

Policy Applies to:

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

Related Standards:

- Ngā Paerewa Health and Disability services standard NZS 8134:2021
- 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 outbreaks

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

Cultural Considerations:

Hand hygiene related to hygiene is expected as appropriate, however, there are instances where hand hygiene is appropriate beyond medical-related hygiene i.e., cultural reasons such as during rituals, ceremonies and symbolic hand washing. The left hand is considered unclean by some cultures as it is typically used in some parts of the world for personal hygiene, while the right hand is considered clean.

While alcohol-based hand rub is considered superior for the prolonged antimicrobial effect and skin integrity factors, some cultures may consider the use of alcohol-based products to be in contrast to their personal belief systems, and its use is influenced by external community factors which must be discussed on an individual basis.

Definitions:

Hand hygiene – The 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 - The international education and auditing standard emphasises that infection transmission is preventable by maintaining high levels of hand hygiene compliance. The 5 actions linked to healthcare activities and the patient environment are identified as the 5 most important for the reduction and prevention of hospital-acquired infections. The 5 moments are auditable for all those who work within the hospital.

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

Health Care Worker (HCW) – a person who works within a building providing healthcare or person who provides health care services either individually or collectively.

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 (HCWs) while caring for that patient
- An operating room, or procedure room
- In the Patient room or in shared patient areas, the space that is dedicated to the 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.

All workers that perform surgical procedures, know how to perform surgical aseptic hand hygiene according to the guidelines of the Australian College of Perioperative Nurses (ACORN) and Australasian Perioperative Nurses (AORN).

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 products throughout the hospital.
- Education of all staff, on the 5 moments of hand hygiene as part of their orientation and mandatory updates annually. Education is delivered via online courses suitable for the staff member's area of work and by education delivered by Hand Hygiene Gold Standard auditors or their nominated alternative.

- Hand hygiene signage placed strategically throughout the hospital.
- Contractor hand hygiene education.
- Organisation participation in the National Hand Hygiene auditing programme (HQSC).

Evaluation:

- Volume of hand hygiene products supplied.
- Staff training records.
- Contractor induction attendance records.
- New Staff Orientation attendance records.
- HHNZ audit compliance reports.
- Surgical Audit records
- Incident investigation

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
- Tautoko Learning Platform, education courses relevant to the job description
- Contractor Induction and Information Booklet,
- Contractor Management Policy
- Scrub vs Rub Project research and education and surgical aseptic technique competency

Appendices

Appendix One – Hand Wash and Hand Rub Poster

Appendix Two – 5 Moments for Hand Hygiene Poster

Appendix Three – Surgical Hand Asepsis: Scrub Brush Technique

Appendix Four – Surgical Hand Asepsis: Waterless Technique

Manufacturer Instructions for Waterless Surgical Hand Rub Application

Principles of 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 the transmission of pathogenic microorganisms to patients (Appendix Two).

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.

Process

Hand Washing

Use the following product:

- Plain liquid soap which is used routinely to clean soiled hands.
- Follow methodology in Appendix One

Alcohol-based hand rub (ABHR)

- ABHR decontamination rapidly kills and inhibits the growth of microorganisms.

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
- Follow the methodology in Appendix One

There is no maximum number of times that ABHR can be used before washing hands is required. Product pilling on the skin indicates the time to perform hand washing.

General Points for Social Hand Hygiene:

- 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 your 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 (plain metal rings are allowed) 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.

Surgical Hand Antisepsis

Surgical hand antisepsis is the most effective method for preventing infections in patients undergoing surgical procedures.

- Correct technique ensures members of the surgical team minimise the risk of surgical site infections (SSI). See Appendices One, Three (this method only applies with permission) and Four.
- The purpose of a surgical hand antisepsis 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 the use of an antiseptic surgical hand scrub or antiseptic hand rub, however, based on the literature and evidence reviewed on this topic, it is strongly recommended that Rub be utilised over scrub for surgical hand asepsis.
- Use of a scrub brush is no longer recommended and not routinely supplied by Mercy Hospital. 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.
- A HCW must seek approval of the Theatre Manager and or the Infection Prevention and Control Nurse for the use of Surgical Scrub products prior to use. Scrub brush approval will only be granted in special circumstances ONLY e.g. proven allergy to contents of both surgical ABHR.

Special Considerations for Performing Surgical Hand Asepsis

- The method chosen at the beginning of the day should be for all subsequent surgical rubs (scrubs) that day. This is because of the beneficial cumulative and sustained effects of each product.
- Artificial nails and chipped nail polish shouldn't be worn *because they may harbour microorganisms and prevent effective hand asepsis*. If nail polish is chipped, remove it before entering 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 other antimicrobials in use at Mercy Hospital Dunedin.
- Follow the manufacturer's directions for the amount of antimicrobial scrub or ABHR to use, the length of time required for the procedure, and consider the need to repeat the procedure in long cases where the product sustained effect on the reduction of resident flora is exceeded.