TITLE: MONITORING OF CLINICAL ISOLATES OF *Acinetobacter* spp. RECOVERED FROM BLOODSTREAM INFECTIONS IN 15 YEARS IN A TEACHING HOSPITAL IN SOUTH BRAZIL

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ABSTRACT:

Acinetobacter spp. it is an important nosocomial pathogen responsible for infections that are difficult to treat. Bloodstream infections caused by this pathogen are responsible for high rates of morbidity and mortality and high hospital costs. In addition, it has a high incidence in Intensive Care Units (ICU). Monitoring antimicrobial resistance rates guide empirical therapies, improving treatment, increasing the chance of therapeutic success and decreasing the length of hospital stay, as well as health care costs. The study aimed to determine the profile of clinical isolates of *Acinetobacter* spp. recovered from the bloodstream of patients hospitalized in the ICU of the Hospital Universitário (HU) of Londrina from January 2006 to December 2020. Were analyzed data referring to positive cultures for *Acinetobacter* spp. regarding the patient's gender, type of biological sample, hospitalization sector and antimicrobial sensitivity profile. Only one sample per patient was included in the study. According to established criteria, a total of 184 isolates were included in the study. Most isolates (65.2%) were recovered from male patients, aged between 8 days and 119 years of life. Samples were obtained from Adult ICU (64.1%), Burn Treatment Units (30.4%), Pediatric ICU (3.3%) and Neonatal ICU (2.2%). Of the total isolates, 66.3% were classified as multiresistant and 22.8% as extensively resistant to antimicrobials. High resistance rates were verified for carbapenems (88.0% - Imipenem/85.3% - Meropenem), fluoroquinolones (89.1% - Ciprofloxacin/75.5% - Levofloxacin), cephalosporins (88.6% - Ceftazidime/89.1% - Cefepime), aminoglycosides (65.8% - Gentamicin/66.8% - Amikacin), Ampicillin-Sulbactam (84.2%) and Sulfamethoxazole-Trimethoprim (80.4%). Important sensitivity rates were observed for Polymyxins (54.3% - Colistin), supporting the possible use of these agents in the treatment. The high resistance rates observed demonstrates the therapeutic limitations in infections caused by *Acinetobacter* spp. at the HU. Thus, emphasizing the importance of epidemiological surveillance in order to understand the dynamics of hospital infections, guiding the adequacy of infection prevention and control measures, as well as the need for stewardship programs for the rational use of antimicrobials.

Keywords: *Acinetobacter* infections, antimicrobial resistance, bloodstream infections, epidemiology, intensive care units

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