Chlorhexidine Bathing Versus Soap and Water in the Immunocompromised Patient

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Introduction

Immunocompromised patients are at great risk for hospital acquired infections. HAIs, particularly blood stream infections, are costly for the hospital and may be fatal for the patient. How can health care workers reduce the prevalence of HAIs? Can we rethink and remodel our most basic hygienic measures with the aid of effective antimicrobials?

PICO Question

Population: Immunocompromised patients requiring nursing-delivered baths

Intervention: Bathing with chlorhexidine

Comparison: Bathing with soap and water

Outcome: Decrease hospital-acquired infections

Question: Can bathing with chlorhexidine instead of soap and water help decrease hospital-acquired infections?

Methods

A literature search was conducted using CINAHL, MEDLINE, and PubMed databases.

Keywords: *chlorhexidine wipes, hospital acquired infections*

Inclusion Criteria: Articles from 2007 to present, scholarly articles

The initial search yielded more than 50 articles, 3 were included for this project.

Results

Study	Methods and Results	Strengths and Weaknesses
Bleasdale, et al. (2007)	52-week crossover clinical trial featuring 836 MICU patients Patients bathed with chlorhexidine were 61% less likely to acquire a primary BSI No significant differences were found with likeliness to acquire VAP or UTI	+ study recorded each subject's specific immunocompromised condition + patients with damaged skin integrity were eliminated from study - study only took place at one hospital
Climo, et al. (2013)	52-week crossover clinical trial featuring 7727 ICU and BMT patients Patients bathed with chlorhexidine were 53% less likely to acquire a primary BSI Patients with longer hospital stays (14+ days) had progressively less risk of a CLABSI when using chlorhexidine versus patients with shorter stays	+ study took place in six hospitals + skin care products incompatible with chlorhexidine were eliminated from patients participating in the study - study was interrupted due to a nationwide recall of chlorhexidine washcloths
Sievert, et al. (2011)	Comprehensive literature review of relevant meta-analyses, randomized controlled trials, and experimental studies over the past 10 years 80% of studies featured indicated a significant reduction in CLABSI when bathing with chlorhexidine	+ identifies bath basins as a potential source of bacterial transmission + acknowledges the potential for contact dermatitis and anaphylaxis when using chlorhexidine - inconsistent study: compares ICUs with LTACHs

Discussion

Will patients accept being bathed with chlorhexidine?

Will health care workers misuse chlorhexidine when giving baths?

Should patients bathe themselves with chlorhexidine?

Conclusions

Patient groups bathed with chlorhexidine consistently had fewer BSIs compared to those bathed with soap and water

Further research should explore other HAIs

Consider each patient's individual safety precautions and use education when incorporating new hygienic measures

References

Bleasdale, S.C., Trick, W.E., Gonzalez, I.M., Lyles, R.D., Hayden, M.K., Weinstein, R.A. (2007). Effectiveness of chlorhexidine bathing to reduce catheter-associated bloodstream infections in medical intensive care unit patients. *Archives of Internal Medicine, 167*(19), 2073-2079.

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