Title: ANALYSIS OF THE EFFECTIVENESS OF ORAL ANTISEPTIC ON BIOFILMS OF *acinetobacter* spp. AND *Staphylococcus* spp. STRAINS ISOLATED FROM PATIENTS ADMITTED TO PUBLIC HOSPITALS IN MACEIÓ-AL

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Abstract:

Nosocomial infections caused by bacteria represents a public health problem. Due to selective pressure, nosocomial infections are frequently caused by multidrug-resistant microorganisms, among them, *A. baumannii-calcoaceticus* and *Staphylococcus aureus* are most frequent etiological agents. The oral cavity can be a reservoir for these opportunistic microorganisms, representing the primary source for possible metastatic or self-infections. In the oral cavity, the bacteria can present higher stability in dental biofilm and the antimicrobial control of opportunistic microorganisms, in this respective sources, may decrease the rates of metastatic or self-infections, mainly in immunocompromised individuals. Then, in this study has proposed to examine the antiseptics efficiency on biofilms of multiresistant microorganisms isolated from different clinical samples from patients admitted to public hospitals in Maceió-AL. **Methodology:** preforms biofilms of 23 *A. baumannii-calcoaceticus* strains and 15 *S. aureus* isolates were subjected to antiseptic antimicrobial action (0.12% Chlorhexidine, 0,05% Cetylpyridinium Chloride and 0.2% Triclosan) and the samples were serially diluted and plated for potentially viable cell count (UFCmL-1). Sterile saline was used as control. All tests were performed in quadruplicate. **Results:** in general, all tested antiseptic obtained some reduction degree of bacterial growth, *Acinetobacter baumannii-calcoaceticus's* biofilms were more resistant to antiseptics than *Staphylococcus´s* biofilms. Chlorexidine, triclosan and cetylpyridinium inhibited completely about 31%, 26% and 15% of tested strains, respectively. Although, on average 66% (19/28) of bacterial biofilms approved resistant to one or more antiseptics treatment (Student T test, $p < 5\%$), suggesting circumstantial resistance of microorganisms in the lifestyle biofilm. **Conclusion:** it is important to highlight the real need for mechanical removal of biofilms in locations where they are formed, especially in immunocompromised individuals, before the chemical treatment with antiseptics.

Keywords: antiseptics – nosocomial infections - antimicrobial control - multidrug-resistant microorganisms

Acknowledgment: CNPq / FAPEAL (PPP process number: 20110830-011-0025-0021)