

White Coat: A Friend or a Foe

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Long time debate is going on for a topic of dress code for doctors in hospital. White coats are symbol of medical profession for ages. In last several years, positive and negative aspects of white coat came to light. On one side patients and doctors prefer white coat as representation of the profession while problem of transmitting pathogen and increasing nosocomial infections (NI) have created evidence against it. NI accounted for 1.7 million infections in 2002, which resulted in 99,000 deaths in the United States, and it is estimated to cost \$6.7 billion per year [1]. With such a significant impact of NIs, it is understandable that preventing them is a desirable outcome; house delegates of AMA discussed this issue in 2009 and recommended to have more research. In contrast, healthcare personnel in the United Kingdom abide by a "bare below the elbows" policy (that is, short sleeves, no wrist watch, no jewelry and avoidance of neckties) when in patient care areas, in hopes that this will decrease the incidence of NI. Although the United Kingdom has implemented these changes, no studies have looked at the effect of physician's white coats or the bare below the elbows policy on NI rates.

Almost two decades ago a survey was published about why should doctors wear white coat; roughly quarter of doctors reasoned to be differentiated amongst colleagues and patients, while other 23% reasoned to put things in pockets [2] When questioned to patients, they almost always preferred that doctors should wear white coat and that was found in several studies [3,4] So from the symbolic representation it is good to wear white coat from both doctors and patients perspectives; also it help preventing contamination of native cloths of healthcare workers.

As far as the NI by white coat is considered there are good evidences that white coats are contaminated with organisms particularly physicians' white coat sleeves and pockets are frequently colonized with bacteria associated with NI [5-8]. Mackintosh et al. [9] showed that several pathogens transferred well from fabrics to hands. Scott et al. [10] showed that several types of pathogens could be transferred from contaminated soiled cloth and surfaces to fingertips in detectable numbers. So it is believable that white coats are 'dirty'; although none of these studies established an association between contaminated uniforms and healthcare associated infections which was concluded in *EPIC2: National Evidence-Based Guidelines for Preventing Healthcare-Associated Infections in NHS Hospitals in England* [11]. Surprisingly not only white coats but even newly laundered cloths including short-sleeved uniforms also become contaminated by bacteria including methicillin-resistant *Staphylococcus aureus* (MRSA) and after 8 hours of wear, no difference in the degree of contamination of freshly laundered uniforms versus infrequently laundered white coats [12]. Not only the dress but all other accessories like pens, cell phones and stethoscopes used by physicians harbored various microbial flora [13].

So in conclusion we have good evidence of contamination by pathogens to white coats and all other accessories utilized by doctors but yet no good evidence weather that is causing nosocomial infections. Also we are utilizing more and more accessories like notebook, netbook and iPads. So there are more and more chances of contamination, which is unavoidable. Probably hand washing is so far the best intervention to ultimately prevent any type of nosocomial infection eventually spread by contamination of all those accessories and till we get further evidence that should be only evidence based strategy we can force to implement.

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