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Introduction & Objectives: At the present time of development of urology, with an increase in endourological manipulations and operations with the use of stents and catheters, the problem of infections remains an urgent issue. The emergence of microbial resistance is a natural biological process, in response to the widespread and irrational use of antimicrobial agents. To study the microbial landscape and the monitoring of antibiotic resistance of *E. coli* as the causative agent of nosocomial UTIs, isolated from the urine of adult patients treated in urological hospitals in Minsk in 2008–2018.

Materials & Methods: The sensitivity of microorganisms to antibacterial drugs was determined by the criteria of the Clinical and Laboratory Standards Institute (CLSI). Were investigated 46212 uropathogen isolates. widespread and irrational use of antimicrobial agents. To study the microbial landscape and the monitoring of antibiotic resistance of *E. coli* as the causative agent of nosocomial UTIs, isolated from the urine of adult patients treated in urological hospitals in Minsk in 2008–2018.

Results: In most cases (34.6%), *E. coli* was the etiological factor in the occurrence of nosocomial UTIs: the rest were less common: *Klebsiella pneumoniae* -18.3%, *Enterococcus faecalis* -15.6%. The analysis of resistance *E. coli* for 11 years showed a consistently high level with a constant growth of resistant strains to Amoxicillin / Clavulanic acid: 31.2% - 2008; 56.0% - 2013; 65.6% - 2018.

High resistance of *E. coli* is noted for Ceftazidime: 18.1% - 2008; 30.7% - 2013; 51.1%- 2018; Cefotaxime: 15.0% - 2008; 35.2% - 2013; 50.0% - 2018.

A relatively low level of resistance of *E. coli* is characteristic of Amikacin: 5.3% - 2008; 6.2% - 2013; 7.1% - 2018.

Extensive use of fluoroquinolones has led to significant resistance of *E. coli* to Ofloxacin: 33.4% - 2008, up to 39.3% - 2013; 40.3% - 2018.

During the study period, the resistance of *E. coli* to Nitrofurantoin slightly changed: 9.9% - 2008; 10.2% - 2013; 15.8% - 2018.

The resistance of *E. coli* to Trimethoprim / Sulfamethoxazole changed slightly: 22.2% - 2008; 34.0% - 2013; 52.2% - 2018.

During the analyzed period, the lowest resistance was fixed to Imipenem: 0% - 2008, 0% - 2013, 1.2% - 2018.

Conclusions: A steady growth was noted of the resistance of *E. coli* to antibacterial drugs. The annual monitoring of antibiotic resistance allows optimizing the use of antimicrobial agents in the treatment of nosocomial UTI.