



New Study Shows Pulsed Xenon UV Light Effective in Reducing C. diff, MRSA and VRE in the Hospital Environment

SAN ANTONIO--([BUSINESS WIRE](#))--The Center for Medicare & Medicaid Services (CMS) and its Hospital Compare website have U.S. hospitals focused on reducing healthcare associated infections (HAIs). As hospitals face decreasing reimbursements and increased public scrutiny, many facilities are evaluating new technologies for room disinfection as a means of improving patient safety.

A team of researchers that included Dr. Curtis Donskey recently published a [study](#) entitled “Evaluation of a Pulsed Xenon Ultraviolet (PX-UV) Disinfection System for Reduction of Healthcare-Associated Pathogens in Hospital Rooms” in *Infection Control & Hospital Epidemiology* (ICHE). According to the study published in January 2015, “the PX-UV device has some important potential advantages over other UV disinfection devices.”

The study showed that [Xenex Disinfection Services’](#) PX-UV device significantly reduced the contamination of C. diff, MRSA and VRE on frequently touched surfaces in the real-world hospital environment. The study also indicated that pathogen concentration, organic load and shading (shadows) do not have an impact on the efficacy of the [Xenex device](#). This is important because these conditions most accurately reflect the real-world hospital setting. The ICHE authors also noted that two [separate studies](#) have reported a reduction in C. diff infections when hospitals used the Xenex PX-UV device to disinfect their facilities.

“We are pleased with the results of this new environmental study,” said [Dr. Mark Stibich](#), co-founder and Chief Scientific Officer of Xenex. “We encourage interested individuals to read the entire study because it makes several valuable points. Most importantly, while glass slide tests may have some utility for evaluating UV disinfection, this new environmental data demonstrates that the Xenex disinfection system works well in a hospital. As Dr. Donskey noted, Xenex devices have several potential advantages over other UV disinfection devices – Xenex devices are faster than [mercury systems](#), don’t contain toxic mercury and are not affected by the organic load found in a hospital room.”

President Obama recently brought the issue of multi-drug resistant organisms to a national security level and issued an Executive Order to stop the spread of drug resistant superbugs. Xenex’s patented [Germ-Zapping Robots™](#) use pulsed xenon UV light to destroy the viruses, bacteria, mold, fungus and bacterial spores in the patient environment that cause infections. The intense, broad-spectrum light penetrates the pathogens’ cell walls, causing the DNA to fuse instantly, rendering them unable to reproduce or mutate. Uniquely designed for ease of use and portability, a hospital’s environmental services staff can operate the Xenex device without disrupting hospital operations and without the use of expensive chemicals. With a five-minute disinfection cycle, the robot disinfects dozens of rooms per day, including patient rooms, operating rooms (ORs), equipment rooms, emergency rooms, intensive care units (ICUs) and public areas.

The Xenex robot contains no [mercury](#) or hydrogen peroxide, and it is the only UV disinfection system that uses xenon, an environmentally-friendly inert gas, to create UV light. Its [patented technology](#) is

more intense than mercury UV systems and enables Xenex's [Germ-Zapping Robots](#) to disinfect 30-62 hospital rooms per day (according to Xenex customers). Pulsed xenon emits high intensity UV-C light across a broad germicidal spectrum (200-280 nanometers versus the single spectrum of 253.7 nanometers for mercury bulbs). The only non-mercury UV room disinfection solution is provided by Xenex.

“We are pleased that Dr. Donskey noted the safety hazards associated with disposal or exposure to mercury in this study. There are dozens of companies marketing mercury disinfection devices and most of those vendors do not disclose that their devices contain mercury,” said [Morris Miller](#), CEO of Xenex. “Hospital decision-makers need to understand the significant scientific differences between UV light technologies as they evaluate room disinfection systems. The goal of room disinfection is to provide a safe environment for patients and healthcare workers. This ICHE study clearly establishes the fact that in real-world hospital environments, the Xenex device is capable of quickly destroying pathogens on surfaces. We believe that the most important evidence is an actual decrease in [patient infections](#), which only Xenex customers have reported in peer-reviewed studies.”

Although the ICHE study showed that all types of UV worked well when disinfecting glass slides, the data showed that the Xenex robot significantly reduced MRSA, VRE and C.diff contamination in actual hospital situations. This statistically significant reduction is encouraging because in one arm of the study there was no manual cleaning of the room before use of the PX-UV device, which indicates that Xenex’s PX-UV device caused the reduction in pathogens.

More than 250 U.S. hospitals, Veterans Affairs (VA) and Department of Defense (DOD) facilities in the U.S. are using the Xenex room disinfection system, which has proven to be 20 times more effective than standard chemical cleaning practices. A study published in the August 2013 issue of the American Journal of Infection Control (AJIC) reported that Cooley Dickinson Hospital experienced a 53 percent decrease in the rate of hospital-acquired C.diff infections after implementing the Xenex system. A study published in 2013 in the Journal of Infection Prevention reported that Cone Health experienced a 56 percent reduction in its rate of hospital-acquired MRSA infections after implementing an infection prevention program that included Xenex’s room disinfection system. A study published in the June 2014 issue of AJIC reported that Westchester Medical Center experienced a 20 percent decrease in HAI rates after implementing the Xenex germ-zapping robot despite only treating a portion of room discharges.

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