



The aim of this study was to conduct a systematic review and meta-analysis to compare the antiseptic efficacies of WHR, CHG, and PI in surgical settings” Ho et al (2018).

Abstract:

Background: Presurgical hand washing is crucial for preventing surgical site infections (SSIs). Chlorhexidine gluconate (CHG) and povidone-iodine (PI) products have been conventionally used as hand scrubs for presurgical hand preparation. However, waterless hand rub (WHR) products have been developed for operating room staff.

Aim: The aim of this study was to conduct a systematic review and meta-analysis to compare the antiseptic efficacies of WHR, CHG, and PI in surgical settings.

Methods: PubMed, Embase, and Cochrane Library databases as well as the ClinicalTrials.gov registry were searched for studies published before October 2018. Randomized controlled trials (RCTs) comparing the clinical outcomes of the use of WHRs, CHG, or PI for presurgical hand washing were included. A random effects model was used for meta-analysis. Colony-forming unit (cfu) counts, SSI rates, and preference and compliance were determined to measure efficacies.

Findings: Eleven RCTs involving 5135 participants were included. Residual cfu counts were significantly lower in the WHR and CHG groups than in the PI group. The differences in cfu

counts between the WHR and CHG groups were non-significant. No significant differences were observed in the SSI rates between the WHR and traditional hand scrub groups. Moreover, WHRs were considered most favourable and were associated with higher compliance rates than the other products.

Conclusion: WHRs and CHG exhibited higher antiseptic efficacies than PI. However, additional studies with consistent outcome measurements and accurate grouping are required to obtain comprehensive results. Moreover, preference, compliance, and the cost determine the selection of hand wash products.

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Surgical hand preparation with chlorhexidine soap or povidone iodine

Daily chlorhexidine gluconate (CHG) bathing reduces the risk of hospital-acquired infections

Reference:

Ho, Y-H., Wang, Y-C., Loh, E-W. and Tam, K-W. (2018) Antiseptic efficacies of waterless hand rub, chlorhexidine scrub, and povidone-iodine scrub in surgical settings: a meta-analysis of randomized controlled trials. *The Journal of Hospital Infection*. November 27th. .

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