

Prevalence of Extended Spectrum Beta Lactamases (ESBLs) and Antibiotic Resistance Pattern *Acinetobacter Baumannii* Strains Isolated from Clinical Specimens in Isfahan City, Iran

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Abstract

Background and Objective: *Acinetobacter* species are opportunistic important pathogens responsible for many nosocomial infections. The purpose of this study was to determine the drug resistance pattern *Acinetobacter baumannii* and prevalence of ESBL producing strains in Intensive Care Unit patients in Isfahan city hospitals.

Material and Methods: The study was conducted on 100 *Acinetobacter baumannii* strains isolated from clinical samples. The Isolates were identified by standard methods and confirmed by PCR method. Drug resistance pattern of isolates was determined by standard disk diffusion method according to CLSI. To identify ESBL producing strains, a Combined Disk phenotypic method was used.

Results: Hundred percent of *Acinetobacter baumannii* strains was MDR and the maximum antibiotics resistance was shown to cefepime, co-trimoxazole, ciprofloxacin, meropenem and ceftazidime. According to initial screening, 4.5% of strains were producing Extended Spectrum Beta Lactamase enzyme.

Conclusion: The percent of ESBLs producing strains is low. Thus, Combined Disk for initial screening of ESBLs strains and multiplex PCR for rapid detection of ESBLs strains are recommended. This issue can be a new step in preventing from the spread of *Acinetobacter Baumannii* Strains in hospitals particularly in intensive care unit.

Keywords: Beta-Lactamases; *Acinetobacter Baumannii*; Drug Resistance