

Prevalence of Gram Negative Bacilli Isolated from the Equipment and Surfaces of Hospitals in Gorgan

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Abstract

Background and Objective: Nosocomial infection is one of the main factors of mortality in hospitals . One of the most important measures to control infection in hospitals is sampling of equipment and culturing the samples . This study aimed to investigate the prevalence of gram-negative bacilli obtained from the equipment of the hospital wards .

Material and Methods: This Descriptive study was carried out on 488 specimens taken from medical and non-medical devices and equipment of various wards, via census sampling. the samples taken by sterile swabs in Tryptic Soy Broth (TSB) were inoculated in blood agar and Eosin-Methylene Blue agar, and by biochemical standard tests the isolated colonies were identified.

Results: Of 488 isolates, 157 (32.17%) were positive for the presence of gram-negative bacilli. The highest bacterial contamination was related to Enterobacter (37.58%). Of hospital wards, the highest infection related to the surgical wards (19.75%), and the highest contamination is related to laryngoscope blades (12.74%) and ECG sensor device and the monitoring interface (7%).

Conclusion: Microbial infection with gram-negative bacilli is an overwhelming condition in hospital equipment.

Key Words: Gram Negative Bacilli, Nosocomial Infection, hospital wards, hospital equipments, Gorgan

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