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 bloodstream 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

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