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COMPARATIVE STUDY OF NASAL COLONIZATION OF STAPHYLOCOCCUS AUREUS INCLUDING METHICILLIN RESISTANT STAPHYLOCOCCUS AUREUS (MRSA) AMONG DIFFERENT POPULATION GROUP

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Comparative study of nasal colonization of *Staphylococcus aureus* including methicillin resistant *Staphylococcus aureus* (MRSA) among different population group

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ABSTRACT

Methicillin-resistant Staphylococcus aureus (MRSA) has been identified as a major cause of community-associated (CA) S.aureus infections in the past decade. Nasal colonization with community acquired methicillin resistant S.aureus (CA-MRSA) is being increasingly reported, especially in places where people are in close contact and where hygiene is compromised. Data on the nasal carriage rate and antibiotic sensitivity pattern of S.aureus strains prevalent in the community are not available for many countries including Malaysia. The aim of this study is to assess the nasal carriage rate of S.auerus including MRSA in the different population group with regards to exposure to hospital environment of students from School of Medicine (SPU), Universiti Malaysia Sabah (UMS), so as to estimate the extent of transmission of S.aureus in the community. Altogether 453 subjects including year 1 to 5 medical students, year 1 and year 3 nursing students were participated in the study. The nasal swab samples were taken from them after they signed and completed the questionnaire forms. S.aureus was isolated from 141 out of 453 nasal swab samples. Thus the overall percentage of nasal carriage of S.aureus in this study was (31%), a rate similar to that found in other community-based nasal carriage studies. The nasal carriage rate of S.aureus was significantly higher ($p<0.05$) among the medical students (33.4%) than the nursing students (22.7%). None of the S.aureus isolated were found to be resistant to cefoxitin 30 µg disc as well as oxacillin 1µg disc. PBP2' was not detected from those isolates also. It was concluded that although there was (31%) prevalence rate of nasal carriage of S.aureus among different population group including pre-clinical and clinical years of medical students and nursing students of SPU, UMS, there were no nasal carriage of MRSA among them.

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