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Course Material & Study Guide
Hospital Bioburden and Textile Environmental Control



Executive Summary

The enclosed course on Hospital Bioburden and Textile Environmental Control is a collection of articles that provides a comprehensive overview of the significance of Healthcare Laundry and Textiles in terms of infection prevention. For textiles, infection prevention is aimed at (i) maintaining hygienically clean linen up to the point of patient use and (ii) minimizing the dispersal of microbes within the patient environment during use and following patient use. The enclosed compilation of articles addresses the three key risks associated healthcare textile process. Each article in the enclosed course addresses at least one of the three risks below:

1. Healthcare Textile Reprocessing Error

Due to common deficiencies in the laundering processes textiles can be contaminated with environmental pathogens. Improper use of chemicals, low temperature in the washing process and/or reduced rinsing contribute to contamination of textiles during reprocessing.

2. Exogenous Contamination from Handling and Storage

Even when laundry is properly cleaned, there is risk of exogenous contamination due to improper storage conditions. When linens are not properly packaged, shipped and/or stored, they can easily become contaminated with bacteria and fungus especially during hospital renovation and construction.

3. Microbial shedding

Patient's beds are a prevalent source of room contamination and microbial shedding from patients results in the contamination of the patient's room. Shedding is encouraged by bed changing and dressing changes and it's likely that this contamination leads to cross contamination of the next patient entering the room after discharge. Healthcare workers' clothing may also contribute to this cross contamination.

This educational packet addresses the benefit of antimicrobial textiles for infection prevention and reduction of risk. Antimicrobial textile's ability to kill bacteria and impact reprocessing error, exogenous contamination, and microbial shedding indicate that they reduce the risk of infection. To find out more about how antimicrobial textiles can benefit you or your local hospital, please visit us at www.appliedsilver.com

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SHANEKA N. WRIGHT, RN, BSN, MHSc, CIC;1JOANNA S. GERRY, DNP, ARNP;2 MARY T. BUSOWSKI, MD;3ALENA Y. KLOCHKO, MD;3 STEVEN G. McNULTY, BS;4SCOTT A. BROWN, RN, MBA, CIC;1 BARRY E. SIEGER, MD;3P. KEN MICHAELS, DO;5 MARK R. WALLACE, MD3

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T. SHIOMORI*, H. MIYAMOTOT, K. MAKISHIMA*, M. YOSHIDA*, T. FUJIYOSHI*, T. UDAKA*,T. INABA* AND N. HIRAKI

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JOHN J. OPENSHAW, MD, WILLIAM M. MORRIS, BS, GREGORY V. LOWRY, PHD, AYDIN NAZMI, PHD

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***To view articles, please request
the full educational course at:***

<http://www.appliedsilver.com/resources/>

- 6) How does the patient's bed act as a source for transmission?

- 7) Which of the following contributes the most to transmission of infection? Why?
 - a) Improper reprocessing
 - b) Exogenous contamination
 - c) Microbial Shedding

- 8) Why is the cleanliness of linen sub-par to hard surfaces even though it becomes more intimate with the patient?

- 9) How would an antimicrobial textile treatment such as SilvaClean® break the chain in transmission of bacteria?

- 10) How would you justify the cost of SilvaClean®?