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Antibiotic susceptibility patterns of *Pseudomonas aeruginosa* strain from various clinical samples of Near East University Hospital, Nicosia, North Cyprus

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Pseudomonas aeruginosa is feared as a dangerous opportunistic bacterium responsible for frequently lethal nosocomial infections. It is resistant to many disinfecting agents and highly resistant to commonly used antibiotics and also gaining more and more resistance to newer antibiotics. Although the main objective of this research was to isolate, screen and identify *Pseudomonas aeruginosa* strain from various clinical samples of Near East University Hospital Nicosia North Cyprus. Total (n=152) samples were collected from various department of NEU Hospital which include the samples of wound, blood, urine, ear-nose and throat swab, cerebro spinal fluid (CSF), sputum, aspiration fluids and used nutrient agar for isolation of *Pseudomonas aeruginosa* all the isolated samples was *Pseudomonas aeruginosa* positive and were further screened for antibiotic sensitivity was tested by minimum inhibitory concentration (MIC) method. The sensitivity pattern of Gram-negative bacilli was determined against commonly used antibiotics using BD-Phoenix instrument *Pseudomonas aeruginosa* were also identified based on their cultural, microscopic, morphological and biochemical characteristics. The antimicrobial susceptibility testing results shows that *Pseudomonas aeruginosa* were highly sensitive to some antibiotics which are Amikacin (81.5%), Piperacillin-Tazobactam (92.5%), Colistin (86.7%), Ticarcillin-Clavuanate (86.6%), Imipenem (80.8%), Meropenem (87.2%), Cefepime (78.4%), Ceftazidime (76.0%), Ciprofloxacin (73.2%), Gentamicin (76.0%), Levofloxacin (73.5%), Norfloxacin (79.5%). The resistance rates to Ampicillin-Sulbactam were found to be (98.7%), Cefoxitin (94.7%), Ceftriaxone (93.8%), Trimethoprim Sulfamethoxazole (94.7%), Amoxicillin (100.0%) Cefuroxime (97.7%) and Nitrofurantion (97.7%).

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