TITLE: RESISTANCE PROFILE of *ACINETOBACTER BAUMANNII* ISOLATED FROM A TEACHING HOSPITAL IN NORTHEAST OF BRAZIL

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ABSTRACT:
Acinetobacter baumannii is one of the most common causes of bacterial nosocomial infections, especially in intensive care units and in immunocompromised patients. *A. baumannii* can cause various infections like nosocomial pneumonia, bacteraemia, meningitis, skin, soft tissue, and urinary tract infections. The incidence of multidrug-resistant (MDR) *Acinetobacter* infections ranges between 47% and 93%, with mortality rates between 30% and 75%. Therefore the antimicrobial resistance profile's study provides valuable information for the control of nosocomial infections. This study aimed to determine the antimicrobial susceptibility patterns of species *A. baumannii* isolated from patients in a teaching hospital in Ceará, Northeast of Brazil. A total of 87 specimens of this microorganism were isolated from January to December 2016 from urine, tracheal aspirate, catheter tip, secretion, blood, pericardium fluid, anal and nasal swabs samples. Susceptibility tests were performed by automated equipment VITEK®2 for the following antimicrobials: Amikacin, Amoxicillin/Clavulanate, Ampicillin, Ampicillin/Sulbactam, Cephalothin, Cefepime, Ceftazidime, Ceftriaxone, Cefuroxime, Cefuroxime axetil, Ciprofloxacin, Colistin, Gentamycin, Imipenem, Meropenem, Norfloxacin, Piperacillin/Tazobactam, and Tigecycline. All the isolates were resistant to Amoxicillin/Clavulanic Acid, Ampicillin, Cephalothin, Cefuroxime, and Cefuroxime axetil. Futhermore, 81 (93%) of the isolates were resistant to Ceftriaxone; 86 (78%) to Ceftazidime; 67 (77%) to Piperacillin/Tazobactam; 65 (75%) to Cefepime; 63 (72%) to Ampicillin/Sulbactam and Ciprofloxacin; 62 (71%) to Meropenem; 61 (70%) to Imipenem; 43 (49%) to Amikacin; 39 (45%) to Gentamycin; and 10 (12%) to Tigecycline. On the other hand, Colistin and Norfloxacin were the antibiotics more active against the specimens in the analyzed period. These results highlight the importance of susceptibility testing of antibiotics to monitor resistance patterns which vary greatly according to the hospital and the region in order to clarify the resistance profile and emphasize the more effective therapeutic agents to combat the infections caused by *A.baumannii*.

Keywords: *A. baumannii;* bacterial resistance; nosocomial infection.

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