EPIDEMIOLOGICAL CHARACTERISTICS, RESISTANCE PATTERNS AND SPREAD OF GRAM-NEGATIVE BACTERIA RELATED TO COLONIZATION OF PATIENTS IN INTENSIVE CARE UNITS

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Identification and characterization of multidrug resistant Gram negative bacteria related to patients colonization may improve the management of sources and spreading, enabling infection control measures in settings with important prevalence of these microorganisms.

Objective: To determine the epidemiological characteristics, the resistance patterns and spread of multidrug resistant Gram negative bacteria related to colonization of patients in adults Intensive Care Unit (ICU) from Brazil.

Materials & Methods: Prospective cohort study - Two adults Intensive Care Units in two hospitals in Belo Horizonte, Brazil.

1. Colonized patients were followed with nasal, groin and perineum swabs during their length of stay in the ICU or wards.
2. Bacterial isolates were identified by Vitek (BioMérieux). Antibiogram (Bauer-Kirby method), Carba NP test, Polymerase Chain Reaction (PCR) and sequencing were performed. Patterns of resistant microorganisms were compared by rep-PCR (Diversilab).

Results: A total of 53 patients were followed, 114 samples were related to Gram negative bacilli with resistance profile (resistance to third generation cephalosporin and carbapenem).

Conclusions: It was possible to verify different patterns of multidrug resistant Gram negative bacteria and its spread throughout two ICUs in Belo Horizonte, Brazil.

Biography
Quésia Souza Damaceno presently working as a Postdoctoral fellow in Microbiology at Hospital Universitário Medical Sciences of Minas Gerais, Brazil. Her main research interest in on epidemiology nursing and Microbiology.

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