

Surveillance of microbial resistance among isolated samples from intensive care units patients and evaluation of its correlation with antibiotic utilization

P. Shadmehr^{1,*}, H. Hamisheh kar², R. Estakhri³, S. Mashayekhi²,

¹*Faculty of Pharmacy, Tabriz University of Medical Sciences, Tabriz, Iran*

²*Department of Clinical Pharmacy, Faculty of Pharmacy, Tabriz University of Medical Sciences, Tabriz, Iran*

³*Department of Pathology, Faculty of Medicine, Tabriz University of Medical Sciences, Tabriz, Iran*

Background and Aims: The intensive care unit (ICU) is an exclusive setting for the emergence of different antimicrobial-resistant pathogens. ICU patients are usually immunocompromised due to underlying illnesses and they are exposed to different invasive medical devices such as intravenous and urinary catheters and mechanical ventilators and are more likely to develop different nosocomial infections. Our aim in this study is checking microbial resistance pattern of the samples isolated from patients in ICU and its accordance with antibiotics selection. For this purpose compliance with the microbial culture results in patients who were prescribed antibiotics were discussed.

Methods: In order to surveillance of accuracy of judgment and doctors decision for continuation, change or Starting antibiotics based on culture results, all of questionnaire analyzed with the aggregate consideration of two expert specialist (Clinical pharmacist and Intensivist). Four hundred patients data were analyzed from march 2010 until December 2011.

Results: The results of study until Preparation of this abstract (100 patients) show: Despite the result of culture which guided clinician to change the antibiotics, 12.7% of prescribed antibiotics were not changed and 9% of antibiotic prescriptions were not based on culture results. 65% of prescribed antibiotics were changed correctly which only 34.5% were based on culture results.

Conclusions: These results indicate that culture results which were used in interpretation of antibiotic selection or their changes were not very useful. It is because of this point that for a large percentage of antibiotics that is important in management of critical ill septic patients, susceptibility test is not performed or susceptibility disk did not exist. Processing the information of more patients in order to complete the results is conducting.

Keywords: Intensive care unit; Microbial resistance