

The risk of uncleanable forced-air warming devices is a global issue

As the global concern about forced-air warming (FAW) grows, neither you nor your patients should be exposed to the risk.

There are numerous citations on this subject. The Society for Healthcare Epidemiology of America, citing the Centers for Disease and Control, reminds that "Policies and practices should include...optimal cleaning and disinfection of equipment and the environment." Similarly, the Code of Practice for the Prevention and Control of Healthcare Associated Infections in the UK notes that, "Reusable medical devices should be decontaminated in accordance with manufacturer's instructions and current guidelines." Health Canada is even clearer: "Manufacturers must provide detailed directions for effective cleaning of all reusable products. The method and effectiveness of cleaning an item must be considered prior to purchase. Do not purchase products that cannot be cleaned."

The manufacturer of the market-leading FAW product, Bair Hugger®,

does not offer a protocol for cleaning the insides of blowers or hoses. In fact, it is impossible to effectively do so. Nonetheless, patients and clinicians are exposed to the air that passes through these devices.

Researchers in the US have concluded that FAW devices "are a potential source of nosocomial infection."¹ The International Federation of Infection Control is blunt: "The failure to disinfect or sterilize medical equipment properly may result in infection."

The National Institute for Health and Clinical Excellence (NICE) in the UK acknowledges that: 1) electric warming is easier to disinfect than FAW, having no "hidden places," and 2) FAW is a potential source of bacterial colonization, given the "difficulty in cleaning the hose and both the interior and exterior of the warming units."

The facts are clear: forced-air warming is a risk. Fortunately, the next generation warming technology is an air-free solution. ■

Published studies prove that...

Blowing Air Is Risky



...and now there's an [air-free] alternative.

The Next Wave™ in Patient Warming



- 1.) Air-free
- 2.) 100% Cleanable
- 3.) Cost-effective

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- 1 Bair Hugger is a registered trademark of Arizant Inc.
- 2 Beavers, Suzanne, M.D.; CDR Doug Thoroughman PhD. "Acinetobacter Infections among Hospitalized Patients in Kentucky - 2006". *Kentucky Epidemiologic Notes and Reports*. 42.2: March 2007: 1-3.
- 3 ABD Research
- 4 W.C. Noble and R.R. Davies. "Studies on the dispersal of staphylococci". *Journal of Clinical Pathology*. 18.15: (1965).
- 5 A.T. Bernards, PhD, et al. "Persistent *Acinetobacter baumannii*? Look Inside Your Medical Equipment". *Infection Control and Hospital Epidemiology*. 25.1: Nov 2004: 1002-1004.
- 6 Arizant Inc., Eden Prairie, MN <<http://www.arizant.com>>
- 7 Avidan, M.S.; et al. "Convection warmers - not just hot air". *Anaesthesia*. 52: (1997): 1073-1076.

A Department of Public Health in the U.S. called Bair Hugger[®] units, "Reservoirs of Infection"²

What makes a forced-air system a "reservoir of infection"?

1. Blows contaminated air

2. Impossible to clean

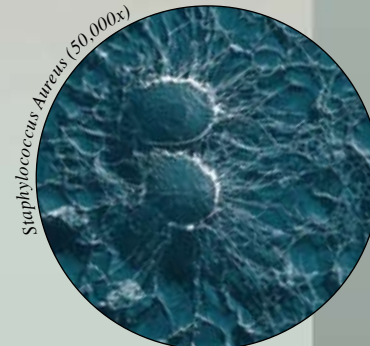


1

Blows contaminated air

Particle counters have measured more than 50 million germ-sized particles per hour blowing from Bair Hugger units into the operating theatre.³

- Since the blowers suck in clean operating room air, many of the particles originate from inside the blower and hose.
- Not all of the particles are bacteria, but bacteria can be cultured from the air-flow paths of many forced-air warming units.
- Infectious agents—such as MRSA—can independently float in moving air or on “rafts” of dead skin particles.⁴



2

Impossible to clean

All non-disposable operating theatre equipment must be cleanable—especially after exposure to blood, bacteria, and bodily fluids.

- The air-flow paths of Bair Hugger blowers and hoses are impossible to clean.
- *Infection Control and Hospital Epidemiology* reported an outbreak of a multi-drug resistant *Acinetobacter* that was traced directly to the inside of a Bair Hugger machine.⁵
- Despite reports such as this, the manufacturer does not offer a protocol for cleaning the insides of Bair Hugger blowers or hoses.⁶

Even after a routine cleaning, Luminol reveals trace blood on a hose. The insides of blowers are impossible to clean.

