

Etiologic profile and antibiotic susceptibility of germs responsible of urinary tract infections among elderly men

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Introduction:

- Urinary tract infection (UTI) is one of the most common bacterial infectious diseases encountered in clinical practice, and accounts for significant morbidity and high medical costs.
- There is the need for local research data to address aspects of prevention and management of UTI.

Objective:

The aim of this study was to investigate causative pathogens of UTI among elderly men and to determine antibiotic resistance in order to reduce its public health burden .

Materials and methods:

- A retrospective study was conducted from June 2008 to August 2019 in the department of infectious diseases in a university hospital in Tunisia.
- Microbiological Data of UTI cases in men, aged more than 65 years, were collected.

Results:

- ❖ Based on the criteria for laboratory confirmed UTI, 13 (52,8 %) of the urine cultures were positive.
- ❖ The most common uropathogen isolated was *Escherichia coli* (39,6%)
- ❖ followed by *Klebseilla pneumoniae* (5,7%) and *Enterococcus faecalis* (3,8%).
- ❖ Antibiotic resistance was particularly high for β -lactam antibiotics (36%).

Tab. Prevalence of germs in UTI

Germs	%
E.coli	39,6%
K.pneumonaie	5,7%
E. faecalis	3,8%

- The prevalence of resistance was highest for Piperacillin (88%) and Amoxicillin+Clavulanic Acid (87.1%) and lowest for Amikacin (6,7%).
- The prevalence of antibiotic resistance decreased
 - Nalidixic acid (73.4%)
 - Norfloxacin (40.0%)
 - Ceftadizime (26.7%)
 - Nitrofurantoin (26.7%)
 - Gentamicin (26.7%)
 - Ciprofloxacin (20.0%)
 - Levofloxacin (20.0%)
 - Amikacin (6.7%)
 - Cefuroxime (6.7%)
- Prevalence of **Extended spectrum β -lactamases (ESBL)** Enterobacteriaceae among the uropathogens was **28,3 %** (n=15).
- The overall prevalence of MDR among the bacterial isolates was 36.4%.
- Multi-drug resistance (MDR) prevalence among *E. coli* isolates was 15.7%.

Discussion-Conclusion:

- ❖ Urinary tract infection is the most common problem throughout the world, particularly in developing countries. In addition, emergence of bacterial strains resistant to commonly used antibiotic agents is widespread phenomenon all over the world.
- ❖ Female sex, poor hygienic practice of the rural residents, improper urine storage, frequent sex and lack of genital hygiene, were the major risk factors for the high prevalence of UTI.
- ❖ The high prevalence of multidrug resistance among the uropathogens highlights the need for surveillance of antimicrobial resistance among these pathogens.