

TITLE: DETECTION AND RESISTANCE BIOFILM OXACILLIN IN *Staphylococcus aureus* ISOLATED FROM JALECO.

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ABSTRACT:

S. aureus is the main species from *Staphylococcus* genus, its pathogenicity can be increased accordingly to its biofilm production and the ability to present resistance to methicillin, being then classified as methicillin-resistant *Staphylococcus aureus* (MRSA). The use of *Personal Protective Equipment (PPE)*, such as *white coats*, outside the study or work environment can promote these microorganisms dissemination. Therefore, this study's objective was to characterize *S. aureus* isolated from white coats belonging to students of the Biomedicine course at University of Oeste Paulista (UNOESTE), as biofilm production and MRSA detection. The white coats used in the study belonged to 100 students that also answered to a quiz about PPE use. The isolated *S. aureus* were obtained from collar, sleeve and pocket regions and strained in Congo Red-staining agar to verify the biofilm production and in Mueller Hinton agar with 6% oxacillin and 4% NaCl to MRSA detection. *S. aureus* were detected in 77 white coats. Considering the three studied regions, 135 *S. aureus* were identified, being 127 (94%) biofilm producers and 44(32,6%) methicillin-resistant. About the students that owned colonized coats, 87% believed that their PPE had dissemination potential to pathogenic bacteria, 80,5% claimed to sanitize their coats weekly and 97,4% reported doing such sanitation at home. The results emphasizes the necessity of awareness related to biosecurity measures among health field students with the intent to avoid *S. aureus* dissemination and highly accession potential between university sectors and propagation among family and close ones.

Key words: *S.aureus*, biofilm, MRSA, white coats.

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