

O0398 High rate of ESBL-producing Escherichia coli acquisition and urinary tract infection after single-dose fluoroquinolone prophylaxis for prostate biopsy

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Background: Antibiotic prophylaxis is essential to prevent post-prostate biopsy urinary tract infection (UTI). Fluoroquinolones (FQ), single-dose, are the recommended prophylaxis in France. Presence of FQ-resistant bacteria in the feces is however associated with an increased risk of post-prostate biopsy UTI, which is ranging from 1 to 4%. In France, *Escherichia coli* is the most common pathogen in post-prostate biopsy UTI, with 20% FQ-resistance. We aimed to estimate the rectal carriage of ESBL-producing *Escherichia coli* (ESBL-E) and development of UTI after receiving single-dose FQ for prostate biopsy.

Materials/methods: Preliminary report of a monocentric, prospective study, including all consecutive patients receiving single-dose FQ for prostate biopsy. Rectal swabs were performed at time of prostate biopsy (swab#1), the day of FQ intake, and at time of prostate biopsy results disclosure (swab#2). Prevalence were compared using Fischer's exact test.

Results: Enrollment started in April 2017. As of 28th November 2017, 64 patients have been enrolled. 25(44%) had a history of prostate biopsy, median Charlson score was 1 [IQR 0-2] and prostate volume 40 grams [30-60]. 39(61%) had traveled abroad within 12 months. 13(20%) had received antibiotics within 6 months, including FQ (2), amoxicillin (1), amoxicillin-clavulanic acid (5), unknown (5). None were reporting having UTI in the past 3 months. Single-dose FQ-prophylaxis, was ciprofloxacin in 53(83%) patients, ofloxacin in 7(11%) and levofloxacin in 4(6%). Time between FQ intake and prostate-biopsy was 2.8 hours [2.2-3.0]. 54(84%) had two visits and 50(78%) two rectal swabs. The median time between biopsy and post-biopsy visit was 23 days [20-29]. ESBL-E prevalence was 10% before prostate biopsy (swab#1) and 20% thereafter (swab#2) (p-value=0.18). 8(16%) had acquired a rectal ESBL-E carriage on swab#2, while swab#1 was negative (p-value=0.18). 7(13%) reported having clinical symptoms compatible with UTI after prostate biopsy, including fever (2) and chills (2). 6(12%) received 7 antibiotics, including FQ (3), cotrimoxazole (1), amoxicilline (1), pristinamycin (1) and ceftriaxone (1). Time from prostate-biopsy to alleged-UTI was 4 days [3-7]. 3(6%) had been hospitalized after biopsy.

Conclusions: The incidence of ESBL-E rectal carriage and post-prostate biopsy UTI was high after receiving single-dose FQ as prophylaxis. Alternative antibiotic prophylaxis-regimen must be considered.