TITLE: Lab Coats and Scrubs for the Reduction of Infection Transmission: Clinical Evidence and Guidelines

DATE: 14 August 2015

RESEARCH QUESTIONS

1. What is the clinical evidence regarding the laundering and wearing of lab coats and scrubs to reduce the spread of infection in health care facilities?

2. What are the evidence-based guidelines regarding the laundering and wearing of lab coats or scrubs in health care facilities?

KEY FINDINGS

One randomized controlled trial and one evidence-based guideline were identified regarding the laundering and wearing of lab coats and scrubs to reduce the spread of infection in health care facilities.

METHODS

A limited literature search was conducted on key resources including PubMed, The Cochrane Library, University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and major international health technology agencies, as well as a focused Internet search. No filters were applied to limit the retrieval by study type. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2010 and August 4, 2015. Internet links were provided, where available.

The summary of findings was prepared from the abstracts of the relevant information. Please note that data contained in abstracts may not always be an accurate reflection of the data contained within the full article.
SELECTION CRITERIA

One reviewer screened citations and selected studies based on the inclusion criteria presented in Table 1.

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<tr>
<th>Table 1: Selection Criteria</th>
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<tr>
<td><strong>Population</strong></td>
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<td><strong>Intervention</strong></td>
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<td><strong>Comparator</strong></td>
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<td><strong>Outcomes</strong></td>
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<td><strong>Study Designs</strong></td>
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RESULTS

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials, non-randomized studies, and evidence-based guidelines.

One randomized controlled trial and one evidence-based guideline were identified regarding the laundering and wearing of lab coats and scrubs to reduce the spread of infection in health care facilities. No relevant health technology assessments, systematic reviews, meta-analyses, or non-randomized studies were identified.

Additional references of potential interest are provided in the appendix.

OVERALL SUMMARY OF FINDINGS

One randomized controlled trial\(^1\) compared bacterial contamination of doctor’s white coats and freshly laundered short-sleeved hospital uniforms after an eight hour hospital work day. While the freshly laundered uniforms initially had colony count of zero, after eight hours there was no significant difference in contamination between uniforms and white coats. One guideline\(^2\) from the Association of Perioperative Registered Nurses, recommends healthcare workers entering into operative spaces wear hospital-laundered or disposable scrubs.
REFERENCES SUMMARIZED

Health Technology Assessments
No literature identified.

Systematic Reviews and Meta-analyses
No literature identified.

Randomized Controlled Trials


Non-Randomized Studies
No literature identified.

Guidelines and Recommendations


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APPENDIX – FURTHER INFORMATION:

Non-Randomized Studies

Colonization Studies


Washing Setting Not Specified


Non-Comparative


Length of Wear

Lab Coats and Scrubs for the Reduction of Infection Transmission

Not Specific to Healthcare


Qualitative Studies


Clinical Practice Guidelines and Recommendations – Methodology Not Specified


Review Articles


Additional References

20. Dean E. Laundering uniforms at less than 60 degrees C may increase risk of HCAIs. Nurs Stand. 2015 Feb 20;29(25):11. PubMed: PM25690194


