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Scrubs vs. white coats: equal opportunity bacteria spreaders

After a single shift, freshly laundered short-sleeved garments are as contaminated as infrequently cleaned long-sleeved coats. Hand-washing is still the best way to prevent infection.

By KEVIN B. O'REILLY, *amednews* staff. Posted March 3, 2011.

The idea seemed sensible. Clothing, like many other surfaces, can become contaminated by bacteria. So to minimize the risk of infecting hospital patients, British health authorities in 2007 issued guidelines opposing long-sleeved white coats. Scottish authorities adopted similar rules in 2008.

But U.S. hospitals have not followed suit, and a new study calls into question the premise behind these rules. Researchers at the Denver Health Medical Center conducted a randomized controlled trial with 100 physicians, asking 50 to wear their usual white coats and the other 50 to wear newly laundered short-sleeved scrubs.

After the physicians worked for eight hours, researchers tested the clothing for bacterial contamination, including methicillin-resistant *Staphylococcal aureus*, and found no difference. Researchers were surprised by the results, thinking that perhaps the freshly washed scrubs were not so clean.

"We decided to question our laundry facility to find out if we were really killing all the bacteria," said Marisha Burden, MD, lead author of the study, published online Feb. 10 in the *Journal of Hospital Medicine* (www.ncbi.nlm.nih.gov/pubmed/21312328). "It was a shock to us."

The laundry machines were working just fine. When the scrubs were tested at the start of the day, they were entirely free of bacteria, but after a single shift, they were just as contaminated as white coats that 70% of the studied physicians waited two weeks or longer to run through the wash cycle.

There are better ways than banning white coats to prevent infections, Dr. Burden said.

"The guidelines that were made in the U.K., there are no data to support them," she said. "The most important thing to do is for people to wash their hands frequently, before and after each patient encounter."

Though her study showed that going a few weeks without washing a white coat does not pose an added risk to patients, Dr. Burden said physicians should clean their clothing more frequently.

"No patient wants their physician to have a dirty white coat," Dr. Burden said. "Doctors should maintain a good appearance."

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