



Case Study

Enhanced Disinfection Technology at a Medical Center

Fullerton, CA



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Diagnostics and Dehumidification

On top of the escalating COVID-19 pandemic, a Southern California medical center tackled an outbreak of *Candida auris* (*C. auris*) in its Intensive Care Unit (ICU), affecting 40 patient rooms and other wings of the facility.

C. auris is an emerging multidrug-resistant yeast (a type of fungus). It can cause severe infections and spreads quickly between hospitalized patients and nursing home residents. Patients can carry *C. auris* somewhere on their body, even if it is not making them sick. This is called colonization. When people in hospitals and nursing homes are colonized, *C. auris* can spread from their bodies and can transfer on other people or nearby objects, allowing the fungus to spread to others around them.

The medical center did not have the equipment and/or training to perform the highly specialized work. Through an Emergency Response Agreement with the facility's owner, ATI Restoration provided enhanced touch-less disinfection using aHP (aerosolized hydrogen peroxide) dry-fogging application.

In collaboration with the Infection Control Nurse, Environmental Services (EVS) and Facility Engineering staff, ATI developed a site-specific Disinfection Management Plan (DMP) for each room as follows.

1. Prior to dry-fogging with aerosolized hydrogen peroxide:
 - i. EVS staff, wearing full personal protective equipment, performed terminal cleaning followed by a second deep clean, focusing on high touch surfaces and high-use objects. EVS staff removed the mattress from patient beds and tilted them on their side to be disinfected.
 - ii. Facility Engineering staff shutdown the HVAC system servicing each patient room and balanced the airflow in adjacent occupied patient rooms.



- iii. ATI installed critical barriers to isolate and seal each patient room. The supply diffusers and return grilles were sealed with 6-mil poly and vinyl tape to prevent the aerosolized hydrogen peroxide from migrating throughout the ductwork. The smoke detectors were covered.
 - iv. ATI placed 4 Chemical Indicator strips (CIs) throughout the patient room to assure consistent delivery of the disinfectant mist dispensed by the Halofogger.
 - v. ATI positioned the Halofogger in the corner of the room approximately one foot away from the wall, ensuring the dispensing airflow pathway was unobstructed during the treatment process. ATI turned on the Halofogger and exited the patient room.
2. Application and Disinfection Period:
- i. ATI maintained a written log for each patient room. The log contained the run time, number of readings taken and level of concentrations found in each location.
 - ii. ATI monitored the perimeter for any leaks and documented that DMHP was not present above the 0.2 ppm-level.
 - iii. ATI re-entered the treated room once DMHP levels were determined to be at or below one ppm, and removed all sealing materials, including any covered fire alarms, and the Halo Fogger from the treated room.
 - iv. The Facility Engineer turned on the HVAC system. All placards and critical barriers were removed by ATI and the patient room was released back to the ICU Department for normal operation.

Following this process, a representative from the CDC conducted an investigation to review the procedures and methods implemented by the Hospital and ATI and found processes implemented to be satisfactory in combating the spread of this life-threatening organism.

Of important note: there are no known disinfectants or touch-less technologies specific to the C. auris organism. The CDC guidance and EPA "K" list acknowledge that little research has been done on this organism. However, the EPA "K" list suggests using disinfectants tested for Clostridium difficile (C. diff), Hydrogen peroxide (H2O2) has been shown to be effective against C. diff and a number of other bacterial and viral organisms. – Journal of Infection Control -48-(2020) Amodio; et al.





About ATI Restoration, LLC

Established in 1989 by Gary Moore, ATI Restoration, LLC, is the nation's largest family-operated restoration contractor. Headquartered in Anaheim, California, the company specializes in restoration, environmental and reconstruction services following natural and man-made disasters with an unwavering commitment to customer service. To learn more, visit ATIrestoration.com or call (800) 400-9353.



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