

TITLE: RESEARCH OF *Staphylococcus aureus* IN NOSE OF STUDENTS OF A PRIVATE COLLEGE

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ABSTRACT

Staphylococcus aureus is one of the bacteria of the environment that most often causes infections, both in immunocompromised and healthy people, they belong to the gram positive group and normally colonize the nasopharyngeal region of humans, however despite being part of the normal microbiota can cause serious skin infections, food poisoning or even systemic infections. The main form of transmission of *S. aureus* is by direct contact, that is through contaminated hands and secretions, or indirectly, through objects and surfaces that have the presence of the bacteria. Studies evaluating the presence of *S. aureus* in nasal fossa are important to know the microbiota of a certain population. This study aimed to evaluate the colonization by *S. aureus* in nasal fossa of students of a private educational institution. The study was carried out with two classes of the health area of a private higher education institution during a practical class, constituting a sample of 34 participants. Using a sterile swab, circular movements were made to collect material from the nasal cavity of the students. The collected material was seeded in salted mannitol agar and incubated at a temperature of $37 \pm 1^\circ\text{C}$ for 24-48h. For the colonies that presented a suggestive growth of *Staphylococcus aureus* (with mannitol fermentation), the tests of catalase and coagulase were carried out for confirmation of genus and bacterial species. For the coagulase test was used Coagulasma from Laborclin® following the manufacturer's instructions. From the 34 analyzed samples, in 24 (70.5%) were found the genus *Staphylococcus sp.* and through biochemical identification, it was possible to isolate 8 (33.3%) *S. aureus* samples. The investigation of the colonization by *S. aureus* in these students demonstrated that the presence of this bacterium in the microbiota, is within the standard described in the literature, between 20 and 40%. This microorganism, despite being part of the normal microbiota of most human beings, has significant clinical importance, because the presence of *S. aureus* in the nasal fossa facilitates the dissemination through direct contact, being very probable that people from communities carriers of this bacterium presents more infections.

Key words: *Staphylococcus aureus*, microbiota, catalase, coagulase.

