

Hand Wash Or Hand Sanitiser?

Is hand sanitizer or hand washing more effective in preventing nosocomial infections?

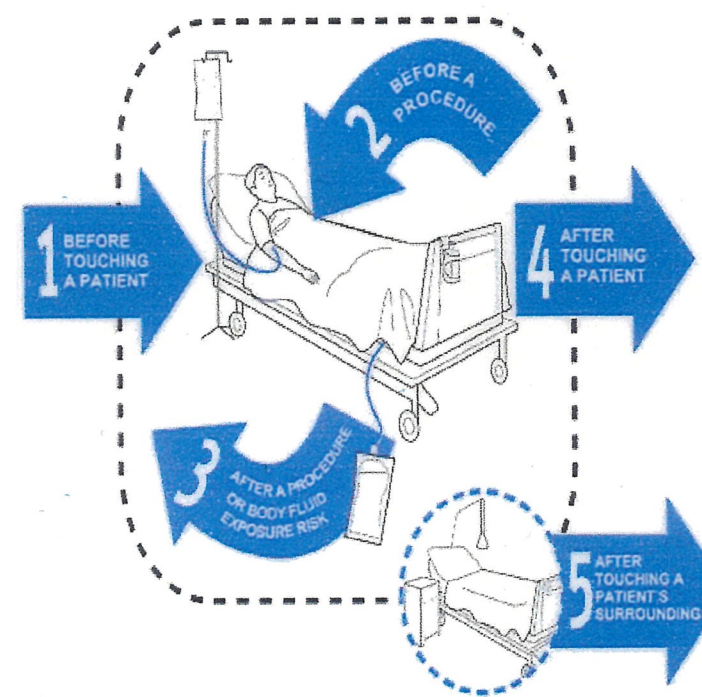
Introduction:

Hand hygiene has been shown to be one of the most effective methods at reducing nosocomial infections by reducing pathogen transmission between health staff and clients, but which method is the best - hand washing or alcohol based hand sanitiser?

Evidence:

Effective hand hygiene can prevent 30% of nosocomial infections, but hand washing compliance really exceeds 40% with an average time of 9.6 seconds in 90% of cases. It takes 1-2 minutes to wash your hands but only 18-27 seconds to sanitise. Research shows that sanitiser can eliminate *Escherichia coli*, *Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Staphylococcus epidermidis*, *Candida* spp. and *Rhodotorula* spp. and viruses like HBV, HCV, HIV, and influenza viruses. It is better for your hands and requires no special equipment. Sanitiser can be used whilst talking to the patient unlike soap and water that require you to go away.

WHO Five Moments of Hand Hygiene



Conclusion:

Literature shows that hand sanitiser is better at degerming unsoiled hand as it require less time, acts quickly to kill microorganisms on hands reducing bacterial counts, more effective than soap and water, more accessible as doesn't need sink and water, less irritating on hands and has greater compliance.

If hand are soiled - soap and water, if hands are not soiled - hand sanitiser

References:

- Kampf, G., Löffler, H., & Gastmeier, P. (2009). Hand hygiene for the prevention of nosocomial infections. *Deutsches Ärzteblatt International*, 106(40).
- Kramer, A., & Kampf, G. (2004). Epidemiologic background of hand hygiene and evaluation of the most important agents for scrubs and rubs. *Clinical Microbiology Reviews*, 17(4).
- World Health Organisation. (2002, December). Prevention of hospital-acquired infections: A Practical guide. Retrieved from <http://www.who.int/csr/resources/publications/whocdscsreph200212.pdf>
- Widmer, A. (2000). Replace Hand Washing with Use of a Waterless Alcohol Hand Rub? *Infectious Diseases Society of America*, 31.

The Pecot Model

Pecot Category	Information related To question	Explanation
Population/Problem	Hospital Acquired infections due to poor hand hygiene.	Patients can be at risk of infection from pathogens transmitted from the hands of health care workers.
Exposure	Health Care settings. Not specific to one particular ward or area.	We know soiled hands should be washed, but does alcohol based hand sanitiser have better efficacy in reducing the chance of nosocomial infections.
Comparison	Comparing soap and water and alcohol based hand sanitiser.	Which method has the highest efficacy at reducing bacterial loads on hands.
Outcome	Is sanitiser or soap and water more effective.	To know which method is best on non soiled hands.

To time?