

Preparation of Staff

The following is an extract from *Standards and Recommendations for Safe Perioperative Practice (Fifth Edition)*, Section 5.1 (Section title: Infection Prevention and Control), published by The Association for Perioperative Practice.

STANDARD

All staff entering restricted areas of the operating department wear designated theatre attire to minimise the risk of infection to themselves and the patient. Designated theatre attire minimises the risk of exposure of staff and patients to infection.

Although surgery takes place in numerous types of settings, a patient's surgical outcome is greatly influenced by establishing and maintaining an aseptic environment. All staff must ensure the minimisation of microorganisms introduced into the perioperative setting, e.g. by maintaining personal hygiene, wearing the designated theatre attire correctly, reporting potential health problems and monitoring visitors. Local policy needs to show consideration for the issues surrounding cultural and religious beliefs in the wearing of theatre attire and should consult the local infection control team to balance cultural needs with patient safety (AfPP 2007). All departments must have written procedures that state the correct protocols for preparation of all staff and visitors upon entering and leaving all areas of the perioperative environment. Staff must be made aware of these policies and procedures (DH 2015).

The purpose of theatre attire is to provide a barrier that protects the patient from microorganisms shed into the environment from surgical staff, and to protect the outside environment from theatre contaminants. Theatre attire is also a means of identifying theatre staff. The National Institute for Health and Care Excellence concluded that all staff should wear specific theatre wear in all areas where operations are undertaken (NICE 2019).

Personal protective equipment (PPE) should be worn as per standard precautions and health and safety guidelines (HSE 2015). Employees have a responsibility to cooperate with any measures that their employer may take to protect their health in the workplace.

RECOMMENDATIONS FOR LOCAL POLICY

Theatre attire

Theatre attire is designed to minimise the transfer of microorganisms from the mucous membranes, skin and hair of the surgical team to the patient. It also provides the surgical team with some protection from exposure to blood and body fluids from the patient. When selecting theatre clothing, it is important to consider the quality of material in relation to the dissemination of airborne bacteria and bacterial strike-through. More closely woven materials such as disposable gowns and drapes minimise the dispersal of microorganisms from the skin of the wearer and are associated with lower risks of surgical wound infection (Al-Hashemi 2013). The barrier properties of linen degrade with washing and gowns and

drapes must be replaced after a certain number of wash cycles, as per manufacturer instructions (Woodhead et al 2002).

5.1.1 Surgical drapes and gowns must be waterproof, disposable or reusable and meet the European standard for surgical clothing and drapes (BS EN 13795-1:2019) for resistance to wet and dry bacterial penetration (BSI 2019).

5.1.2 All staff entering restricted areas of the theatre suite should don clean theatre attire, e.g. hats, cotton scrub suits/disposable scrub suits, non-slip antistatic shoes etc. Clean attire must be donned before every re-entry to restricted areas, according to local policy (AORN 2019).

5.1.3 Changing rooms should be situated in an area adjacent to the restricted/semi-restricted area of the theatre suite and reached through an exterior corridor.

5.1.4 Changing areas should ensure privacy and have wash/shower facilities available. Changing areas should also have adequate provision for storing personal and theatre clothing. Storage areas should be clean and dry.

5.1.5 Sufficient supplies of theatre clothing should be provided daily, and clean theatre clothing should be protected from possible contamination during transfer and storage.

5.1.6 Theatre attire should consist of a two-piece trouser suit. It should also be:

- made of a close-knit material with antistatic properties
- resistant to fluid penetration/bacterial strike-through
- flame-resistant
- lint-free, as lint can increase the number of airborne particulates
- coloured, to reduce glare
- cool and comfortable with maximum skin covering
- professional in appearance.

5.1.7 Theatre attire should be provided freshly laundered and in good condition.

5.1.8 If theatre attire becomes wet or soiled it must be removed immediately and placed into containers designated for contaminated laundry, to reduce the potential for cross-contamination. If there is extensive contamination of the body, then a shower should be taken before clean attire is donned.

5.1.9 Soiled attire should be laundered in a healthcare accredited facility. Home laundering is not recommended, as it cannot be monitored for quality, safety or efficiency (AORN 2019).

5.1.10 Theatre attire should be changed following environmental cleaning of the operating theatre



and before the commencement of a new operating list.

Cover gowns/laboratory coats

5.1.11 Theatre attire should be removed before leaving the theatre environment and placed into an appropriate container. When leaving the clinical area, staff should change into their outdoor clothes.

- Fresh, clean attire should be donned on return to theatre.
- Used theatre attire should not be stored in lockers for further use.
- Theatre attire should not be worn outside the clinical area or in public places.

5.1.12 If theatre staff are required to leave the theatre environment without changing, fully fastened and clean disposable over-jackets may be worn, as determined by the local infection control policy. If this is an authorised practice, then a sufficient supply of clean cover gowns must always be available. There is currently little evidence showing that the wearing of cover gowns reduces the risk of surgical site infections (Woodhead et al 2002). A risk assessment in these situations can best determine the course of action required by the individual practitioner. It is recommended that clean theatre attire is donned before participating in additional clinical intraoperative work.

5.1.13 Any cover gowns used should either be disposable and non-woven or reusable and woven (WHO 2016).

5.1.14 All staff should wear appropriate theatre attire and restrict their movements in and out of the operating theatre (NICE 2019).

Laundering of theatre attire

The purpose of laundering is to remove and kill microbes present in the fabric. All processed linen should be visibly clean without discolouration or staining (HPS 2018). The BS EN 14065 is a European standard that provides a system for ensuring the microbiological quality of processed linens (DH 2016b). The Department of Health provides a framework for local policies

and procedures concerning the decontamination of linen in health and social care (DH 2016).

5.1.15 Contaminated linens should not be processed in domestic machines, as they are not typically programmed for thermal disinfection (HPS 2018). Soiled linens should be washed at 65°C with a minimum 10 minute wash cycle or 71°C with a minimum 3 minute wash cycle (HSE nd).

5.1.16 Linen segregating systems should implement colour coding in line with the local policy to ensure that clean, used, heat-labile and infectious materials are separately processed.

5.1.17 Infectious linen from suspected or confirmed category 4 infections, e.g. viral haemorrhagic fevers, should not be returned to the laundry. They must be disposed of according to the local waste disposal policy (HPS 2018).

5.1.18 Laundry should be contained in clean and dry containers during transfer to and from theatres.

References and further reading

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