

# Knowledge, Attitudes, and Practices of Medical Students at Qassim University Regarding Infection Prevention and Control: Focus on MRSA Screening and Decolonization

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## ABSTRACT

**Background:** Healthcare-associated infections (HAIs) remain a concern globally due to the rising morbidity and mortality rates combined with the economic burden they impose on health systems including methicillin resistant *Staphylococcus aureus* (MRSA). Medical students, especially during their clinical rotations, have the potential to foster the spread of MRSA. In Saudi Arabia, the screening of medical trainees and the decolonization of MRSA remains a largely neglected area despite the existence of infection prevention and control (IPAC) practices.

**Objective:** This study is intended to measure the KAP of medical students at Qassim University in regard to MRSA screening and decolonization. IPAC focused on studying the knowledge attitude practices as well as barriers toward compliance with protocols. Furthermore, the study investigates the Jack's principles of feasibility in the context the embedding of MRSA screening protocols into medical curricula.

**Methods:** A cross-sectional study was conducted, there were 99 responses of medical students from Qassim University which were evaluated and separated according to preclinical grouped years 1-3 and clinical years 4-6. An online survey included questions on demographics, knowledge, attitude, practices, barriers, and suggestions related to IPAC and MRSA. They were descriptively analyzed.

**Results:** Even though 76.8% one knew that MRSA is an antibiotic resistant bacterium, there were considerable gaps regarding knowledge of its transmission routes, with 12.1% erroneously believing that it is an airborne disease. While 69.7% of the respondents agreed that there should be compulsory screening for MRSA prior to clinical rotations, only 64.6% were willing to undergo decolonization if they were screened positive. Self-reported compliance with hand hygiene protocols was poor as 50.5% reported full compliance. The main obstacles were inadequate training (35.4%) and poor time management (31.3%). The majority of the participants (84.8%) were in support of IPAC certification, and 81.8% in for additional training exclusively focused on MRSA.

**Conclusion:** The results demonstrate persistent knowledge and practice deficits among medical students in IPAC, suggesting a need for more focused education, the presence of screening for MRSA in high risk rotation, and more widely accepted decolonization identifiers. If formulated, these measures can potentially improve patient safety and limit the spread of MRSA in the medical field.

**Keywords:** Infection prevention and control, MRSA, medical students, screening, decolonization, Saudi Arabia, healthcare-associated infections.

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