

Conference abstract

From Routine to Restricted: Impact of the FDA Black Box Warning on Fluoroquinolones on the Treatment of Simple Cystitis

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INTRODUCTION

Fluoroquinolones (FQs) are no longer recommended as first-line therapy for uncomplicated cystitis due to increased risk of adverse events and rising antimicrobial resistance. Despite guideline changes, FQ use remains common. We evaluated specialty-specific prescribing patterns for uncomplicated urinary tract infection (UTI) in women before and after the July 2016 FDA Drug Safety Communication.

METHODS

We performed a retrospective EPIC chart review within a single, multi-site health system. Female patients diagnosed with simple cystitis from January 2012–December 2024 were identified. Antibiotic prescriptions were analyzed to determine antibiotic class, proportion of FQs, and prescribing specialty. Prescribing patterns were compared between January 2012–July 2016 and August 2016–December 2024.

RESULTS

A total of 21,656 antibiotic prescriptions were identified, including 4,359 FQs (20.1%). Antibiotics were most often prescribed by emergency medicine (EM, 67.8%), internal

medicine (IM, 22.8%), and family medicine (FM, 5.7%). FQs were most often prescribed by EM (40.9%), followed by IM (39.3%) and FM (5.7%). Prior to the FDA warning, FQs were the most prescribed antibiotic class (55.0%), followed by cephalosporins (19.6%) and nitrofurantoin (17.9%). After the warning, cephalosporins predominated (50.2%), followed by nitrofurantoin (19.4%) and FQs (16.6%). Following the warning, FQ use decreased from 41.5% to 11.3% among EM physicians, 64.0% to 30.4% among IM physicians, and 62.0% to 16.6% among FM physicians. Urologists accounted for 0.5% of prescriptions; 54.6% were FQs pre-warning versus 34.0% post-warning.

CONCLUSIONS

Updated treatment guidelines have caused a shift in prescribing patterns to favor cephalosporin use in uncomplicated UTI over FQs. However, FQs continue to be prescribed at high rates, with substantial variation by specialty. Although urologists contributed a smaller proportion of antibiotic prescriptions for simple cystitis, they prescribe a relatively high proportion of FQs. This underscores the need for enhanced antimicrobial stewardship and CME to reduce inappropriate FQ use in uncomplicated UTI.



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