

Colonization of Methicillin-Resistant Staphylococcus aureus (MRSA) among medical students in tertiary institution in Central Malaysia

ABSTRACT

Methicillin-resistant Staphylococcus aureus or MRSA infection is virulent and presents with a broad spectrum of severity. Limited regional reports that specifically outlined the potential risk of medical students being part of the dissemination of MRSA in healthcare settings were noted. This study aims to assess the prevalence and contributory factors of colonization of MRSA on neckties, headscarves, and ID badges among medical students in a local medical university in Malaysia. A cross-sectional study was conducted involving 256 medical students. A validated questionnaire was used to collect the data, and sample swabs were collected between July and August 2013 by swabbing neckties, headscarves, or identification badges. The swabs were then streaked onto mannitol salt agar (MSA) and incubated at 37 °C overnight. Out of 433 samples taken, 40 swabs (9.24%) were positive for Staphylococcus aureus. Out of the 40 swabs, five (12.5%) isolates were MRSA (one culture was isolated from the headscarf of a preclinical student, one culture was isolated from the necktie of clinical students, while the remaining three were isolated from identification badges of clinical students). There was no significant association between age, gender, ethnicity, and phase of medical students with the colonization of MRSA ($p > 0.05$). There was a significant association between knowledge score on hand hygiene practice and phase of medical students. MRSA colonies were present on neckties, headscarves, and identification badges of medical students of all phases. The findings from this study suggest the need for improvement of hand hygiene knowledge and discontinuity of mandatory use of physical ID badges and neckties among medical students.

Keyword: Staphylococcus aureus; MRSA colonization; Neckties; Headscarves; Identification badges; Medical students