Medical robot lets doctors beam in to check on patients
24 May 2013, by Richard Chang

On any given day inside Mercy San Juan Medical Center's neuro-intensive care unit, a 5-foot-6-inch-tall robot with a computer screen can be seen roaming the halls.

The robot, named RP-VITA (Remote Presence Virtual Independent Telemedicine Assistant), is equipped with videoconferencing capabilities so doctors can beam in when there is an emergency.

"Before, you couldn't see the patient when an important decision needed to be made," said Dr. Alan Shatzel, a neurologist at the Mercy Neurological Institute. "This has proven to be tremendously valuable."

Telemedicine has been around for more than a decade, but the launch last week of RP-VITA - a fourth-generation telemedicine robot - aims to revolutionize the industry.

RP-VITA can be remotely controlled via a desktop or laptop computer, or an iPad. And very soon, with an iPhone, said Rob Waters, a product specialist at InTouch Health, the Santa Barbara, Calif., company behind the robots.

The latest iteration includes a built-in stethoscope and has the ability to automatically drive itself. Previously, doctors relied on joysticks to move it around.

The need for telemedicine has grown, doctors say, because there simply aren't enough specialists to go around to each hospital.

A report by Johns Hopkins University School of Medicine stated "as many as 40,500 adult patients in an ICU ... may die with an ICU misdiagnosis annually."

"What they (nurses) describe often doesn't match what we see," Shatzel said. "Making the right decision at the right time will save the patient and drive down health care costs."

Still, there are limitations. "We can't touch the patients," said Shatzel, adding that there are always other medical staff in the room during a remote session.

The Mercy Telehealth Network is used at 15 sites across California, including a few hospitals that are not owned by Mercy parent Dignity Health. That number is expected to increase to 20 by the end of July.

The time between paging a doctor and getting him or her on the robot by the patient's bed is usually under six minutes, said Jason Close, program manager at Mercy Telehealth Network.

Each robot costs $4,000 to $6,000 per month to lease.

The robots run on a dedicated cloud network that is monitored around the clock and complies with federal patient privacy laws, Waters said.

Since 2002, when InTouch Health was founded, more than 800 robots have been leased or sold. Collectively, the machines have facilitated nearly 300,000 doctor and patient sessions.

Shatzel cautioned that the robot is only a tool and not meant to replace clinical doctors who see patients in person.

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