



Chlorohexidine Gluconate Bathing to Reduce Hospital Acquired Infections

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Background

- A hospital acquired infection (HAI) is a nosocomial infection that is not present at the time of admission (CDC, 2022)
- HAIs affect one in every thirty-one patients (CDC, 2022)
- The financial burden of HAIs is \$28.4 billion each year (Monegro, 2022)
- Chlorohexidine Gluconate (CHG) is an antiseptic formula that has the ability to kill gram positive and gram negative organisms
- Current standard practice is to use regular soap for daily bathing in hospitals.
- One key difference in the method of bathing between soap and CHG is that CHG is left on the skin for full antimicrobial effects.

Objectives

To present evidence-based results from research studies which compare the rates of hospital acquired infections in inpatient adult populations when being bathed with CHG versus regular soap

Methods

The PICOT question addressed here is as follows: In hospitalized adults, how do CHG baths compared to regular soap baths affect the incidence of hospital acquired infections?

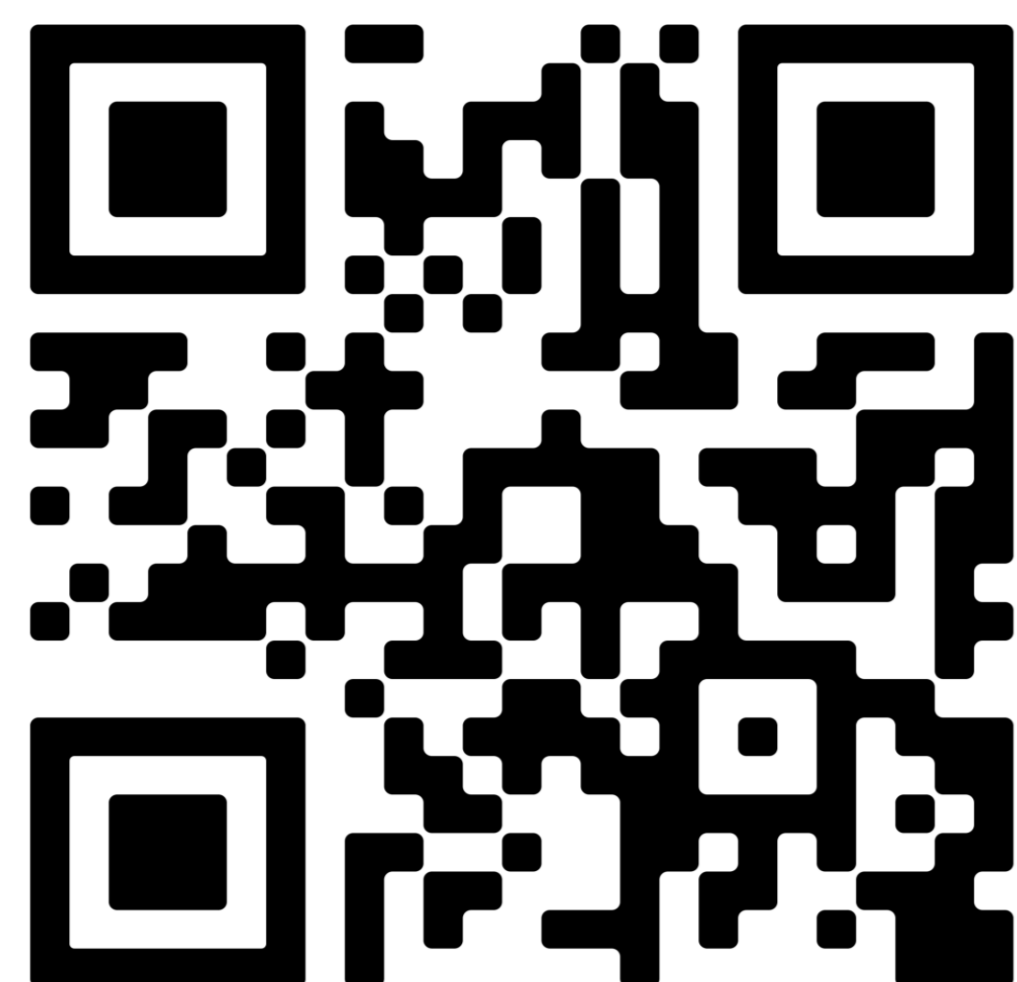
Databases: PubMed was searched through University of Maryland Health Sciences and Humas Services Library

Key words: ("Chlorhexidine"[MeSH] OR soaps[mesh] OR soap*[tiab]) AND (baths[mesh] OR bath*[tiab])

Exclusion criteria: published prior to 2016, any article not a randomized control trial

Results: Five articles consistent with the objectives were chosen for review

Bibliography



Figures

Author(s) and Year	Intervention Tested	Results	Study Level
Huabg et al., 2019	Daily CHG bathing vs daily soap and water baths for skin and nasal decolonization	CHG can be beneficial for those that have indwelling devices to prevent infection such as MRSA, VRE and bloodstream infections.	Level I/B
Swan et al. 2016	Every other day CHG bathing vs daily soap and water bathing for decrease in CAUTI, VAP and SSI	Every other day bathing with CHG reduces the risk of HAI in surgical ICU patients	Level I/B
Pallotto et al., 2019	Daily CHG bathing vs daily soap and water bathing for decrease in HAI	There is statistical significance that CHG prevents HAI over regular soap baths	Level I/A
Ries et al., 2022	Daily CHG bathing vs daily soap and water bathing to reduce CLABSI, VAP, CAUTI, and KPC	ICU patients over the age of two months should be bathed with CHG on a daily basis	Level I/B
Lan et al., 2018	Every other day CHG bathing vs daily soap baths to reduce C. Diff. infection	Daily CHG baths are neither recommended or discouraged	Level I/B

Results and Conclusions

The evidence presented is not strong enough to propose a practice change. Except for possible skin sensitivity, there are no dangers to CHG bathing, but the evidence is not robust enough to constitute a switch in standardized practice for the general population. However, for ICUs, implementing CHG bathing would be a good step in helping to prevent HAIs. From the evidence found in ICUs it is clear that in order for CHG bathing to be worthwhile, patients or staff members would need to be educated on how to properly bathe for the full benefits to come to fruition.

There is still more room for research on how exactly CHG baths should be implemented. The studies analyzed did not have consistency in how the CHG baths were performed. There were differences in the CHG soap concentration and bathing frequency. Delving more into these areas may help with pinpointing the exact way to use CHG bathing to reap the full benefits. It would also be beneficial to assess other populations such as pediatrics, geriatrics, or obstetric patients.

The CNL Role

An important part of the CNL role is being the outcomes manager. An essential part of this could be making sure that the patients do not develop any conditions in the hospital that they did not arrive with. HAIs are a big issue that every unit in the hospital system deals with. Tight data of the rates and types of infection is important to create a force to prevent HAIs. The CNL should keep updated metrics on their unit of which HAIs are affecting the patients. The CNL should look at the data found here and compare their patient population to the patient populations included in the studies. They should then decide if CHG treatments would benefit their unit based on their patient population.

Notes

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