**Attachment 1: Environmental Cleaning and Disinfection in the Operating Room**

It is the duty and responsibility of the operating room nursing team (RN, Surgical Technologist, Operating Room Attendant) and Environmental Servicesto provide an optimally aseptic environment for each patient to ensure quality care and to protect patient and personnel from cross-transmission of microorganisms.

The following components are listed as guidelines for OR environmental cleaning practices:

1. Specified cleaning equipment for types of cleaning to be done. Decontamination and/or disposal of equipment after use.
2. Types of EPA-registered hospital disinfectant to be used in cleaning relative to materials and area.
3. Specific areas and contents to be cleaned and specified time intervals for cleaning are outlined by AORN as:
	1. Prior to first case cleaning: Damp dust all horizontal surfaces (eg, furniture, surgical lights, booms, equipment) before the first scheduled surgical or other invasive procedure of the day
	2. Intra-Operative cleaning: Efforts made during case to maintain an aseptic environment to the extent possible.
	3. Between case cleaning: Operating and procedure rooms must be cleaned and disinfected after each patient procedure
	4. Terminal cleaning: Thorough environmental cleaning that is performed at the end of each day the room or area is used.
	5. Scheduled cleaning: Periodic cleaning (e.g., weekly, monthly) of areas and equipment that are not cleaned daily or after every use.
4. Personnel are assigned to clean the operating rooms, sub-sterile rooms, and the scrub sink areas.
5. An assignment sheet for each shift with assignments clearly stating the name of the person responsible for areas to be cleaned.
6. A designated supervisor shall make the assignment and monitor performance each shift.
7. Rounds performed by Environmental Services and OR management willevaluate cleaning methods and techniques.
8. In-service programs to update knowledge and skills in methods of cleaning as indicated.
9. Staff assigned to clean an OR room used for a patient on Contact or Enteric Precautions must wear gloves and a yellow isolation gown (or other disposable isolation gown/cover). After cleaning is completed, the gloves and cover gown should be removed and placed in a trash bag inside the OR. Gloves should be worn to carry the trash to the bin and after depositing the trash bag in the bin, gloves should be removed and hand hygiene performed.

Equipment and Materials to be used in Cleaning

Mop handle, microfiber mop head
Cleaning cloths and/or paper towels
Spray bottles with an EPA-registered hospital disinfectant

Disinfectants

EPA-registered disinfectant at recommended use-dilution if applicable

70 percent alcohol, limited use
Sodium hypochlorite solution 1:10 (expires in 30 days) or commercially prepared bleach wipes

Quaternary ammonium solution at recommended use-dilution

Accelerated Hydrogen Peroxide

Defender Sporicidal Disinfectant

Cleaning Schedule - Environmental cleaning between cases, terminal cleaning at the end of the day and other scheduled cleaning is performed by Environmental Services personnel.

A. **Prior to first case:** prior to the first scheduled surgical procedure of the day, the circulator and surgical technologist will inspect the room for cleanliness:

 1. Operating room attire will be worn. Masks are needed when sterile instruments are exposed or if an operation is about to begin or is underway.

 2. An inventory is made of provisions to prevent spreading of contamination: plastic-lined kick buckets, EPA-registered disinfectant, unsterile plastic-lined trash bins.

 3. All horizontal (flat) surfaces and spotlights are to be inspected and, if necessary, damp dusted with a clean cloth moistened with an EPA-registered hospital disinfectant. Nonsterile gloves are worn to protect hands while cleaning.

 4. Any other visible dust or debris in the room or on equipment will be removed in the same manner.

 5. Sterilizer rims and countertops in adjacent sub-sterile room should be inspected and cleaned as necessary.

B. **Intra-Operative:** it is the responsibility of the circulator to maintain an aseptic environment to the extent possible:

 1. Control traffic pattern to reduce air turbulence. During surgical procedures, all enter the OR via the side/clean core-door when feasible.

 2. Areas contaminated with blood or other potentially infectious materials will be cleaned immediately. Gloves should be worn.

* Small spills are cleaned up wiping up the spill then cleaning the area with the EPA registered disinfectant.
* Large spills should first be cleaned of visible matter using disposable absorbent material, the remaining spill wiped or mopped up then the area cleaned with the EPA registered disinfectant.
* Broken glass is always removed by using a mechanical device. Never pick up broken glass with gloved hands. Tongs or forceps may be used or a brush and dust pan. Dispose of broken glass in a sharps container. If the broken glass is contaminated with blood or other potentially infectious materials, the equipment used must be cleaned with a bleach solution or an EPA registered disinfectant.

 3. Soiled sponges are deposited directly into plastic lined kick buckets. An instrument or a gloved hand is used to count and remove sponges from the bucket into clear plastic count bag pockets.

 Note: Gloves are worn only when handling contaminated items; they are removed and hand hygiene performedbefore handling anything clean (e.g., door handles, telephones, wrapped packages, computer keyboards).

 4. Trash should not be allowed to remain on the floor. Deposit in plastic-lined bins.

 5. Dropped instruments from the sterile field should be cleaned and placed in the case cart or bottom shelf of the OR table for reprocessing after the case.

C. **Between Cases:**

 1. Generally, special cleaning, disinfection or closing of the ORs is not necessary after contaminated or dirty cases or after patients on isolation with the exception of patients on Enteric Contact Precautions. A 1:10 bleach and water solution or bleach wipes for smaller surfaces should be used for Enteric Contact Precautions rooms.

 2 For patients on Airborne Precautions, the HEPA units should run for 30 minutes after the patient leaves the OR. A respirator (i.e. CAPR, N-95) should be worn by anyone entering the room during that time.

 3. Contaminated instruments will be sent to CPD in the case cart by OR personnel.

4. Disposable linen is placed in trash. Trash bags are closed and removed to the outside of the room. Launder-able linen should be placed in linen bags and closed prior to being sent down the linen chute.

 5. Furniture and Equipment: all items in direct use must be wiped with an EPA-registered disinfectant (e.g., OR table, arm boards, safety straps, base of bed,cautery, doctor's headlights, OR spotlights, computer keyboards) after use in a surgical procedure.

 6. All horizontal surfaces are to be wiped with an EPA-registered disinfectant.

 7. Walls, cabinet doors, step stools, and other equipment should be spot cleaned if visibly soiled.

 8. The floor is mopped between cases with an EPA-registered disinfectant. A new microfiber mop head is used for each room and is never returned to the mop water after use. A perimeter of at least 6 feet around the OR patient table is mopped between cases except for minor procedures; the area is extended as necessary to any adjacent areas of obvious contamination. When indicated, the table should be moved aside for adequate cleaning beneath the OR table.

 9. Deposit linen and trash.

 10. PPE, including shoe covers contaminated with blood, should be removed prior to leaving the OR.

 11. Staff involved with cleaning between cases must remove gloves after cleaning and perform hand hygiene.

D. **Terminal Cleaning:** Each OR, sub-sterile room and scrub room will be terminally cleaned daily according to AORN recommendations. OR personnel may assist upon request. An EPA-registered disinfectant is used for cleaning.

 1. Furniture/Spotlights: All surfaces of each piece of furniture and the OR spotlights are cleaned. Frames and castors are included in cleaning and should also be cleaned of suture and other entrapped materials. The Operating Room patient table is completely taken apart and scrubbed down, including pedestal and accessories, arm boards, etc.

 2. Kick buckets (including stand and castors) and waste bins are cleaned and air dried before inserting a plastic liner.

 3. All freestanding equipment including laundry bag stands and castors or machines are wiped down. Caution: Do not spray or allow solution to get into electrical components.

 4. Cabinet and operating room doors are spot cleaned with special attention to handles and frames. Make sure cabinet doors are closed to prevent contamination of contents.

 5. Tops of all structures that are not recessed are wiped with a cloth dampened with a disinfectant.

 6. Intake vent grills are wiped with a disinfectant.

 7. Floors are cleaned with an EPA-registered hospital. Special attention should be given to corners and moldings.

 8. Walls and ceiling-mounted equipment are spot cleaned daily.

 9. Anesthesia machines and equipment are terminally cleaned by anesthesia personnel in accordance with the [Infection Prevention: Anesthesiology policy](https://unchealthcare-uncmc.policystat.com/policy/4786838/latest/).

E. **Scrub Sink Areas:** terminally cleaned by methods described above.

1. Sink and faucets
2. Shelves
3. Mirrors
4. Walls
5. Floors and moldings

F. **Sub-sterile Room:** adjacent to each operating room. Terminally cleaned by the methods above.

 1. Sinks

 2. Counters

 3. Shelves

 4. Cabinets (outside)

5. Walls - spot cleaned
6. Furniture
7. Ledges
8. Warmers: inside and outside
9. Autoclaves
10. Floor and moldings

G. **Scheduled Cleaning:**

1. The inside of supply cabinets are cleaned monthly. Supplies are removed and shelves are cleaned with an EPA-registered disinfectant before replacing supplies. All supplies are checked for package integrity and expiration date, if applicable.

2. Walls and ceiling-mounted equipment are thoroughly cleaned weekly (spot cleaned daily).

H. **Care of Cleaning Equipment:**

 1. Buckets used in cleaning are to be scrubbed and dried.

 2. Mop heads are to be bagged and sent for laundering.