

My white coat goes

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History of white coats









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‘Bare below the elbows’

Secretary of State for Health stated:

“I’m determined that patient safety, including cleanliness, should be the first priority of every NHS organisation. This will set guidelines on clothing that will help ensure thorough hand washing and prevent the spread of infections. This is a clear signal to patients that doctors, nurses, and other clinical staff are taking their safety seriously.”

(Department of Health 2007) .

UK

The “bare below the elbows” policy was nationally enforced from January 2008 and specified that staff should wear “short sleeves, no wrist watch, no jewellery and allied to this the avoidance of ties when carrying out clinical activity.



Response to 'Bare below the elbows' (BBE)

- Doctors reported that they felt naked
- They wouldn't be able to tell the time or take a pulse without a wrist watch
- It would impact on professional appearance
- No storage space for pens and books
- They would feel cold
- No one would know they were doctors
- A plethora of protest letters combined with widespread sampling of white coats, watches, pens and ties

Summary of justification of a white coat?

- Identification
- Status and or power
- Expectation of patients
- Comfort/warmth
- Storage
- Protection

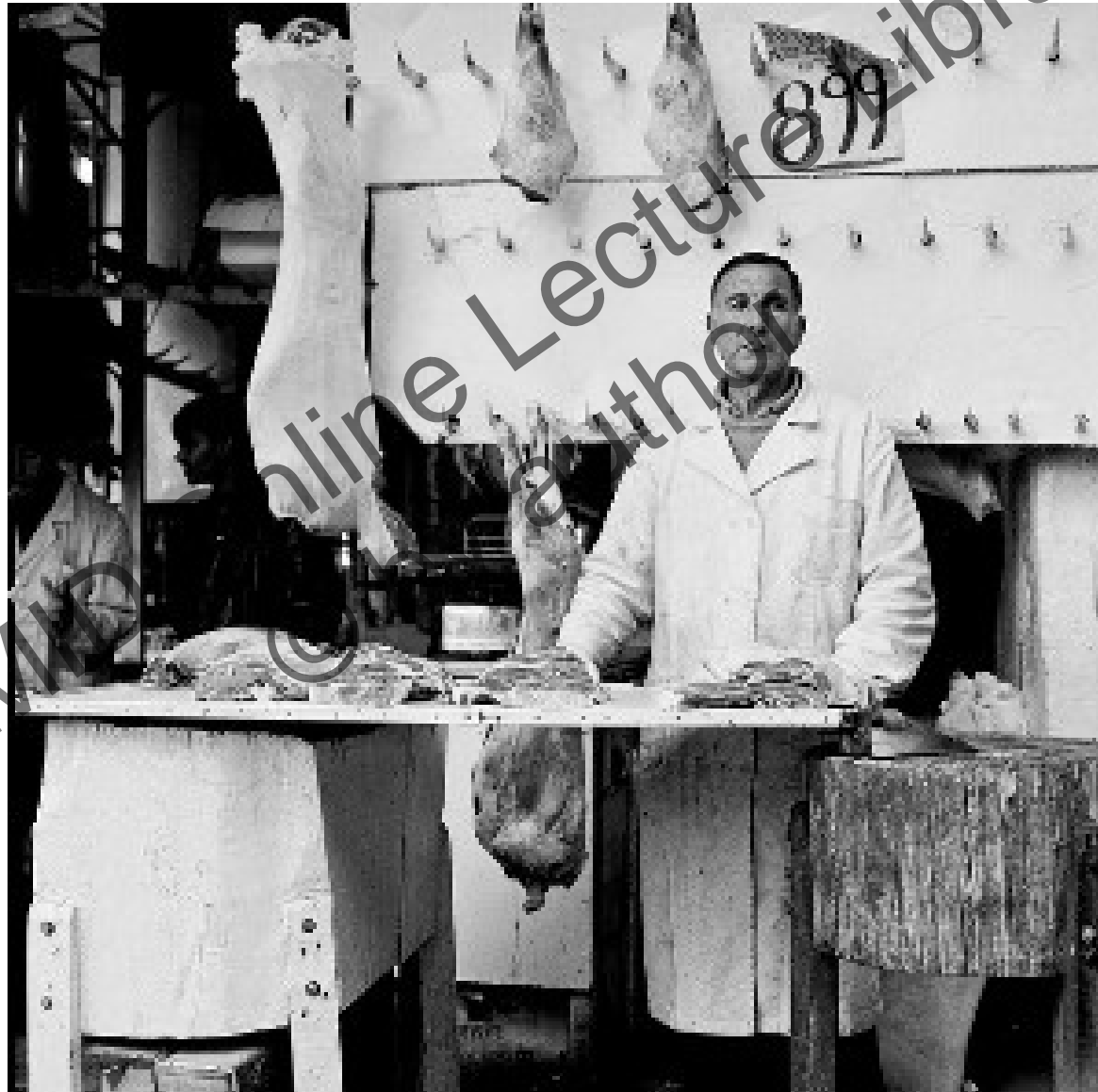
Identification

Who wears a white coat?

Can you spot the doctor?

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Butcher



**Painter
decorator**



Ice cream man





Prime minister



Cricket Empire



Brewer



**Veterinary
Surgeon**



How to identify a doctor



Complaints that patients could not identify doctors in ordinary clothes

Return of white coats in York

Introduction of scrubs in West Middlesex



White coats make a comeback to hospital wards to help doctors become visible again
Daily Mail 28 September 2010



Status and power

‘Looking the part’

Costume for the role

Offering the protection of status

Perception that removing white coats was stripping away power



*"How could I be wrong?
I'm a doctor."*

Expectation of patients

Some, particularly older patients like to see doctors wearing white coats

Some prefer a smile

Most like doctors and staff to introduce themselves

Some patients are fearful of white coats (white coat hypertension)



Children



The demise prior to BBE

- Royal Free Hospital London
- 276/400 patients
- 86 doctors
- Older patients preferred doctors in white coats
- 54% easy identification

- 13% doctors wore white coats
- 70% believed there was an infection risk
- 60% found them uncomfortable

J Douse & E Derrett-Smith 2004 Should doctors wear white coats? PostGrad Med J
80:284-286

Australia

- Questionnaire of 337 junior doctors views and preferences
- Very few Australian junior doctors wear white coats
- 'No one else wears a white coat' (70%)
- 60% were against wearing white coats
- 24% were indifferent
- 16% did prefer white coats for convenience including storage

Ashley, Watson, Chapman 2002 What do Australian junior doctors think of white coats? *Medical Education* 36,12:1209–1213,

Comfort and warmth



Storage





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Protection

Laboratory work

Isolation rooms ?

Over scrubs?

Protective value of fabric?

The protection may be over estimated, particularly when it isn't done up





“The patient in the next bed is highly infectious. Thank God for these curtains.”

Scrubs



SARS

‘Old worries about how often to clean lab coats disappeared along with the lab coats themselves. They were replaced by greens, gowns, gloves, goggles and new worries. We replaced our greens each shift with new hospital issue...’

Schull M J, Redelmeier D A (2003) Infection control for the disinterested JAMC 169, 2: 122-3

Infection transmission risks associated with white coats

The evidence is limited

There is potential for transmission

Perception of risk

Risk is low in comparison to many other more important risks such as :

- High bed occupancy
- Lack of isolation facilities
- Poor hand hygiene compliance

Where are the micro-organisms on white coats?

Sleeves and pockets

Hem on short sleeved coat

Sides and collars



Srinivasan et al 2007 Jpn J Infect Dis 60:121-122

Varghese & Patel BMJ 1999 319:7208:519

Loh et al 2000 JHI 45:1:65-8

Wong et al BMJ 1991 303:6817:1602-4

Banu et al 2012 J Clin & Diagnostic research 6:8: 1381-84

Uniforms become contaminated with bacteria

- One hundred hospital doctors
- Wore either a white coat or a newly laundered short-sleeved uniform.
- No significant differences found in bacterial contamination of white coats compared with newly laundered short-sleeved uniforms or in contamination of the skin at the wrists of physicians wearing either garment.
- After 3 hours of wear newly laundered uniforms had 50% of organisms found after 8 hours.

White coat flora

- The level and type of microbial contamination present on the white coats of doctors in a hospital setting.
- 100 doctors
- The cuffs and pockets of the coats were the most highly contaminated areas.
- Level of bacterial contamination did not vary with the length of time a coat had been in use, but it increased with the degree of usage and individual
- Staph aureus* isolated from 25% of the coats

Concluded :White coats are a potential source of cross infection

Wong et al (2012) Microbial flora on doctors' white coats. J Clin Diagn Res. 6(8):1381-4

Frequency of cleaning white coats

Culture of 149 white coats at grand rounds

23% contaminated with *Staph aureus* (18% MRSA)

17% had not washed or laundered their coat for >28 days

64% had not washed or laundered their coat for >week

UK laundering of uniforms

170 NHS infection control teams in the UK.

101 NHS trusts responded

47% provide adequate numbers of uniforms to allow a clean uniform per shift

26 % had adequate on-site staff changing facilities

65 % organisations did not launder uniforms

91% of nursing staff laundered their uniforms at home

Nye KJ, Leggett VA, Watterson L.

2005 Provision and decontamination of uniforms in the NHS Nurs Stand. 19(33):41-5.

It's all potentially contaminated

Identity badges and lanyards
pens, stethoscopes, cell phones

Meticillin-resistant
Staphylococcus aureus
Meticillin-sensitive *S. aureus*
Enterococcus spp
Aerobic gram-negative bacilli.

Wanted

Dead or alive

Killer cardigan



Kotsanas, et al Med J Aust 2008; 188 (1): 5-8.

Pandey et al Indian J Pathol Microbiol 2010;53:711-3

Transmission potential of white coats

Any clothing will become contaminated

This isn't really an issue of white coats

- Personal hygiene
- The ability to keep hands (patients and environment) as free of pathogens as is feasible
- Institutional responsibility of employers to provide a clean uniform, laundry service, staff changing facilities, storage of personal valuables, enough equipment

Evidence of value of clean white coat in orthopaedics

- Study of ring fenced beds
- Hand decontamination at ward entrance and before and after each patient contact by using alcoholic rub
- Clean uniform daily for shift
- Clean ward white coat
- Aprons for direct patient contact

Reduced infection from 10.3% to 3% ($P < 0.0001$)

17% more patients treated

Biant, Teare, Williams & Tuite 2004 BMJ.329(7458): 149–151. Eradication of methicillin resistant *Staphylococcus aureus* by “ring fencing” of elective orthopaedic beds

The white coat goes

(In the UK)

Unable to ensure there is a clean white coat each day for each doctor

Clean scrubs, uniform or clothes are preferable

The white coat is out dated and increasingly unwanted

It belongs to the past

