

A STRATEGIC INITIATIVE TO IMPROVE ORAL 3RD GENERATION CEPHALOSPORIN USE IN A PEDIATRIC CLINIC

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Background: Antimicrobial stewardship programs have been successfully implemented in hospitals throughout the country, but most antibiotics are prescribed in the outpatient setting. Therefore, there is a growing need to design outpatient antimicrobial stewardship programs for clinics with providers with diverse prescribing habits. The objective of this study was to design an outpatient antimicrobial stewardship model with a specific goal of reducing inappropriate use of broad-spectrum oral third generation cephalosporins (oTGCs) for bacterial upper respiratory tract infections (URTIs).

Materials/Methods: We used quality improvement (QI) methodology to design Plan-Do-Study-Act (PDSA) cycles in a pediatric outpatient clinic ("Clinic A") in Houston, Texas. An educational session, individual audit and feedback sessions, and a group feedback session were conducted from December 2017-December 2018. Primary outcomes included the change in the total number of monthly oTGCs over time and the change in percentage of oTGCs that aligned with American Academy of Pediatrics (AAP) guidelines for bacterial URTIs over time.

Results: In June 2017, only 28 % of 322 oTGC prescriptions at Clinic A aligned with AAP guidelines. The most common diagnosis was primary/non-recurrent acute otitis media, and there was a diversity of prescribing habits among individual providers. Following targeted antimicrobial stewardship interventions, the average total number of monthly oTGC prescriptions decreased by 47 %, and the percentage of prescriptions that aligned with AAP guidelines improved from 28 to 52 % (25 % absolute improvement). These changes were sustained six months beyond the intervention time window despite decreased participation in antimicrobial stewardship activities over time.

Conclusions: Despite a high prevalence of inappropriate oTGC prescribing at Clinic A, there were significant improvements in prescribing habits following targeted antimicrobial stewardship interventions. These improvements were maintained despite decreased participation in antimicrobial stewardship activities over time, raising questions about the level of direct supervision and duration of antimicrobial stewardship activities needed to result in sustained improvements in a pediatric outpatient setting.