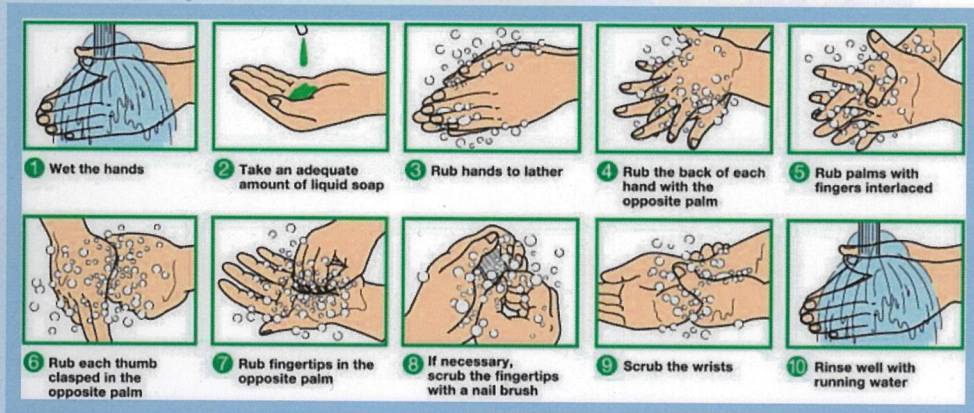


# Hand Hygiene: Bare below the elbow is best - no wedding bands or wristwatches

## Current Hand Hygiene:

Up to 10% of patients acquire healthcare associated infections in New Zealand hospitals (Health Quality & Safety Commission New Zealand, 2018). Currently taught hand washing techniques are proven to be very effective at removing transient microorganisms from hands (Lippincott Procedures, 2017), so why are the rates still so high?



## Literature Review:

I conducted a literature review with the search question:

*Does wearing wedding bands and/or wristwatches for hands-on healthcare professionals increase the risk of bacterial infections to patients?*

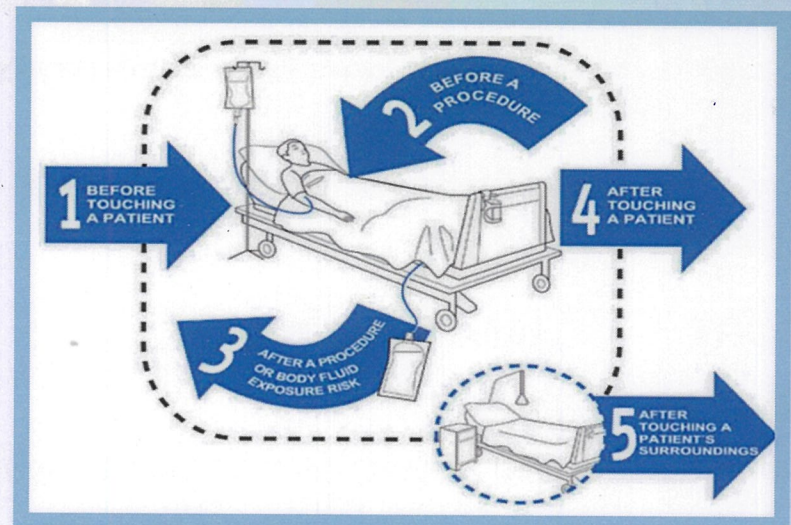
## Findings from the literature:

- There are higher bacterial counts on hands wearing rings (after hand hygiene has been performed) (Blanchard, 2006)
- Ring wearing is associated with a 10-fold higher count of median skin organisms, which commonly include *S. aureus*, *Candida* or gram-negative bacilli which produce a variety of diseases ranging from mild to life-threatening (Trick et al., 2003)
- Nurses can carry the same organism on the skin under their rings for several months, commonly gram-negative bacilli (Centers for Disease Control and Prevention, 2002)
- Only flat rings are acceptable, however, they must be washed and dried thoroughly and frequently in order to remove bacteria (Lippincott Procedures, 2017)
- Hand washing was found to be ineffective while wearing rings, but using an alcohol-based hand rub resulted in significantly less contamination (Trick et al., 2003)

## References:

- Blanchard, J. (2006). Ring wearing and hand hygiene; avian influenza; pharmaceutical waste; tuberculosis update; multiuse surgical site marking pens. *AORN Journal*, 84(3), pp1.
- Centers for Disease Control and Prevention. (2002). Guideline for Hand Hygiene in Health-Care Settings: Recommendations of the Healthcare Infection Control Practices Advisory Committee and the HICPAC/SHEA/APIC/IDSA Hand Hygiene Task Force. *Morbidity and Mortality Weekly Report*, 51, pp30.
- Health Quality & Safety Commission New Zealand. (2018). Infection Prevention & Control. Retrieved from <https://www.hqsc.govt.nz/our-programmes/infection-prevention-and-control/>
- Iyasu, A., Ayele, M., & Abdissa, B. (2017). Hand Hygiene Knowledge, Perception and Practices among Women of 'Kirkos' Locality in Addis Ababa, Ethiopia. *Health Science Journal*, 11(6), pp1. DOI: 10.21767/1791-809X.1000537
- Lippincott Procedures. (2017). Hand Hygiene NZ. Retrieved from <http://procedures.lww.com.op.idm.oclc.org/lnp/view.do?pld=4298005>
- Trick, W. E., Vernon, M. O., Hayes, R. A., Nathan, C., Rice, T. W., Peterson, B. J., Segreti, J., Welbel, S. F., Solomon, S. L., & Weinstein, R. A. (2003). Impact of Ring Wearing on Hand Contamination and Comparison of Hand Hygiene Agents in a Hospital. *Clinical Infectious Diseases*, 36, pp1.
- Ward, D. J. (2007). Hand adornment and infection control. *British Journal of Nursing*, 16(11), pp2-pp3.

- Wristwatches mustn't be worn by clinical staff as they can cause injury to patients, inhibit correct hand hygiene (Lippincott Procedures, 2017), may tear gloves, increase bacterial numbers on hands, and make glove donning more difficult (Ward, 2007)
- Wristwatches shouldn't be worn as wrists should be included during handwashing (Ward, 2007)
- To prevent the transfer of microorganisms, healthcare workers need to use correct hand hygiene, at the correct frequency, using enough soap, for an adequate amount of time (Iyasu, Ayele, & Abdissa, 2017)



## Recommendations:

1. Clinical staff shouldn't wear rings or wristwatches as they prevent the removal of microorganisms from hands (Blanchard, 2006; Centers for Diseases Control and Prevention, 2002; Lippincott Procedures, 2017; Nazarko, 2009; Trick et al., 2003; Ward, 2007)
2. Clinical staff should use the nine-step process of handwashing, at the five moments of hand hygiene, using sufficient soap and water, and drying hands thoroughly afterwards, using clean towels (Iyasu, Ayele, & Abdissa, 2017)
3. If wearing wedding bands or wristwatches, remove them during hand hygiene and disinfect them at regular intervals, and use an alcohol-based hand-rub after handwashing; dry all items thoroughly (Lippincott Procedures, 2017, & Trick et al., 2003)

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### Why use a poster?

Posters are useful in providing a learning experience for others, as they are visually appealing and able to present information in a clear and concise manner (Peer, 2017). I chose to do a poster as opposed to a digital presentation or a submission as I believed a digital presentation may be too complex for my topic, which is straight-forward, and a submission may not be useful as the topic could benefit from further research before being submitted to relevant clinical areas. Posters are also a good way of presenting material for a longer period of time to a number of people as people are able to walk by the poster when they please, and read the information in their own time (Oppenheimer Lab, 2014). Posters have also been scientifically proven to have the ability to change attitudes, alter behaviours and increase knowledge, and are some of the most commonly used formats for communicating information in academic and public health fields (Mimeo, 2015) – this will hopefully help the viewers of this poster to understand the message and change their own practices accordingly.

### References:

- Mimeo, J. (2015). Scientifically proven: The effectiveness of posters. Retrieved from <https://www.mimeo.com/blog/scientifically-proven-the-effectiveness-of-posters/>
- Oppenheimer Lab. (2014). 7 Reasons Why You Should Present Posters at a Conference. Retrieved from <https://people.clas.ufl.edu/oppenhe/2014/06/09/7-reasons-why-you-should-present-posters-at-a-conference/>
- Peer, D. (2017). The Advantages of Posters. Retrieved from <https://yourbusiness.azcentral.com/advantages-posters-14730.html>

Below is the PECOT table (Schneider et al., 2013) used to narrow down and identify the search question for the assignment:

PECOT category	Info relating to Q	Explanation
<b>Population</b>	All patients receiving care in a hospital environment from healthcare professionals wearing wedding bands and/or wristwatches	This includes any healthcare professional who provides hands-on care to patients in a hospital setting while wearing wedding bands and/or wristwatches
<b>Exposure (intervention)</b>	Patients who received direct care from a healthcare worker wearing wedding bands and/or wristwatches	Investigate literature and research on wearing wedding bands and/or wristwatches, and its effect on transient microorganisms and the rate of transmission of healthcare associated infections
<b>Comparison (control)</b>	Patients who received direct care from a healthcare worker without both wedding bands and wristwatches	What are the different numbers of transient microorganisms, and infection rates, when wearing wedding bands and/or wristwatches compared to not wearing wedding bands and wristwatches
<b>Outcome</b>	Discover what the literature and research states on increased number of transient organisms and transmission rates of healthcare associated infections when healthcare workers wear wedding bands and/or wristwatches	Review a wide range of literature and research to identify whether healthcare workers providing direct care to patients, whilst wearing wedding bands and/or wristwatches, increases the number of transient organisms on hands and raises the risk of infection of healthcare associated infections to patients and others
<b>Time</b>	No time constraint	This has been an ongoing issue in hospitals since hospitals were first invented and is still an issue today. It will continue to be an issue unless there is change, hence it is an ongoing issue