

Bacterial Spectrum and Susceptibility patterns of Pathogens in ICU and IMCU of a Secondary Care Hospital in Kingdom of Saudi Arabia

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Abstract

Objective: To evaluate the microbiological spectrum and susceptibility pattern of pathogens in intensive care unit (ICU) and intermediate care unit (IMCU) in a single medical center from June 2011 to May 2012.

Study Design: Prospective descriptive study.

Place and duration of study: The study was carried out at the Department of Microbiology, King Abdullah Hospital Bisha, Kingdom of Saudi Arabia over a period of 12 months from June 2011 to May 2012.

Materials and Methods: Antibiotic in vitro susceptibility data of predominant ICU and IMCU isolates during 2011-12 were analyzed using WHONET program.

Results: 335 Clinical isolates were analyzed. The frequencies of Gram-positive and Gram negative bacteria were 15 % and 85% respectively. Acinetobacter spp, Klebsiella species and Pseudomonas species were the most common Gram negative isolates, while Staph. aureus and Coagulase-negative staphylococci (CoNS) were the two leading Gram positive isolates. 81 % Acinetobacter spp were found Multidrug- Resistant. Three Acinetobacter spp were found pan resistant. Extended-spectrum beta-lactamase (ESBL) producing Klebsiella Pneumoniae accounted for 57 % of all Klebsiella species isolates. 29% Pseudomonas aeruginosa were found resistant to Imipenem.

Conclusion: The high incidence of reduced antibiotic susceptibility among Gram negative bacteria in ICUs suggests that more effective strategies are needed to control the selection and spread of resistant organisms.

Key words: Drug resistance, Intensive care units, Susceptibility Patterns