Antimicrobial Resistance Profile of *Pseudomonas Aeruginosa* Strains

**Abstract**

**Background and Objectives:** *Pseudomonas aeruginosa* is the most common organism, which is separated from the burn infections. Due to increased antibiotic resistance, there are many problems to deal with the infections caused by *Pseudomonas aeruginosa*. This study aimed to determine the resistance to antibiotics against clinical isolates of *Pseudomonas* using phenotype methods.

**Material and Methods:** 100 strains of *Pseudomonas aeruginosa* were collected from the burn patients in Taleghani hospital in Ahwaz, Iran, during a six-month period. After *phenotypically* initial identification, antibiotic sensitivity of isolated strains to conventional antibiotics against *Pseudomonas aeruginosa* was determined using a disk diffusion technique, and Phenotypic screening for MBLs production was performed.

**Results:** the maximum percentage was related to wound infection and the frequencies of the resistance to imipenem, meropenem, *piperacillin*, *piperacillin-tazobactam*, ceftazidime, gentamicin, *amikacin*, and ciprofloxacin, doripenem, ertapenem and colistin sulphate, were 70%, 53%, 83%, 67%, 91%, 88%, 84%, 84%, 33%, 90%, and 0%, respectively. The use of CD Test methods was approved for determining resistance to Carbapenems.

**Conclusion:** antibiotic resistance to *Pseudomonas aeruginosa* is increasing and colistin sulphate is the most effective antibiotic.

**Keywords:** *Pseudomonas Aeruginosa*; Burn Infection; Antibiotic Resistance

---

Shafiee, F. (MSc)  
MSc of Microbiology, Department of Microbiology, Jundishapur University of Medical Science, Ahvaz, Iran

Khosravi, AD. (PhD)  
Professor of Microbiology, Health Research Institute, Infection and Tropical Diseases Research Center, Ahvaz Jundishapur University of Medical Science, Ahvaz, Iran

Azarpira, S. (MSc)  
MSc of Microbiology, Jundishapur University of Medical Science, Ahvaz, Iran

Babaie Barkalaie, A. (BSc)  
BSc of Medical Laboratory, Izeh Shohada Hospital, Izeh, Iran

Abbasi Montazeri, E. (PhD)  
Assistant Professor of Microbiology, Jundishapur University of Medical Science, Ahvaz, Iran

**Corresponding Author:** Azarpira, S.  
**Email:** samirazzarpia@yahoo.com

**Received:** 7 Dec 2014  
**Revised:** 10 Jan 2014  
**Accepted:** 17 Jan 2014

---

This paper should be cited as: Shafiee F, Khosravi AD, Azarpira S, Babaie Barkalaie A, Abbasi Montazeri E. [Antimicrobial Resistance Profile of *Pseudomonas Aeruginosa* Strains]. mljgoums. 2015; 9(3): 128-134[Article in Persian]