

Incidence of Acquiring Nosocomial Urinary Tract Infection in Critically Ill Patients, Babol, Iran

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Background & Objectives: Urinary tract infection (UTI) is the most common hospital-acquired infection and it is critical for patients in ICU. The epidemiology of intensive care unit (ICU)-acquired UTIs is not well defined. The aim of this study was to describe the incidence and risk factors of ICU-acquired UTIs.

Methods: All patients admitted to ICUs in Shahid Beheshti and shahid Yahya-Nejad Hospitals during 21 March, 2005 to March 20, 2006 were studied using a cohort design. In addition to demographic data, etiology of admission, smoking, addiction, underlying disease, diabetes and duration of ICU stay, were recorded in a questionnaire. Urine analysis and culture was performed weekly for all patients. Data was analyzed by SPSS11.

Results: A total of admissions to ICU were 89 patients. A total of 31 (34.8%) episodes of ICU-acquired UTI occurred. The most common UTI etiologies were *Escherichia coli* 11(35.5%), *Candida albicans* 10(32.2%), *Enterobacter* 6(19.4%), *Citrobacter* 2 (%) and *pseudomonas* 2 (6.5%). There was significant relation between duration of ICU stay and UTI (P=0.023). The frequency of UTI was not significantly related with sex, etiology of admission and diabetes (P>0.05).

Conclusion: Incidence of nosocomial UTIs was high and it develop commonly in the critically ill and those with an extended ICU stay are at increased risk.

Keywords: Intensive Care Unit; Nosocomial Infection; Urinary Tract Infection; *E. coli*