

Medical Robot Makes Rounds At Texas Army Hospital

Michelle Roberts, Associated Press Writer

SAN ANTONIO (AP) — Staff Sgt. Juan Amaris laid in intensive care recovering from life-threatening burns when he got a peculiar visit from his doctor. Dr. Kevin Chung — rather, a 5-foot-tall camouflage-clad robot with Chung's face on a monitor — rolled in to check on him.

With his proxy's cameras zooming and wireless antennas beaming, Chung stood in a kitchen in Virginia and examined Amaris from 1,500 miles away, providing a connection between doctor and patient even as Chung was on vacation.

Use of the robot began as an Army telemedicine pilot project several years ago. But its success in allowing Chung to check on patients while deployed and in training nurses far away means the Chungbot — as it's been nicknamed around Brooke Army Medical Center — is here to stay.

"It became so clinically useful, it was no longer a research tool," said Chung, who oversees the Army's only burn ICU.

Using the robot allows Chung to examine wounds and interact with the patient, though someone else at the bedside takes vital signs and provides hands-on care at the doctor's instruction.

The robot arrived at Brooke three years ago after Chung sought grant funding to lease the device. Since then, he's checked on patients via robot from as far away as Baghdad.

One badly wounded soldier was brought here after Chung and others treated him in Iraq, and the staff in Baghdad wondered how he was doing. Instead of calling for an update from a doctor here, Chung was able to log in and roll the robot over to the patient with the Baghdad staff looking on.

"This patient was very, very sick. To be able to see that this patient was breathing was powerful," he said.

The robot is controlled with a laptop and joystick and wirelessly transmits images and sound between doctor and patient. Two camera lenses and antennas sit above the screen. Sensors along the bottom keep Chung from running the robot into walls and warn him when someone is approaching it from behind.

About 250 similar robots are being used by civilian hospitals, primarily to connect

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satellite facilities with specialist doctors, said Jennifer Niese, a spokeswoman for InTouch Health, the Santa Barbara, Calif.-based manufacturer. Most are leased, and she declined to say how much they cost.

The Chungbot recently began a rotation as a trainer, allowing deploying nurses from Wright-Patterson Air Force Base in Ohio to get more specialized burn injury training at a patient's bedside. Chung said without the robot, some trainees might have flown in, but many would have been forced to rely on photos and more basic instruction.

Since the arrival of the Chungbot, other military doctor-bots have been tried at Madigan Army Medical Center in Tacoma, Wash., for laproscopic surgery training, and at Ryder Trauma Center in Miami for remote trauma consultations. The results have generally been good but decisions on long-term use have been left to local hospital commanders, said Col. Ron Poropatich, deputy director of the Army Telemedicine and Advanced Technology Research Center.

Chung said the robot doesn't replace real-life interaction with patients and won't eliminate the need for specialists deployed to hospitals in war zones, but it can provide extra access.

"It's not going to replace real presence. It extends your capabilities," he said.

Even if the robots were widely used in field hospitals, severely wounded soldiers would continue to be transported to major military medical facilities with specialists for treatment, but Chung noted that much of the work done by Army doctors and nurses involves treating wounded civilians, who aren't typically transported.

Consultations with specialists in those cases are often done over the phone, leaving the specialist without the ability to see the patient and injury — something that could change with this type of technology, he said.

Many of Chung's patients at Brooke have been too sedated to interact through the Chungbot, but overall, family and patient responses have been positive, he said.

Amaris, who suffered third-degree burns over three-quarters of his body in a Mosul fuel truck explosion, said his Chungbot encounter was definitely strange, but good.

"You never see no stuff like that," said Amaris, a 27-year-old originally from Colombia. "It shocked me when (Chung) said he was in Virginia."

Amaris' wife, Jazmin, did a double-take when she saw the robot rolling down the hall with two soldiers following behind. But she said it was reassuring to see Chung, who had been overseeing treatment of her husband's disfigured arms and scarred upper body, even from a computer screen atop a robot.

"You feel more calm. You see so many doctors, so many people every day. It was really important to see him," she said.

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