

## Laboratory Safety Information Sheet 6

# Hand Washing in Laboratories involving the Handling of Microbiological Specimens, Body Substances and Fluids Instructions for Students

---

High standards of hygiene are required for all procedures involving microbiological specimens & cultures and body substances & fluids.

### Activities which can cause contamination include:

- Direct contact with body secretions or excretions, microbiological cultures & specimens
- Handling equipment or instruments soiled with blood, other body substances, or microbiological cultures & specimens
- Going to the toilet

### Handwashing

- Alcohol and other disinfectants alone are not good cleansing agents and are not recommended for direct use especially in the presence of physical dirt or organic matter. Detergents are used to break down organic matter and dirt and therefore should be used prior to any use of disinfectants in or used in combination with a disinfectant.
- A neutral pH soap (with no added substances which may cause irritation and dryness) should be used for routine handwashing.
- If liquid soap is dispensed from re-usable containers, the containers must be cleaned out and dried prior to refilling with fresh soap.
- Scrub brushes should not be used as their use may result in abrasion of the skin, and they may be a source of infection.
- Disinfectant soaps and washes should only be used when aseptic techniques are required.
- Antiseptic prepared sponges should be used if surgical 'scrubs' are required.

Refer to Table 1 below, and Diagram for handwashing procedures and technique posted in each laboratory.

### Gloves

- Gloves should be used as an adjunct to hand washing when contamination of hands with blood or body fluids is anticipated. Gloves must be changed and hands washed after handling of body fluids.
- **Gloves must NOT be washed and used again.** A new pair of gloves must be used for each practical class, and when glove have been removed between procedures.
- Gloves must be discarded immediately after use, their correct disposal being governed by the procedures for which they had been used.

## Field Emergencies

- In field emergencies when handwashing facilities are limited or not available, it is advisable to use a detergent-containing towelette to clean the hands.
- If disinfection is required detergent-chlorhexidine hand washes, rinses or foams should be used, or detergent-containing towelettes can be used followed by the application of a disinfectant towelette or single-use sachets of chlorhexidine.
- The application (and disposal) of gloves should be the same as for 'in-house' laboratory use.

**Table 1: Hand Washing Procedures**

The following table is reproduced from Infection Control in the Health Care Setting, NHMRC/ANCA, April 1996.

Type	Technique	Duration	Drying	Example (when)
Routine hand wash.	<p>Wet hands thoroughly and lather vigorously using neutral pH soap. Rinse under running water.</p> <p>Do no touch taps with clean hands - if elbow or foot controls are not available, use paper towel to turn taps off.</p>	10-15 seconds.	Pat dry using paper towel.	<p>Before eating.</p> <p>After going to the toilet.</p> <p>Before significant contact with patients, e.g. physical examination, emptying a drainage reservoir (catheter bag).</p> <p>Before injection or venepuncture.</p> <p>Before and after routine use of gloves.</p> <p>After handling any instrument or equipment soiled with blood or body substances.</p>
Hand wash prior to aseptic procedures (non-surgical).	<p>Wash hands thoroughly using an antimicrobial soap or skin cleanser. Rinse carefully.</p> <p>Do no touch taps with clean hands - if elbow or foot controls are not available, use paper towel to turn taps off.</p>	1 minute.	Pat dry using paper towel.	
Surgical wash.	<p>Wash hands, nails and forearms thoroughly and apply anti-microbial skin cleanser (containing 4 per cent w/v chlorhexidine or detergent based povidone iodine containing 0.75 per cent available iodine). Rinse carefully, holding hands above the elbows to allow water run-off to drain from the hands down the arm rather than from elbows and forearms draining over hands.</p> <p>No-touch techniques apply.</p>	First wash for the day 5 minutes and subsequent washes 3 minutes	Dry with sterile towels.	