



Athena Health

Implementing iCleanse to help protect patients and staff in long and short term care.



“Nursing homes across the country have been significantly impacted by COVID-19 and Athena Health Care Systems has gone to extraordinary lengths to provide protection, whether in the forms of PPE or the newest technology in the iCleanse units, to ensure for our the health and safety of our staff.” Larry Santilli, President and C.E.O. of Athena Health Systems

Nursing Homes and the Spread of Viruses

For so long, nursing homes and long-term care facilities have been plagued with various virus outbreaks. Their generally older demographic and confined spaces make them highly susceptible to acquiring and transmitting viruses amongst each other.

The COVID-19 pandemic has been particularly difficult for these communities having seen record numbers of deaths in the nursing home sector. Keeping this vulnerable population healthy has been care givers number one priority. New guidelines have been put in place to ensure that patients and staff are safe and are not at risk of spreading viruses.

Some of these new safety measures include social distancing, decreasing the number of outside visitors, making sure common spaces are regularly cleaned and disinfected, and ramping up testing efforts to ensure those who are infected are quarantined in a timely manner.

The Use of Technology in Healthcare

The healthcare industry is burdened with the challenges of healthcare-acquired infections (HAI's) amongst patients. It is estimated that nearly 700,000 HAI's occur in the United States each year¹ and nearly 100,000 patients die as a result of those infections².

Nurses and physicians are increasingly using technology like tablets in their day-to-day work. Upwards of 87% of physicians employ mobile devices in their workplace³. Tablets help save time between patients by being able to quickly input patient information or view needed information. They are also used for speedy patient check-ins and keeping track of visitors inside of facilities.

During the COVID pandemic, tablets have been used in nursing homes for residents to communicate with their loved ones. Many states and organizations have allocated funds or donated tablets so that residents have access to video chat apps as well as apps to keep their morale up. With this increased use of technology there is an increased risk of transmitting viruses.

Proper disinfection of these mobile devices is essential to keeping those working in and living in nursing homes safe. It is also important that proper handwashing is being utilized. Un-washed or semi-washed hands increase the risk of contaminating a disinfected mobile device⁴.

Chemical Disinfection vs. Ultraviolet Light Disinfection

Chemical disinfection of high-touch surfaces is standard in most healthcare settings. Traditional disinfecting, though, offers several challenges to ensuring that high-touch surfaces are properly disinfected.

Sufficient contact time is one of the most challenging requirements for chemical disinfection. Contact times vary depending on the product and can take anywhere from one to ten minutes to be effective. This means that the entire surface area be wet for the period of time stated on the label⁵.

Ultraviolet light is an electromagnetic wave that is invisible to the human eye, located between X-Rays and visible light. UV-C light in the 200 nm to 300nm range can be deadly to microorganisms. When the DNA of bacteria, viruses and pathogens absorb this light, it renders them inert and unable to replicate⁶. Pathogens cannot infect if they cannot replicate.

Applying the correct dosage of UV-C light is required to ensure complete inactivation of pathogens. Higher exposure to UV-C light ensure that nucleic acid is damaged beyond repair⁷. UV-C disinfection provides lower risk of error, unlike chemical disinfection which relies on an operator to ensure adequate results⁸.

How iCleanse Helps Those Most Vulnerable

iCleanse (formerly ReadyDock), provides chemical-free UV-C disinfection of mobile devices for smart phones and tablets. The intent of iCleanse is to take the guesswork out of disinfecting and ensure that roaming high-touch surfaces are disinfected frequently.

Designed to control the disinfection process, iCleanse is engineered to ensure that disinfection happens the same way every time. Results from our studies show that in a 60-second cycle, iCleanse kills >99.99% of the bacteria on mobile devices⁹.

In a study at the neonatal intensive care unit (NICU) at the University of Vermont Medical Center (UVM-MC), shows that 100% of parents cell phones brought in housed bacteria. 90% of parents' hands had the same bacteria as their cell phones. The same study revealed that 94% of parents used their cellphone at the baby's bedside¹⁰.

The University of Vermont implemented iCleanse into their NICU, to reduce the number of bacteria brought in. Parent's cell phones were disinfected for 60 seconds while they washed their hands to prepare for the visit. Charles Micelli of UVM-MC says "The proliferation of mobile devices helps streamline access to our information but also introduces a roaming high-touch surface into our environment. The [iCleanse] devices have provided us an additional method to facilitate effective disinfection of these mobile devices."

Most recently, Athena Health Care Systems partnered with iCleanse in providing another layer of safety and infection control to their 51 nursing homes in New England. For over three decades, Athena Health Care Systems, based in Farmington, CT, has been a regional leader in providing skilled nursing care, short-term, post hospital rehabilitation, assisted and senior living, as well as home health, hospice care and private duty program services.

"The iCleanse units have been well-received and greatly appreciated by the teams at our centers," says Larry Santilli, President and C.E.O. of Athena Health Care Systems. Santilli adds "Nursing homes across the country have been significantly impacted by COVID-19 and Athena Health Care Systems has gone to extraordinary lengths to provide protection, whether in the forms of PPE or the newest technology in the iCleanse units, to ensure for the health and safety of our staff. The units provide not only another level of infection prevention, they also provide peace of mind for our dedicated, compassionate caregivers. Chris Allen and his team have developed a great tool to complement our expanding infection prevention program."

References

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