



A Study of Surgical Hand Scrub Use and Effectiveness

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Introduction

Operating room staff performs a surgical hand scrub before every sterile procedure. The traditional form of hand scrub is to perform a mechanical scrub using a scrub brush pre-soaked in either betadine or chlorhexidine, but in recent years, alcohol based hand scrubs have been introduced to hospitals across the country. These alcohol based scrubs are used without water and are promoted for their speed of use and long-acting antibacterial properties.

PICO Question

Population: Use of alcohol-based antiseptic among the OR staff (Attending Surgeons, Residents, Medical Students, Surgical Techs and RNs).

Intervention: Alcohol-based antiseptic in place of traditional surgical scrubs

Comparison: Traditional mechanical scrubs

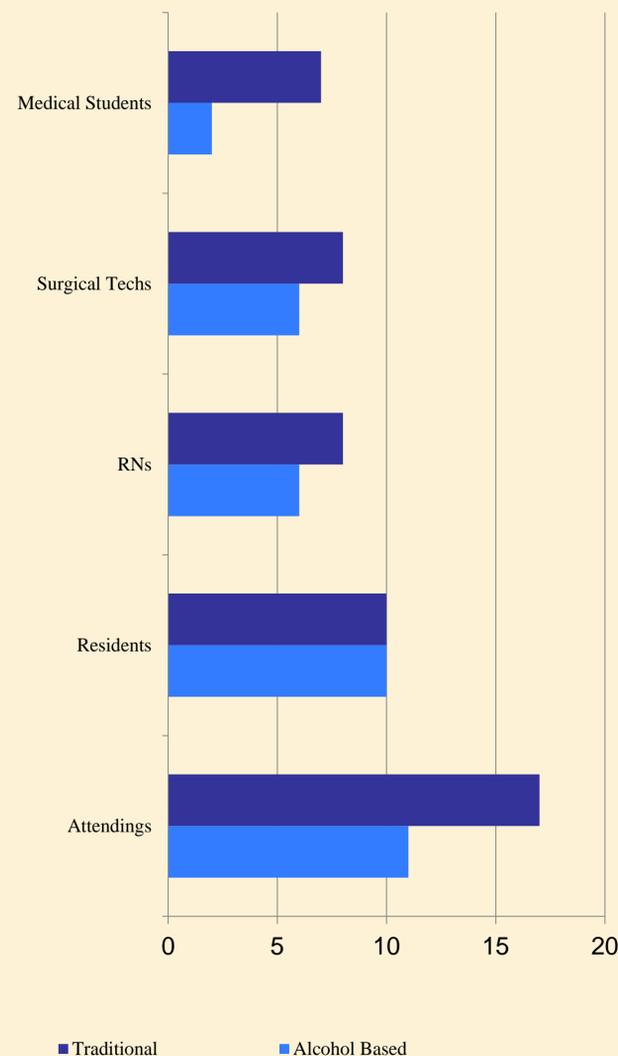
Outcome: Identification of scrub method that is scientifically more effective.

Question: Is the use of alcohol based antiseptic scrub among OR staff superior to the traditional surgical scrub, and why?

Methods

Literature review was conducted using the CINAHL, PubMed, Ovid, and EbscoHost databases to find information about the effectiveness of traditional scrubs and alcohol based scrubs. A survey was then conducted amongst OR staff to see which scrub choice they preferred and what their reasoning was as to why they were choosing that scrub.

Results



Discussion

Our OR currently offer both hand scrub options to staff. Both types of hand scrubs are utilized in the HMC operating rooms. Many surgeons, frown upon the use of alcohol based hand rubs

Study	Result
Bryce, E., D., & Roberts, F. (2001).	Same effectiveness between scrubs
Caple, C., & Schub, E., (2012).	Traditional scrub is more effective against microorganisms such as c-diff
Da Cunha, E. R., et al., (2011).	Scrub brush does not increase effectiveness
Lai, K. W., et al., (2012).	Avagard is more effective at reducing baseline colony counts
(2002). <i>Same-Day Surgery</i>	Same effectiveness
Weight, C. J., et al., (2010).	Same effectiveness, recommends alcohol rub
Widmer,.	Same effectiveness, recommends alcohol rub

Conclusions

The review of literature concluded that alcohol based hand sanitizer is just as effective or more effective than traditional hand scrubs; except when dealing with certain microorganisms (C-diff). The results do not show a great enough of a difference to ban traditional hand scrubs, but hospitals should provide both options to staff.

References

Bryce, E., D., & Roberts, F. (2001). An in-use evaluation of an alcohol-based pre- surgical hand disinfectant. *Infection Control & Hospital Epidemiology*, 22(10), 635-639.

Caple, C., & Pravikoff, D. (2012). Hand Hygiene: Surgical Scrub – Performing

Caple, C., & Schub, E., (2012). Hand Hygiene: Antisepsis Using an Alcohol- Based Rub – Performing Hand hygiene guideline recommends no brush: alcohol-based handrub OK for surgical scrub. (2002). *Same-Day Surgery*, 26(1), 4-5.

Widmer,., Surgical hand hygiene: scrub or rub?. *Journal Of Hospital Infection*, 83S35-9.