The Importance of Hand Hygiene

The skin on your hands is your first defence against infection from pathogenic organisms. Any cuts or lesions of the skin are possible sources of entry for bacteria and viruses so its care and hygiene are crucial for reducing your risk from acquiring an infection from a patient. Your hands are also the most likely way in which infections or microorganisms might be spread between patients, so simply washing your hands is the most effective method of preventing the transmission of infections.4

Handwashing technique

Handwashing is so routine and basic that it is often taken for granted. The following is recommended as an effective washing technique using a mild liquid soap4 and running water (hands should be wet prior applying handwash solution). Steps 2, 4, 5 and 6 should be repeated with the other hand. Finally pat them dry thoroughly on a clean towel or paper. This is a 10 to 15 second for social handwash which is required for all routine patient contact and about a one to two minute routine for an aseptic handwash.

Special attention should be paid to the more commonly missed areas such as finger tips, thumbs, wrist and between the fingers.5

1. Palm to palm.
2. Palm over dorsum.
3. Palm to palm, fingers interlaced.
4. Back to fingers to opposing palms.
5. Rotate thumbs in palm.
6. Rotate fingers in palm.
What to use for hand hygiene?

Soaps
Choose a plain neutral pH soap with no added substances, like strong perfumes or alcoholic drying chemicals. These additives may dry out the skin, especially if you wash frequently. Plain soaps products are available in different forms such as liquid preparations, impregnated tissues or bar soaps (not recommended due to possible risk of bacterial growth on them). If liquid soap is selected, use dispensers with disposable cartridges and disposable dispensing nozzles to reduce the potential contamination of the soap.4

Alcohol-based waterless handrubs
Alcohol based handrubs/gels (AHR) can be as effective, require less time, act faster and cause less skin irritation than soap or antiseptic soaps.1 However, if hands are visibly soiled they must be washed with soap and running water. AHRs are available in different formulas such as low viscosity rinses, gels or foams.

Alcohol itself does not confer persistent antimicrobial activity, but there are formulas that include other agents (such as chlorohexidine or triclosan) that may offer this quality.

Alcohol-based waterless handrub technique
The recommended handrub procedure involves the same manoeuvres as for handwashing, making sure that the product covers all the skin surfaces and it is allowed to dry completely.

Antimicrobial agents
Prior to performing any non-surgical procedure that requires aseptic technique, an antimicrobial agent should be used. This can be in the form of an AHR, or a more traditional antimicrobial agent requiring a water based technique, such as chlorhexidine, triclosan or povidone-iodine.

When assisting with or performing invasive surgical procedures, a surgical handwash routine, following your facility's policy, must be used.

Other aids
Your skin’s impermeability to pathogenic organisms is only maintained while it is intact. Cuts, abrasions, lesions and dermatitis should be covered by a waterproof occlusive dressing for extra protection. If you handle body substances or ‘suspect’ material, and you have lesions that cannot be covered, you should always wear gloves, remove them immediately after caring for a patient and wash hands in order to avoid possible transmission of microorganisms from one patient to another.1 Gloves are not a substitute for handwashing.4

Use a good-quality moisturising cream to restore your hands if they get ‘washed out’. Moisturising or barrier creams and lotions can prevent or minimise the skin’s dryness and irritation caused by hand-hygiene products by maintaining the quality and integrity of the skin. Hand creams should be water-based, not oil-based as the oil can degrade gloves.2 Staff in the sterilising department should not use hand creams whilst at work due to the potential contamination of instruments during handling and inspection together with a possible compromise of the packaging integrity.3

Fingernails are recommended to be kept short and clean as the nailbed and adjacent nail area (1mm) contains high bacterial concentrations. Artificial nails should not be worn when performing invasive procedures that require surgical scrub or when in contact with patients at high risk,1 as they contribute to increased bacterial counts. This also applies to the wearing of jewellery such as rings and wrist watches as the skin underneath presents higher bacterial counts when compared with the same area without these types of accessories.1

Bibliography