

Best practices highlighted to prevent infections during healthcare laundry process

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Proper laundering and handling are important in achieving and maintaining the hygienically-clean quality of healthcare fabrics and textiles delivered to the point of care, according to a new review that highlights evidence-based strategies to inhibit potentially serious contamination. The review, based on findings and recommendations from peer-reviewed studies, as well as current standards and guidelines, is published online in *Infection Control & Hospital Epidemiology*, the journal of the Society for Healthcare Epidemiology of America (SHEA).

"We asked the question if current industrial laundry processes are sufficient to interrupt patient-to-patient transmission via clean healthcare textiles (HCT). The evidence we examined suggests this is indeed the case; we found no evidence of microbial carry-over from one patient to the next for patient-care textiles when proper textile management and laundering specifications were used " said Lynne Sehulster, PhD, an infectious disease epidemiologist at the Centers for Disease Control and Prevention, and lead author..

Outbreaks of infectious disease associated with laundered HCT are rare: only 12 such outbreaks have been reported worldwide in the past four decades. Analyses have identified inadvertent exposure of clean HCTs to environmental contamination, including exposure to dust in storage areas, or a process failure during laundering.

"Current infection prevention strategies for laundering and handling HCT appear to be adequate in preventing healthcare-associated

infections, provided that every step is taken to maintain the hygienic quality of HCTs prior to use. However, if an outbreak occurs linked to HCT, it is not enough to conduct microbial sampling of laundered textiles and declare the laundry process to be the source of the problem. Each of the distinct operations of the laundry-handling process needs to be evaluated in order to pinpoint the root of the problem. Our review was limited to clean HCT from laundries. We did not address contamination that occurs while the HCT are in use. That's a topic for future study," said Schulster.

Recommendations on optimal infection-prevention strategies used during the laundering process of HCT include:

- Adherence to Standard Precautions (gown and gloves) and minimal textile agitation when handling contaminated laundry in isolation rooms are considered sufficient to prevent the dispersal of potentially infectious aerosols.
- Offsite laundries should carefully package or cover clean textile bundles prior to transport to prevent inadvertent contamination from dust and dirt during loading and unloading.
- Laundered HCT must be stored in a manner to keep them dry and free from soil contamination.
- If alterations occur in water temperature, agitation, chemical type and concentration, and duration of laundering cycle, the addition of a disinfecting laundry chemical can compensate for the anticipated loss of antimicrobial effectiveness of the overall process.
- Laundry additives, such as hydrogen peroxide, peracetic acid and acetic acid, can provide extra disinfection options for short wash cycles of HCT or for those laundry situations in which chlorine bleach is not indicated.
- Industrial laundering offers more control of the process and can be tailored to adequately disinfect HCT with more choices of

detergent and laundry additives compared to home laundering.

- The importance of temperature, relative humidity, and moisture control in storage areas is central to preventing microbial proliferation in and on materials that have some organic components.

As new technology and treatments (such as antimicrobial treatments of healthcare [textiles](#)) emerge, Schulster recommends further research on the development of [laundry](#) processing in addition to current operations. "Studies are needed to demonstrate an impact on healthcare-associated [infection](#) incidence and increased patient safety in a cost-effective manner," Schulster said.

More information: Lynne Schulster. "Healthcare Laundry and Textiles in the U.S.: Review and Commentary on Contemporary Infection Prevention Issues." *Infection Control & Hospital Epidemiology*. Web. (June 18, 2015).

Provided by Society for Healthcare Epidemiology of America

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