HAC 2015 ABSTRACT for Oral Presentations

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Project title
Using self-prepared 2% Chlorhexidine impregnated cloths for bed-bath in ICU

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Introduction
The topical use of chlorhexidine (CHG) reduces bacterial density on patients’ skin. It is increasingly being used to prevent the transmission of methicillin-resistant Staphylococcus aureus (MRSA) and hospital-acquired infections.

Objectives
To evaluate the effect of daily bathing with CHG impregnated cloths in the prevention of MRSA colonization and infections among ICU patients.

Methodology
All patients were screened for MRSA swabs using swabs from the nares and perineal area on admission and discharge from ICU. Before the implementation of this project, all ICU patients were bathed by non-medicated soap and water daily. During the one year study period, patients were bathed by 2% CHG-impregnated cloths daily. Patients with CHG allergy or known MRSA patients were excluded from this study. No other new infection control measures were implemented during the study period. Staff was trained on the technique for preparation of CHG-impregnated cloths and bathing. Skin reactions that may be attributable to CHG bath were reported using a standard form. The cloths were freshly prepared daily. Each packs consisted of 10 pieces of 15x15 cm² non-woven wipes were soaked thoroughly with 250 ml of non-rinse 2% CHG solution. They were kept warm at 40°C before use. The incidence of MRSA acquisition and infection between the study period and the year before were compared by Poisson regression analysis.

Result
A total of 1874 patients were enrolled during the study. The overall MRSA acquisition and infection rate decreased from 4.55 (bath with non-medicated soap) to 1.77 (bath with 2% CHG) cases per 1000 patient-days (p= 0.0216). The MRSA bacteremia rate remained zero between two periods. No significant adverse skin effects were detected during the study period. Our results suggest that the use of non-rinse CHG bath in ICU can reduce the acquisition and infection of MRSA.