

Determining of Resistance and Sensitivity of *Pseudomonas aeruginosa* in Cities of Iran in Years 2010-2011

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Background & Objectives: *Pseudomonas aeruginosa*, as a common factor of Nosocomial infections, has had increasing Antibiotic resistant in recent years so that we are seeing strains with multiple resistant. Therefore it 's important to determine antibiotic sensitivity that can help the choice of initial antimicrobial therapy.

Methods: In this study, 70 articles related to resistance and susceptibility pattern of *Pseudomonas* were studied in the cities of Tehran, Mashhad, Shiraz, Kerman, Bandar Abbas, Uremia during the years 2010-2011. Appropriate papers were Purified and compared with related articles in US and findings were recorded.

Results: In Tehran, the greatest resistance to Trimethoprim (100%), Ceftazidime (80%) was observed. While Imipenem (60%) and Cefepime (52%) had least resistance. In Shiraz, more resistant for Clavulanic acid (69.2 %) and highest sensitivity for Imipenem (50%). in Mashhad highest resistance was Amoxicillin(100%) , Ampicillin (100%) and tetracycline (100%) but the highest sensitivity with Ggentamicin (15%), Ciprofloxacin (40 %) and Imipenem (20%) was seen. Highest rate of resistance with Ampicillin (100%) and Ticarcillin (100%) was observed in Kerman. In Bandar Abbas highest resistance by Carbenicillin (90%), Tobramycin and Co-trimoxazole and the least resistance to Ciprofloxacin (45%) .in Urmia Cefotaxime resistance was more than other antibiotics and resistance to Imipenem and ciprofloxacin was reported less than others. Minimum resistance to *Pseudomonas* in America related to Imipenem (15%) Ciprofloxacin (20%) and the most resistant to Gentamicin (50%).

Conclusion: In large cities, resistant was higher than small cities that are similar to advanced countries such as America. Probably due to easier availability of antibiotics in the larger cities. Overall there is the lowest resistance to Imipenem and Ciprofloxacin.

Keywords: Resistance; *Pseudomonas aeruginos*; Iran