

Bacterial Agents Isolated from Wards' Environment and Staff's Hands in Yahyanejad Hospital, Babol

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Received: 13 Nov 2012

Revised: 17 Apr 2013

Accepted: 11 May 2013

Abstract

Background and Objective: Nowadays, nosocomial infection is one of the greatest problems in hospitals. Normal flora of staff's hands and the bacterial agents on the surface of medical equipment can become progressively colonized with potential pathogens during patient care. This study was carried out to determine the bacterial agents existed on staff's hands and in the wards of hospital to step in to control nosocomial infection.

Material and Methods: In this descriptive study, during 17 months (22.mar.2010- 30.aug.2011), 403 samples, using sterile swab, were randomly obtained from the staff's hands and medical equipment of emergency departments, ICU, male operation room and female surgical unit. The samples were cultured on Blood agar (BA) and Eosin methylene blue (EMB). Then, identification of isolated bacteria was done with diagnostic tests.

Results: Of 430 samples, 530 bacteria were isolated from staff's hands (N=291) and medical equipment (N=234). The most common bacterium from personnel's hands (144; 49.5%) and medical equipment (24; 10%) is *Staphylococcus aureus*. Also, three isolates of *Pseudomonas aeruginosa* from staff's hands of male surgical ward and medical equipment of ICU, and two isolates of *Acinetobacter* spp from ICU's medical equipment were identified.

Conclusion: With regard to the findings, it seems that applying the appropriate disinfectant agents by using standard procedures is necessary.

Keywords: Medical Equipment; Staff's Hand; Nosocomial Infection; *Staphylococcus Aureus*