731. A Cluster Randomized Controlled Trial Comparing Early and Late Carbapenems De-escalation in the Medicine Units, Maharaj Nakorn Chiang Mai Hospital Prot Eiamparpsri, MD; Chootrakiat Phitthakham, B.Pharm and Romance Chaiwirth, MD, MHS \*; Medicine, Faculty of Medicine Chiang Mai University, Chiang Mai, Thailand. \*Faculty of Medicine Chiang Mai University, Chiang Mai, Thailand.

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**Background.** The rate of carbapenems use in the institution is high despite antimicrobial stewardship is in place. The current hospital policy allows the primary care team prescribed carbapenem for the first 72 hours, the de-escalation will occur after 72 hours once drug susceptibility available or infectious diseases specialist unapproved. We conduct this study aimed to determine rate of de-escalation within the first 24 hours between early and late carbapenems de-escalation.

**Methods.** A cluster randomized control trial was conducted among patients receiving care at the medicine units of the Maharaj Nakorn Chiang Mai Hospital between June 2016 and February 2017. Patients were randomly assigned into 2 groups; early de-escalation group where carbapenem were de-escalated within 24 hours or no later than 72 hours of prescription by ID specialist and late de-escalation where carbapenem were de-escalated followed the current hospital policy.

**Results.** A total of 1041 patients were enrolled; 51 in early de-escalation group and 53 in late de-escalation group. The median age was 62 years (IQR 52–71 years), 49 patients (79%) were male. The most common diagnosis required carbapenem empirically was bloodstream infection (43 patients, 41.3%), followed by urinary tract infection (28 patients, 26.9%), and pneumonia (20 patients, 19.2%). Carbapenems de-escalation within 24 hours was 17 patients (33.3%) in early de-escalation group and 4 patients (7.6%) in late de-escalation group (P = 0.001). The median duration of carbapenems use was 2 days (IQR 1, 6) and 4 days (IQR 3, 6) in early and late-de-escalation group, respectively (P = 0.017). The median cost of carbapenems per patient in early program was 2,412 and 4,824 THB in early and late-de-escalation group, respectively (P = 0.018). The 90-day mortality, readmission within 30 days, and length of hospital stay were not different between groups. Factor associated with de-escalation within 24 hours was ID intervention within 24 hours or no later than 72 hours of prescription (early de-escalation group).

**Conclusion.** Early carbapenems de-escalation with careful clinical integration decreased unnecessary use of carbapenems without compromising the clinical outcomes.

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

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732. Antimicrobial Stewardship Program Intervention Package for Increasing Appropriate Outpatient Antibiotic Usage: A Clinic-Feedback Based Approach
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**Background.** The National Action Plan for Combating Antibiotic-Resistant Bacteria issued in March 2015 advocates for the presence of Antimicrobial Stewardship Programs (ASPs) in all outpatient settings by 2020 with a 50% reduction in inappropriate outpatient antibiotics. The purpose of this initiative is to determine whether ASP intervention can reduce prescription of antibiotics commonly associated with UTI treatment.

**Methods.** A prospective cohort quality improvement initiative at Ralph H. Johnson VAMC evaluated the number of prescriptions written by primary care providers in Clinic A and Clinic B for oral antibiotics commonly associated with UTI treatment. Institutional resources, and guidelines. An anonymous program evaluation survey was administered after each session.

**Results.** A total of 138 housestaff participated. At the end of the study, 100% of participants indicated that they were more aware of available institutional resources, 91% were more likely to review the appropriateness of their patients’ antibiotic regimens at 48-72 hours and 96% agreed that periodic presentation of brief antibiotic teaching cases would be useful. In addition, 92% were more likely to incorporate the “A.C.T.” philosophy into their practice.

**Conclusion.** Case-based training of medicine and pediatric housestaff utilizing the A.C.T. paradigm was well-received and accepted, increased awareness of available institutional resources, and may increase prescriber-initiated review of patient’s antimicrobial regimens. Future research efforts will focus on program sustainability and assessing changes in antimicrobial prescribing practices.

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

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733. A Novel Educational Paradigm to Address Gaps in Antimicrobial Prescribing Knowledge, Attitudes, and Practices
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**Background.** Gaps in knowledge, attitudes, and practices (KAP) related to antimicrobial prescribing can be barriers to optimal antimicrobial use. A case-based educational program was developed to address barriers identified in a 2015 KAP survey. A novel paradigm was utilized to teach antimicrobial prescribing as a continuum in which frequent re-evaluation and the use of evidence-based practices are applied.

**Methods.** In-person educational sessions were administered across 3 tertiary academic medical centers in New York, New York. Attendees were medicine and pediatric housestaff. Adult- and pediatric-specific cases were developed. Commonly encountered clinical scenarios were used to address topics such as determining the need for and selection of empiric therapy, selecting an appropriate duration of therapy, interpreting antimicrobial susceptibility testing, de-escalating empiric therapy, and assessing reported penicillin allergies. Each session included 2-3 interactive clinical cases and incorporated an antibiotic prescribing paradigm titled “A.C.T.” that included: Assessing the patient, Considerations for empiric therapy, and Targeting therapy.

**Results.** Throughout cases, A.C.T. was used to highlight concepts of appropriate antimicrobial use and re-evaluation of treatment, institutional resources, and guidelines. An anonymous program evaluation survey was administered after each session.

**Conclusion.** Case-based training of medicine and pediatric housestaff utilizing the A.C.T. paradigm was well-received and accepted, increased awareness of available institutional resources, and may increase prescriber-initiated review of patient’s antimicrobial regimens. Future research efforts will focus on program sustainability and assessing changes in antimicrobial prescribing practices.

**Disclosures.** All authors: No reported disclosures.
effective standard formulaary agents when treating immunocompromised HCT patients at high-risk for infection. The impact of penicillin allergy de-labeling on Clostridium difficile infection and antibiotic resistance merits evaluation in future studies.

Disclosures. All authors: No reported disclosures.

735. Impact of an Antimicrobial Stewardship and Emergency Department Initiated Dalbavancin Guideline for Patients with Acute Bacterial Skin and Soft-Tissue Infections
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Background. Acute bacterial skin and skin structure infections (ABSSI) are one of the most common reasons for patient hospitalization. These admissions may be solely for receipt of intravenous vancomycin due to concern for resistance. Candidates were identified by a dalbavancin guideline implemented in the emergency department (ED).

Methods. This was a single-center, case series study evaluating adult patients with ABSSI from April 2016 to May 2017 who were screened for receipt of dalbavancin. Candidates were identified by a dalbavancin guideline implemented in the ED in April 2016 with hours from 7 am to 7 pm. Patients were assessed for inclusion by an ED pharmacist and physician. If the patient qualified for receipt of dalbavancin, the ED pharmacist contacted the Antimicrobial Stewardship Team (AST) for final approval. The guideline was reviewed in January 2017 to lessen restrictions. Patients were contacted via phone by an ED pharmacist for follow-up and the interaction documented in the electronic medical record. Patient data were collected using REDCap™.

Results. Overall, 22 patients (15 males/7 females) were evaluated for inclusion to receive dalbavancin. The average age of the patients was 38 years old, ranging from 21 to 61 years. Of these 22 patients, 7 received a single dalbavancin dose of 1,500 mg over 30 minutes for ABSSI (cellulitis (n = 5) and shooter’s abscess (n = 2)). The reasons for exclusion were: lack of systemic signs of infection (n = 5), risk of Gram-negative infection (n = 2), outside guideline time period (n = 2), required hospital support (n = 2), immunocompromised (n = 1), severe hepatic disease (n = 1), bacteremia (n = 1), and diabetic foot infection (n = 1). All patients received a follow-up visit (n = 4) or phone call from the ED pharmacist (n = 3). Only 1 patient required a later hospital admission due to further complications.

Conclusion. A multidisciplinary team approach to treating ABSSI in the ED was highly successful at our academic medical center. Further expansion of guideline hours should enhance the utilization of this guideline.

Disclosures. All authors: No reported disclosures.

736. Antimicrobial Stewardship in the Neonatal Unit: A Quality Improvement Initiative
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Background. Antimicrobial stewardship is an important component of modern medical practice. Audit and surveillance of antibiotic use with feedback to prescribing clinicians is recommended as a high-impact core stewardship intervention. The aim of this study was to assess and reduce unnecessary antimicrobial use in a neonatal unit.

Methods. A prospective audit was performed to systematically assess compliance of antimicrobial prescribing with local antimicrobial guidelines in September 2016. Following this, educational interventions were applied to improve compliance with the guideline and electronic prescribing was introduced to the neonatal unit. There were two further re-audit periods in December 2016 and March 2017. The primary outcome was a reduction in days of antibiotic therapy per 1,000 patient days (DOT/1,000 patient days). Secondary outcomes were a reduction in prolonged antibiotic courses and improved compliance with the sepsis evaluation guideline.

Results. There were 312 neonatal admissions throughout the study. The number of admissions per day did not significantly change from the baseline to intervention period and the groups were comparable for gestation, birth weight and admission diagnosis. There was a significant overall reduction in the primary outcome of DOT/1,000 patient days from 572 to 417 DOT from September to March (P < 0.0001). This represents a 27% reduction in total antibiotic use. Prolonged antibiotic treatment >36 hours in negative PSWU cases were reduced from 82 DOT to 7.5 DOT (P = 0.0004). Similarly treatment courses >5 days for culture negative sepsis were reduced from 46.5 DOT to 7 DOT (P = 0.0009). Compliance with the neonatal sepsis evaluation guideline also improved with a 35% reduction in evaluations for indications not recognized in the guideline.

Conclusion. Anti-microbial stewardship plays an important role in the neonatal unit in ensuring that the appropriate drug, dose, route and duration of therapy are employed to ensure adequate treatment while minimizing the risks of unnecessary antibiotic use. Monitoring antimicrobial prescribing data, as in this audit, can provide useful insights into the trends of antibiotic use and also inform clinicians of potential areas where antibiotic use may be safely reduced.

Disclosures. All authors: No reported disclosures.