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**Title:** Detection of Biofilm formation among the clinical isolates of Acinetobacter baumannii

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**Abstract:** Introduction and Objective: Acinetobacter baumannii has emerged as a significant nosocomial pathogen, particularly in intensive care units. Ability of this organism to form biofilms puts a further strain on the health care system. Acinetobacter baumannii growing in a biofilm are associated with chronic and recurrent human infections and highly resistant to antimicrobial agents. We have conducted this study to detect the biofilm formation among Acinetobacter baumannii isolated from a tertiary care hospital.

Materials and method: The study was carried out at the Department of Microbiology, Army Medical College/ National University of Sciences and Technology, Pakistan, from June 2010 to November 2010. A total of 110 A. baumannii isolated from various clinical specimens were investigated for biofilm production. Isolates were identified by standard microbiological procedures (Gram’s stain appearance, colonial morphology, catalase test, cytochrome oxidase reaction, motility, API 20NE). Isolated organisms were subjected to tissue culture plate method and tube method for biofilm detection.

Results: From the total 110 clinical isolates of A. baumannii, the tissue culture plate method detected 22.7% as high, 41% moderate and 36.3% as weak or non producers of a biofilm. The tube method correlated well with the TCP method for identifying strong biofilm producers, but it was hard to differentiate between moderate, weak and non-biofilm producers due to the changeability in observed results by different observers.

Conclusion: Frequency of biofilm forming A. baumannii is high in our set up. The tissue culture plate method is an accurate and reliable method for detection of biofilm formation in A. baumannii. Tube method cannot be suggested as general screening test to identify biofilm producing isolates. TCP is an easy to do method which can be advised for detection of resistant bacteria.

**Biofilm, Acinetobacter baumannii, Tissue culture plate method, Tube method**

**Presentation:** Poster