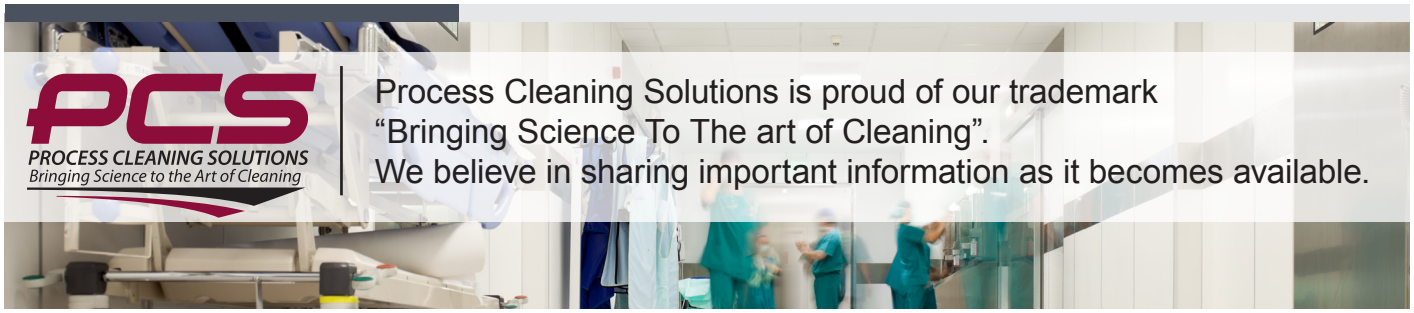

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American journal of infection Control 43 (2015) 1331-5

Major article

Ability of cleaning-disinfecting wipes to remove bacteria from medical device surfaces.

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Background: Nosocomial infections are a serious problem in health care facilities. Bacteria can be transferred from patient to patient via contaminated reusable medical devices and equipment.

Methods: An anesthesia machine and objects representative of smooth and ridged machine knobs were contaminated with Staphylococcus aureus, Bacillus atrophaeus spores, and Clostridium sporogenes spores. The ability of 5 commercially available cleaning-disinfecting wipes to remove bacteria was compared with gauze soaked with water or bleach.

Table 1

Details of the 5 commercially available wipes

Wipe no. Active ingredient	% ingredient	Wetness (g/cm3)
1 • Diisobutylphenoxyethox ethyl dimethylbenzyl ammonium chloride	0.28/17.2	0.618
2 • Citric acid	0.6	0.619
3• Sodium hypochlorite	0.55	0.541
4 • Hydrogen peroxide	0.5	0.667
5 • o-phenylphenol/o-benzyl-p-chlorophenol	0.28/0.03	0.667

NOTE. The 5 commercially available wipes used to kill and remove bacteria are listed with their active ingredients, percent ingredient, and their wetness expressed as grams of liquid per cubic centimeter of wipe.

We have reaffirmed the importance of actively cleaning surfaces between uses by demonstrating that both spores and S aureus can remain viable after being dried on the surface of a reusable medical device for a month.

Results:

All of the wipes cleaned the device surfaces significantly better than the no wipe control. Some wipes performed equally well as gauze with water, whereas others performed worse. Overall, the wipe containing sodium hypochlorite was the most effective at removing bacteria.

Conclusion:

Physically removing bacteria from device surfaces with water was often as effective as the cleaning-disinfecting wipes. Of the wipe active ingredients evaluated, sodium hypochlorite was the most effective overall.

• It is PCS opinion that freshly diluted 10 to 1 bleach solution (5000ppm) wiped with same gauze material as water performed best based on data presented, followed by pre-moistened bleach wipe.