Sterile Area Cleaning Guide

Altro’s recommended maintenance plan for areas that require superior hygiene.

Altro wishes to take this opportunity to provide in simple layman’s terms and language an introduction and explanation to sterile and clean area floor and wall cleaning and maintenance. Altro fully understands the extreme complexity of this subject of disinfecting and we fully understand that we are not the experts in the field of disinfecting, but we are experts in the field of cleaning and maintenance of our floor and wall products. Based on our recent research and on our current knowledge (as of 2013), no other floor and wall manufacturer have ever before attempted to explain this very complex area of cleaning and maintenance verses disinfecting in a sterile area, we hope to do this very thing in a simple and easily understandable manner. This is being done in an effort to help clients and the facilities that they work in and manage to get the most aesthetically pleasing floor and wall surfaces while still meeting the complex needs and challenges of obtaining the healthiest surfaces and environments as possible.

Introduction

First we must start with some misconceptions, followed with some very basic definitions, and then finally provide some information that will conclude in and with some suggested techniques and processes which will lead to and provide everyone with a floor and wall surface that is both disinfected, clean, and pleasing to look at.

Misconceptions

1) **In many cases confusion exists between Disinfection and Cleaning. The misconception is that disinfecting is cleaning and it is not!** Disinfecting and Cleaning are two completely separate things and in most cases require two separate actions and processes.

2) **That disinfectant chemicals are not to be cleaned off, or rinsed off after use; in many cases this is simply not true.** Disinfectants in a dry state do not have a residual activity; the disinfectant action can only take place when moisture is present; so in other words the disinfectant has to remain wet for it to work, a dry residue or film of disinfectant may be problematic.
3) And this brings us to the very incorrect misconception that the disinfectant residue/film will not damage a surface (such as a floor or wall surface). The potential of damage is completely dependent on the type and concentration of chemicals contained in the disinfectant and how much of this residue/film is left behind. A dried on disinfectant residue/film (along with all the bugs that it has killed and the soil it may contain) can in fact make a floor or wall surface sticky, attract additional soiling, discolor or even chemically damage the surface of which it is left on.

4) And the idea that only certain hospital grade or EPA registered disinfectants can be used on floors and wall surfaces. This will always be a contentious subject and would require continual updating if we were to attempt to list appropriate disinfectant products that would both meet a facilities needs for infection control as well as being safe for resilient flooring. In most cases the disinfectant chemical selection will be part of the facilities Infection Control and Environmental Services plan. They will have dedicated staff for making the critical decisions for disinfectant chemicals and monitoring the products effectiveness. Each facility will have a process of selecting products that meet the facility’s particular needs, they will have and conduct training programs for the personnel doing the disinfecting and cleaning, and they will have processes for monitoring effectiveness.

CDC Guidelines

From the CDC Guidelines for Disinfection and Sterilization in Healthcare Facilities (2008) it states; the routine use of germicidal chemicals to disinfect hospital floors and other noncritical items is controversial.

So with this information in mind we can see that disinfectant chemical selection can be a difficult task requiring actual experts in the field of disinfection, disease control, and then the actual process of cleaning.

Definitions

Cleaning: The act of removing dirt or something undesirable.

Disinfection: The process of killing pathogenic organisms or rendering them inert.

Disinfectant: Kills 100% of the germs claimed on a disinfectant label when used as directed. It does not kill spores.

Terminal disinfection: Disinfection of a sick room and its contents at the termination of a disease, procedure, and/or end of day.

Sanitization: Reduces germs to a safe level, as judged by public health standards. Sanitizing must reduce the number of germs by 99.99%. While 99.99% sounds like it should be good enough, it still can leave a significant number of germs on a surface.

There can be several billion germs on a dirty surface, such as a dirty plate. If you have 5,000,000,000 germs on a surface, and you are able to take away 99.99% of them, you are left with 500,000 germs on the surface. Again, sanitization reduces germs to safe levels. **Sanitization Is Not Disinfection.**

Residue: A small amount of something that remains after the main part has gone or been taken or used. Something that remains after a part is taken, separated, or designated or after the completion of a process.

We can see from the simple definitions provided that the process of disinfection is much different than the process of cleaning and that it is very important to understand the definition of residue and that a residue can be anything that is left behind after the process of cleaning or disinfecting; it is these residues that create the problems.

To elaborate, Cleaning is the process of removal. Cleaning entails chemicals, equipment and services (labor), cleaning is accomplished using a cleaning agent (chemical) that is designed to soften, emulsify, break down and suspend the items such as soil and other deposits it comes into contact with. The right chemical (cleaning agent) must be selected and used for the type of soil (just as a disinfectant must be selected on the type of bugs that it is intended to be killing).

Cleaning chemicals, as well as disinfectant chemicals, need to be products that are not just designed for the specific type of soil or microorganisms that they need to kill or clean up, but they must also be designed not to damage the type of surface that they will be coming into contact with; not all cleaning or disinfecting chemicals can be used safely on all types of surfaces.

**Let us always remember that disinfecting is the process of killing and it is not the process of cleaning or removing residues.**

Selected EPA-registered Disinfectants (2012) can be found online at [www.epa.gov/oppad001/chemregindex.htm](http://www.epa.gov/oppad001/chemregindex.htm)

Remember that an EPA registered disinfectant is a registered bug killer/pesticide and it is not a cleaning chemical. If using a disinfectant and cleaner all in one combination product to both disinfect and clean a surface such as a floor or wall, check with the product/chemical manufacturer for assurances and guarantees that their product is safe for use on the particular type surfaces being cleaned. If the product manufacturer cannot provide assurances of the products safety for use on the surfaces then a thorough cleaning and rinse of the product must take place after its use and in particular after terminal cleaning.

It should now be evident that a facility must develop and have a well written plan of both disinfection and cleaning, and that these plans must be accompanied by simple and easy to understand written procedures that can be followed by the personnel that will be performing the work. The very most important part of this
document is to provide the understanding that surfaces must be cleaned (residues removed) and surfaces such as floors in particular, be rinsed after disinfecting!

Disinfecting

A disinfecting program for an O.R. or other sterile area requires close work with all parties involved including but not limited to; OR leadership, infection control, environmental and housekeeping services, as well as the disinfectant chemical manufacturer, supplier and representative.

Develop policies, procedures, and specifics on disinfectants and their use. Make sure that they meet the institution’s needs. Evaluate each item to make sure they conform to CDC and AORN recommendations and absolutely ensure that disinfectant chemicals meet the needs of the facility as well as are safe for use on the surfaces that they will be used on.

Write, review, and train in the disinfecting processes, chemicals, and procedures (the 1, 2, 3s). These procedures generally have a 1, 2, 3, similar to this:

1. General disinfecting cleaning using an Environmental Protection Agency (EPA)-registered disinfectant to remove visible dust, dirt, and debris from floors and walls.

2. Between-case disinfecting cleaning using an EPA-registered disinfectant for patient-contact surfaces and for appropriate removal of visible potentially infectious materials (blood and body secretions and splashed irrigating solutions containing these materials).

3. Terminal or end-of-day disinfecting cleaning of surfaces and equipment with a disinfectant registered with the EPA.

Please keep in mind that Altro is not the expert in disinfecting or the chemicals needed or used for these processes and we cannot assume responsibility for any damage that may be caused to any Altro floor or wall product by the use of disinfecting chemicals or disinfecting cleaning procedures. All assurances of a product’s effectiveness and suitability must come from the product/disinfectant manufacturer.

Cleaning

After the disinfecting process, the floors and walls must be cleaned and rinsed well to remove any residues of harmful chemicals, disinfectants, or other potentially damaging residues and substances.

(This may be on less than a daily schedule however it must be frequent enough to prevent damage to the floor and wall surfaces from disinfectants and other chemicals).

1) Make sure the floors and walls have been effectively disinfected per previously mentioned policy and procedures developed by infection control, housekeeping, and disinfectant supplier.

2) Put on clean disposable gloves prior to cleaning; utilize all PPE (personal protective equipment) as outlined in the facilities policies and procedures for cleaning and disinfecting.

3) Altro Whiterock Sterile Area Walls
   A) Walls should be cleaned if there is visible contamination.
   B) They should be cleaned on a regular schedule and not less than once a week or as prescribed by infection control.
   C) Mix AltroClean 44 in a bucket.
   D) Walls should be cleaned in an even pattern using three to four-foot strokes (clean with a microfiber towel or soft nonabrasive cloth or sponge). It will take practice not to miss any areas.
   E) Rinse with clean water.

4) Altro Floors Sterile Areas
   In addition to the disinfecting that takes place in an OR / Sterile Area setting, periodic scrub cleaning is required to minimize any surface residue that may collect due to product texture. Scrub the floor with an abrasive pad such as an Altro UniPad or medium duty scrubbing pad or stiff-bristled scrub brush to loosen any dried-on or clinging materials and then suck up the dirty water with a wet/dry vacuum. Alternatively an Auto Scrubber (3 in 1 machine) may be utilized, and/or if using a mop use a clean mop head for each room and a two-bucket system: one bucket will contain the cleaning solution and the other bucket will contain clear rinse water.
   A) Remove all movable equipment and furniture that may have been replaced after disinfecting. (Since all these items are mounted on casters, the job of moving things can be done in minutes. Just remember the original placement of all the items you have moved).
   B) Ensure that all loose dirt, dust, and debris has been removed; this can be done with a dust mop, microfiber mop, shop vac or wet/dry vacuum, pay particular attention to the area where the surgical team works.
   C) Mix a solution of AltroClean 44 following label directions.
   D) Apply the cleaning solution to the floor and let it sit for 5 minutes (this will break up and emulsify soiling and residues).
   E) Mechanically scrub the floor with scrubbing machine fitted with an Altro UniPad.
   F) Wet vac up cleaning solution.
   G) Rinse the floor. Cover the floor in clean water to rinse away any remaining cleaner. Pick up the rinse water with the wet/dry vacuum, or use a clean mop head and allow the floor to dry.
   H) Return furniture to the room once the floor is completely dry.
Safety Flooring Cleaning Guidelines

FOR OPERATING ROOMS

1. Vacuum up dust and dirt, remove large debris.

2. Measure out correct volume of AltroClean 44™ or equivalent cleaner.

3. Apply solution to the floor and allow it to sit for about for 5 minutes.

4. Mechanically scrub using rotary cleaner fitted with Altro UniPad or equivalent.

5. Wet vacuum the residue.

6. Rinse thoroughly with hot, clean water to ensure no cleaner residue remains on the surface.

7. Wet vacuum up the water.

8. Allow surface to dry before use.

Note: The use of hand ‘edge scrubber’ (UniPad 4”x14” pad or equivalent) may be necessary to clean into corners and around obstructions.