At least 30% of all hospitalized patients receive antimicrobial therapy, and as many as 50% of such therapies are unnecessary or inappropriate. Inappropriate use of antimicrobial agents results in the development of bacterial resistance, which has been shown to increase mortality and morbidity rates, adverse events, and costs.

There are few new antimicrobial agents currently in development to combat multi-drug resistant organisms. This reinforces the need for judicious use of existing agents. Antimicrobial Stewardship Programs (ASPs) limit inappropriate use of antimicrobial agents and promote optimized regimens (right agent, dose, duration, and route of administration). Pharmacists play an important role in ASPs through promotion of optimal use of antimicrobial agents as well as providing education to other health care professionals.

This study was conducted to evaluate current prescribing practices of levofloxacin, ertapenem, vancomycin, and piperacillin/tazobactam in 78 randomized cases was evaluated in adult inpatients. Descriptive data for each case was collected using the patient’s electronic medical record and Meditech with documentation on an Excel spreadsheet. Data included demographics, indication for use, source of infection, microbiology data, serum drug levels, renal function, route of administration, and appropriateness of prescribing for all cases. Analysis was based on pharmacy-specific protocols, plus Infectious Diseases Society of America and Johns Hopkins guidelines, when applicable.

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References