BACTERIAL FLORA OF COMMONLY USED SOAPS IN THREE HOSPITALS IN NIGERIA

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ABSTRACT

Objectives: To obtain general information on soap use and soap bacterial flora, and to assess the risk of transmission of organisms from contaminated soap to patients. Design: Descriptive study. Setting: Three hospitals in an urban area of Lagos, Nigeria. A teaching (761 bed) hospital, a general hospital (a 51 bed secondary healthcare facility) and a private hospital (a 30 bed private community with a surgical specialty). Results: Bar soaps were much more commonly used than liquid soaps. Out of the thirty six bar soaps and their receptacles studied, 19 (52.8%) were found wet, nine (25%) dry, five (13.9%) very dry, and three (8.3%) in a pool of water. A total of 39% soaps and 75% of receptacles were contaminated. Thirty three percent of the dry soaps and 68.4% of the wet soaps were contaminated. None of the very dry soaps and all in a pool of water were contaminated. The bacteria isolated from soaps included Pseudomonas aeruginosa (89.5%) and Klebsiella pneumoniae (10.5%), while Pseudomonas aeruginosa (70.6%), Klebsiella pneumoniae (14.7%), Staphylococcus aureus (11.8%) and Serratia marcescens (2.9%) were isolated from the receptacles. The antibiogram showed that the Pseudomonas aeruginosa isolated from the soaps and their containers (sinks) were distinct from those obtained from colonised or infected wounds. The soap contamination rates correlated with the conditions in which the soaps were kept. Conclusion: The type of soap containers in particular, played a vital role in keeping the soap dry or wet. In all the hospitals studied, the policies on soap use, if any, were not in agreement with the recommended guidelines. The healthcare workers need to be re-educated on these guidelines.