

Epidemiology and Clinical Features of Methicillin-Resistant Staphylococcus Aureus (MRSA) at the University Hospital, Jeddah, Saudi Arabia

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Abstract

This retrospective chart review describes the prevalence, demography, and clinical characteristics of patients colonized or infected with methicillin-resistant Staphylococcus aureus (MRSA) for the year 1998 at King Abdulaziz University Hospital (KAUH), Jeddah, Saudi Arabia. Results of MRSA positive cultures of clinical specimens obtained as part of investigations for suspected infections were retrieved from the Infection Control Department's records. Charts of patients were reviewed. Of 292 S. aureus identified, 111 (38%) were MRSA or 6.0 MRSA isolate per 1,000 admissions which represented a marked increase over MRSA prevalence in 1988 (<2%). Nosocomial acquisition occurred in 74.8%. All age groups were affected, but 45.9% of patients were in the "extremes of age" group (< 1 or > 60 years). The prevalence was highest in the medical ward (27%), followed by the pediatrics combined medical and surgical ward (20.7%), Out-patient Department (18%), the adult surgical ward (17.1%), and the intensive care units (17.1%). Two thirds (66.7%) of cases represented infection and the rest represented colonization. Surgical wounds (31.1%), chest (27%), and endovascular catheters (20.3%) were the most common sites of infection. Bacteraemia occurred in 27% of patients. Local signs (68.9%), and fever (60.8%) were the most common clinical manifestations. Respiratory distress and septic shock occurred in 28.4% and 6.8% of cases, respectively. Of 74 patients with MRSA infection, and 37 patients with MRSA colonization, 91.9% and 56.8% received antibiotics in the preceding 6 weeks, respectively (P<0.0001). The total mortality of patients with MRSA infection was 60.8% (45/74). Mortality attributable to MRSA infection was 37.8% (28/74). The prevalence of MRSA is high and rapidly increasing at KAUH, as it is worldwide. Control measures to prevent the spread of MRSA in hospitals should continue with reinforcement of hygienic precautions and development of policies to restrict the use of antibiotics