transplant, documented concern for symptoms consistent with urinary tract infection prior to the procedure, or receiving antibiotics for another condition were excluded. Both inpatient and outpatient preprocedural, intra-operative and postprocedural antibiotics were evaluated. Pre-procedural urine cultures results, attending of record, and type of procedure were correlated with prophylaxis practices using a one way ANOVA. **Results:** Of the 80 patients reviewed 41.3% received only single dose pre-operative prophylaxis and 57.5% received Discussion:
Nearly half of patients who underwent urologic procedures had a prophylaxis duration of < 2 4 hours in concordance with the AUA best practice recommendations. Opportunities exist for optimizing agent selection education. No difference in length of prophylaxis was found to correlate between different procedures performed. The presence of pre-operative ASB and ordering attending were found to correlate with an increased duration of prophylaxis. A future institutional practice guideline and order set for urologic procedure antimicrobial prophylaxis may be necessary to optimize agent selection and duration for these GU procedures.

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Presentation Type:
Poster Presentation
Subject Category: Antibiotic Stewardship
Estimated Carbon Dioxide Emissions Associated with Unnecessary Intravenous Antimicrobials Administered in the Hospital Setting
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Background: Hospitals have been recognized as major drivers of the deleterious environmental impacts of human industry. Intravenous (IV) therapy and its associated preparation and administration materials account for a large component of the plastic waste produced by hospitals. Switch therapy refers to transitioning antimicrobials from the IV to the enteral (PO) route. Despite this being a well-established practice, it has not been studied extensively in the context of reducing hospital-generated plastic waste. This study investigated the waste which could be avoided through optimization of IV to PO switch therapy. **Method:** A retrospective cohort study was performed at a large academic center in a metropolitan area. We included all adult patients receiving an IV antimicrobial with a highly bioavailable PO equivalent between October 2023 and September 2024. For a randomly selected subset of each agent we determined the total number of days during which patients would have been eligible for PO conversion based on our institution's policy. This was used to determine the mean potential IV days of therapy (DOT) saved for each agent. The mean IV DOT saved were then extrapolated to the total number of patients receiving the corresponding antimicrobial agent over the course of the year to calculate a final estimated annual IV DOT which could be saved through optimized IV to PO switch therapy. A carbon emissions estimation tool was then used to estimate the carbon dioxide equivalents of the solid waste generated from the IV DOT saved. **Result:** A total of 15,037 DOT of IV antimicrobials with a highly bioavailable PO alternative were administered over the course of a year, of which an estimated 9,694 (64%) IV DOT could have been saved had appropriate switch therapy been implemented (Figure). This amounts to 2,049 kilograms of solid waste, or 0.353 metric tons of CO2 equivalents, generated through unnecessary administration of IV antimicrobials. This is equivalent to 904 miles driven, 40 gallons of gasoline consumed, 389 pounds of coal burned, or the energy required to maintain 23,392 fully depleted phone batteries at full charge throughout one day. **Conclusion:** Optimizing the implementation of IV to PO antimicrobial therapy can be an effective way of decreasing a hospital's impact on the environment through reduction of solid waste generation. Future work should prioritize implementing life cycle assessments to broaden our understanding of how the use and production of IV medications impact the environment.

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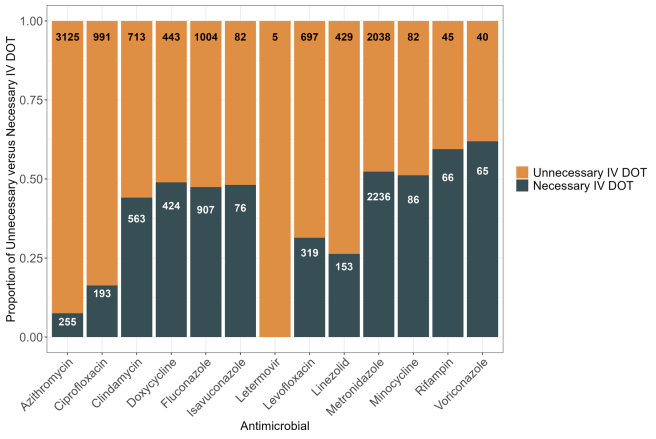

Presentation Type:
Poster Presentation
Subject Category: Antibiotic Stewardship
1. Reduced utilization of meropenem post successful implementation of Neonatal Intensive Care Unit empiric sepsis treatment guideline
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Background: Neonatal intensive care units (NICU) are associate with a high level of antibiotic consumption. Appropriate antibiotic use is crucial to minimize the emergence of resistance and unintended consequences to the patient. Our antimicrobial stewardship program (ASP) performed a baseline review of NICU antibiotic prescribing, which revealed excessive meropenem use and inconsistent empiric antibiotic prescribing practices within the unit. Third generation cephalosporins were vastly underutilized due to concerns of increased Candida infections resulting in the unwarranted excessive use of meropenem.1 **Methods:** In 2023, the ASP created an institution specific empiric NICU sepsis guideline to align empiric prescribing practices with current guidelines and reduce the unwarranted use of carbapenems. After education and guideline implementation, a retrospective review, pre (April 16, 2021 to April 16, 2023) and post (April 17, 2023 to April 17, 2024) implementation was conducted. The primary objectives were to evaluate the effect of the guideline implementation on antibiotic days of therapy (DOT) per 1000 patient-days, overall meropenem and third generation cephalosporin utilization, differences in the incidence of Candida infections, and variations in antimicrobial sensitivity. Microbiologic data from sterile site cultures were obtained April 2021 to March 2023 and post-implementation (April 2023 to March 2024) to evaluate cephalosporin and meropenem resistance for each period. **Results:** Meropenem DOT/1000 patient-days declined from 3.9 to 2.0 (51.3%), and an associated rise in third-generation cephalosporin DOT/1000 patient-days from 15.7 to 22.9 (69.7%) occurred post-guideline implementation. There were no observed differences in the incidence of *Candida* infections, cephalosporin resistance in Gram-negative bacilli, or the organisms isolated over the observation period. **Conclusions:**