Microbial Contamination of Staff's Hand while Going out of Hospital

Naderinasab, M. (PhD)

Associate Professor of Microbiology, Research Center of Microbiology, Buali Research Center, Mashhad University of Medical Sciences, Mashhad, Iran

Tayyebi Meibodi, N. (PhD)

Associate Professor of Pathology, Research Center for Cutaneous Leishmanaisis, Emam Reza Hospital, School of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran

Nahidi, Y. (MD)

Assistant Professor of Dermatology, Research Center for Cutaneous Leishmanaisis, Emam Reza Hospital, School of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran

> Bakhshizadeh, A. (MD) General Practitioner

Corresponding author: Nahidi, Y. Email: nahidiy@mums.ac.ir

Received: 4 Sep 2011 Revised: 16 Apr 2013 Accepted: 22 Apr 2013

Abstract

Background and Objective: Cross-transmission of microorganisms by the hands of health care workers is considered as a main transmission route of nosocomial infections. The aim of this study was to investigate the microbial contamination of health-care worker's hands while going out of hospital.

Material and Methods: Wearing the sterile glove with liquid culture, we obtained 100 Samples from the staff's hands of three departments (clerical department, emergency ward and central laboratory) of Emam Reza hospital. After that, the samples were cultured.

Results: Of all personnel, 40% have the habit of washing their hands. Of these, 95 percent wash their hands with water and soap, and 5 percent with alcohol rubs. Of 100 cultured samples, 90 have microorganisms including non-pathogen grampositive bacillus (29%), coagulase-positive staphylococcus (39%), coagulase-negative staphylococcus (47%), Enterococci (3%), micrococcus (25%) and candida (3%). Contamination in those who had not washed their hands is 62.6% and in those who washed is 37.7% (P=0.04).

Conclusion: Hands of health-care workers become progressively contaminated by the potential pathogens during daily activities. To reduce the rate of contamination, it is helpful if we ask staff to wash their hands while going out of hospital.

Keywords: Microbial Flora; Hospital's Staff; Hand Washing