

Information for Trusts about TheatreCapChallenge hats (Draft policy as appendix)

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A description of the issue

In operating theatres, delivery suites and similar settings, there is a requirement for staff to cover their heads and keep any hair covered. This applies even to those who have no hair. This is part of the ordinary uniform for staff. This part of the uniform does not come into contact with patients. There is a requirement that the hat is clean. The most common arrangement in Higher income countries is to have disposable hats, thrown away at the end of a shift. This is in contrast to the rest of the uniform in theatres, which usually consists of "scrubs" – a top and trousers made of cloth. The scrubs are commonly laundered by the hospital and changed at the end of a shift or when visibly soiled. For completeness, the other common item of uniform is theatre shoes. Usually, each surgeon, anaesthetist or other staff member has their own theatre shoes (trainers or clogs) kept in a rack or locker and cleaned on occasion.

Some theatre staff scrub their hands and don a gown and gloves to perform the operation or work in the sterile area. Any name badge or lanyard cannot be seen. Operating theatres are used intensively, and personnel often change, for example to allow staff to take breaks, to cover leave, or to allow operations to occur across 168 hours per week. It is difficult to remember staff names and role, especially if they have scrubbed and have a gown on. Teams work better if team-members know each other's name and role. This helps with expectations and emergencies.

There are several issues:

- Theatre staff may not know or remember each other's name
- Theatre staff may mistake what role another staff member is doing. Many make assumptions about what another's role is. This is unconscious bias. This may mean a surgeon is mistaken for a nurse, for example.
- There is a clear NHS Employers policy on uniform and religion (NHS Employers, 2018). Despite this, staff who choose to wear head-coverings, such as a hijab, as part of their religion often feel excluded. There is no clear way of dealing with their head covering. Many female Muslim medical students report not being permitted to scrub in for an operation whilst someone works out whether their head-covering can be covered with a disposable hat, or several hats. This is demeaning for these students.
- Theatre staff may feel literally "nameless and faceless" despite working in the operating theatres for a number of years. They can feel they lose their identity. The identical uniform and disposable hat may reinforce their factory-worker feeling, which contrasts with the passion and individuality they feel for their role. They may feel burnt out or despondent having to explain their role to every new member of staff, or have their name forgotten if they have not worked with someone for a number of weeks.
- Patients within the theatre environment do not know who is who. They may have met the surgeon and anaesthetist
 on the ward, but might not recognise them when the staff are all in identical uniforms and the patient has been
 deprived of hearing aids, contact lenses and/or spectacles.
- The disposable hats go to landfill, creating more waste.
- Ensuring a supply of disposable hats currently incurs issues with supply, delivery, transportation, ordering and cost for each hospital. The NHS has a large environmental impact and measures to improve sustainability should be considered (Sustainable Development Unit, 2014).

The cloth theatre hat or cap

- Theatre hats have been manufactured out of cloth, in individual colours or patterns. These make staff feel more self-respect. The staff have several and launder them themselves.
- Many of these theatre caps can have a name and role added. This allows other members of the team to identify
 them and request tasks.



Literature review

There is a body of literature covering different aspects:

Around theatre staff forgetting names and teams working better when names are visible on hats and individual staff members are identifiable.

There is increasing evidence that teams work better if people know that having a name and role displayed on their theatre cap is effective, as the #TheatreCapChallenge (Hackett, 2018). Other literature has focussed on the teams working better if people know each other's name and role (Leonard et al, 2014, Bobb et al, 2017). Patient safety may be improved if there is no doubt about name and role, especially with changes of personnel during an operation or in an emergency. Some studies show theatre staff forget 30-50% of names even after briefing (Birnbach et al, 2017; Burton et al, 2018). Having clarity about the expectations for each student or staff member increases respect and reduces bullying (RACS, 2016). Education may be improved if staff know a person's role, eg identifying a medical student.

Around unconscious bias

There is evidence that people are treated differently if others do not realise their role (RCSEng, 2016). Unconscious bias means people guess if they are not sure (RCSEng, 2016). Medical students in particular often feel ignored in surgery (Sutton, 2014). If medical students have a surgical placement with low interactivity, they feel negative towards the specialty in the future (Sutton et al, 2014). Female medical students, doctors and surgeons frequently report being mistaken for other staff; those who wear a headscarf also report theatre staff not knowing what to do. Hijab-friendly versions of Theatre Caps (eg labelled "medical student") may improve their inclusion in the team.

Around infection control

There is good evidence that cloth hats do not increase the risk of infection to patients, providing that they are washed daily. Cloth hats were found to be superior to disposable hats in terms of infection risk when tested in simulated operating theatre environments (Markel et al, 2017a; Markel et al, 2017b). In America, several research reports noted to a change to disposable bouffant hats resulted in increased Surgical Site Infections compared with the previous theatre hats that were cloth hats or disposable skull caps (Shallwani et al, 2018; Farach et al, 2018; Haskins et al, 2017).

Around landfill

There is some evidence that viscose used to manufacture paper hats is a risk to the environment when it degrades. There is a strategy to improve the sustainability of procurement (Sustainable Development Uni, 2014).

Organisations that have approved the use of cloth hats

Other organisations have approved the use of cloth hats, including the American College of Surgeons (ACS, 2016) and the Association for Peri-operative Practice (AFPP, 2018). There is precedent for treating this under an NHS Dress code or Uniform policy (NHS Employers, 2018).

Practicalities

Where cloth theatre hats are in use, practicalities need to be considered. A clear policy is best; this should include:

- Each staff member is advised to purchase at least three hats, to allow for laundry rotation
- The name may be first name or surname or both. The role should be stated.
- The Theatre Cap is covered by a standard NHS Dress Code or Uniform policy, for example:
 - O A new hat should be worn daily, or changed more often if contaminated
 - O Dirty Theatre Caps should be transported separately from clean Theatre Caps



- The Theatre Caps should be washed at 60o Centigrade or at 40o Centigrade and tumble-dried or dried on a washing line in sunlight and ironed.
- Staff should not wear the item out of work.
- O Staff should not be seen smoking in uniform.
- Some hospitals use colour-coded Theatre Caps to signify role, but there is no standardisation of this.
 Local guidance may be useful.
- It is better if the Theatre hat contains no natural latex (FDA, 2014; HSE, 2018)

Where cloth hats are in use, funding may be an issue (with a cost for each cap purchased). Some NHS Trusts (eg Portsmouth) have arranged bulk orders using charitable funds.

Conclusion

There is evidence showing that named cloth Theatre hats for staff are highly effective in improving communication and patient safety and that large studies confirm infection risks are reduced compared with paper hats. A clear policy is useful to ensure that staff are supported, especially in having enough hats, having a laundry strategy and a plan for transportation and storage of the hats. This policy may be an addendum to the Trust uniform policy (see example Appendix 1).

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Appendix: Suggested wording for Nris Trusts or other organisations about the Theatre cap	
(Use The Downloadable Version Here)	
Draft Cloth theatre cap policy as addendum to Trust uniform policy	
Date:	Ratified by:

Cloth Theatre caps that are personalised and reusable are welcome in NHS Trusts, to help maintain the individuality of teamworkers and to help identify them by name and role. This improves communication and reduces uncertainty, bias, embarrassment and errors. Large studies have shown that cloth Theatre caps reduce bacterial shedding and reduce patients' surgical site infections.

For those staff members intending to use a cloth Theatre Cap, the following apply:

1. It is advisable to purchase at least 3 cloth hats, to allow for laundry rotation.

- 2. If writing is on the hat, it should be clear, including name and role. The name may be first name or surname or both. The role should be stated.
- 3. The Theatre hat is covered by a standard NHS Dress Code or Uniform policy
- 4. Staff should not wear the item out of work.
- 5. Staff should not be seen smoking in uniform.
- 6. The Theatre hat should cover all hair.



- 7. A clean Theatre cap should be worn for every shift. It should be changed during the shift if contaminated.
- Clean hats should be transported to work in a clean container. Used caps should be transported home in a
 container separate from the clean hats. Sufficient clean hats should be brought so spares are available for any
 contamination episodes.
- 9. Offensive designs are not permitted.
- 10. The Theatre hat should be washed at 60o Centigrade or at 40o Centigrade and tumble-dried or dried on a washing line in sunlight and ironed.
- 11. For those wearing a head-covering for religious purposes, a theatre cap that covers the neck is permitted.

For the Trust:

- 1. The Trust welcomes the improvement in communication that individualised hats bring, especially those that have the staff member's name and role written on them.
- 2. It is noted that charity funds pay for theatre caps in some Trusts and this option may be worth considering.
- 3. A leaflet about how to obtain cloth theatre caps should be given to all new staff starting in these areas.
- 4. Consideration should be given to creating a store of cloth theatre hats marked "medical student" "visitor" and "student" to lend to students or visitors. This needs a laundry schedule to ensure these items are available, cleaned and returned.
- 5. Some hospitals use colour-coded Theatre Caps to signify role, but there is no standardisation of this. A local policy may cover this.
- 6. It is recommended that the Theatre hap should not contain "Natural Rubber Latex". This item does not create aerosols and is not in contact with a patient. It could be regarded as similar to staff-member's other garments (bras, socks and underpants) for which there is no requirement to be manufactured without latex. This is an advisory recommendation.
- 7. If the theatre cap is intended by the manufacturer to be a Class 1 medical device, it should be stamped with a CE mark. If it is not, it should be clean and well-constructed. Trusts and staff are permitted to purchase and use theatre hats that have not been marketed as medical devices and to consider the risks and benefits.