

SIDP Position Statement on the Role of Pharmacists in Antibiotic Stewardship in the Emergency Department

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Preamble

Emergency Medicine (EM) pharmacists have expanded roles as members of the emergency department (ED) inter-disciplinary care team. EM pharmacists can improve the safety and care of patients as they provide drug information resources, assist with allergy clarification and interpretation, guide medication selection, optimize dosing, and help prepare patients transitioning between the ED and ambulatory or long-term care settings. Many of these patients receive antibiotics for documented or suspected infections. The fast-paced nature of the emergency department coupled with high patient turnover and lack of definitive culture results to inform antibiotic prescribing may lead to inappropriate antimicrobial use. Appropriate antimicrobial use is a national safety priority. It is imperative that antimicrobials are utilized appropriately in the ED in order to ensure initial appropriate therapy for patients with infections while simultaneously and appropriately limiting their use to prevent the spread of resistant organisms. The Society of Infectious Diseases Pharmacists supports and encourages EM pharmacists in taking a leadership role in the promotion of judicious antimicrobial use as other duties allow, including, but not limited to:

Optimizing antimicrobial therapy prescribed in the emergency department

EM pharmacists are uniquely suited to review a patient's medical record for prior culture results and susceptibility interpretation, antimicrobial therapy, antimicrobial drug interactions, and patient risk factors for resistant organisms in order to assist in initiation of appropriate therapy. This review allows EM pharmacists to discuss with the provider more appropriate antimicrobial(s) and route of administration for the patient. Additionally, EM pharmacists can ensure appropriate antimicrobial administration in a timely and optimized manner to patients who require immediate therapy (e.g. for patients with sepsis). EM pharmacists can also work to optimize dosing based on patient specific factors such as reduced or enhanced elimination of drug, body weight, or pharmacodynamic enhancement of regimens. By clarifying and interpreting allergy history, EM pharmacists can limit the use of second and third line agents from inaccurate or incomplete allergy histories. EM pharmacists can also review and intervene upon antimicrobials prescribed to patients being discharged back into the community for appropriateness, duration of therapy, and for the ability to acquire the drug taking into account the patient's insurance and ability to pay for medications.

Creation of emergency department-specific antibiograms and infection-specific clinical pathways

Antibiotic resistance patterns observed in the emergency department often differ substantially from those observed in the inpatient setting. EM pharmacists should be involved in the creation and maintenance of emergency department-specific antibiograms based on location of the patient, antibiotic resistance risk factors, or disease states of patients presenting to the emergency department

to guide appropriate empiric therapy. Additionally, antibiogram data should be incorporated into the creation of infection-specific clinical pathways (e.g. pneumonia, urinary tract infection and skin/skin structure infections) to guide other healthcare providers.

Culture call back

EM pharmacists should be involved in reviewing positive cultures for patients discharged back to the community. EM pharmacists should collaborate with EM providers and review discharged patients' cultures and susceptibilities to ensure they have received effective antimicrobial therapy. Collaborative practice agreements between EM pharmacists and EM physicians can help expedite these therapeutic changes. Reviewing cultures and antibiotics prescribed also gives EM pharmacists an opportunity to review and when necessary provide education regarding common prescribing patterns.

Education of the medical and general community

EM pharmacists should develop education related to empiric antimicrobial selection and local antimicrobial resistance patterns for EM providers. EM pharmacists should also participate in larger antimicrobial stewardship educational initiatives such as the CDC's 'Get Smart about Antibiotics' week by developing similar education and initiatives tailored to the ED setting. This can likely be done in coordination with their local antimicrobial stewardship program. EM pharmacists can also engage patients about appropriate use of antibiotics, including why a patient may not be prescribed an antibiotic, the need to closely adhere to antimicrobials prescribed, and potential consequences of antibiotics including side effects and *Clostridium difficile* infections. Additional educational efforts can be incorporated in Culture Call Back collaborations including notifying primary care providers of results and therapy and the public about sexually transmitted infection (STI) culture results and treatments. EM pharmacists can provide valuable information regarding prevention of STIs and the consequences of additional infections. EM pharmacists are also in a unique position to help guide initial diagnostic testing both to appropriately treat patients with active infections, but also to limit unnecessary testing that may lead to treatment of colonized bacteria.

Participation in Local Antimicrobial Stewardship Team

EM pharmacists should work collaboratively with or be an active member of the local antimicrobial stewardship committee.

Focused Antimicrobial Stewardship Training

EM pharmacists should seek to further their expertise in antimicrobial stewardship by obtaining additional training specifically in antimicrobial stewardship via continuing education or certificate programs. Antimicrobial stewardship principles should also be incorporated into EM PGY II training curricula.