UNIFORMS AND WORKWEAR

An evidence base for developing local policy

Uniforms and Workwear

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Introduction

The possibility of transmitting infections via uniforms is an important issue for employers, staff and patients. When organisations review their policies on staff dress, they need access to the legal (including Health and Safety legal) framework, an evidence base and good practice examples.

The Department of Health Working Group on Uniforms and Laundry has put together an evidence base on the wearing and laundering of uniforms. This document outlines the existing legal requirements and current findings, to support and advise employers when reviewing local policies in this area.

The findings are built on two wide-ranging literature reviews carried out by Thames Valley University, plus further empirical research done by University College London Hospital NHS Trust (UCLH). The work has also had input from professional healthcare groups and trade unions.

Both the literature reviews and the empirical research will be published in scientific journals. Once available, The Department of Health will provide a link to the relevant sites.

Note that this work considered uniforms only, and did not extend to Personal Protective Equipment (PPE).

For the purposes of this guidance, the Health and Safety Executive definition of PPE has been adopted:- 'all equipment (including clothing affording protection against the weather) which is intended to be worn or held by a person at work and which protects him against one or more risks to his health or safety'. (HSE INDG174(rev1) 08/05).

The Health and Safety Executive advises that uniforms (including scrubs) are covered by the definition of PPE where they are 'to protect against a specific risk to health and safety' but not where the primary purpose is to present e.g. a corporate image. In such situations staff will additionally need to use PPE, for instance disposable aprons. Trusts will, therefore, need to determine locally the circumstances in which uniforms are or are not to be classed as PPE and take action accordingly as dictated by risk assessment and subsequent control measures.

For the purposes of this guidance, neckties have not been classed as part of a uniform.

The legal framework

The main legislation that affects an organisation's response to the transmission of infections via uniforms or workwear is outlined below:

- **The Health and Safety at Work etc Act 1974[1] sections 2 and 3**. Section 2 covers risks to employees and Section 3 to others affected by their work e.g. patients.
- **The Control of Substances Hazardous to Health Regulations 2002**[2] (as amended) (COSHH). Further information about COSHH and its applicability to infection control can be found at http://www.hse.gov.uk/biosafety/healthcare.htm
- **Management of Health and Safety at Work Regulations 1999**[3] (Management Regulations), that extend the cover to patients and others affected by microbiological infections, and include control of infection measures.
- **'Securing Health Together'[4],** the Health and Safety Executive (HSE) long term strategy for occupational health, that commits HSE/Health and Safety Commission and their fellow signatories (including the Department of Health) to a 20 per cent reduction in ill health caused by work activity by 2010.
- **Health Act 2006 Code of Practice,** Duty 4 to maintain a clean and appropriate environment includes at section (g) that the supply and provision of linen and laundry reflects Health Service Guidance HSG95(18), as revised from time to time and at section (h) that clothing (including uniforms) worn by staff when carrying out their duties is clean and fit for purpose.

The evidence base

Thames Valley University carried out two literature reviews. The first (TVU1) looked at evidence around the role of uniforms in the transfer of infections, and the efficacy of laundry practices in removing contaminations. The second, (TVU2) considered how uniforms affect the image of the individual and the organisations – and the symbolic meanings that people attach to uniforms and workwear.

The empirical evidence (UCLH) looked at the removal of deliberate contamination from swatches of uniform material when washed at different temperatures, with and without the use of detergent. Smaller sub-studies looked at the removal of contamination from material held in the pockets of uniforms, and at the removal of contaminants during the uncontrolled washing of uniforms in a nurse's home laundry.

[1] www.hse.gov.uk
[2] www.hse.gov.uk
[3] www.hse.gov.uk
[4] www.hse.gov.uk

Conclusions for employers:

The main conclusions drawn by the Working Group, using a combination of expert opinion, literature reviews and scientific study, are:

- There is no conclusive evidence that uniforms (or other work clothes) pose a significant hazard in terms of spreading infection.

- It seems that the public believe there is a risk. They do not like seeing hospital staff in uniform away from the workplace.

- All the components of a properly designed and operated laundry process contribute to the removal or killing of micro-organisms on fabric. It is likely that dilution/flushing is the main contributor.

- A ten-minute wash at 60C is sufficient to remove most micro-organisms. In tests, the only organisms remaining were a small number (less than 10%) of *Clostridium difficile* spores.[5] Microbiologists carrying out the research advise that this level of contamination is not a cause for concern.

- Using detergents means that many organisms can be removed from fabrics at lower temperatures. MRSA is completely removed following a wash at 30C

- There is no conclusive evidence of a difference in effectiveness between commercial and domestic laundering in removing micro-organisms.

Good Practice Examples

Based on the literature reviews and empirical evidence, the Working Group devised a set of good (and poor) practice examples, which are outlined below in the table. This can be used by trusts to compile a dress code or uniform policy. Whilst the emphasis is on work wear for those who have direct patient contact, much of it applies to other staff, including non-clinical staff.

The Working Group also identified examples of accepted good (or poor) practice that are based on informed common sense rather than scientific evidence. It is for trusts to decide locally whether to include these in their policies. Such decisions will be driven by local factors such as the predominant culture, the patient mix and the trust type. Some of the more frequently-mentioned examples are included for information.

Further support in terms of laundry practice (for commercial processes) is available via HSG 95(18) (currently under review)
http://www.dh.gov.uk/en/PublicationsAndStatistics/LettersAndCirculars/HealthServiceGuidelines/DH_4017865

[5] 10% of the original level following washing with detergent including wash/rinse

Evidence Based examples of good and poor practice

Note: Where the two literature reviews are cited as supporting information, evidence may come from the primary sources reviewed by the authors, or from their interpretation of those sources

It is good practice to…	Why?	Supporting information
Dress in a manner which is likely to inspire public confidence	People may use general appearance as a proxy measure of competence	TVU2
Wear short-sleeved shirts/blouses and avoid wearing white coats when providing patient care	Cuffs become heavily contaminated and are more likely to come into contact with patients.	TVU1
Change into and out of uniform at work	No evidence of an infection risk from travelling in uniform, but patient confidence in NHS may be undermined	TVU1, TVU2
Cover uniform completely when travelling to and from work	No evidence of an infection risk from travelling in uniform, but patient confidence in NHS may be undermined	TVU1, TVU2
Wear clear identifiers (uniform and/or name badge)	Patients wish to know who is caring for them, and expect to use appearance to do this	TVU1
Change immediately if uniform or clothes become visibly soiled or contaminated	Visible soiling or contamination might be an infection risk, and is likely to affect patient confidence	TVU1, TVU2
Tie long hair back off the collar	Patients generally prefer to be treated by nurses with short or tidy hair and a neat appearance	TVU1
Wash uniforms at the hottest temperature suitable for the fabric. (Trusts may also wish to take in to account the 'washable' nature of clothing when making purchasing decisions e.g. are items which are ONLY capable of being washed at low	A wash for ten minutes, at 60C, removes most micro-organisms	UCLH

temperatures or which are ‘dry-clean’ only suitable?).		
Clean washing machines and tumble driers regularly and maintain according to manufacturer’s instructions	Dirty or under-performing machines can result in contamination with environmental micro-organisms. There is no published evidence that this is an infection control risk, but it is prudent to avoid it	UCLH
Keep finger nails short and clean	Long and/or dirty nails can present a poor appearance and long nails are harder to keep clean	Centres for Disease Control and Prevention. Guideline for Hand Hygiene in Health-Care Settings: Recommendations of the Healthcare Infection Control Practices Advisory Committee and the ICPAC/SHEA/APIC/IDSA Hand Hygiene Task Force. MMWR 2002;51(No. RR-16)

It is poor practice to…	**Why?**	**Supporting information**
Go shopping or undertake similar activities in public	No evidence of an infection risk from such activities, but patient confidence in the NHS may be undermined	TVU2
Wear false nails for direct patient care	False nails harbour micro-organisms and can reduce compliance with hand hygiene	Centres for Disease Control and Prevention, Guideline for Hand Hygiene in Healthcare Settings Recommendations of the Healthcare Infection Control Practices Advisory Committee and the ICPAC/SHEA/APIC/IDS HandHygiene Task Force. MMWR 2002;51 (No. RR-16)

Wear hand or wrist jewellery/wristwatch (a plain wedding ring may be acceptable)	Hand/wrist jewellery can harbour micro-organisms and can reduce compliance with hand hygiene	Centres for Disease Control and Prevention, Guideline for Hand Hygiene in Healthcare Settings Recommendations of the Healthcare Infection Control Practices Advisory Committee and the ICPAC/SHEA/APIC/IDS HandHygiene Task Force. MMWR 2002;51 (No. RR-16

Common sense examples of good and poor practice

It is good practice to…	**Why?**
Wear soft-soled, closed toe shoes	Closed toe shoes offer protection against spills. Soft soles reduce noise, which can disturb patients' rest
Provide sufficient uniforms for the recommended laundry practice (more uniforms may be needed where the trust carries out the laundry)	Staff who have too few uniforms may be tempted to reduce the frequency of laundering
Change into a clean uniform at the start of each shift	Maintains a professional appearance
Where necessary in order to avoid overloading wash uniforms separately from other clothes	No evidence of cross-contamination, but overloading machine will reduce wash efficiency. Staff may be tempted to wash mixed loads at lower temperatures than recommended
Cover tattoos where these are extensive or may be deemed offensive	Maintains a professional appearance
Use posters or other aide-memoire to show what each uniform means	Patients and their family/visitors find it helpful to know who they are talking to. Uniforms also help them to quickly identify the person they wish to speak to

It is poor practice to…	Why?
Wear numerous badges or other adornments	One or two badges (eg denoting professional qualifications or affiliations) may be acceptable; too many looks unprofessional and may cause injury when moving patients
Wear neck-ties (other than bow-ties) in any care activity which involves patient contact.	Ties are rarely laundered but worn daily. They perform no beneficial function in patient care and have been shown to be colonised by pathogens.
Carry pens/scissors etc in outside breast pockets	May cause injury when moving patients. Such items should be carried in hip pockets or inside breast pockets
Wear uniform sloppily – eg wearing cardigan on duty, or wearing uniform dress without tights/stockings	Patients expect staff to have a neat appearance. Sloppy dress might be taken to indicate lack of professional pride, and poor personal standards
Wear excessive jewellery, including necklaces, visible piercings and multiple earrings. Where earrings are worn, they should be plain studs.	Excessive jewellery looks unprofessional and may be hazardous (eg necklaces and hoop earrings can be inadvertently pulled or may be grabbed by confused patients)

Conclusions

Not all staff need to wear uniforms, and it seems unlikely that uniforms are a significant source of cross-infection. Nevertheless, the way staff dress will send messages to the patients they care for, and to the public. It is sensible for Trusts to consider what messages they are trying to convey, and to advise on dress codes accordingly. Both infection control and public confidence should underpin a Trust's uniform policy, but the two are not necessarily interchangeable.

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