

HOSPITALS USE AND NEED TO USE STEAM VAPOR FOR SURFACE DISINFECTION

This information is provided by Benjamin D. Tanner, PhD in his article under MANAGING INFECTION CONTROL in the trade publication, entitled Nursing and Patient Care, May 2008.

Hospitals can no longer depend on new antibiotics to solve infection problems. Large pharmaceutical companies simply aren't investing in antibiotic discovery as in years past as it is costly and increasingly fruitless. Therefore, since breakthrough cures for antibiotic-resistant infections aren't likely to come any time soon, it is necessary to take a fresh look at hospital surface disinfection. Most probably, the easiest way to increase disinfection compliance is to provide the hospital cleaning staff with a tool that makes foolproof surface disinfection easy.

The optimal surface disinfectant for the hospital environment would have these qualities:

- Easy to use
- Disinfects a surface quickly (3 to 5 seconds)
- Kills a broad range of pathogens, without "gaps" in the efficacy spectrum
- Reduces the potential for cross-contamination of adjacent surfaces
- Non-toxic
- Psychologically acceptable to use around patients
- No health risk to sensitive populations (asthmatics, patients with chemical sensitivities, etc.)
- Frequent use will not damage surfaces
- Effective on three-dimensional and vertical surfaces
- Safe for cleaning staff, even for long-term use

There is a new surface disinfection technology that provides all of these qualities. It is a device rather than a potentially unsafe chemical; it is a commercial steam vapor system outfitted specifically for surface disinfection. In the hands of a properly trained cleaning staff, commercial, steam vapor systems have many advantages such as:

They are chemical-free, safe to use around patients; quiet and portable; Since targeted heat, not chemicals, is the "active ingredient," disinfection is exceedingly fast and broad spectrum;

There is no specter of chemical cross-resistance to antibiotics because the system's tool remains very hot, so the potential of the spread of pathogens and cross-contamination is greatly reduced, if not stopped; this is in sharp contrast to the traditional "spray and wipe" approach, which recent studies suggest can actually spread pathogens from one surface to the next if:

- The disinfectant becomes overused or is inadvertently inactivated
- Surfaces do not become sticky, stain, or discolor over time
- Staff can disinfect as frequently as necessary without long-term chemical exposure concerns

Since pre-cleaning would no longer be required and the contact times necessary for disinfection are on the order of seconds, rather than minutes, staff compliance is naturally much less of an issue for the commercial steam vapor system as opposed to prior methods of disinfection without the use of a commercial steam vapor system.