DETECTION OF CARBAPENEM-RESISTANT *Enterobacteriaceae* (CRE) ISOLATED FROM A NOSOCOMIAL UNIT AT JOÃO PESSOA/ PB, BRAZIL.

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Introduction: Carbapenems are a valuable family of antibiotics normally reserved for serious infections caused by drug-resistant Gram-negative bactéria. Over the past 10 years, dissemination of *Klebsiella pneumoniae* carbapenemase producer (KPC) has led to an increase in the prevalence of carbapenem-resistant *Enterobacteriaceae* (CRE). This problem was at first reported predominantly in the southern region and subsequently, outbreaks and transmission of these organisms has been reported in different regions of Brazil. As a result, preventing both CRE transmission and infections have become important public health objectives considering that represent a serious concern by the limited therapeutic options. The aim of this study was to investigate the detection carbapenemases producers among isolates with resistance or reduced susceptibility to carbapenems recovered from hospitals in João Pessoa/PB, northeastern, Brazil. **Methodology:** All admitted patients were screened for CRE by rectal swabs, using a CDC (2013) protocol. A total of 10 non-duplicate clinical isolates resistant to carbapenems, with a zone of inhibition of 21 mm to ertapenem (ERT) and/or meropenem (MEM), were selected from 15 strains as part of a surveillance routine to detect carbapenem-resistant *Enterobacteriaceae* (CRE). The isolates were recovered from different hospitals and previously identified by conventional techniques in the institutions of origin and later confirmed using Maldi-TOF (Maldi Biotyper 2.0 - BrukerDaltonik, Bremen, Germany), according proposed methodology. **Results:** Were considered fiveteen strains of Gram negative bacteria: 10 *Klebsiella pneumonia (66,6%);* 03 *Enterobacter cloacae (20%);* 01 *Serratia marcescens (6,7%) and* 01 *Escherichia coli (6,7%),* isolated from different clinical material such as rectal swab (66,7%); hemoculture (13,3%); uroculture (13,3%) and tracheal aspirate (6,7%). Most of these isolates exhibited high-level resistance against Beta-lactams and ciprofloxacin, while the most active drugs was amikacin (73,4%). **Discussion/Conclusions:** Our results contribute to the understanding the problem of carbapenem resistance in *Enterobacteriaceae* (CRE) and confirm the presence of KPC-producing isolates in Brazil among strains obtained from our region needing further the molecular characterization to determine clonal and molecular similarities between the strains isolated in the northeastern region and other parts of the country considering the high mortality associated with infections caused by CRE, and the potential for widespread transmission of carbapenem resistance.

Key Words: Carbapenemases, *Klebsiella pneumoniae*, Nosocomial Infections