

Determination of Identification and Antibiotic Resistance Rates of *Pseudomonas aeruginosa* Strains from Various Clinical Specimens in a University Hospital for Two Years, 2013-2015

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Abstract : Objective: *Pseudomonas aeruginosa* (*P. aeruginosa*) is an important nosocomial pathogen which causes serious hospital infections and is resistant to many commonly used antibiotics. *P. aeruginosa* can develop resistance during therapy and also it is very resistant to disinfectant chemicals. It may be found in respiratory support devices in hospitals. In this study, the antibiotic resistance of *P. aeruginosa* strains isolated from bronchial aspiration samples was evaluated retrospectively. Methods: Between October 2013 and September 2015, a total of 318 *P. aeruginosa* were isolated from clinical samples obtained from various intensive care units and inpatient patients hospitalized at Afyon Kocatepe University, ANS Practice and Research Hospital. Isolated bacteria identified by using both the conventional methods and automated identification system-VITEK 2 (bioMerieux, Marcy l'etoile France). Antibacterial resistance tests were performed by using Kirby-Bauer disc (Oxoid, Hampshire, England) diffusion method following the recommendations of CLSI. Results: Antibiotic resistance rates of identified 318 *P. aeruginosa* strains were found as follows for tested antibiotics; 32 % amikacin, 42% gentamicin, 43% imipenem, 43% meropenem, 50% ciprofloxacin, 57% levofloxacin, 38% cefepime, 63% ceftazidime, and 85% piperacillin/tazobactam. Conclusion: Resistance profiles change according to years and provinces for *P. aeruginosa*, so these findings should be considered empirical treatment choices. In this study, the highest and lowest resistance rates found against piperacillin/tazobactam % 85, and amikacin %32.

Keywords : *Pseudomonas aeruginosa*, antibiotic resistance rates, intensive care unit, *Pseudomonas* spp.

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