

Epidemiology and Outcome of MRSA Infection in Governmental Health Care Facilities in Bahrain

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Objective: MRSA is an important human pathogen causing wide-ranging spectrum of clinical presentation, there is no previous details about the epidemiology of MRSA in Bahrain. This study aims to ascertain MRSA prevalence at the governmental health care facilities & describe its epidemiology; to be used as a benchmark for the prevalence of MRSA in Bahrain & direct future studies.

Design: retrospective study

Setting: SMC Microbiology laboratory covering all governmental health care facilities

Method: Analysis of all MRSA isolates during 2019

Results: Total of 566 MRSA isolates were identified, prevalence of MRSA in our study 22% of all *Staphylococcus aureus* isolates. Male gender contributes to higher proportion of the cases (60%). The most common clinical samples were pus (63%) followed by blood (12%) and respiratory specimens (9%). Out of the total 566 MRSA isolates; 297 (52%) were obtained from outpatients and 269 (48%) were obtained from inpatients. Among the 269 inpatients: 98 isolates (36%) were HO, while 171 isolates (64%) were CO. Mortality among inpatients with MRSA was 10.4%, significantly predominant among HO isolates (23.5 % for HO & 2.9 among CO, p value < 0.001), 96% of mortality cases was among inpatients with blood & respiratory isolates.

Conclusion: In our study, prevalence of MRSA was on the lower limit compared to worldwide rate, but majority of our MRSA was of community onset which entuse further focused studies on CO MRSA to delineate its risk factors at community level.

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