TITLE: EVALUATION OF ANTIMICROBIAL SUSCEPTIBILITY BY *STAPHYLOCOCCUS AUREUS* ISOLATED FROM THE NUTRITION SERVICE OF A TEACHING HOSPITAL

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ABSTRACT:

In order for food to provide, maintain or recover health it is necessary that it presents satisfactory sanitary control. It is known that one of the possible causes of hospital infection is the consumption of contaminated food, thus, providing safe food is essential to hospital nutrition services. Diseases caused by *Staphylococcus aureus*, bacteria found mainly in the nasal passages, mouth and skin of the human population stand out among foodborne diseases. Contamination of food, handlers, and utensils in a hospital's nutrition service is an important link among food, patients, and foodborne illness. The objective of the present study is to investigate the presence of *S. aureus* in food handlers, equipment, counter-tops and utensils of the nutrition service of a teaching hospital. Samples of the environment, hands and nasal mucosa of employees of a nutrition service were collected with two sterile swabs in two different periods of the year (March and June), resulting in a total of 134 samples, which were submitted to characterization tests Biochemistry and morphotinorial (gram staining, catalase and coagulase tests in tube), phenotypic evaluation by drug diffusion technique and D-test approach, and the biofilm phenotype characterization using Congo Red Agar. The results showed that the utensils, equipment and food handlers of the investigated hospital had high rates of colonization by *S. aureus*, especially in the kitchen, with high frequency of antimicrobial resistance, mainly erythromycin and the presence of multi-resistant microorganisms. A large number of positive samples were also found for biofilm production, with totality for the samples of handlers. We highlight the relevance of the data in virtue of the serious consequences and risks that can be triggered in the hospital environment.

Key words: *Staphylococcus aureus*, Staphylococcal food poisoning, multiresistance, contamination, manipulators

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