TITLE: MONITORING OF CLINICAL ISOLATES OF *Acinetobacter* spp. RECOVERED FROM RESPIRATORY TRACT SPECIMENS OVER 11-YEARS IN A TEACHING HOSPITAL OF SOUTHERN BRAZIL

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ABSTRACT:

Acinetobacter spp. it is an important nosocomial pathogen responsible for a variety of infections that are difficult to treat, due to the prevalence of multiresistant (MDR) and extensively resistant (XDR) isolates to antimicrobials. This pathogen is associated with high mortality rates and has a substantially higher incidence in Intensive Care Units (ICU). Monitoring antimicrobial resistance rates guides empirical therapies, improving treatment and increasing the chance of therapeutic success. This study aimed to determine the profile of clinical isolates of *Acinetobacter* spp. recovered from respiratory tract specimens ($\geq 10^6$ CFU/mL) of patients hospitalized in the ICU of the Hospital Universitário (HU) of Londrina from January 2010 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 990 isolates were included in the study. Most isolates (67.1%) were recovered from male patients, aged between 5 days and 97 years of life. Samples were obtained from Adult ICU (80.8%), Burn Treatment Units (18.1%), Pediatric ICU (0.9%) and Neonatal ICU (0.2%). Of total of isolates, 66.9% were classified as MR and 30.4% as ER. High resistance rates were verified for carbapenems (96.0% - Imipenem/96.2% - Meropenem), fluoroquinolones (95.5% - Ciprofloxacin/87.3% - Levofloxacin), cephalosporins (97.0% - Ceftazidime/96.7% - Cefepime), aminoglycosides (71.5% - Gentamicin/73.7% - Amikacin), Ampicillin-Sulbactam (94.1%) and Sulfamethoxazole-Trimethoprim (88.9%). Important sensitivity rates were observed for Polymyxins (56.3% - 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, highlighting the importance of epidemiological surveillance, to obtain rates that allow knowledge of the epidemiological reality of the institution, enabling the adequacy of effective strategies for the prevention and control of infections related to health care.

Keywords: *Acinetobacter* infections, antimicrobial resistance, epidemiology, health care associated pneumonia, intensive care units

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