

What's New in the Patient Safety World

March 2020

Ditch the Bouffant?

In 2014 AORN (Association of periOperative Registered Nurses) issued its revised guidelines for surgical attire. There were several recommendations that met with considerable controversy. Two of those were the requirement to wear a bouffant rather than other head covering in the OR and to wear a garment that covered the arms in the OR. A third recommendation was that personal clothing should not be worn beneath scrubs. The Joint Commission and other regulatory agencies began enforcing those recommendations. Surgeons and anesthesiologists pushed back considerably, particularly about the head covering issue which effectively banned the traditional surgical skull cap, citing the lack of a strong evidence base for these practices. We discussed the disparities between the AORN guidelines and those issued by the American College of Surgeons ([ACS 2016](#)) in our September 2016 What's New in the Patient Safety World column "[American College of Surgeons Statement on Operating Room Attire](#)".

Taking all arguments into consideration, AORN published updated guideline for surgical attire in July 2019 ([AORN 2019](#)). That new guidelines say no recommendation can be made for the type of head covers worn in the semi-restricted and restricted areas. It also says that no recommendation could be made regarding long sleeves, with the exception that long sleeves should be used when performing skin antisepsis. And it left the issue of personal clothing underneath scrubs up to individual hospital policy.

Timely is a study done at the University of Alabama at Birmingham ([Wills 2020](#)). Researchers there were able to track SSI's (surgical site infections) during 3 separate time periods, one in which neither bouffants nor surgical jackets were required, one during which long-sleeved surgical jackets were mandated, and another during which both surgical jackets and bouffants were required. They looked at over 34,00 inpatient surgical cases over a 22-month study period. They found no significant difference in the risk of SSI (1.01% vs 0.99% vs 0.83%), mortality (1.83% vs 2.05% vs 1.92%), postoperative sepsis (6.60% vs 6.24% vs 6.54%), or wound dehiscence (1.07% vs 0.84% vs 1.06%) between the 3 groups.

They estimated expenditure of more than \$300,000 annually on surgical jackets. Bouffants were found to be less expensive than surgical skull caps. They conclude that

surgical jackets and bouffants are neither beneficial nor cost-effective in preventing SSI's and that institutions should evaluate their own data to determine whether recommendations by outside governing organizations are beneficial and cost-effective.

A thoughtful editorial ([Dipp Ramos 2020](#)) accompanying the Wills paper reminds us that there are other common-sense recommendations regarding attire:

- A cloth cap needs to be frequently laundered.
- Headgear, mask, and shoe covers should be removed outside the restricted and semirestricted areas and new ones used when reentering the OR.
- Wearing scrubs from home into the OR should not be allowed.
- Scrubs should be changed or covered with a protective coat when leaving the restricted areas in between cases.

The issue of transmitting pathogenic bacteria is serious and such transmission can take place in both directions (i.e. from hospital to home, or from home to hospital). Mitchell and colleagues ([Mitchell 2015](#)) summarized the literature on the role of apparel worn in healthcare settings in the acquisition and transmission of healthcare-associated pathogens. In some countries all laundering of healthcare workers' uniforms is carried out in-house under regulated conditions. Laird et al. ([Laird 2018](#)) discussed in detail the issue of domestic laundering of nurses' uniforms vs. hospital or commercial laundering and noted the following rules that should be followed if healthcare attire is laundered at home:

- A minimum temperature of 60°C should be used in a wash cycle of at least 10 minutes
- Uniforms should be stored (pre-wash) and washed separately from other items
- Healthcare uniforms should always be laundered after every shift
- A detergent should be used

In our February 2014 What's New in the Patient Safety World column "[SHEA's New Recommendations for Hospital Attire](#)" we discussed the guidance statement from the Society Healthcare Epidemiology of America (SHEA) for hospital attire **outside the OR** ([Bearman 2014](#)). The guidance attempts to balance professional considerations against the potential risk of transmission of pathogens to patients. It reviewed the laboratory evidence of contamination of various pieces of healthcare workers' attire with pathogens, including multi-drug resistant pathogens. Though the authors made it clear that the actual role of hospital attire in causing infections in patients was unclear at the time, the guidance has recommendations that are based on practical, theoretical and biologically plausible considerations to reduce the likelihood of transmission of pathogens to patients.

One recommendation was "**bare below the elbows (BBE)**", a recommendation used widely in Europe. This means healthcare workers should wear short sleeves during patient contact and have no wristwatch, rings or other jewelry below the elbows.

They also had recommendations regarding the traditional white coats worn by healthcare workers. Workers should have at least 2 white coats available and a convenient and economical way of laundering them. The institution should provide onsite laundering at no cost or low cost when possible. The institution should also provide coat hooks for

healthcare workers to remove their white coat (or other long-sleeved outerwear) prior to patient contact. While they note that attire worn in patient contact should be laundered after daily use, they recommend that white coats worn during patient care should be laundered at a minimum once a week or when visibly soiled. While they did not take a firm stance on whether attire should be laundered at home or professionally, they did recommend that if attire is laundered at home a hot-water wash cycle with bleach be used, followed by a cycle in the dryer.

The SHEA paper noted a huge gap between hospital attire policies and their enforcement, with enforcement rates as low as 11%. Given the number of healthcare workers we still see in scrubs in hospital cafeterias, other parts of the hospital, and even shopping alongside us in our local grocery stores, we know it will take much more than a policy to foster true change.

Now is a good time to review your organization's policies on attire in various areas. Yes, you may find that you can save some costs as pointed out in the Willis paper. But we also suspect that, if you do an audit of compliance with attire guidelines, you'll find that your staff regularly breaks the rules.

See our prior columns regarding hospital or surgical attire:

- February 2014 “[SHEA’s New Recommendations for Hospital Attire](#)”
- September 2016 “[American College of Surgeons Statement on Operating Room Attire](#)”

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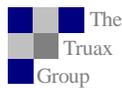
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