

We assessed the impact of 2% daily patient bathing with chlorhexidine gluconate (CHG) washcloths on the incidence of hospital-acquired (HA) and central line-associated (CLA) bloodstream infections (BSI) in intensive care units (ICUs)” Afonso et al (2016).

Abstract:

We assessed the impact of 2% daily patient bathing with chlorhexidine gluconate (CHG) washcloths on the incidence of hospital-acquired (HA) and central line-associated (CLA) bloodstream infections (BSI) in intensive care units (ICUs). We searched randomised studies in Medline, EMBASE, Cochrane Library (CENTRAL) and Web of Science databases up to April 2015.

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Primary outcomes were total HABSIs, central line, and non-central line-associated BSI rates per patient-days. Secondary outcomes included Gram-negative and Gram-positive BSI rates and adverse events. Four randomised crossover trials involved 25 ICUs and 22,850 patients. Meta-analysis identified a total HABSIs rate reduction (odds ratio (OR): 0.74; 95% confidence interval (CI): 0.60-0.90; $p = 0.002$) with moderate heterogeneity ($I^2 = 36\%$). Subgroup analysis identified significantly stronger rate reductions ($p = 0.01$) for CLABSI (OR: 0.50; 95% CI: 0.35-0.71; $p < 0.001$) than other HABSIs (OR: 0.82; 95% CI: 0.70-0.97; $p = 0.02$) with low heterogeneity ($I^2 = 0\%$). This effect was evident in the Gram-positive subgroup (OR: 0.55; 95% CI: 0.31-0.99; $p = 0.05$), but became non-significant after removal of a high-risk-of-bias study. Sensitivity analysis revealed that the intervention effect remained significant for total and central line-associated HABSIs. We suggest that use of CHG washcloths prevents HABSIs and CLABSI in ICUs, possibly due to the reduction in Gram-positive skin commensals.

Full Text

Reference:

Afonso, E., Blot, K. and Blot, S. (2016) Prevention of hospital-acquired bloodstream infections through chlorhexidine gluconate-impregnated washcloth bathing in intensive care units: a systematic review and meta-analysis of randomised crossover trials. *Euro Surveill.* 21(46), 30400.

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