

SurfaceAide® Antimicrobial Treatments

Cancer Center Hospital: U.S.

Just prior to opening in January, 1990, a ruptured water pipe on the 12th floor flooded the building with an estimated 500,000 gallons of water. Ceilings, walls, carpeted floors and upholstered furnishings were either wet or exposed to high humidity. Attention focused on restoring the microbiological quality of the building, particularly in Bone Marrow Transplant areas where immunosuppressed patients would be housed.

Need:

Despite high efficiency air filtration and widespread use of a chlorine-based disinfectant fog throughout the building and ventilation system, large numbers of fungi and bacteria were retrieved from the air in all areas of the hospital.



Results:

All accessible interior surfaces (carpets, walls, above ceiling spaces, furnishings, elevator shafts, mechanical and electrical chases) were treated with SurfaceAide® antimicrobial. Of the 209 sample sites, 122 (58%) of pre-treatment retrievals produced 2,800 CFU's/m³. The final post-treatment samplings produced retrievals in the range of 0-4.7 CFU's/m³, with an average retrieval of 0.4 CFU's/m³. 65% of the sites produced 0 CFUs. All 24 Bone Marrow transplant patient rooms were negative for microorganisms.

MidMichigan Medical Center Infusion Center: Midland, MI

A rapidly growing patient population led MidMichigan Medical Center - Midland to construct a new and larger Infusion Center facility on their 150-acre campus. The new center was designed to serve up to 19 patients simultaneously, with physician specialists, a nutrition center, a pharmacy and a laboratory all onsite.



Need:

Though MidMichigan had not experienced infection control problems, their strong commitment to patient safety led them to seek the extra layer of protection for their infusion patients.

Results:

Ingenuity IEQ applied SurfaceAide® antimicrobial surface treatments throughout the 11,000 sq. ft. facility, including on all floors, walls, ceilings, equipment, furniture and fixtures. The durable, long-lasting treatment destroyed bacteria and fungi on contact, reducing microbial levels to near zero. The staff at the Infusion Center informs all patients and their families of their proactive efforts to protect patient safety, including the use of antimicrobial surface treatments from Ingenuity IEQ. As a recipient of multiple HealthGrades Distinguished Hospital Awards™ for Patient Safety, MidMichigan Medical Center - Midland has high standards to uphold and Ingenuity IEQ was proud to be part of the solution.

Major Hospital (under construction): Ohio

A state-of-the art hospital under construction ran into a slight delay. Mother nature poured down four inches of rain in one hour in the area collapsing a temporary roof at the new unoccupied facility.

Need:

Testing prior to the use of Ingenuity IEQ technologies and solutions showed mold counts greater or equal to 300 spores and at least 30% of the indoor total, suggesting an indoor source of mold in certain areas. A high risk fungi type (Aspergillus) was present. Remaining areas were within recommended guidelines however, if left untreated; these areas could also develop mold counts in the future.



Results:

Optima technology was used to evaluate the air quality of the building. Next, the affected surfaces were cleaned with SurfaceClean™, a hospital-grade cleaner disinfectant that kills 99.9% of germs and bacteria on surfaces. SurfaceAide® antimicrobial treatments were applied to multiple interior surfaces to protect them from the growth of bacteria, fungi and mold. Finally, as an added safety precaution, post-Optima testing was completed to ensure a healthy, clean and safe hospital building.

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Lee Memorial Hospital: Lee County, FL

Lee Memorial Hospital is a 367 bed acute care facility.

The Problem:

- Strong Mildew Odor
- Occupant complaints and health concerns
- Visible growth



The Cause:

- Roof Leaks
- Unconditioned/Unoccupied space
- HVAC system problems
- Spotty envelope problems

Results:

- Cleaning, renovation and HVAC / Duct cleaning actions were taken
- All Surfaces and key records were treated with antimicrobial treatments.
- Hospital reoccupancy
- No lawsuits

Sultan Ismail Hospital: Pandau, Johor – Malaysia

On September 25, 2004 the brand new Sultan Ismail Hospital was ordered to close their doors by the Ministry of Health after being hit by a major fungal infection. This microbial contamination went throughout this one million square foot, ten story, 704 bed hospital. Due to the exposure of deadly fungal specimens, such as Aspergillus and Penicillium, occupants reported having severe side effects. After over five years of planning and construction, this hospital was nowhere near the premiere healthcare facility it was planned to be.

Need:

In March 2005, clean-up and protective treatments of the Microbe shield technology were necessary in all areas of the hospital, including above ceiling spaces, elevator shafts, utility chases, and occupied spaces.

Results:

After four months, the treatments were successfully completed. All air sampling and surface swab tests completed thus far by an independent laboratory and the Ministry of Health confirm that the decontamination work was a success and there have been no additional fungal contaminations. The hospital was declared safe for reoccupation in February 2006.



Northwestern Memorial Hospital: Chicago, IL

Northwestern Memorial Hospital took an innovative approach with regards to their infection control and prevention program by applying the antimicrobial Microbe Shield technology in their facility.

“We have used the antimicrobial product for over ten years to reduce environmental contaminants. We apply it liberally on most of our renovation and all new construction in critical care and other high risk areas. We have not had a single nosocomial Aspergillosis infection since 1992.” ~ Sandra Reiner, R.N., B.S.N., C.I.C.



Results:

- No nosocomial Aspergillosis infections since 1992.
- Reduced environmental contaminants.
- Continued use of the antimicrobial Microbe Shield® for over 10 years.