During the intervention, ASP pharmacists made 81 recommendations (93.8% accepted).

A post hoc analysis was conducted due to the 35.8% increase in ID consults with the intervention. A significant decrease of 18.5% in in-hospital mortality (P = 0.041) and 21.7% in 30 day mortality (P = 0.009) with ID involvement was seen.

Conclusion. SAB management bundle development with PAF by ASP pharmacists significantly improved adherence rates to evidence based recommendations in SAB inpatients. This simple yet effective ASP intervention can ensure consistent management of a highly morbid infection.

Disclosures. C. Cervera, Sunovion: Scientific Advisor, Consulting fee.

1583. Impact of an Antimicrobial Stewardship Bundle of Rapid Identification of Methicillin Susceptibility and Active Intervention on Treatment of Staphylococcus aureus Bacteremia

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Session: 168. Stewardship: Improving Outcomes
Friday, October 6, 2017: 12:30 PM

Background. Staphylococcus aureus bacteremia (SAB) is a major source of morbidity and mortality. Studies have shown rapid initiation of appropriate antibiotic therapy is essential to treatment and optimal therapy depends upon antibiotic susceptibility.

Methods. Using a quasi-experimental pre-post intervention study we evaluated a bundled antimicrobial stewardship rapid identification and susceptibility testing protocol. The pre-intervention group included all patients treated for SAB at our hospital between April and Sept 2015; the post-intervention group was between April and Sept 2016. We implemented combined rapid identification by MALDI-TOF with a modified immunochromatographic assay for penicillin-binding protein 2a to differentiate MSSA and MRSA. Department of Pathology and susceptibility results were communicated to the primary team per usual protocol and to an antimicrobial stewardship pharmacist for intervention. The primary outcome was time to optimal antibiotic therapy calculated as the difference in time from the first dose of antibiotic therapy to the discontinuation time of the non-optimal antibiotic, for patients receiving combination therapy or first dose of optimal therapy, determined using a predefined protocol developed in collaboration with the Infectious Diseases (ID) consult service. Additional outcomes included time to pathogen identification, time to ID consult, time to source control, length of hospital stay (LOS), C. difficile ED antibiotic was inappropriate (P = 0.005) as well as in the subgroup of CA-IAI patients (62% vs. 44% P = 0.005). Overall guideline-concordant prescribing significantly increased between the new ASP (2014) vs. established ASP (2016). Secondary outcomes included in-hospital mortality and hospital acquired Clostridium difficile infection (CDI).

Results. 320 patients were included in the study (EMP n = 185; no-EMP n = 135). Empiric antibiotic selection was more likely to be guideline-concordant when an EMP was present (78% vs. 61% P = 0.001). Guideline-concordant empiric prescribing occurred more often when an EMP was present in the subgroup of CAP patients (95% vs. 79% P = 0.005) as well as in the subgroup of CA-IAI patients (62% vs. 44% P = 0.025). Overall guideline-concordant prescribing significantly increased between the new ASP and established ASP (60% vs. 82.5%, P = 0.001) and was more likely when an EMP was present (new ASP: 68.3% vs. 45.8%, P = 0.005; established ASP: 90.5% vs. 73.7%, P = 0.005). Patients receiving guideline-concordant antibiotics in the ED were continued on appropriate therapy on admission 82.5% of the time vs. 18.8% if the ED antibiotic was inappropriate (P < 0.001). The presence of an EMP did not impact hospital acquired CDI (1.1% vs. 1.5%, P = 1.0) or in-hospital mortality (4.3% vs. 1.5%, P = 0.2).

Conclusion. The presence of an EMP significantly improved guideline-concordant empiric antibiotic prescribing for CAP and CA-IAI. This impact was demonstrated in both a new and established ASP. Inpatient orders were more likely to be guideline-concordant if appropriate therapy was ordered in the ED.

Disclosures. All authors: No reported disclosures.

1584. Use of Diagnosis-related Group-Based Days of Therapy to Evaluate Fluoroquinolone Use Optimization Across a Large Healthcare System

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Background. Optimal use of fluoroquinolones (FQ) is a common antimicrobial stewardship program (ASP) target based on well-cited risk for Clostridium difficile colitis and has gained national attention in the setting of recent FDA warnings about serious side effects. Identifying appropriate metrics for benchmarking poses a significant challenge. Diagnosis-related group (DRG) can be leveraged to focus large volumes of patient data to derive DRG-based days of therapy (DOT). Novant Health identified an opportunity to improve FQ use among patients with COPD and pneumonia (PNA) across the health system and created a FQ use optimization initiative based on interfacility data that would otherwise not have been possible using the standard DOT per 1000 patient-days (PD) metric.

Methods. A staged approach to optimizing FQ use was developed through a multidisciplinary, system-level ASP, and system-specific benchmarks for FQ use among patients with PNA and COPD DRGs was established. 10 facilities ranging in 1000 patient-days (PD) metric.

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