1006. Do Antibiotic Choices Made in the ED Influence Inpatient Therapy? 

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Background. Inappropriate antibiotic use (AU) is common among inpatients and may begin in the emergency department (ED). ED clinicians often make the first antibiotic decisions in patient care, but it is unknown whether or not these decisions influence inpatient outcomes. Understanding prescribing practices at transitions of care is critical for implementing effective stewardship strategies.

Methods. We performed a retrospective cohort study of AU in patients admitted to Duke University Hospital through the ED between July and December 2018. Included encounters had a minimum 2-day length of stay and received an antibiotic in both the ED and inpatient setting. Individual encounter IDs were used to link ED and inpatient AU reports generated from the DASON Antimicrobial Stewardship Assessment Workgroup. We compared the last ED administration date/time to the first inpatient unit administration for each agent. An antibiotic started in the ED was considered continued upon admission if the first inpatient administration occurred within 30 hours following the last ED administration.

Disclosures. All authors: No reported disclosures.

Results. We included 3,336 encounters and 2,940 unique patients in the analysis. The median (IQR) patient age was 60 (42–72) years, and the most common indications for AU in the ED were sepsis (23.1%), pneumonia (17.8%), ABSSSI (15.5%), and intra-abdominal infection (12.8%). At least one antibiotic initiated in the ED was continued upon admission within 30 hours in 2,485 (74.8%) encounters. The most common antibiotics continued upon admission were piperacillin/tazobactam (32.8%), vancomycin (24.9%), and ceftriaxone (13.7%). The most common indications for agents continued upon admission were pneumonia (18%), intra-abdominal infection (15%), and ABSSSI (15%). There were more antibiotic classes continued upon admission in 916 (27.4%) encounters.

Conclusion. In our retrospective review of ED antibiotic encounters resulting in admission for at least 2 days, three out of four encounters had at least one antibiotic continued upon admission. This finding highlights the importance of initial appropriate antibiotic selection and suggests stewardship interventions should target EDs as well as inpatient prescribing.

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