Prevalence of symptomatic urinary tract infections and antimicrobial susceptibility patterns in Kabul region of Afghanistan

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Abstract: *This cross sectional study was conducted to determine the prevalence of UTI among population visiting Antani Hospital in Kabul, Afghanistan to identify microorganisms responsible for UTI to explore susceptibility patterns of identified microorganisms to certain antibiotics used in the cure of UTI. This study included 650 samples of 20-80 years age groups that conducted in SRL Diagnostics of Afghanistan, Kabul city, Afghanistan. Midstream urine samples were collected from patients of both genders. All samples were cultured aerobically in Blood agar, MaCconkey agar and CLED medium. The identification of isolated bacteria were performed using manual biochemical tests. All uropathogenic isolates were subjected to antimicrobial susceptibility testing. The prevalence of UTIs were 15.8%. The frequency of UTIs was 11.7% in males and 17.6% in females. Out of total positive cultures, 25.5% (30/85) were Gram positive bacteria and 74.5(55/85) were Gram negative bacteria. Escherichia coli were the most predominant uro-pathogen with 42 (49.4%), followed by Klebsiella pneumoniae 16 (18.8%) and Proteus mirabilis 12(14.1%). Most lactose fermenter Gram-ve bacteria were sensitive to Cefepime and all Gram positive isolates were sensitive to Meropenem. In this study, it was concluded that there is marked variation in the prevalence of UTIs (between males and females) and antibiotics susceptibility patterns of uropathogens. Meropenem is appropriate antibiotics to treated UTIs causes by Gram positive bacteria. These data demonstrate that future studies should be focused on the causes of antibiotics resistance to solve this problem.*

Key words: *Urinary tract infections, pathogenic microorganisms, susceptibility.*