Germ-zapping robots join staff at Henry Ford Allegiance Health

JACKSON, MI - They look something like Star Wars’ R2-D2 and leave a room smelling like the calm after a spring storm.

Three new germ-zapping robots have joined the staff at Henry Ford Allegiance Health.

The Xenex LightStrike robots use new technology, pulsed xenon, to create ultraviolet light that quickly destroys bacteria, viruses, fungi and bacterial spores in patient rooms and elsewhere in the Jackson hospital.

They also are effective against pathogens such as clostridium difficile, a potentially deadly bacterium often called C. diff; norovirus; influenza; Ebola; and staph infection.

The robots are not intended to replace housekeeping or other employees but compliment steps the hospital already takes to reduce the potential for hospital-acquired infections. It is a "whole new level of disinfection," said Jeff Mitchell, supervisor of environmental services.

Presently, they are being used in isolation rooms, where certain illnesses require special precautions, and are being introduced in operating rooms and the dialysis unit, Director of Hospitality Services Jason Hammond said.

He was standing Friday afternoon in a pediatric room at the hospital, where Dan McClure of Henry Ford Allegiance Health central equipment management did a robot demonstration.

A center piece lifts about five feet from the base and sprays the room with a light so bright observers have to step in to the hall. It reminds Mitchell of an arc from a welding machine. The process, done after a traditional cleaning and before beds are dressed, takes about 15 minutes.

"Our nursing staff loves them," McClure said. "You can smell it's been cleaned. They know everything is clean. It's spotless."

Environmental studies showed bleach removed 70 percent of C. diff spores from an area; the Xenex removed 95 percent. It is said to be seven times more effective than traditional cleaning.

Henry Ford Health System already has been using the robots at its other locations. It is the only health system in the United States to use the robots in every one of its hospitals, staff said.

The investment is "significant," said Hammond, declining to be specific on the robot costs.

He said the goal is to monitor C. diff infection rates before and after the robot acquisitions with a goal of reducing them, ideally to zero over time and this year, by 30 percent.
Preventing C. diff infection, which causes colon inflammation, is a clear priority in Jackson and across the country. Studies indicate that C. diff, most typically affecting older adults, has become the most common microbial cause of healthcare-associated infections in U.S. hospitals, and the cost to those facilities is high, according to the Centers for Disease Control and Prevention.

Two new employees will work with the robots, which penetrate the cell walls of microorganisms, rendering them unable to reproduce or mutate, "effectively killing them on surface without contact or chemicals," according to a statement from the Jackson hospital.


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