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Abstract (oral session)

Analysis of antibiotic prescriptions done by general practitioners for urinary tract infections

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Objectives: In July 2008, in France, guidelines for the prescription of antibiotics for urinary tract infections (UTI) were edited. These guidelines tried to spare fluoro-quinolones to avoid the emergence of resistant bacteria. So the first lines preferred treatments comprise preferentially fosfomycine-trometamol or nitrofurantoin for cystitis and 3rd generation cephalosporin for nephritis and prostatitis. As general practitioners take in charge a lot of UTI, we wanted to know if they knew and followed these guidelines.

Methods: We performed a prospective study. The point of call was urinalysis done in an outpatient biological lab that performs bacteriological analysis for many other labs either in town or in the suburbs. Using this selection method coupled with the criteria of urinalysis diagnosis, we were sure that patients presented an UTI. Patients were excluded if it was a nosocomial infection, if the prescription was done by an urologist, if they were less than 18, if they had permanent urinary catheter. Each GP was called on the phone to retrieve characteristics of the antibiotic prescription.

Results: Our study included 185 urinalysis which were prescribed by 121 GPs. The study population was primarily women (85.4%) with a mean age of 62 years. Diagnoses done by GPs were acute cystitis: 72.4%, prostatitis: 13.5%, nephritis: 11.9%, asymptomatic bacteriuria: 5.4%. Main antibiotics used were: Quinolone (59.5%), furan (17.8%), Cotrimoxazole (6.5%). Only 20.5% of the prescriptions were compliant with the guidelines (i.e. the whole prescription was good: the molecule, the dose, the length of treatment). The right molecule, but not the dose or the length of prescription was chosen in 8.1% of the prescriptions. 42% of the prescriptions for nephritis were wrong, and employed molecule that did not diffuse in the kidney (First-generation quinolone, furan). This mistake was also seen for prostatitis in 24%. 70% of the asymptomatic bacteriuria were treated with antibiotics. For cystitis, the inappropriate prescription was accompanied by an over cost of about 694 €, namely 7.4 € per treatment.

Conclusion: GP's prescriptions for UTI do not follow the guidelines, even if they were published 2 years before this study, and thus should have been known and applied. Even if GPs assert that there are aware of the resistant strains emergence, it seems that they did not take into account the "quinolones spare spirit" which was one of the backbones of these guidelines.