

POSTER ABSTRACTS

137. Developing an Approach to Evaluating the Quality of Antibiotic Prescribing in Hospitalized Patients with Community-Acquired Pneumonia (CAP) and Non-catheter Associated Urinary Tract Infection (UTI)

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Background. Although CDC recommends that hospitals implement antibiotic stewardship programs, standard methods to evaluate antibiotic prescribing (AP) are not well established. The Emerging Infections Program (EIP) field tested an approach for evaluating inpatient AP quality for CAP and UTI.

Methods. A convenience sample of adult patients on antibiotics for clinician-documented CAP or UTI during a 2011 10-state antimicrobial use prevalence survey were selected for chart abstraction. Diagnostic tests, antibiotics, and infection signs/symptoms were collected from medical records. We calculated the proportions of: 1) CAP patients with recommended antibiotics and cultures according to the 2007 IDSA and American Thoracic Society guideline; 2) UTI patients with compatible signs/symptoms and urine cultures; 3) patients with final culture results before discharge.

Results. Records were reviewed for 41 CAP and 132 UTI patients in 36 hospitals among 8 EIP sites. Of 19 CAP patients for whom guidelines recommend blood and respiratory cultures, 7 (37%) did not have a blood culture and 14 (74%) did not have a respiratory culture. Among 31 CAP patients who had either culture (whether recommended or not), 3 (10%) had a positive culture and 1 (3%) had a final result prior to discharge. Of 33 CAP patients not needing intensive care, 4 (12%) did not receive a guideline-recommended inpatient antibiotic regimen. Of 132 UTI patients, 51 (39%) lacked a documented sign/symptom and 22 (17%) did not have a urine culture collected before antibiotic start. Of 54 (41%) UTI patients with signs/symptoms and a positive culture, culture results were not final prior to discharge for 8 (15%).

Conclusion. Cultures to inform evaluation of CAP and UTI inpatient AP quality were often not collected or results were unavailable. CAP patients frequently did not have documentation of culture collection in accord with recommendations. UTI patients frequently did not have documentation of key elements of UTI diagnosis, and results to inform AP were not available during the hospitalization in some patients with signs/symptoms and a culture. More work is needed to define objective measures of AP quality and understand barriers to timely availability of microbiology data to inform inpatient AP.

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