

3A. RCTs with SSI outcome

Author, year, reference	Country/ study period	Type of study/ setting	Intervention	Comparator	Primary outcome - SSI rate	Difference between groups	Cost analysis
Parienti 2002 ⁽¹⁹⁾	France, 16 months	Multicentre randomized equivalence trial	Handrubbing protocol with ABHR (Sterilium®) for 5 minutes (n=2252)	Hand scrubbing with PVI 4% or CHG 4% for 5 minutes (n=2135)	2.44% handrub group; 2.48% hand scrub group	OR: 0.04% (95% CI: 0.88-0.96) NS difference	
Nthumba 2010 ⁽²⁰⁾	Kenya, 11 months	Longitudinal comparative cluster randomized cross-over trial in a rural hospital	ABHR procedure with WHO formula II for 3 minutes (n=1537)	Hand scrubbing with plain soap and water for 4-5 minutes (n=1596)	8.3% in ABHR (95% CI: 6.7-9.5) 8.0% plain soap & water group (95% CI: 6.9-9.8)	Crude OR: 1.03 (95% CI: 0.80-1.33; P=0.804) NS difference	The approximate total weekly cost of ABHR was € 4.60 compared with € 3.30 for plain soap and water (cost ratio: 1:1.4).
Al-Naami 2009 ⁽²¹⁾	Saudi Arabia, 9 months	Randomized equivalence trial in a university hospital	Handrubbing with alcohol-based hand gel (Purell®) (n=272)	Hand scrubbing with PVP-I 4% or CHG 4% 3-5 minutes (n=228)	2.94% in ABHR; 5.26% in traditional hand scrub group	OR: 1.833, (95% CI 0.683-5.007; P= 0.275) NS difference	

* RCT: randomized controlled trial; SSI: surgical site infection; ABHR: alcohol-based handrub; Sterilium®: 75% aqueous alcohol solution, propanol-1, propanol-2 and mecetronium; WHO-recommended formulation II: 75% (v/v) isopropyl alcohol, 1.45% (v/v) glycerol, 0.125% (v/v) hydrogen peroxide); Purell®: 62% ethyl alcohol as an active ingredient; water, aminomethyl propanol, isopropyl myristate, propylene glycol, glycerine, tocopheryl acetate, carbomer and fragrance (perfume) as inactive ingredients; PVI: povidone-iodine; CHG: chlorhexidine gluconate; CI: confidence interval; OR: odds ratio; NS: not significant.