

SANITATION PRACTICES OF LAB COATS AMONG NUCLEAR MEDICINE TECHNOLOGISTS

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Introduction

- In the U.S. nuclear medicine technologists are encouraged to wear lab coats to minimize risk of skin contamination from radiopharmaceuticals
- Lab coats may become a vector of nosocomial infection spread when worn between patients.
- There is no guideline for how often nuclear medicine lab coats should be sanitized.

Materials & Methods

- Investigators sent out an anonymous survey to 45 nuclear medicine technologists via email.
- Survey asked technologists gender, age, how long they have worked in nuclear medicine, do they wear a lab coat at work, if and how often the lab coat is washed, and what methods do they use to wash.
- Survey was open for 4 weeks to allow ample time for technologists to respond to survey.
- Survey responses were descriptively analyzed using SAS 9.4.
- Bacterial culture samples were taken from 20 lab coats worn by nuclear medicine technologists and transferred to Mannitol Salt Agar plates and MacConkey Agar Plates. (Fig. 1)
- Plates were divided into 4 quadrants for designation for each sample. (Fig. 1)
- Samples were transferred onto culture plates utilizing a rolling “zig zag” motion.
- The plates were then incubated upside down in a 35°C temperature for 48 hours.
- After the 48 hours the plates were moved to a room temperature incubator for 5 days.

Results

- 25% of lab coats sampled demonstrated bacterial colonization growth on the MacConkey Agar plates. (Fig. 1)
- None of the lab coats sampled demonstrated bacterial growth on the Mannitol Salt Agar plates.
- 60% of nuclear medicine technologists surveyed said that they do not wear a lab coat in daily practice.
- 33% of nuclear medicine technologists surveyed said that they never wash their lab coats.
- 79% of nuclear medicine technologists admitted to having a moderate/heavy workload.

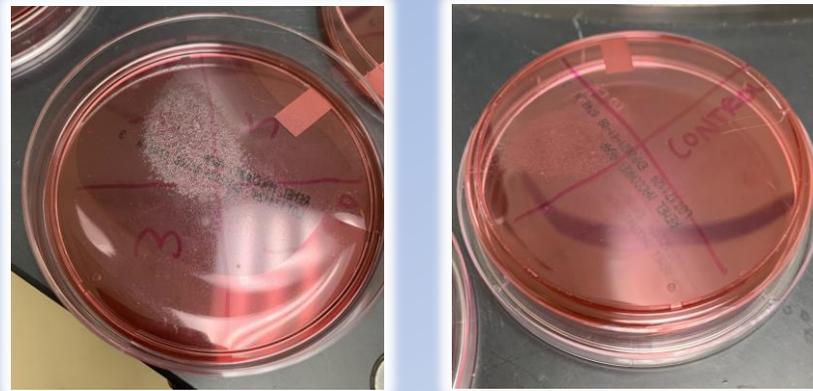


Figure 1

Acknowledgements

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Discussion

- A study specifically looking into nuclear medicine technologist's lab coats as a vector for nosocomial infection has not yet been completed.

Strengths:

- Target survey to known sample frame of nuclear medicine technologists.

Limitations:

- Mannitol Agar plates may have had technical errors.

Recommendations for future studies:

- An investigation into radiation levels of nuclear medicine technologists may be beneficial as 60% of surveyed technologists admitted to never wearing a lab coat in practice.

Conclusion

- With 25% of lab coats sampled demonstrating bacterial growth, guidelines need to be set for lab coat sanitation.
- Nuclear medicine lab coats may pose a health threat to patients.

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