**TITLE:** SCENARIO OF MULTIDRUG RESISTANT BACTERIA (2016/2017) FROM THE ESKAPE GROUP IN A BOA VISTA HOSPITAL, RORAIMA.

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**ABSTRACT:**
Bacteria from the "ESKAPE" group (*Enterococcus faecium*, *Staphylococcus aureus*, *Klebsiella pneumoniae*, *Acinetobacter baumannii*, *Pseudomonas aeruginosa*, *Enterobacter sp.*) are a major concern considering the nosocomial infection *versus* antibiotic resistance issue. The epidemiological scenario of infections in hospitals from the Brazilian North region is still poorly explored. The present study evaluated the bacterial species prevalence and their antibiotic resistance profile in the Amazon region, Brazil. In a six month-period (October 2016 – April 2017) it was recovered 280 isolates from infection cases in the General Hospital of Boa Vista, Roraima. Species identification and the susceptibility test considering the major antibiotic classes were performed with VITEK2 automated system. The carbapenemase production was verified by the modified Hodge Test. The PFGE technique was applied for species genetic relatedness determination. The genera/species more prevalent among our sample was *Staphylococcus* (n=60), *K. pneumoniae* (n=25), *A. baumannii* (n=26), *P. aeruginosa* (n=37) e *Enterobacter* (n=21), all of them belonging to the "ESKAPE" group. It was observed a correlation between the bacterial species and the infection site. *P. aeruginosa*, *A. baumannii* e *E. cloacae* were more frequently recovered from tracheal secretion and catheter tip, *Staphylococcus* was more prevalent in blood, while *K. pneumoniae* was recovered from tracheal secretion and urine. Among isolates presenting the multidrug resistance profile, 18/26 *A. baumannii*, 7/37 *P. aeruginosa*, 11/25 *K. pneumoniae* and 1/21 *E. cloacae* were colistin only sensitive (COS profile) and 14/60 *Staphylococcus* (*S. aureus and S. epidermidis*) were multiresistant but susceptible to vancomycin. PFGE analysis revealed that non clonal *A. baumannii* isolates were the most prevalent among bacteria presenting the COS profile. This finding is in agreement with other studies, in which current nosocomial infections in São Paulo and Goias, placed in the Southeast and Central-west regions, were caused by multidrug resistant *A. baumannii* isolates. Several nosocomial isolates from different species belonging to the ESKAPE group that presented the COS profile were carbapenemase producers according to the Hodge test results. In conclusion, this study demonstrated the presence of highly multidrug resistant lineages, several of them displaying the COS profile, associated to nosocomial infections in a hospital placed in the Amazon region.

**Keywords:** nosocomial infection, ESKAPE group, antibiotic resistance, Colistin-only-sensitive, Amazon region.