



Isolation and Characterization of Bacteria Obtained from Hospital Equipments: A Potential Source of Nosocomial Infection

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Abstract : *Background: Hospital acquired infections (HAI) or Nosocomial infection is a global problem with multifaceted outcomes. HAI remains a remarkable threat for hospitalized patients. Health care workers are possible sources of these infections. The aim of this study was to determine the prevalence of bacterial contamination in stethoscope, sphygmomanometer and thermometer. Forty samples of stethoscope, sphygmomanometer, thermometer from three different departments Orthopedic, Gastroenterology and Pediatric ward of All India Institute of Medical Sciences (AIIMS), Patna were cultured before and after cleaning of above said instruments with 100% ethanol by using sterile swab soaked in sterile saline. Samples were processed as per standard microbiological protocol. In thirty six samples bacterial colonization was observed.*

The bacterial strains isolated were Staphylococcus aureus (61.2%), Staphylococcus epidermidis (27.7%), and Listeria monocytogenes (11.1%). This study concludes that the bacterial strains mainly found on the surface of medical equipments were contaminated with bacteria having pathogenic importance. A standard protocol for instrument sterilization should be followed in hospitals to avoid Nosocomial infection.

Keywords: HAI, Nosocomial, Medical equipments, Anti-bacterial solutions, Swab, Saline.

Introduction:

In the human body microorganisms make up the human microbiota including the important microflora. Besides these activities they also act as pathogens accountable for many diseases and are the target of hygiene measures (Gest , 2005). A hospital acquired infections (HAI) also called as a nosocomial infection that is acquired from hospital or other health care facilities (Klevens *et al.*, 2007). It remains a remarkable threat for hospitalized patients, health care workers are the major sources of these infections (Uneke *et al.*, 2008). The symptoms for these infections may include discharge from a wound, fever, Cough, shortness of breathing, burning with urination or difficulty urinating, nausea, vomiting, diarrhea and others.

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