

# Scrubbing, gowning and gloving

## Overview

Adherence to an approved surgical hand washing, gowning and gloving protocol is vital for good asepsis and patient safety. The techniques demonstrated in this module represent one approved way of doing this.

### 1 Universal precautions

The UK Department of Health recommends that regardless of a patient's age, ethnicity, gender, background or lifestyle, healthcare workers should treat all blood and some body fluids from all patients as potentially infectious all of the time. This practice is known as Universal Precautions. Universal Precautions protect both staff and patients from hospital acquired infection.

Every healthcare setting will have its own Universal Precautions and/or Standard Infection Control policy covering personal protective equipment and hand hygiene amongst other things. You should make sure you are familiar with the policy.

You'll find useful links to regional guidance in the Support Materials section of the course.

### 2 Preparation

All theatre clothing, except for eye wear, is primarily designed to protect the patient by maintaining asepsis. Its secondary function is to protect the surgeon. Patients may be unaware of their viral status, so all patients must be considered as carrying a risk. You should therefore use the same precautions for all: gown, mask, cap, eye wear and gloves.

Your nails should be trimmed and short, and no false nails should be worn. A single wedding band is the only jewellery allowed in theatre.

#### 2.1 Hats and masks

Cover your head with a cap or, if you have a beard, a hood.

If you do not wear glasses, ensure you wear clear protective glasses or a mask with a visor.

You should wear a mask to protect you from any splashes of blood or body fluid, as well as to protect the patient. Pinch the metal nose band so that the mask fits snugly on your nose. This stops your breath going upwards and misting up your glasses. Tie the mask tightly on the upper ties and loosely on the lower ties.

## 2.2 Gloves

Choose gloves that fit well: if they are too loose you won't have sufficient control and if they are too tight you may get hand fatigue.

Try to stick to one type and make of glove if possible as it will make it easier to change to another brand if you develop an allergy. Latex free gloves should be available if you have a latex allergy.

For procedures where asepsis is crucial (such as prosthetic surgery), or where there is a risk of puncturing gloves, double gloving may be necessary. If you are double gloving, for optimum comfort and dexterity your inner pair of gloves will need to be half a size larger than your usual size. If your outer gloves are larger than your inner pair then you may experience slipping problems.

## 2.3 Scrub solutions

There are two commonly used solutions for scrubbing: Aqueous Chlorhexidine and Aqueous Iodine. Both will have a long lasting bacteriocidal effect. Some people have an allergy to iodine, so it is better to start with the Chlorhexidine scrub. These fluids are dispensed by pressing on the lever with your elbow.

## 3 Hand washing (scrubbing)

Before you wash your hands, peel back the outer cover of your selected gown and lay it on a flat surface. Don't open the inner pack. Now open the outer cover of your glove pack and lay alongside the gown. Another (better) option is to ask the circulating nurse to open the glove pack and to drop your gloves onto the opened gown pack once you have finished washing your hands. This reduces the risk of contamination of the gloves.

Open a sterile scrubbing brush and place this by the sink where you will be scrubbing in, as it is difficult to open the pack once your hands are wet.

Your scrub sink will have taps with elbow levers. Turn on the taps and make sure the flow of water is the right temperature and not too fast.

Wet your hands and forearms up to the elbow. Hold your hands upwards with the elbows downwards, to ensure that contaminated water from your elbows does not flow to the hands. Then apply two squirts of scrub solution using the elbow handle on the dispenser.

Apply another squirt of solution to the scrubbing brush and scrub your cuticles, finger and thumb nails for one minute. Scrubbing is only required for the first hand wash of the day, or if your hands become contaminated.

Put the scrubbing brush in the bin and rinse off your hands and forearms.

Apply another squirt and then perform seven separate steps to make sure all areas are adequately cleaned:

- 1 **Palms.** Rub your hands palm to palm with straight fingers.
- 2 **Fronts of fingers.** Rub your hands palm to palm with fingers interlaced.
- 3 **Backs of fingers.** Rub one palm against the dorsum of the other hand with the fingers interlaced, and vice versa.
- 4 **Ends of fingers.** Grasp the bent fingers of one hand with the bent fingers of the other. Rub the backs of your fingers with the palm, and vice versa.
- 5 **Thumbs.** Grasp one thumb with your other hand and rotate your thumb to wash it, and vice versa.
- 6 **Fingertips.** Rub the palm of each hand with the fingertips of your other hand.
- 7 **Wrists.** Rub each wrist with the other hand, in a circular fashion.

Now rinse your hands and arms, making sure the hands are uppermost. There is no need to scrub your arms and hands with a scrubbing brush. This has been found to make the skin sore and can disturb the normal flora of the skin.

Apply a further squirt of scrub solution and repeat the seven step wash once more.

Rinse your hands and arms again, making sure your hands are uppermost. Turn the taps off with your elbows.

#### **4 Putting on your gown**

Holding your hands up, move to the surface where you have put your gown pack and gloves. Carefully open the inner gown pack. Inside the inner pack there will be two paper hand towels. Take the first towel, open it out and, with your hand behind the towel, dry the first hand. Change hands and dry the second hand. Take great care to dry between your fingers.

Then take the second towel and again, with your hand behind the towel, oscillate the towel down the arm towards the elbow. When you reach the elbow, change hands and repeat the process with the other hand. Never rub the towel up and down the arm. Put used towels in the bin.

Your gown will be folded with the inside of the top facing you. Place your hands inside the gown and push your arms into the sleeves. Standing well back from the trolley, gently shake the gown open, making sure that you hold it up high enough that it does not touch the floor.

Still holding your arms upwards, ask a non-scrubbed assistant to tie the neck and back tapes for you. Keep your hands inside the sleeves so that you do not compromise your gloving technique to come.

#### **5 Putting on your gloves**

The technique described here is called the Closed Gloving Technique. The scrubbed-in person's hands

remain inside the sleeves until the gloves are over them.

Move to the trolley or surface where you have placed your glove pack. With your hands still inside the sleeves of your gown, open the glove pack and turn it so that the fingers of the gloves are facing you.

The left half of the glove packet contains the glove for your right hand. Using your right hand, pick up the cuff of the glove through your gown and rest it on your right hand inside your gown, so that your palm is facing upward and the finger section of the glove is facing towards you. With your left hand, grasp the other side of the glove cuff through your gown and slide your right hand through the cuff into the glove.

Now use the same technique to glove your left hand. With your left hand, grasp the edge of the glove cuff through your gown, and use your gloved right hand to grasp the other edge of the cuff. Bring the cuff of the left hand glove over the cuff of the gown sleeve and slide your left hand into the glove. Once you have applied your gloves, your hands should remain in front of you and above your waist at all times.

To complete gowning and gloving, grasp the paper tag at the side of your gown and detach the short tie. Hold the short tie in your left hand and pass the Theatre Nurse the paper tag attached to the long tie. Rotate 360 degrees and pull the long tie away from the paper tag held by the Theatre Nurse. Tie the two ends together.

## **6 Taking off your gown, gloves and mask**

It is important that you take off your gown and gloves in a safe way, to avoid potential contamination of yourself and others.

Undo the tie at the front of your gown and if possible, ask an assistant to undo your neck and back ties. If an assistant is not available then pull the neck and sides of the gown to break the ties. Roll the gown down your arms over your gloved hands, so that the gown is turned inside out. Finally, remove your hands from the gloves whilst leaving the gloves inside the gown. Roll the gown into a ball and place it in a bin designated for contaminated waste.

Taking hold of the ties of your mask at the side, break them and deposit the mask in the bin. Now wash and dry your hands, or use an alcohol solution to clean.