

HAND HYGIENE

AN IDEAL SURGICAL HAND DISINFECTING AGENT SHOULD HAVE THE FOLLOWING PERFORMANCE CHARACTERISTICS:

ANTIMICROBIAL ACTION



Broad spectrum antimicrobial activity against pathogenic organisms that works rapidly.¹

PERSISTENT ACTIVITY



An ideal hand disinfecting agent should have persistent activity that keeps bacterial count low under gloves.¹

SAFETY



An ideal hand disinfecting agent should be non-irritating, safe to use and not be damaging to the skin or environment.¹

ACCEPTANCE



An ideal hand disinfecting agent should encourage compliance & support from Healthcare users in adapting to a new product.¹

COMMON AGENTS USED IN THE OPERATING THEATRE ENVIRONMENT

GOOD LIQUID OR FOAM SOAPS

BETTER

IMPREGNATED SCRUB BRUSHES/SPONGES

STATE-OF-THE-ART ALCOHOL BASED SURGICAL HAND RUBS (ABHRs)



Liquid or foam medical soap used in conjunction with water and dry scrub brushes are the most common products used for surgical scrub. Antimicrobial agents in these products include CHG (chlorhexidine gluconate), iodophor or PCMX (parachlorometaxylenol) which are very drying, and with repeated scrubbing, can cause skin damage.⁵

Mitchell and colleagues suggested a brushless surgical hand scrub as early as the 1980s.²



Scrub brushes/sponges preloaded with CHG, iodophor or PCMX are water-aided products. Skin irritation and dermatitis are more frequently observed after surgical hand scrub with chlorhexidine.⁴

Loeb's randomised, controlled clinical trial, published in the American Journal of Infection Control, failed to demonstrate an additional antimicrobial effect by using a brush.⁵

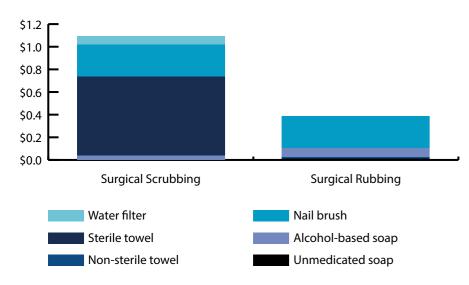


The antimicrobial efficacy of alcoholbased formulations is a superior method of preoperative surgical hand preparation. Alcohol rubs have rapid and immediate antibacterial action; and do not eliminate good microorganisms naturally present on the skin.³

Alcohol rubs are less drying to the skin; allergy is rare and toxic effects have not been reported.^{6,7,8}

SURGICAL HAND SCRUBBING VERSUS SURGICAL HAND RUBBING

COST OF SURGICAL HAND SCRUBBING VERSUS ALCOHOL BASED HAND RUBBING:



Tavollacci study compared the efficacy of Surgical Hand Rubbing (SHR) against efficacy of Surgical Hand Scrubbing (SHS). The costs of SHR and SHS were estimated based on standard hospitals costs. The study concluded that SHR had immediate efficacy similar to that of SHS, however SHR had more lasting effect. SHR reduced costs by 67%. In summary, SHR is a cost-effective alternative to SHS.9

HAND SCRUBBING VERSUS ALCOHOL BASED HAND RUBBING: TIME SAVINGS





Studies demonstrate that SHR is 150% quicker in achieving Surgical Standard EN12791 which allows more time to focus on the operation list.¹⁰

HAND SCRUBBING VERSUS ALCOHOL BASED HAND RUBBING: SKIN TOLERABILITY



A Healthcare Worker's (HCW) hand after 2 weeks of hand hygiene using non-medicated liquid soap with 2% chlorhexidine containing solution; showed hand cracks and evidence of bleeding.



After 2 weeks of application of an alcohol based hand rub containg emollients.

REFERENCES

- 1. ICT: Infection Control Today Best practices: How To Perform Surgical Hand Scrubs. May 1, 2001 Posted in HYPERLINK "http://www.infectioncontroltoday.com/articles.aspx" Hand Antisepsis By Deborah Gardner, LPN, OPAC, and Ellen Anderson-Manz, RN, BSN
- 2. Mitchell KG, Rawluk DJR. Skin reactions related to surgical scrub-up: results of a Scottish survey. British Journal of Surgery. 1984;71:223–224
- 3. WHO Guidelines on Hand Hygiene in Healthcare, Side Effects of Surgical Hand Scrub (2009), Section 13.4, pg.4
- 4. Parienti Et Al. (2002) Handrubbing with an Aqueous Alcoholic solution vs. traditional Surgical Hand-Scrubbing and 30-day Surgical Site Infection rates. A randomised Equivalence Study, JAMA. 2002; 288(6) 722–727
- 5. Loeb MB, et al. A randomized trial of surgical scrubbing with a brush compared to antiseptic soap alone. American Journal of Infection Control. 1997:25:11–15
- 6. Parienti Et Al. (2002) Handrubbing with an Aqueous Alcoholic solution vs. traditional Surgical Hand-Scrubbing and 30-day Surgical Site Infection rates. A randomised Equivalence Study, JAMA. 2002; 288(6) 722–727
- 7. Lai, K, Foo, T et al. Surgical hand antisepsis a pilot study comparing povidone iodine hand scrub and alcohol-based chlorhexidine gluconate hand rub. Ann Acad Med Sinagapore 2012; 41:12–16.
- 8. Tavollacci, M, Pitrou, I, et al. Surgical hand rubbing compared with surgical hand scrubbing: comparison of efficacy and costs. J Hosp Infect 2006; 63:55–59.
- 9. M.P. Tavollacci et. al. (2006), Surgical hand rubbing compared with surgical hand scrubbing: comparison of efficacy and costs.
- 10. MedInsight (2014, Clinical and economic report on the use of alcoholic solutions for surgical hands preparation in Brazilian hospital settings.





Training aid available for fluro rub and UV Trainer

- Raises compliance and improves hand rubbing technique
- Supports correct hand disinfection
- Improves learning success

Safe UV-technology, excellent light and contrast in combination with FluoRub. Ready to use within a few seconds, practical size and light to carry.