Prevalence of *Staphylococcus aureus* Carrier Among Healthcare Workers in Lombok, Indonesia

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BACKGROUND AND OBJECTIVES:

Methicillin-Resistant Staphylococcus aureus (MRSA) infection remains a major public health concern with a high global prevalence. According to WHO, Antimicrobial Resistance: Global Report on Surveillance, *MRSA* proportions in 83 countries exceeding 20% across all regions, with some areas reaching over 80%. National surveillance data from eight referral hospitals in Indonesia revealed an *MRSA* prevalence ranging from 25% to 65%, with the national average of 38%. This study aimed to describe the prevalence of *MRSA* carrier among healthcare workers in Lombok, Indonesia.

METHODS

This descriptive observational study used total sampling involving 49 healthcare workers in Intensive Care Units of class B and C hospital in Lombok. Participant characteristics were obtained through questionnaires. Nasal swabs were collected using 0.9% NaCl, inoculated on blood agar for 24 hours, followed by Gram staining, catalase and coagulase testing, and subculture on mannitol salt agar. Positive isolates were further tested with cefoxitin (30 µg); and isolates showing inhibition zones <20 mm were classified as *MRSA*. Data were analyzed using SPSS software.

Keywords: *MRSA*1, carrier2, colonization3, antibiotics4, infection prevention and control (IPC)5

RESULT

MRSA carrier was found in 23.3% healthcare workers in class B hospital and 21.05% in class C hospital. Prior antibiotic use within the last three months was reported by 30–36.8% of participants, and 30–42.1% had never participated in Infection Prevention and Control (IPC) training.

CONCLUSION

The prevalence of *MRSA* carrier among healthcare workers in Lombok, ranged from 21.05% to 23.3%. Prior antibiotic use and lack of IPC training may contribute to *MRSA* colonization among healthcare workers in intensive care settings.

REFERENCE