

Coexistence of the *blaIMP* and *blaSIM* Genes in Clinical Isolates of *Acinetobacter baumannii* in Babylon Hospitals- Iraq

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Abstract : Carbapenem antibiotics assume a basic parts in the treatment of serious nosocomial diseases brought on by microorganisms with decreased susceptibility to different antimicrobials. Shockingly, the prevalence of carbapenem- resistant bacteria has all the earmarks of being expanding and treatment choices for infections brought on via carbapenem-resistance bacteria are constrained and connected with high death rates.

This study was directed to decide the event of carbapenemases (*blaIMP* and *blaSIM*) producing *A. Baumannii* isolates acquired from Babylon hospitals. Isolates were recognized by biochemical tests and more affirmed utilizing API 20E system. Carbapenem susceptibility was measured by utilizing disks diffusion test. Phenotypic identification of carbapenemase was performed utilizing the imipenem-EDTA disk and modified Hodge tests. At that point isolates were subjected to monoplex PCR focusing on *blaIMP* and *blaSIM* qualities. Ten (0.76%) *A. baumannii* isolates were recuperated from clinical specimens. One (10%) isolate was observed to be imipenem and meropenem resistant (MIC > 512 µg/ml). Six isolates (60%) gave positive result with the imipenem-EDTA double disk synergy test and modified Hodge test. PCR tests indicated five isolates(50%) were harbored *blaIMP* genes and six (60%) isolates were harbored *blaSIM* genes. The present discoveries uncovered to rise of *blaIMP* and *blaSIM* carbapenemase producing *A. baumannii* clinical disengages in Babylon hospitals.

Keywords: *blaIMP* and *blaSIM* Genes, Clinical Isolates of *Acinetobacter baumannii*.