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Long- and short-sleeved physician workwear receive same amount of bacterial and MRSA contamination

Governmental agencies in the United Kingdom recently instituted guidelines banning physicians' white coats and the wearing of long-sleeved garments to decrease the transmission of bacteria within hospitals due to the belief that cuffs of long-sleeved shirts carry more bacteria. However, a new study published today in the *Journal of Hospital Medicine* shows that after an eight-hour day, there is no difference in contamination of long- and short-sleeved shirts, or on the skin at the wearers' wrists.

A group of researchers from the University of Colorado, USA, decided to assess the accuracy of the assumption that longer sleeves lead to more contamination by testing the uniforms of 100 physicians at Denver Health randomly assigned to wearing a freshly washed, short-sleeved uniform or their usual long-sleeved white coat. "We were surprised to find no statistical difference in contamination between the short- and long-sleeved workwear," said lead researcher Marisha Burden, MD. "We also found bacterial contamination of newly laundered uniforms occurs within hours of putting them on."

50 physicians were asked to start the day of the trial in a standard, freshly washed, short-sleeved uniform, and the 50 physicians wearing their usual long-sleeved white coats were not made aware of the trial date until shortly before the cultures were obtained, to ensure that they did not change or wash their coats. Cultures were taken from the physicians' wrists, cuffs and pockets. No significant differences were found in bacteria colony counts between each style.

The researchers also found that although the newly laundered uniforms were nearly sterile prior to putting them on, by three hours of wear nearly 50% of the bacteria counted at eight hours were already present. "By the end of an eight-hour work day, we found no data supporting the contention that long-sleeved white coats were more heavily contaminated than short-sleeved uniforms. Our data do not support

discarding white coats for uniforms that are changed on a daily basis, or for requiring health care workers to avoid long-sleeved garments," concluded Burden.

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