

Abstract

Background and Purpose: Antibiotics make up 60% of prescriptions in urgent care centers (UCC), primarily for viral acute respiratory infections (ARIs). Antibiotic overuse contributes to antimicrobial resistance. This quality improvement project assessed the effectiveness of a multifaceted antibiotic stewardship program (ASP) on prescriber attitudes and inappropriate antibiotic prescriptions (ABX) for ARIs.

Methods: The project implemented a quasi-experimental, pre-test/post-test design implemented before and during COVID-19 across seven urban UCCs. The ASP included ARI education on diagnostic support guidelines provided to UCC providers (medical doctors, nurse practitioners, physician assistants), exam room modifications and communication campaign tools on safe antibiotic use from the Centers for Disease Control and Prevention targeted to adult patients seeking treatment for ARIs. Provider attitudes was evaluated with items from the MITIGATE questionnaire. A retrospective electronic chart review on inappropriate ABX rates at three timepoints: T1: pre-intervention non-COVID; T2: pre-intervention +COVID, and T3: post-intervention +COVID. Analyses included descriptive statistics and chi-square tests.

Results: There were 18 providers and 725 ARI visits across all UCCs and timepoints. Top barriers to appropriate ABX were patient expectations (93%) and concerns with patient satisfaction (71%). Post-intervention, providers said the ASP reinforced their AMR knowledge (42.9%), improved prescribing accountability (28.6%) and enhanced patient communication on safe ABX use (28.6%). Overall, inappropriate ABX rates for ARIs significantly decreased by 61.4% after the intervention ($p<0.05$). Specifically, inappropriate ABX rate was 78.7% in T1, 78.9% in T2, and 30.4% T3. There were no statistically significant differences in patient demographics, volume, or overall antibiotic prescribing rates between the time points.

Conclusion: ASPs are highly effective strategies to increase judicious ABX use in the UCC setting and can be used during COVID-19.

Implications: Leveraging timely and multifaceted ASPs that are culturally sensitive to UCC milieus will affect quality patient care through safe antibiotic use.

Keywords: *antimicrobial resistance, quality improvement, antibiotic stewardship, COVID-19, judicious prescribing*