

O1179 Surgical antimicrobial stewardship: evaluation of antimicrobial prophylaxis prior to flexible cystoscopy

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Background: Urinary tract infections (UTI) may develop in up to 10% of patients who undergo outpatient flexible cystoscopy (FC). However, previous studies may overestimate the risk of UTI versus bacteriuria, and it remains unknown if antimicrobial prophylaxis pre-FC is truly warranted to reduce infection risk. The objective of this study was to compare rates of symptomatic UTI among patients who received antimicrobial prophylaxis pre-FC to patients who did not receive prophylaxis.

Materials/methods: In Fall 2017, the urology service at the Providence Veterans Affairs Medical Center implemented routine oral antimicrobial prophylaxis in the outpatient FC clinic. Outpatients were randomly selected for retrospective chart review to compare patients who received pre-FC antimicrobials (n=200) versus those who did not (n=200). Patients were excluded if FC occurred within 7-days of last FC, were on antimicrobials at time of FC, incomplete procedure documentation, UTI diagnosed on day of FC, or death occurred within 7-days after FC. The primary outcome was presence of symptomatic UTI within 30-days post-FC. Secondary outcomes included UTI treatment despite symptoms and assessment of these patients' potential risk factors. Differences between patients who received antimicrobials versus patients who did not, were assessed by chi-square or Fisher's exact test.

Results: A total of 301 patients were included for final analysis with 139 patients not receiving and 162 patients receiving a prophylactic antimicrobial pre-FC. One dose of cefuroxime 500mg orally was most commonly administered (75.9%), followed by sulfamethoxazole 800mg-trimethoprim 160mg orally (14.8%). Symptomatic UTI rates and patients treated for a UTI despite symptoms were similar between antimicrobial prophylaxis and no prophylaxis (2.5% versus 2.2%; p>0.99), and (2.5% versus 4.3%; p=0.57), respectively. The risk factor age over 65 was present in all patients with a UTI post-FC, irrespective of antimicrobial prophylaxis.

Conclusions: Symptomatic UTI rates are less than 2.5% at 30-days post-FC regardless if the patient received antimicrobial prophylaxis. Our single center findings support that antimicrobial prophylaxis does not significantly reduce UTI rates post-FC.