Abstract

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Carbapenem resistant mechanisms in Pseudomonas aeruginosa: A report from Iran

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Abstract

Pseudomonas aeruginosa is one of most prevalent and important Gram negative bacteria in hospital can cause healthcare association infection in hospitals. Multi Drug Resistance (MDR) strains for these microorganisms can create drastically therapeutic challenges. During the last decade, first line antibiotic resistance using for the treatment of Gram negative bacterial infections are increasing globally and in the recent decade resistant to beta-lactam antibiotics such as carbapenemas as a broad spectrum antibiotic has become increasingly prevalent. Resistance associated with production of carbapenemase and also, efflux pump are the important problem in the health care systems. Carbapenemase can hydrolyze all of beta- lactam antibiotics except Monobactam in some case. Efflux pump can eject different classes of antibiotics to outside of bacteria and make resistance to them. So, these two important antibiotic resistance mechanisms can lead to appearance of multi drug resistance P. aeruginosa. This study reports the rate of different important carbapenemase and also increase of gene expression in efflux pump in P. aeruginosa strains were isolated from some burden cities in Iran.

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Biography

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