



Intravenous literature: Bashir, M.H., Olson, L.K.M. and Walters, S.A. (2012) Suppression of regrowth of normal skin flora under chlorhexidine gluconate dressings applied to chlorhexidine gluconate-prepped skin. *AJIC: American Journal of Infection Control*. 40(4), p.344-348.

Abstract:

Background – Catheter colonization and bloodstream infection during the first week after insertion of a central venous catheter have been shown to result from the patient’s own skin flora.

Methods – The backs of 32 healthy subjects were prepped with a 2% chlorhexidine gluconate (CHG)/70% isopropyl alcohol antiseptic. Three dressings, 2 of which contained CHG, were placed on the prepped skin in a randomized design. Samples of aerobic bacteria were collected using the cup scrub method. Skin under the dressings was sampled by quadrant on days 1, 4, and 7. Relative suppression of regrowth was compared using an adjusted paired t test.

Results – Mean log counts were 3.2 log₁₀ colony-forming units (CFU)/cm² before antiseptics and 0.4 after antiseptics. Mean log counts obtained on days 1, 4, and 7 were 0.4, 0.3, and 0.5 log₁₀ CFU/cm² for the CHG gel; 0.4, 0.4, and 0.9 log₁₀ CFU/cm² for the CHG disk; and 0.9, 1.2, and 1.5 log₁₀ CFU/cm² for the Control, respectively.

Conclusion – Skin flora was not completely eradicated during antisepsis, and bacterial regrowth occurred postantisepsis. The use of CHG dressings helped sustain a reduced bacterial count on the skin. The continuously releasing CHG gel maintained suppression to a greater extent than the CHG disk at 7 days (P = .01).

