

Título: URINARY TRACT INFECTIONS CAUSED BY *Escherichia coli* AND *Klebsiella pneumoniae* ESBL POSITIVE IN THE LABORATORY CPDE.

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Abstract:

Antibiotic resistance is a major problem facing the human health in the last decade as the resistance to β -lactams. These bacteria extended spectrum β -lactamase (ESBL) possess an enzyme encoded by plasmids that hydrolyze the β -lactamase and can arise from a mutation in the SHV-1 and OXA genes. ESBLs producing strains have emerged in Enterobacteriaceae Particularly among *E. coli* and *K. pneumoniae*. The inappropriate use of antimicrobial agents can induce the selection of multidrug-resistant strains, thus positive ESBL strains have become increasingly common in the community. The incidence and pattern of antimicrobial resistance of ESBL-producing microorganisms such as *E. coli* and *K. pneumoniae* trend to regional variations exhibit. This study aimed to describe the frequency of positive ESBL strains of urine samples received in 2014 in the center of research and diagnosis (SPDC). This is a descriptive cross-sectional observational study conducted from January 2014 to December of the same year. A hundred thirty eight analyzed samples were ESBL positive urine, with 67.7% corresponding to the female and 32.3% corresponding to men. The average age was 64 years. Positive *Escherichia coli* ESBL were 66.7%, *Klebsiella pneumoniae* 25.4% and 7.9% other microorganisms. The resistance to gentamicin was 54.4% and 86.7% ciprofloxacin. The lowest resistances were meropenem (4.4%), ertapenem (2.2%) and imipenem (3.3%), the use of these antibiotics are the best option for successful treatment. The prevalence of urinary tract infections in women is common with their rates influenced by translocation strains of intestinal microbiota to the urinary tract according to data from the literature as well as the prevalence of *E. coli*. The indiscriminate use of antibiotics is a worrying factor contributing to the increase of ESBL strains mainly in the urinary tract. Studies that describe the incidence are important for understanding the profile of these strains. Molecular methods must combine to a better description.

Keywords: ESBL, ITU's, bacterial resistance.