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Improving antibiotic use through antimicrobial stewardship interventions upon discharge

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To the Editor—Employing antimicrobial stewardship principles at every phase of patient care is crucial. Although much of the antimicrobial stewardship literature is focused among inpatients, Dyer et al¹ have identified an important opportunity to measure and reduce antimicrobial exposure postdischarge. Excessive outpatient antibiotic therapy for treatment of pneumonia is associated with increased risk for adverse effects.² As such, we wanted to share additional outcomes related to our multicenter evaluation of an antimicrobial stewardship initiative focused on duration of therapy (DOT) for >600 patients with community-acquired pneumonia (CAP),³ which is consistent with the findings by Dyer et al³ and highlights the widespread need to focus on stewardship practices across phases of care.

This initiative employed a multifaceted intervention including institutional guideline update, provider education using educational sessions and pocket cards, and prospective audit with feedback and intervention. Prospective audit with feedback and intervention was performed by infectious diseases pharmacists Monday through Friday. Interventions were made to recommend durations of therapy consistent with the 2007 IDSA and American Thoracic Society (IDSA/ATS) CAP guidelines, including a focus on postdischarge prescriptions.⁴ Following this intervention, we observed a reduction in the median total DOT (6 vs 9 days; $P < .001$). Importantly, this change was attributed to a significant reduction in postdischarge DOT (3 vs 5 days; $P < .001$). The inpatient DOT (3 vs 3 days; $P = .217$) and hospital length of stay (3 vs 4 days; $P = .060$) remained similar before and after the inter-

vention. Consequently, the percentage of postdischarge days accounting for overall antimicrobial exposure for CAP was reduced from 64% to 50% ($P < .001$). Our findings support the call for antimicrobial stewardship programs to target antimicrobial prescribing at transitions of care and demonstrate that interventions upon discharge can reduce overall antimicrobial exposure.

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