

Policy Applies to:

All staff employed by Mercy. Credentialed Specialists, Allied Health Professionals, students, patients, visitors and contractors will be supported to meet policy requirements.

Related Standards:

- Infection and Prevention and Control Standards NZS 8134.3:2008
- EQUIP - Standard Criterion 1.5.2

Rationale:

Hand hygiene is the single most important activity for preventing the spread of infection.

Failure to comply with hand hygiene:

- is the leading cause of healthcare associated infections
- contributes to the spread of multi-resistant organisms
- is a significant contributor to infection out-breaks.

This policy outlines the expectations, hand hygiene techniques and products that minimise transmission of hospital acquired infections.

Definitions:

Hand hygiene – is decontamination of the hands by one of two methods; handwashing with soap and water or using a waterless antimicrobial agent such as an alcohol-based hand rub (ABHR).

5 moments of hand hygiene - is the hand hygiene opportunities that prevent infection transmission linked to healthcare activities and the patient environment. The 5 moments are auditable for all staff in the national hand hygiene audits.

Surgical hand antisepsis – an extension of hand hygiene that is performed before donning sterile attire preoperatively. Removes or destroys transient microorganisms and inhibit the growth of resident microorganisms.

The Patient - includes any part of the patient, their clothes, or any medical device that is connected to or moves with the patient.

The Patient Surroundings or Patient Zone - This is the space that is temporarily dedicated to an individual patient for that patient's stay. This includes:

- Patient furniture and personal belongings
- Medical equipment – BP machine, monitors
- Medical chart if stored within the patient zone
- Anything touched by Health Care Workers (HCW's) while caring for that patient.

Objectives:

All workers in healthcare, who come into contact either directly or indirectly with patients through equipment or the environment, know how to perform hand hygiene practices according to the 5 moments of hand hygiene principles and apply these to their work area.

Work processes and the environment are designed for effective and efficient hand hygiene practices and support all people to perform hand hygiene.

Implementation:

- The provision and maintenance of hand hygiene and ABHR facilities at point of use as well as ensuring access to product throughout the hospital.
- Education of all staff, on the 5 moments of hand hygiene as part of their orientation and mandatory updates annually.
- Hand hygiene signage placed strategically throughout the hospital.
- Contractor hand hygiene education.
- Participation in the National Hand Hygiene auditing programme (HHNZ).

Evaluation:

- Housekeeping audits.
- Volume of hand hygiene products supplied.
- 5 moments of hand hygiene education, Health Learn and staff training records.
- Contractor induction, attendance records.
- New Staff Orientation, attendance records.
- HHNZ audit compliance reports, service area compliance reports.

Associated Documents

External

- Hand Hygiene New Zealand Implementation Guidelines 2013, Health Quality and Safety Commission
<https://www.hqsc.govt.nz/assets/Infection-Prevention/Hand-Hygiene/PR/HHNZ-implementation-guidelines-June-2013.pdf>
- Hand Hygiene New Zealand Auditing Manual 2019, Health Quality and Safety Commission
<https://www.hqsc.govt.nz/assets/Infection-Prevention/Hand-Hygiene/PR/Hand-Hygiene-New-Zealand-Patient-Participation-Guidelines.pdf>
- Hand Hygiene New Zealand Patient Participation Guidelines, Guidelines 2013, Health Quality and Safety Commission <https://www.hqsc.govt.nz/assets/Infection-Prevention/Hand-Hygiene/PR/Hand-Hygiene-New-Zealand-Patient-Participation-Guidelines.pdf>
- World Health Organisation Guidelines (WHO) on Hand Hygiene in Health Care, 2009
- Australasian Health Facilities Guidelines, 2016
<https://www.healthfacilityguidelines.com.au/full-guidelines>
- Lippincott Procedures – Hand Hygiene General [Lippincott Procedures](#)
- Guidelines for Perioperative Nurses, AORN, 2015

Internal

- Standard Precautions policy
- Product Evaluation policy
- Credentialing policy
- Hand Hygiene Products, Housekeeping Work Book
- Staff Orientation, SharePoint
- Patient Information Booklet
- Health and Safety Questionnaire, Contractor Induction and Information Booklet, Contractor Management Policy

Appendices

Appendix One – Hand wash and Hand Rub Poster

Appendix Two – 5 Moments for Hand Hygiene Poster

Process

Hand Washing

Use the following product:

- Plain liquid soap which is used routinely to clean soiled hands.

Alcohol-based hand rub (ABHR)

- ABHR decontamination rapidly kills and inhibits the growth of micro-organisms.

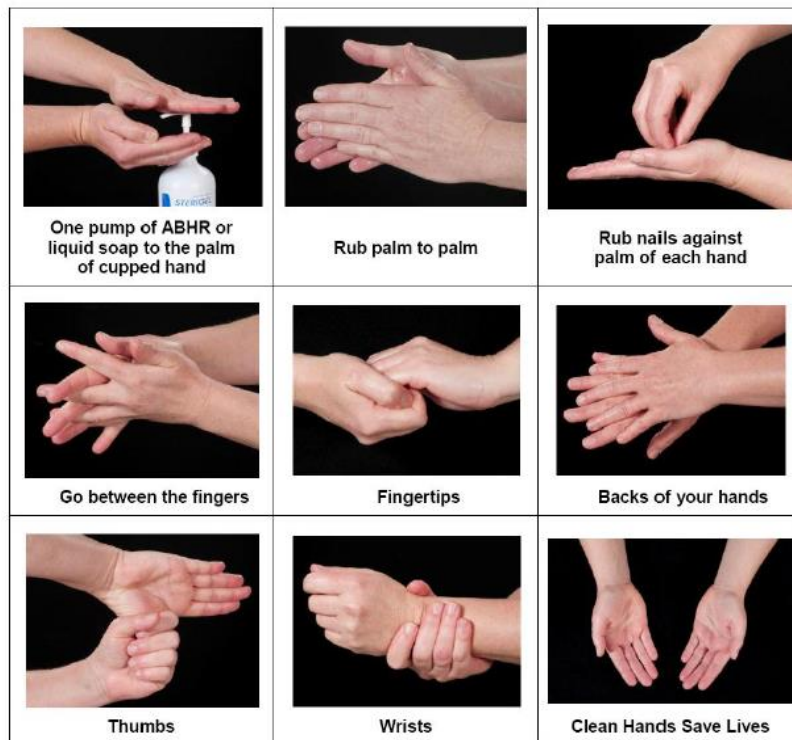
ABHR is not suitable when:

- Hands are dirty or visibly soiled with blood and body fluids
- After direct contact with patients with *Clostridium difficile* infection or their environment

There is no maximum number of times that ABHR can be used before hand washing is required. When the product starts to pill on the skin indicates time to perform hand washing.

Hand Hygiene Method:

The following method ensures complete coverage of the hands and wrists and is recommended for both liquid soap and ABHR (Appendix One).



General Points:

- All liquid soap and ABHR products must be approved by the Product Evaluation Committee
- It is important that the hand hygiene product used comes into contact with all surfaces of your hands including wrists
- Before performing hand hygiene ensure your arms are bare below the elbow
- Artificial nails and nail extenders are not acceptable in clinical areas
- Items worn below the elbows such as watches, and non-compliant jewellery are not acceptable in clinical areas
- Hand washing with liquid soap and water; water temperature is not a critical factor in hand washing. A warm temperature is recommended.
- A hand washing procedure will take on average between 15 and 30 seconds
- If foot or elbow controlled taps are not available, use a paper towel to turn off taps to prevent recontamination of the hands

- Pat dry hands afterwards with disposable paper towels:
 - Microbial re-growth occurs rapidly on damp hands
 - Inadequate rinsing and drying of hands can increase the risk of skin damage

ABHR

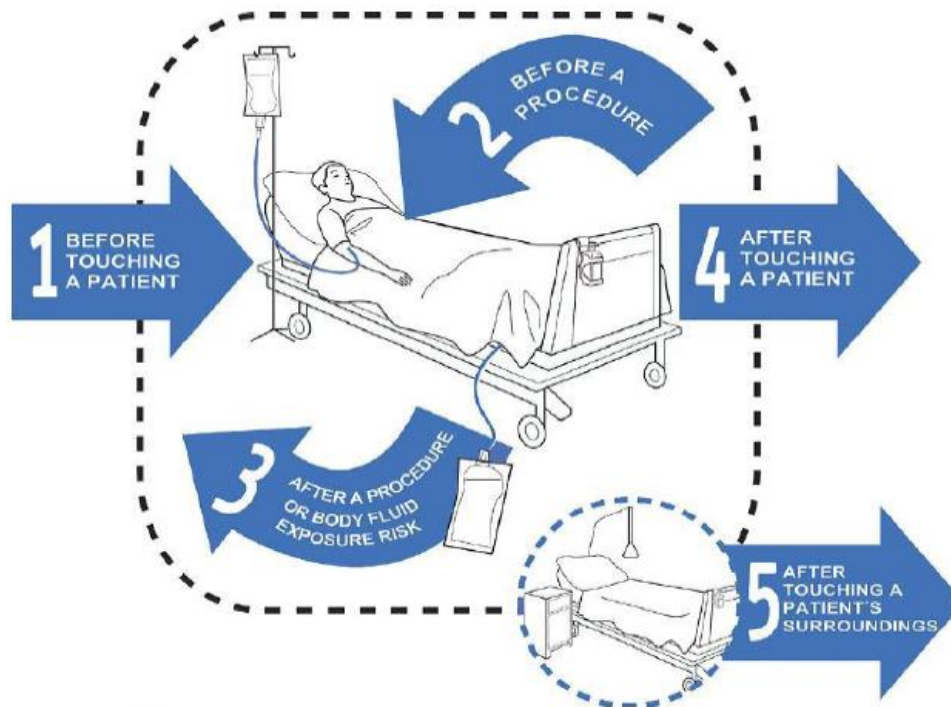
- Apply enough ABHR so it covers entire hands including wrists
- Continue to rub until hands are dry

The 5 Moments for Hand Hygiene

The 5 Moments for Hand Hygiene has been developed by the World Health Organisation (WHO) as part of a global campaign to improve hand hygiene practices and reduce transmission of pathogenic microorganisms to patients (Appendix Two).

It has been identified that hand hygiene is required for the following 5 Moments:

- Moment 1: Before patient contact
- Moment 2: Before a procedure
- Moment 3: After procedure or contact with body fluid exposure risk
- Moment 4: After patient contact
- Moment 5: After contact with patient's surroundings



The curtain is considered to be **OUTSIDE** the patient zone therefore hand hygiene must be performed after touching the curtain and before touching the patient.

Best Practice points for 5 Moments for Hand Hygiene:

- The use of either liquid soap and water or ABHR is acceptable for effective hand hygiene
- ABHR must be situated within the patient surroundings or zone to comply with 5 Moments for Hand Hygiene
- Placing ABHR at the end of each inpatient bed is recommended. In some areas this may not be practicable or safe and alternatives should be discussed with the Infection Prevention and Control Nurse.
- All staff must complete Hand Hygiene education. Clinical staff via online learning package at Health Learn during orientation and annually. All staff outside of the clinical category must complete education during orientation and annually through their area programme or the Infection Prevention and Control Nurse.

Hand Moisturising Lotions

- Use moisturising lotion to maintain healthy hand skin integrity and prevent dryness or irritation
- Moisturising lotion must be an approved hand lotion to avoid risk of incompatibility and/or inactivation of the active ingredients in hand hygiene products and gloves. E.g. moisturisers containing petroleum products are incompatible with some gloves.

Broken Skin Areas

- All broken skin areas (i.e. fresh unhealed cuts, burns or abrasions) must be covered with an adhesive water resistant dressing. If the broken area is on hands, gloves must also be used.
- HCW's with skin lesions or dermatitis should refrain from patient care duties until the condition is resolved. A HCW with persistent skin irritation of their hands should be referred to the Occupational Health Nurse.

Glove use

- Hand hygiene should always be performed before donning and after removing gloves
- Gloves must always be removed and discarded to perform hand hygiene in accordance with The 5 Moments for Hand Hygiene
- Never wash or 'clean' gloves using ABHR
- Gloves are single-use only.

Hand Hygiene Facilities

- Installation and maintenance of hand hygiene facilities is part of basic health care provision. Minimum compliance with Australasian Health Facility guidelines must be observed
- Hand hygiene solution containers (liquid soap, moisturising lotions) and ABHR containers must not be topped up or refilled
- Staff in wards and clinical areas are responsible for ensuring that ABHR is always available
- A sink used for preparing foods, food dishes, non-food utensils, instruments or discarding body fluids is not to be used for hand washing.

Surgical Scrubbing Hand Hygiene Technique

- A surgical hand scrub is the most effective method for preventing infections in patients undergoing surgical procedures.
- The purpose of a surgical hand scrub is to remove soil, organic material, and transient microorganisms.
- The skin can never be completely sterile, but it can be made surgically clean by reducing the microbial count to as close to zero as possible and by leaving an antimicrobial residue to prevent microbial growth for several hours.
- Surgical hand asepsis can be accomplished through use of an antiseptic surgical hand scrub or antiseptic hand rub.

Equipment

- Surgical scrub sponge
- Antimicrobial soap or waterless antiseptic hand rub
- Hands-free or foot- or knee-controlled scrub sink
- Disposable nail cleaner
- Surgical mask
- Sterile towel
- Sterile paper towel.

Implementation

- Perform hand hygiene before and after each patient contact.
- Examine your fingernails to ensure that they're short (no more than $\frac{1}{4}$ " [0.64 cm] long), clean, and healthy *because the areas underneath the fingernails have the largest numbers of microorganisms on the hands and long fingernails can prohibit proper hygiene*
- Inspect your hands for cuts, abrasions, and hangnails. *The serum oozed by non-intact skin is a medium for bacterial growth.*
- Remove jewellery from your hands and forearms, including rings, bracelets, and watches, *because they may contain microorganisms and can interfere with effective cleaning*
- Put on a surgical mask.
- Turn on the hands-free or knee- or foot-controlled sink faucet and bring the water to a comfortable temperature.
- Wet your hands and forearms.
- Use a hands-free or knee- or foot-controlled pump to dispense a small amount of antimicrobial soap into your hands and then add enough water to make lather.
- Wash your hands and forearms with antimicrobial soap and running water for at least 15 second *to remove surface debris.*
- Rub your hands together vigorously, covering all surfaces of the hands and fingers, *to loosen and remove dirt and transient microorganisms.*



- Clean under your nails using a disposable nail cleaner under running water.



- Rinse well *to remove all soap* before beginning the surgical scrub.

Antiseptic surgical hand scrub **using water, a scrub sponge, and surgical soap**

- Open the packaged scrub sponge and run it under water *to moisten it*.
- Dispense the antimicrobial soap and use the sponge to rub it onto your hands and forearms.
- Picture your fingers, hands, and arms as having four sides and scrub each side thoroughly with the sponge.
- Start with your fingernails and work your way up the fingers, paying particular attention to the web area between each finger *because bacteria and dirt can collect in this area*.
- Scrub the palm and back side of your hand, and then proceed to your wrist and forearm, finishing 2" (5.1 cm) above the elbow.

- Keep your hands above your elbows *to allow the water and debris to flow from clean to dirty.*
- Repeat the sequence with your other hand and arm.
- Complete a 3- to 5-minute scrub.
- Avoid splashing your surgical attire.
- Drop the sponge into an appropriate container without touching the container with your hands or arms *to avoid contaminating your newly scrubbed hands.*
- Rinse both hands and arms thoroughly, keeping your hands above your elbows *to ensure that water from your unwashed upper arms doesn't flow on to your clean forearms and hands.* Always rinse from fingertips to elbows.



- Holding your hands and arms in front of your body with your elbows slightly flexed to keep your hands above your elbows, enter the operating suite.
- In the operating suite, dry your hands and forearms thoroughly with a sterile towel.



Antiseptic hand scrub using waterless, brushless surgical antiseptic

- After performing hand hygiene, dry your hands with a disposable paper towel.
- Apply the appropriate amount of waterless, brushless, surgical antiseptic hand rub to the palm of one hand.
- Rub the antiseptic into your fingertips and then move on sequentially to all surfaces of the fingers, hands, and forearms; continue rubbing until it's dry.
- Repeat the process for the other hand, as directed by the manufacturer.
- Holding your hands and arms up in front of your body with your elbows slightly flexed to keep hands above your elbows, enter the operating suite.

Special Considerations

- Single-use scrub solution dispensing containers are recommended; discard them after use in an appropriate container.
- Artificial nails and chipped nail polish shouldn't be worn *because they may harbor microorganisms and prevent effective hand asepsis*. If nail polish is chipped, remove it before entry into the restricted area of the perioperative environment. Keep natural nails short (no more than ¼" [0.6 cm]) *because short nails collect less debris and reduce the risk of bacterial colonization*.
- Use facility-approved skin moisturisers *because some lotions contain ingredients that weaken latex gloves, such as petroleum*. Be aware that anionic-based products may counteract the antimicrobial effects of chlorhexidine gluconate and chloroxylenol.
- Follow the manufacturer's directions for the amount of antimicrobial scrub to use, the length of time required for the scrub, and the need to repeat the scrub.
- Use a scrub brush only if directed. A scrub brush is not required to lessen bacterial counts and can damage the skin, resulting in higher amounts of gram-negative bacteria and *Candida*. Evidence suggests that using friction maximizes the effectiveness of a surgical scrub.