

**TITLE:** EVALUATION of NASAL COLONIZATION by *Staphylococcus aureus* METHICILLIN-RESISTANT IN ELDERLY IN UNIVERSITY HOSPITAL

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**ABSTRACT:**

The infections acquired in hospitals are a major cause of morbidity, mortality and costs and your etiology, mainly by antibiotics resistant bacteria has increased in recent decades and constitute as serious public health problem, especially in developing countries like Brazil. The *Staphylococcus aureus* is one of the main agents of hospital infections being considered the gram positive pathogen clinically more important in hospitals, associated with superficial and invasive infections. The aim of this study was to evaluate the nasal colonization by *S. aureus* Methicillin-resistant (MRSA) in elderly in the Geriatric Clinic of Federal University of Uberlândia. The surveys were held weekly during the period from January to August of 2016, nasal mucous material was collected with the aid of swab, being filled an individual record with personal, demographic, clinical, intrinsic and extrinsic risk factors data, for each elderly. The samples were identified in the laboratory of Microbiology by phenotypic techniques, conducted susceptibility test to antimicrobials and test D. A total of 135 elderly were investigated and seven (0.05%) were colonized by MRSA. In the seven samples of MRSA, 5 (71%) presented multiresistance, five showed resistance to cefoxitin and three (43%) were resistant to ciprofloxacin, chloramphenicol and tetracycline and two samples were positive on test D. The average age of the elderly involved in the study was 73 years, with female dominance. The main risk factors associated with colonization were: hospitalization in the last 12 months, use of antibiotics in the last year and injury of skin. It is extremely important to evaluate colonization, especially in the elderly, for resistant bacteria, since the colonization is one of the main risk factors for the development of healthcare-related infections.

**Keywords:** colonization, *S. aureus*, resistance, elderly.

**Development agency:** Federal University of Uberlândia