

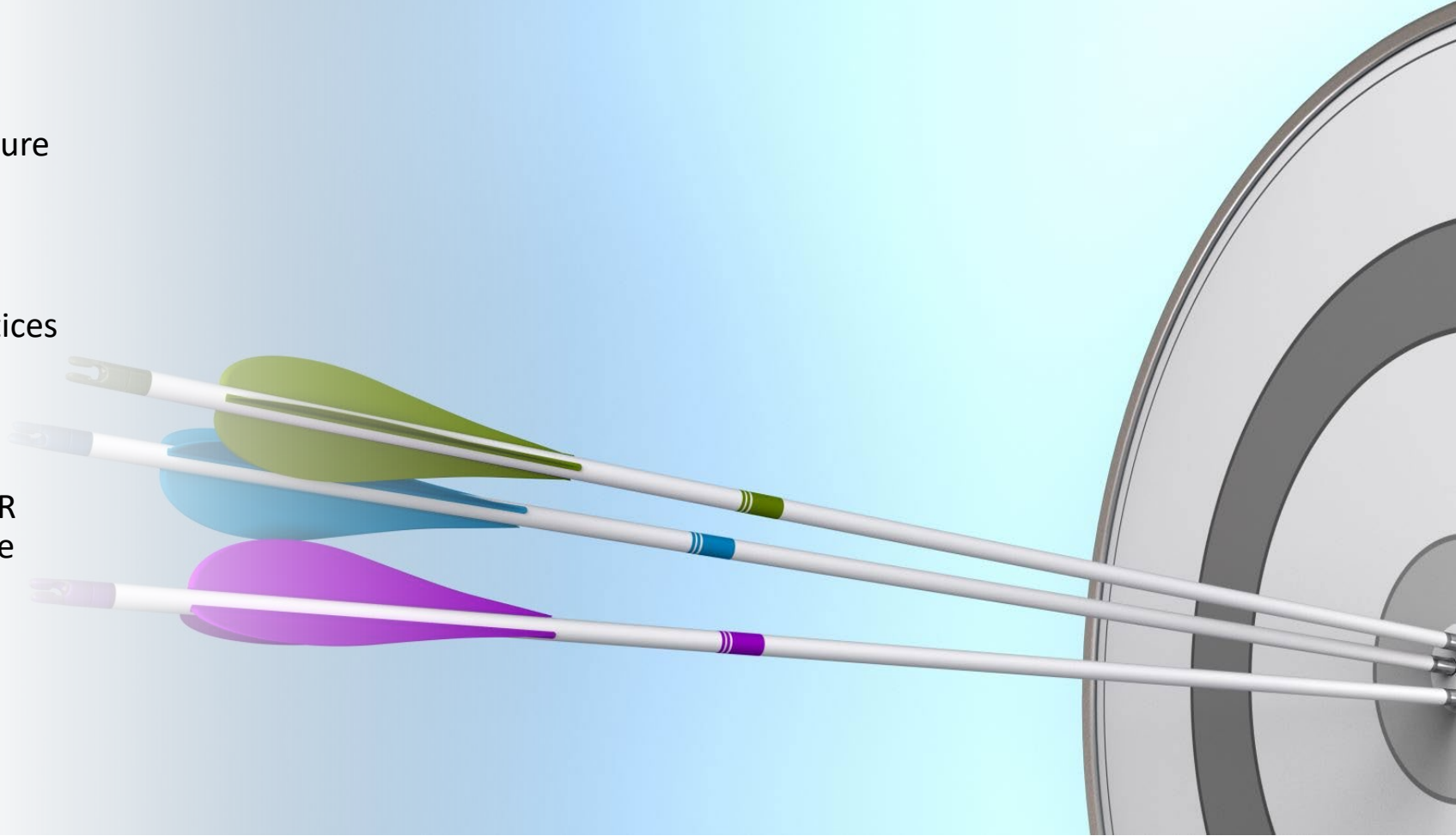
A photograph of four healthcare workers in a clinical setting, likely an operating room, performing environmental cleaning. They are wearing blue scrubs, surgical masks, and gloves. One worker is holding a long-handled brush, another is wiping a surface, and a third is holding a large white cloth. The fourth worker is in the background, also cleaning. The room contains medical equipment, including monitors and a table with a yellow surface.

Perioperative Environmental Cleaning

Natalie Sneed, MSN, RN, CIC, CNOR, CPPS, T-CSCT

Objectives

- Following the presentation, the participants will be able to correctly identify general principles of procedure room/operating room (OR) cleaning.
- Following the presentation, the participants will be able to choose appropriate resources for best practices in procedure room/OR cleaning.
- Following the presentation, the participants will be able to match different type of procedure room/OR area cleanings with their appropriate definitions.



The Facts



- Who: IPs, OR staff, EVS staff
- What: Environmental cleaning specific to the procedural/operating room settings
- When: Several cleaning times
- Why: The perioperative/procedural area is complex and requires a vast knowledge of chemicals and processes to ensure every surface is cleaned/disinfected to reduce hospital acquired infections. Patients are very vulnerable to pathogens in this area.
- Where: Operating rooms, procedural suites

Resources

CDC, AORN, AHE

<https://www.cdc.gov/hai/prevent/resource-limited/cleaning-procedures.html>

Operating room

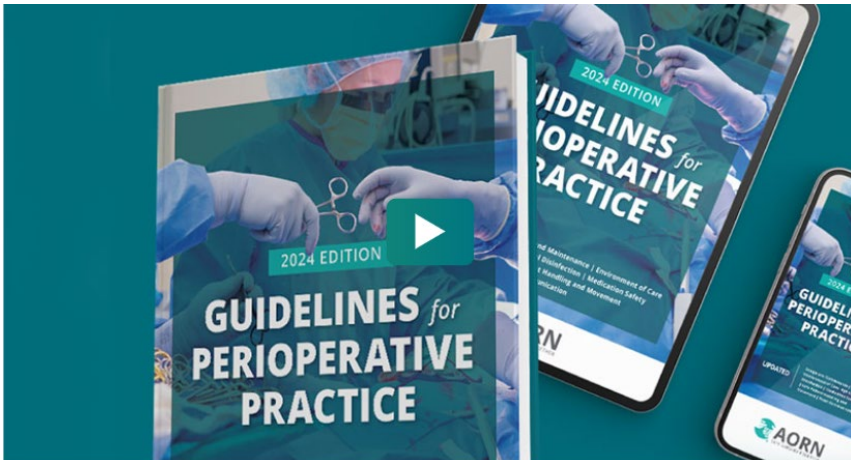
These are high-risk specialized patient areas with a mechanically controlled atmosphere where surgical procedures are performed. A high degree of asepsis is required because the vulnerability of the patients to infection is high.

Appendix B2 Table 1. Cleaning Procedure Summaries for Operating Room

Frequency	Person/Staff Responsible	Products/Technique	Additional Guidance/Description of Cleaning
Before first procedure	Shared cleaning possible: perioperative nursing/clinical staff and cleaning staff	Disinfect: <ul style="list-style-type: none">horizontal surfaces<ul style="list-style-type: none">furnituresurgical lightsoperating bedstationary equipment	See 4.6.1 Operating rooms Records of previous evening terminal clean required; if not or if no surgeries on the day prior, perform terminal clean (as below)
Before and after every procedure	Shared cleaning possible: perioperative nursing/clinical staff and cleaning staff	Clean and disinfect: <ul style="list-style-type: none">high-touch surfaces (e.g., light switches, doorknobs) outside surgical fieldany surface visibly soiled with blood or body fluidsall surfaces and noncritical equipment and the floor inside the surgical field	See 4.6.1 Operating rooms Remove all used linen and surgical drapes, waste (including used suction canisters, $\frac{3}{4}$ filled sharps containers), and kick buckets, for reprocessing or disposal Portable noncritical (e.g., compressed gas tanks, x-ray machine) equipment should be thoroughly cleaned and disinfected before and after each procedure
After last procedure (terminal clean)	Shared cleaning possible: perioperative nursing/clinical staff and cleaning staff	Clean and disinfect: <ul style="list-style-type: none">all surfaces and noncritical equipment in the operating roomthe entire floorany surface visibly soiled with blood or body fluidsscrub and utility areas/sinks	See 4.6.1 Operating rooms Carefully move the operating table and any mobile equipment to make sure that the floor areas underneath are thoroughly cleaned and disinfected Clean and disinfect low-touch surfaces, (e.g., the insides of cupboards and ceilings/walls) on a scheduled basis (e.g., weekly)

Resources

- Association for the Health Care Environment (AHE) Certified Surgical Cleaning Technician (CSCT) Program
- Association of Operating Room Nurses (AORN)
- [CDC](#) Environmental Cleaning Procedures



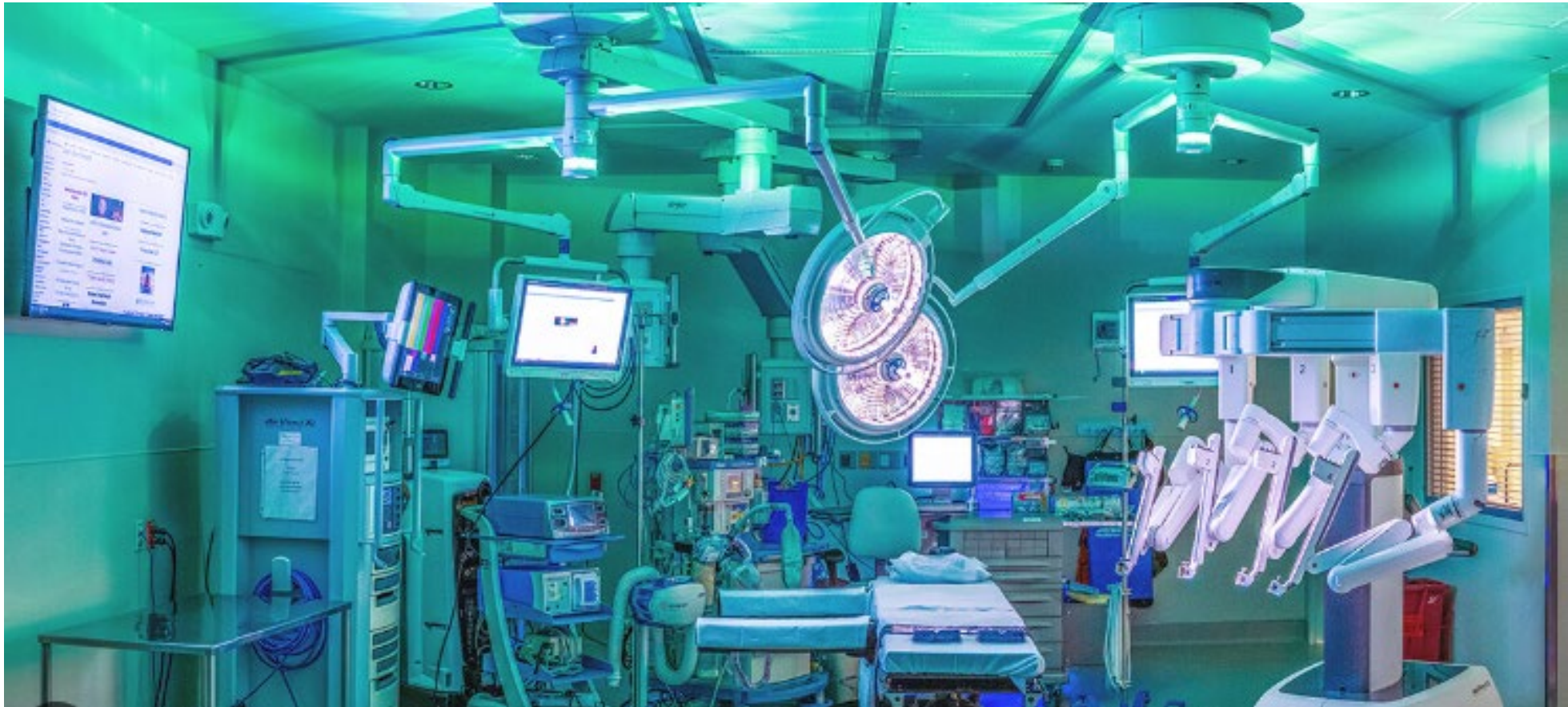
AHE's Certification Training for Surgical Cleaning Technicians (CSCT) program sets the standard for managing pathogens and practicing innovative techniques specific to the operating room and surgical suite — intense, high-stakes environments.

The CSCT program uses a train-the-trainer approach, allowing you to train your staff. This program emphasizes the importance of on-the-job performance and deepened self-awareness of working in the complex surgical environment.



This program made possible through the support and commitment to environmental services by Ecolab, an AHE Pinnacle Sponsor.

Get to Know Your Procedural/Surgery Room



Furniture for Instrumentation



Kick Bucket



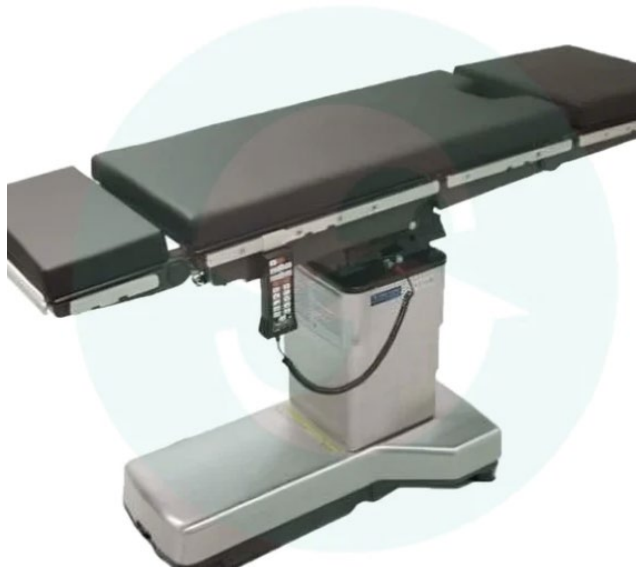
Prep Stand



Mayo Stands



Back Table



Electronic Equipment



Operating Room (Theatre)

Surgical table

- Tilt right-left
- Head-down tilt (Trendelenburg)
- Head-up tilt (reverse Trendelenburg)
- Flexion-extension of the back, and neck
- Gynecologic (lithotomy) position
- Height adjustment
- Capability of taking x-rays

Electrocautery

Operating light

Suction and gases

Monitor

Anesthesia machine

Suction and gases

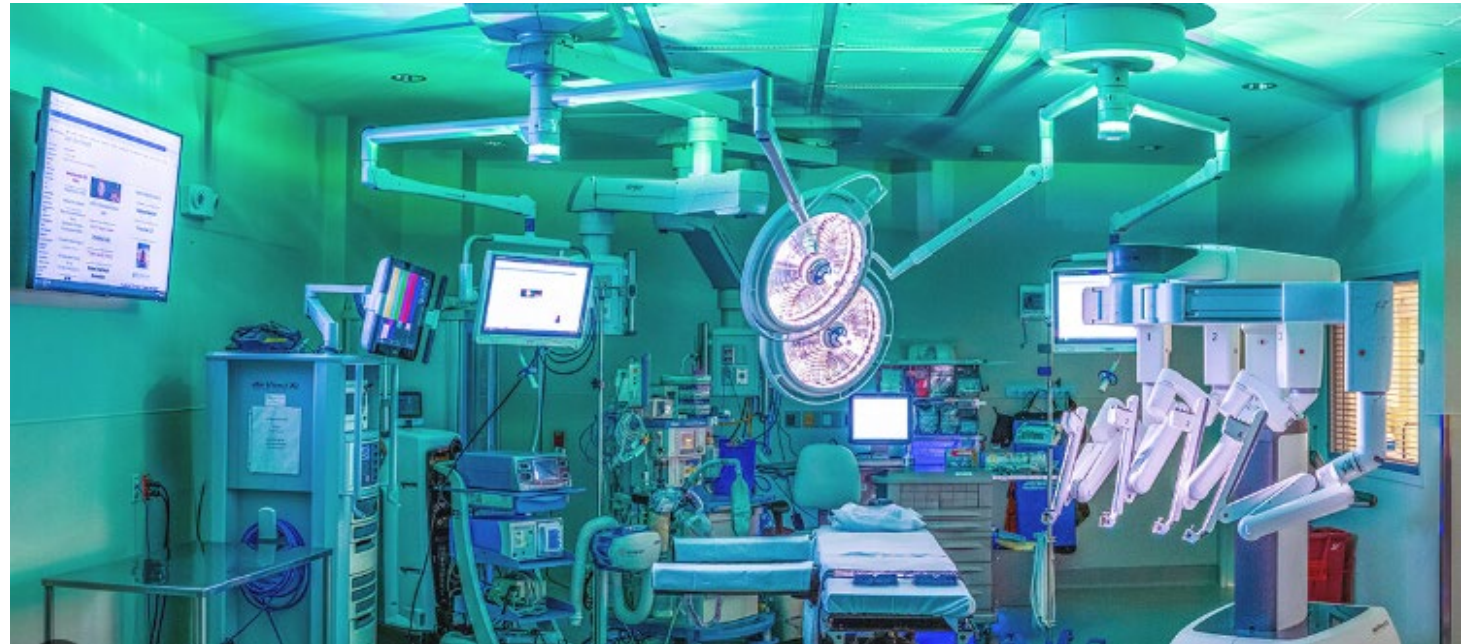
Negatoscope

Surgical table

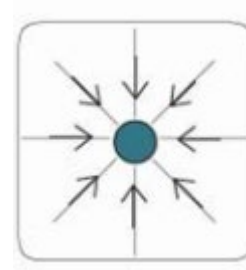
Household and Medical waste

Anesthesia cart or trolley Drugs and equipment

High Touch Surfaces



General Principles of Environmental Cleaning



- Per CDC: Proceed in a methodical manner
- General rules: Top to Bottom, Outside in, Cleanest to Dirtiest. Clockwise or counterclockwise
- Must know equipment is clean before introducing it into the OR room
- All members of the team need to know what the approach will be. For instance, the approach to a room will be different if there are 2 or 6 people.
- Cleaning vs. Disinfection

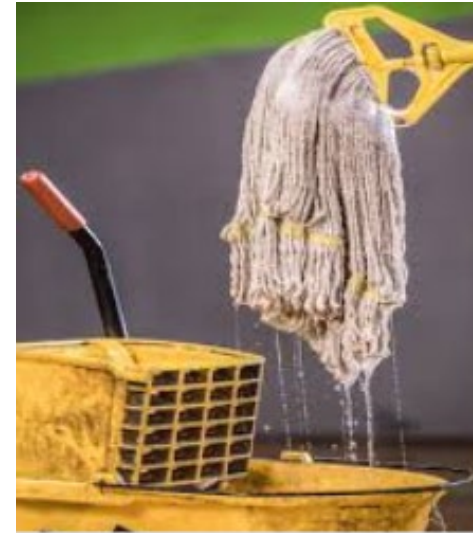


Rules of Environmental Cleaning

- Dedicated OR cleaning Equipment
- No cleaning until patient has left the room.
- Floors in OR must be disinfected, not just a cleaner.
- No cotton mops
- No dry dusters
- No bristle brooms
- No double dipping
- Never double-dip cleaning cloths into portable containers (e.g., bottles, small buckets) used for storing environmental cleaning products (or solutions).
- Never shake mop heads and cleaning cloths—it disperses dust or droplets that could contain microorganisms.
- Never leave soiled mop heads and cleaning cloths soaking in buckets.
- Have dedicated supplies and equipment for the OR (e.g., mops, buckets).
- Use fresh mops/floor cloths and mopping solutions for every cleaning session, including between procedures.
- Use fresh cleaning cloths for every cleaning session, regularly replacing them during cleaning and never double-dipping them into cleaning and disinfectant solutions.
- No spray bottles
- Floor is always considered contaminated



Just Say No



Basics: Times for Cleaning/Disinfecting

- 1) AM Damp Dusting (with disinfectant) of all horizontal surfaces
- 2) In-between case clean(after each case)- normally the most high-pressure clean
 - Enhanced- MDRO (AORN only) Contact Precautions
- 3) Terminal clean (normally in evenings or night shift)
- 4) Scheduled



Time is
Money



Turnover Cleans



Every patient



Every patient, if used



Enhanced



If soiled

OR Cleaning/Disinfecting Chemicals



Approaches or Methods of Cleaning: Game Plan

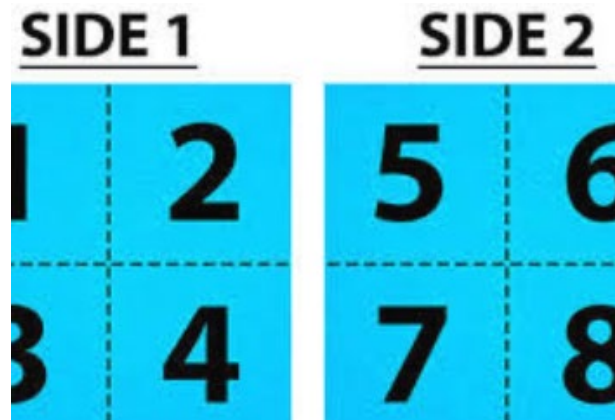


Method 1. Perimeter Method

Method 2. Divide-in-Half Method

Method 3. Zone-Cleaning Method

Disposable Wipes vs. Reusable Cloths



- Either is OK
- Recommended Low Linting
- Safety of Staff
- Environmental Impact
- Wet/Contact Time
- Ease of use
- Ability to perform as intended
- Maintenance of Product
- Size of Area
- Frequency
- Storage space
- Cost
- Laundering Process and Turn Around Time
- Technique (2 vs. 1 wipe, folding 8 areas)

Unidirectional Wiping





Helpful Visual Cues

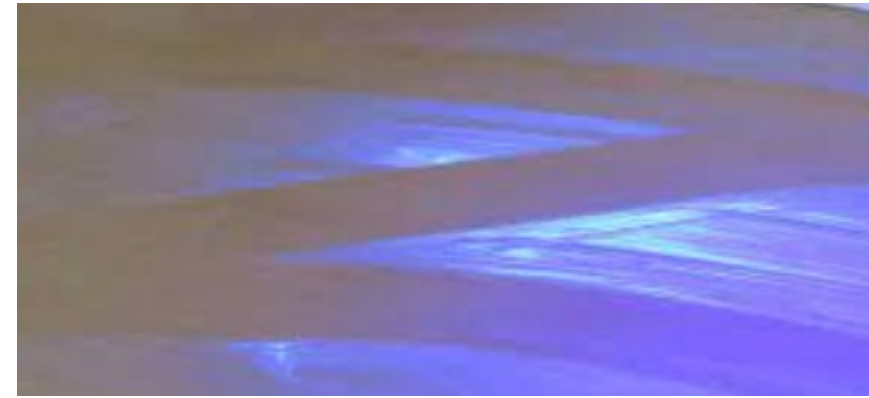
CDC Audit Information

Methods for assessing cleaning practice include :

- direct performance observations
- visual assessment
- fluorescent markers

Methods for assessing the level of cleanliness include:

- measuring the residual bioburden (i.e., ATP)
- taking a bacteriological culture of the surface itself using a swab or contact agar plate method
- Combinations (turnover vs terminal), timing (between cases, end of day), reporting, interpretation of ATP testing and Black Light audits



Audit Reporting

- Where will it be reported?
- Are all the appropriate members receiving the data?
- Will you have time to work thought issues when you report?
Subcommittee or TAG group?



PPE

- Standard Precautions must be followed.
- PPE worn when handling contaminated items
- Gloves worn when reasonably anticipated contact with blood, body fluid or potentially infectious materials
- Mask, eye protection and face shields must be worn when contact with splashes, spray, splatter, or droplets of blood, body fluids or other potentially infectious materials is anticipated
- Wear respiratory protection if cleaning procedures are expected to generate infectious aerosols
- Hand hygiene post PPE





Clean Your Cleaning Equipment

- What reusable cleaning equipment is there?
- Who cleans it?
- How often?
- Storage?
- No Topping Off





Now Let's Make it Personal

Mapping Out Your Area



Sample Document for Observations

	A	B	C	D	E	F	G	H
1	Procedural Area	Procedural Area Notes	Contact	Damp Dust Observed and Notes	Turnover Clean Observed and Notes	Terminal Clean Observed and Notes		
2	Main OR (example)	13 Rooms/Diverse Eqipment	John Smith 123-4567	Observed use of PDI disposable Sani cloth used on all flat surfaces except xyz... Performed by OR staff	Observed. Missed portion of mayo stand and back table, zone cleaning approached observed. Performed by OR staff	Observed. Did not observe any cleaning of wheel casters. Used dry duster. Performed by EVS staff.		
3								
4								
5								
6								
7								
8								
9								
10								
11								

Assessment Activity

- Sample experiment: Have staff representation from every area mark everything they clean/disinfect during turnover or terminal clean in an open OR with lots of equipment. (I used different color sticky notes for each area.) At the end of the session, you should be able clearly see what is missing post its and be able to address this in policy.



Creating an Evidence-Based Cleaning/Disinfection Plan

- Using resources such as CDC, AHE and AORN, create a cleaning responsibility grid with any stakeholders (EVS, OR staff (RNs and Techs), Anes tech, OR attendants and Leadership) Use all items mapped out that could potentially be in a procedure/operating room.
- This could take a while.
- Lessons learned: Create column for IFU cleaning/disinfection product, don't forget storage areas.

Source to Clean	In the AM All OR Staff	Between Every Case All OR Staff	After Last case of the Day for OR STAFF	Terminal Clean for EVS
Walls		Only if soiled or potentially soiled		Yes
Equipment like Bovie, Robot, Perfusion Machine, Patient Monitors	purple top wiped- horizontal surfaces	Yes	Yes	
OR Furniture- back table, Mayo,	purple top wiped	Yes	Yes	
Change Linen Receptacle		Yes	Yes and Wipe down	
Wipe Kick Bucket		Yes- if used	Yes	
Computer	purple top wipe horizontal surface of it	Yes	Yes	
Top of computer Desk	purple top wiped	Yes	Yes	Yes
Phone	purple top wiped	Yes	Yes	
IV Poles		Yes	Yes	
IV Pumps		Yes	Yes	

A blue and silver ballpoint pen is positioned diagonally across the left side of the frame. The pen's tip is pointing towards the bottom right. It rests on a document that features a blue bar chart with several vertical bars of varying heights. The background is a light blue gradient.

Policy and Procedure

- Based on your grid, the policy, which should be more generalized, will be easy to write.
- AORN has [sample cleaning policies](#) for damp dusting, turnover and terminal cleaning, enhanced and scheduled cleaning as a baseline.

Creating a Working Checklist

- How will staff know that the previous clean has occurred?
- Process, paper, board?

OR Procedure Room Before First Case of the Day		Responsibility
Remove Unnecessary Equipment		OR Staff
Damp Dust from Top to Bottom (Furniture, Booms, Equipment, Anesthesia Machine, Shelves, Radio Cupboard, Back of Spotlights and Fixed Imaging Equipment)		OR Staff
OR or Procedure Room Turnover		
Collect Linen and Wipe Linen Receptacle		OR Staff
Remove Gross Soil		OR Staff
Remove Large Debris From Floor		OR Staff
Remove Trash, Wipe Trash Receptacle and Kick Bucket		OR Staff
Clean and Disinfect		
Anesthesia Cart and Equipment (IV Poles and Pumps)		Anesthesia Tech
Anesthesia Machine		Anesthesia Tech
Anesthesia Pyxis		Anesthesia Tech
Patient Monitors		Anesthesia Tech
Room Decluttered		OR Staff
Supplies put up and nothing on top of storage carts		OR Staff
Computer, Keyboard, Monitor, Equipment Cords, Power Cords		OR Staff
Patient Transfer, Bed, Bed Attachments, Straps and Positioning Devices		OR Staff
Overhead Procedure Lights, top and bottom		OR Staff
All OR Furniture (Table, Mayo Stand Prep Stand etc..)		OR Staff
Mobile and Fixed Equipment and All Shelves of Equipment		OR Staff
Spotlight		OR Staff
Suction Regulators and Medical Gas Regulator		OR Staff
Doors, Wall Panels, Light Switches & Kick Plates If High Use		OR Staff
Imaging Monitors/Equipment		OR Staff
Electrosurgical Units (all shelves), Microscopes, Robot, Lasers		OR Staff/Imaging Staff
Floors and Walls if Soiled (Splash, Splatter, Spay) Mats & Step Stools and Move Mats to Clean Underneath Mats and Step Stools		OR Staff
Patient Transport Devices (Straps, Handles, Side Rails, attachments)		OR Staff
Telephones		OR Staff
Computer and Accessories		OR Staff
All Step Stools Wiped down		OR Staff
End of Day		
Computer Desk (including lower shelves 1 x per day)		OR Staff
Unicals or Carts		OR Staff
Equipment in Substerile Room at end of day and sides of blue bin		OR Staff
Put up supplies		OR Staff
Suture Cart wipe down		OR Staff
Ensure nothing stored on top of carts		OR Staff
Non-essential positioning equipment removed daily		OR Staff
PACS Computer and all flat surfaces near it wiped daily		OR Staff
Terminal Clean		
Substerile Room Countertops and Sinks, Outside of Autoclaves, Top of Blue Bin		EVS
Glass and Blinds		EVS
Booms		EVS
Storage Shelf Above Scrub Sink and Scrub Sink		EVS
Top of Computer Desks		EVS
All Floors, Move Mats and Clean Under Mats		EVS
Storage Cabinets, Supply Carts, Furniture		EVS
Spotlight		EVS
Wheels and Casters of All Equipment		EVS
Top of Anesthesia Desk Surface		EVS
AC Returns, Vents, Ceiling Anes Plugs		EVS
Light Switches/Door Handles		EVS
Outside of Blue, Black and Red Bins		EVS
Chairs, Stools, Step Stools		EVS
WEEKLY Cleaning		
Vacuum back and wipe down all parts of Anesthesia Cart, back of computers in room		Anesthesia Tech
Anesthesia Shelving with Supplies Wiped down		Anesthesia Tech
Vacuum and wipe back of Anesthesia machine before Terminal Clean		Anesthesia Tech

Education

- Observe and review
- What are they missing
- General Principles
- Approaches
- Time Frames



Your ORs Await!

