

Surface Cleaning System for the Operating Room

Optimize infection prevention without sacrificing efficiency



**Clean
like lives
depend
on it**



Facts about hospital-associated infections (HAIs)

Causes, cost and outcomes



1 in 25

Patients in U.S. hospitals have at least one HAI¹



1.7 million

Approximately 1.7 million HAIs occur in U.S. hospitals each year²



HAIs kill more people in the U.S. than breast cancer and prostate cancer combined^{2,3}



UP TO

\$45 billion

Average amount spent annually on HAIs by acute-care hospitals⁴



25%

Early research shows an average cleaning rate of 25% for key objects in the OR.^{5*}



3 of 5

Number of cultured operating room overhead lights with positive bacterial growth for *Staphylococcus*, *Streptococcus* or *Neisseria*⁶

* Research conducted in a 6-hospital study demonstrated a mean cleaning rate of 25% for key objects in the OR

OR cleaning—high pressure and higher stakes

The operating room is a hub for any hospital. While surgical outcomes have direct impact on patient care, staff workload and revenue, the most restricted operating room resource is time. The stakes are high for teams cleaning up after case completion. They must balance care quality and cleaning without allowing lengthy turnover times to affect operating room efficiency. Challenges unique to the operating room environment only make it more difficult for case cleaning to be successful.

The Challenges:

Pressure to expedite room turns. Pressure to expedite room turns is even higher in the operating room compared to a standard patient room. A turnover time of about 23 minutes or less in the operating room is considered industry best practice.⁷

Cleaning is performed in teams. According to AORN guidelines for environmental cleaning, multidisciplinary teams—including perioperative nursing, sterile processing, environmental services (EVS) and infection prevention—should be responsible for the OR environment.⁸ With so many parties involved, individuals may hold a false sense of security that adequate cleaning of all environmental surfaces has been accomplished by another team member, increasing the chances that a critical surface may be missed. Researchers have identified the importance of assigning cleaning responsibilities to reduce the number of items that personnel forget to clean.⁸

Frequency of which surfaces need to be cleaned varies. Many of the tasks for environmental cleaning depend on time of day and OR schedule. For example, different recommendations exist for between case cleaning and terminal cleaning—another element in the environment that could influence whether or not a critical surface is cleaned. In one industry study, researchers found that only 40% of near-patient surfaces were cleaned in accordance to existing facility policy.^{9,10}

Critical surfaces impact patient wellbeing. Because the operating room is where sterile procedures are performed, many expect it to be one of the cleanest areas of the hospital. The truth, however, is that the OR—due to gaps in cleaning—may actually be one of the most contaminated.¹¹ That, coupled with the invasive nature of surgical procedures, makes the operating room a highly sensitive environment where the risk potential for HAIs is high.

More clinical pieces of equipment live in the OR. Medical devices influential to operating room procedures may be intimidating based on the large investment in facility dollars tied to healthcare technology. Staff may skip device surfaces out of unfamiliarity or fear of damaging critical equipment; however, the cleaning and disinfection of these surfaces is critical. A recent study documented that only 2.2% of anesthesia equipment surfaces contaminated with blood actually showed visible signs of blood.¹² Though the risk of pathogen transmission from the environment to patients via healthcare workers' hands is high, the appearance of cleanliness combined with the intimidation of high-cost equipment can still lead to inconsistent attention in cleaning.

To help break the chain of infection, surface cleaning and disinfection is one of your first lines of defense.



Tackling the problem

Clear-cut guidelines on how to solve surface contamination don't exist. That's why we've worked with experts nation-wide to develop a comprehensive surface cleaning and disinfection system. It combines process with evidence-based products and education to help decrease the spread of HAIs.



Process questionnaire

Our infection prevention experts assess your current protocols through a series of questions designed to identify areas of opportunity for process and product improvements.

Cleaning Process

Our Clean by Sequence® method guides your staff from surface to surface, so nothing is missed and cross contamination is minimized.

Evidence-based products

You choose the right mix of products—evidence-based with quick contact times—to satisfy the specific needs of your facility.

Staff education

You can access a variety of online and onsite training materials to help staff improve their skills.

Outcomes reporting

Periodic reviews using ATP testing provide you with data to track improvements and correct weak spots. Our system has patented samplers for covering large areas quickly, reporting based on CDC recommendations and a full-color display.



Our Clean by Sequence® Microfiber Booklets are designed with the following goals:

- Increase compliance in cleaning high-touch operating room surfaces
- Reduce cross-contamination by assigning each surface to a separate page
- Reduce room turnover time through zone cleaning
- Reinforces proper cleaning order (top to bottom)

Booklets are made in different colors to help OR staff easily distinguish between the different zones of application.

Cloths

Reusable Clean by Sequence® Microfiber Booklets

Icons are placed on each page of the booklets to represent the high-touch operating room surfaces.

- Green booklets for operating room surfaces in close proximity to the bed (MDT217687)
- Gray booklets for anesthesia surfaces (MDT217689)
- Purple booklets for additional surfaces—numbered, no icons (MDT217692)

Adding the Clean by Sequence Microfiber Booklets comes with access to our enhanced, in-person discovery assessment.

First we examine your current protocols. We observe cleaning practices, evaluate appropriateness of products and perform ATP swabbing to quantitatively measure cleanliness. Once complete, you'll receive specific recommendations to address identified problem areas.



Cleaning process

Industry guidelines established by organizations such as AORN recognize several different high-touch surfaces that are most vulnerable to the spread of pathogens. Giving your staff a step-by-step system helps ensure thoroughness and consistency. Our clean by sequence process and “hot spot” map, making it easy to train, implement and follow. The result—optimal cleaning, enhanced outcomes and reduced throughput times.

OR table surfaces



1. OR Lights (Boom)



2. OR Lights/Monitor (Boom)



3. Arms of Table, Bed Controls and Body Straps



4a/b. OR Mattress



5a/b. OR Table

Anesthesia



1. Monitors/Ventilator and Buttons/Controls (on Anesthesia Machine)



2. Vaporizer and Flow Meter



3. Soda Lime and Scavenging System



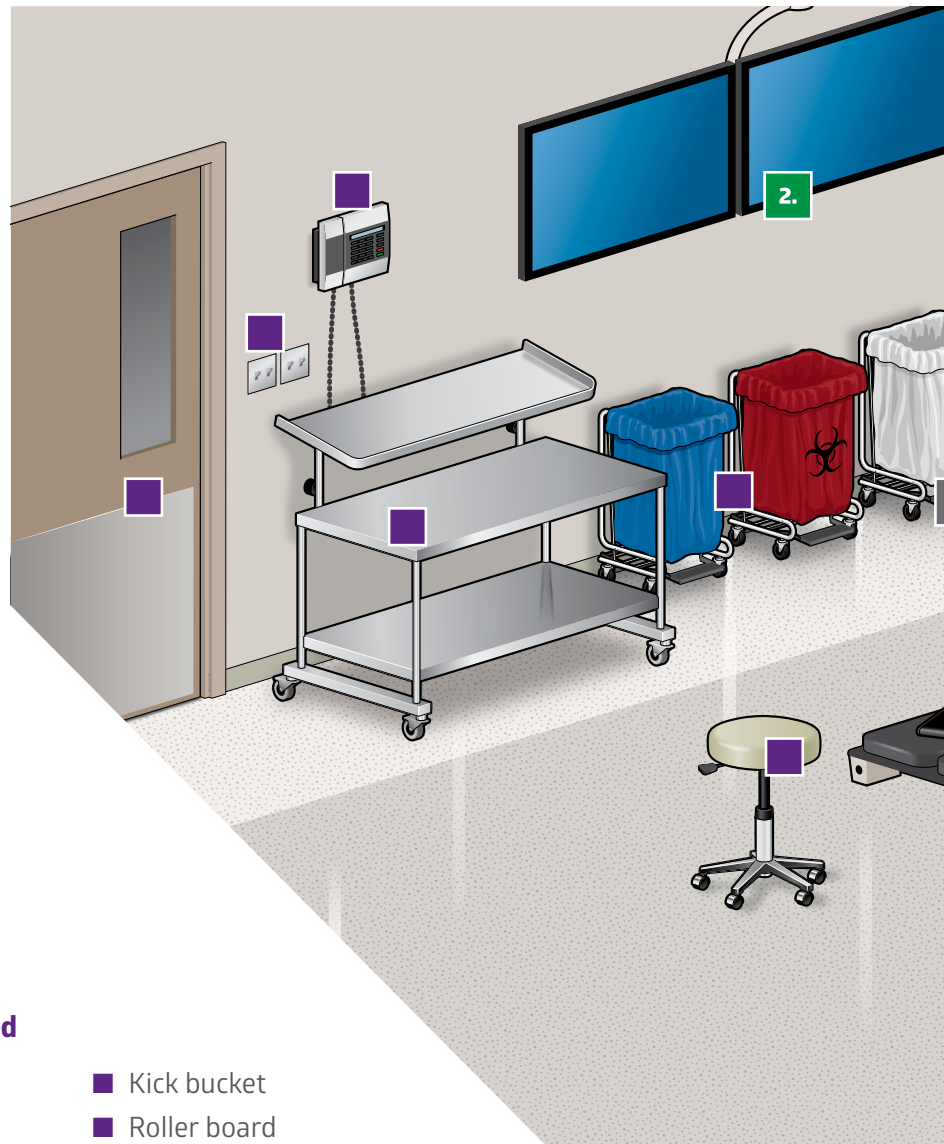
4. Tray and Shelves on Anesthesia Machine



5a/b. Anesthesia Cart



6. IV Pole



Terminal surfaces/in-between if used or soiled

- | | | |
|-----------------------|-------------------------|---|
| ■ Door knob/push door | ■ Mayo stand | ■ Kick bucket |
| ■ Light switches | ■ Back table | ■ Roller board |
| ■ Linen handle/holder | ■ Workstation on wheels | ■ Rolling stool |
| ■ Telephone | ■ Step stool | ■ Positioning devices (pillows, gel/foam supports, etc) |
| ■ Cautery machine | | |

Zero in on germs

To minimize the potential for HAIs, proper cleaning techniques followed by use of the right disinfectants are important weapons in the battle.¹³ Our products give you a powerful weapon in the battle against HAI causing pathogens.



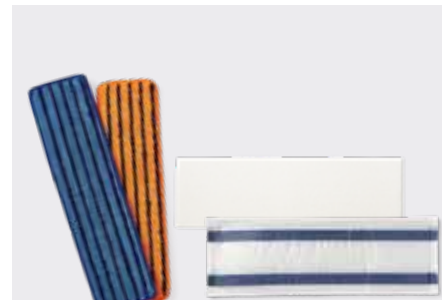
Germicidal Wipes

- Micro-Kill™ Bleach Germicidal Bleach Wipes
- Micro-Kill™ One



Disinfectant Solutions

- Micro-Kill Q3 Concentrated Disinfectant, Cleaner & Deodorizer
- Micro-Kill NQ5
- BruTab 6S Disinfectant Tablets



Microfiber Mops

- Reusable Microfiber Mops
- Disposable Microfiber Mops
- Mop Handles and Frames



Cleaning and Disinfection Equipment

- Solaris™ Lytbot UV Light Disinfection System
- S400 Portable Air Disinfection Device



Cleaning Validation Tool

- AccuPoint ATP Sanitation Monitoring System Meter and Samplers



Disposable Cleaning Cloths

- Dry Wipes
- Charging Bucket
- Disposable Microfiber Cloths



We make healthcare run better.™

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Some products may not be available for sale in Mexico or Canada. We reserve the right to correct any errors that may occur within this brochure.

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