



New robot system at USC Verdugo Hills Hospital uses UV light to disinfect hospital rooms

A robot that can disinfect a hospital room in a matter of minutes, using UV light to kill bacteria and microorganisms that cause life-threatening infections, is one of several new technologies coming to patients served by USC Verdugo Hills Hospital.

The \$100,000 portable unit, created by San Antonio-based Xenex Disinfection Services, uses a xenon bulb capable of emitting full-spectrum light rays up to 2,000 times brighter than natural sunlight to genetically destroy 99.9% of all microorganisms, even the ones traditional cleaning methods might miss.

"It zaps the entire room with UV light at different frequencies, which helps destroy any remaining bacteria," said Kenny Pawlek, chief operating officer of USC Verdugo Hills Hospital, in a recent interview. "It's very cool."

The technology will not replace current disinfection procedures, which involve the manual application of a bleach solution on all affected surfaces, but simply add another level of protection in areas where infected patients have been.

Pawlek said the facility is in the process of purchasing three new Xenex robots, which could be up and running sometime next year.

Word of the new additions comes at a time when the Centers for Disease Control and Prevention estimates that on a typical day, one in every 25 patients in the United States has at least one hospital-associated infection. Cases of antibiotic-resistant pathogens, such as MRSA (Methicillin-resistant *Staphylococcus aureus*), and bacteria like *C. diff* (*Clostridium difficile*) can often be fatal.

Dr. Stephanie Hall, chief medical officer for USC Verdugo Hills Hospital, as well as USC's Keck Hospital and Norris Cancer Center, said she's looking forward to bringing a robot that's been proven to work quickly and efficiently at other USC campuses into a community hospital setting.

"This creates an opportunity to reduce infections, not only in the operating rooms, but in patient rooms and throughout the hospital," Hall said. "Using a nontoxic process to disinfect and reduce the possibility of the transmission of infections is really exciting."

According to Pawlek, advancements like Xenex are part of a wider effort being taken by Keck Medicine of USC to bring cutting-edge technologies currently tested and employed at the academic institutions in the health system to residents of the Foothills.

"Bringing new technology and techniques into the community at all levels helps grow excellence," he said.

Another newcomer to USC Verdugo Hills Hospital is the da Vinci Surgical System, which gives surgeons a 3-D glance at the work they're doing with the help of a robotic arm that provides a range of motion similar to a human hand in a laparoscopic fashion.

The \$2-million investment will be used to help surgeons at the local hospital perform prostate surgeries as well as nephrectomies, the removal of diseased tissue or tumors from the kidney, possibly without removal of the organs.

Created by California's Intuitive Surgical, Inc., the da Vinci system has already assisted in 26 robotic surgeries at the facility since it arrived in February, Pawlek reported.

A third new advancement that just became available to patients of the hospital last month is LINX, a magnetic reflux barrier designed to help patients who suffer from gastroesophageal reflux disease (GERD).

Resembling an adjustable beaded bracelet about the size of a quarter, the device is implanted around the outside of a patient's lower esophageal sphincter. The beads are magnetically drawn to each other, pulling the bracelet tight, but still allow for normal swallowing.

The new device from Minnesota-based Torax Medical, Inc. is an alternative to the current treatment, which involves the permanent implantation of stomach lining tissue pulled tight like a belt over the esophagus.

USC Verdugo Hills Hospital will host an on-site informational seminar Aug. 27 at 10 a.m., 1812 Verdugo Blvd., in Glendale, with Keck School of Medicine of USC physicians to explain the new advancements in GERD treatment being employed at the facility. Residents can RSVP by calling (818) 952-4729.

What all three technologies have in common, Pawlek said, is that they help ultimately reduce the amount of time patients have to spend in a hospital so they can get back to their own personal care networks of friends and family and recover more quickly.

"More advanced surgical techniques and more modern procedural techniques, and access to these, really help people recover much faster," Pawlek said. "It doesn't matter whether they're 25 or 95 — the quicker you can get back to your normal activities, the better."

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