

Antibiotic resistance of *Staphylococcus aureus* strains isolated from the pharynx and nose of young adults

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Introduction

Staphylococcus aureus is a Gram-positive bacterium that lives in symbiosis with humans, it is an opportunistic and potentially lethal pathogen [1, 2] of great clinical importance due to the different virulence, invasiveness and resistance factors that it may possess [3].

The widespread use of antibiotics, particularly their inappropriate and excessive use, has favored the emergence and maintenance of strains of *S. aureus* resistant to multiple antibiotics such as penicillin, methicillin (methicillin-resistant *S. aureus* (MRSA) or vancomycin that are associated with high rates of morbidity and mortality in many regions of the world [5].

The most studied reservoir site for *S. aureus* in humans is the nose, predominantly found in the anterior nasal vestibule [5]. Approximately 30% or more of the population is colonized with *S. aureus* on the skin, mucous membranes, or in the nose [4, 5]. *S. aureus* have been found in the pharynx and have been reported with high variability in different populations from 4 to 64% [4]

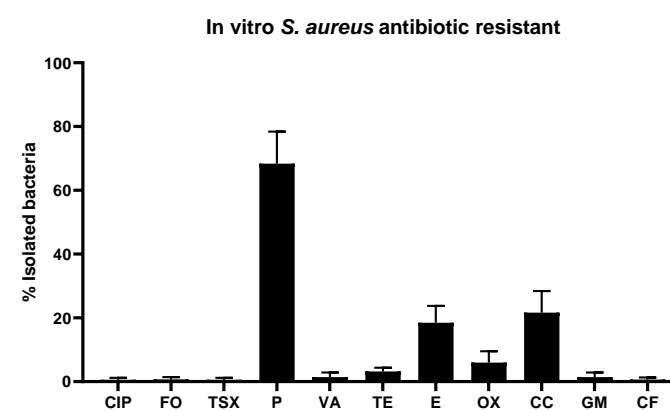
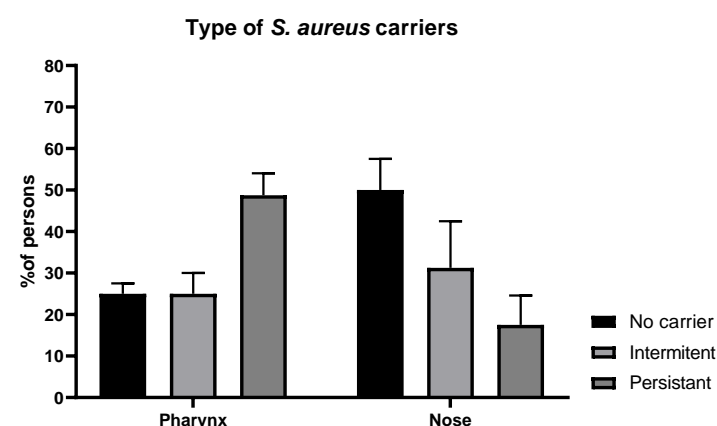
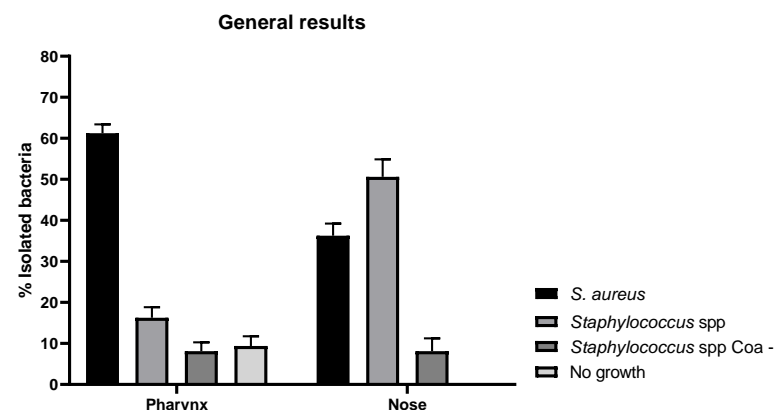
Methods

Pharyngeal and nasal exudates were made to 134 University students of Health Science, once a month for three months. The strains identified as *S. aureus* underwent the antibiogram test and MIC for oxacillin.

Conclusions

A greater number of carriers of *S. aureus* have been obtained in the pharynx than in the nose. More persistent carriers of *S. aureus* have been identified in the pharynx than in the nose. Most strains are resistant to penicillin, followed by clindamycin, erythromycin, and tetracycline. 23 MRSA strains were found in the pharynx and 17 in the nose.

Results



CIP: ciprofloxayin, FO: fosfomicyn, TSX: trimetoprim-sulfametoxazol, P: penicilin, VA: vancomycin, TE: tetracyclin, E: erythromycin, OX: oxacilin, CC: clindamycin, GM: gentamicin, CF: cefalotin

