.001$) at HMC.

Meropenem and Imipenem DOT (January 2013 – November 2019)



Conclusion: Mandatory ID consultation and PPRF for meropenem and imipenem beyond 72 hours resulted in a significant and sustained reduction in the use of these antibiotics and notably impacted their up-front usage.

Disclosures: **All Authors**: No reported disclosures

83. Staff Pharmacist-driven Prospective Audit and Feedback at a Community Hospital: Assessing an all Hands on Deck Approach to Antimicrobial Stewardship

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

Background: Facilities with robust antimicrobial stewardship programs often have infectious disease (ID) pharmacists with devoted time to complete antimicrobial stewardship initiatives. Smaller facilities with limited resources or lacking ID pharmacists, may encounter challenges meeting antimicrobial stewardship regulatory requirements. The goal of this study is to assess the impact of a staff pharmacist-driven prospective audit and feedback program in a small community hospital.

Methods: A pre- and post-intervention study was performed to assess the primary outcome of days of therapy per 1,000 patient days (DOT) for targeted antimicrobials (ciprofloxacin, levofloxacin, piperacillin/tazobactam, cefepime, ceftazidime). Secondary outcomes were antibiotic expenditures and rates of *Clostridioides difficile* infection (CDI).