

Robot brings doctors to patients

U of L, Owensboro hospital form high-tech partnership

By Laura Ungar

When her father suffered a stroke Saturday, Regina Coomes was shocked to hear a hospital worker announce, "You all are going to have to move aside because the robot's coming."

Within seconds it appeared at his bedside. On top of the armless torso sat a monitor showing the face of Dr. Kerri Rimmel, director of the stroke center at University Hospital in Louisville, more than 100 miles away from the Owensboro hospital where 80-year-old James Paul Higdon had sought care.

"It was just like her walking into the room. ... She did a neurological exam. She asked him to lift his arm, stick out his tongue. ... She talked to us as a family," said Coomes, 59, of Owensboro. "It was just unbelievable that a doctor in Louisville could look at my dad in Owensboro. Just amazing."

Higdon was the first stroke patient to benefit from a new partnership between University of Louisville [Health Care](#) and Owensboro Medical Health System that allows Louisville specialists in such areas as neurology, cardiology and maternal-fetal medicine to treat patients remotely using a robot.

Although the robot can't do surgery, it lets physicians consult with patients, observe vital signs on monitors and check hearts, blood-pressure readings or sonograms. Specialists control the system from Louisville with laptops and joysticks and get help from doctors or nurses in Owensboro.

"I can listen to heart sounds; I just need someone to put the stethoscope on a patient's chest," Rimmel said. "What it allows those outside hospitals to do is to extend the services they're offering."

Officials say the system is one answer to [Kentucky's](#) doctor shortage, which is particularly acute in rural areas.

Although 43 percent of the state's population lives in rural areas, only 23 percent of its doctors practice there. And many experts and specialists are clustered in urban areas such as Louisville and Lexington.

A first for Kentucky

Called RP-7 and sold by InTouch Technologies of California, the robot system is the first in Kentucky and one of about 130 in use worldwide.



Jim Taylor, president of University Hospital, left; Dr. Gerard Rabalais and Dr. Kerri Rimmel introduced the RP-7 robot during a news conference yesterday in Louisville. The robot system is the first of its type in Kentucky and one of about 130 in use worldwide. (Photos by Arza Barnett. The Courier-Journal)

U of L officials wouldn't say how much they paid for the system, but InTouch officials said each control station costs \$2,500 and robots can be leased for five years at a cost of \$5,000 a month.

Yulun Wang, chairman and chief executive officer of InTouch, appeared remotely at a news conference yesterday at which the system was introduced -- his face appearing on the monitor at the top of the robot, which rolled across an auditorium stage draped in a white doctor's coat.

Owensboro doctors and officials also participated in the news conference remotely, their images projected on a screen. Rimmel demonstrated how the system works by performing a cursory neurological exam on Dr. Jeff Barber, president of the Owensboro health system.

First, she asked him to take off his glasses and instructed another doctor to shine a light in his eyes.

"Look up, and to the right and the left," Rimmel told Barber. "No facial droop. Very good.

"Now, hold your palms in front of you as if you're holding a tray. Very nice."

Rimmel is one of several specialists available to help Owensboro patients from a distance. Others include specialists in maternal-fetal medicine, as well as endocrinologists and cardiologists for adults and children.

Besides taking vital signs and observing monitors, they can call up a patient's medical records or scans through the computer.

More complicated tasks also are possible. For instance, a maternal-fetal specialist can examine a fetus in real time on an ultrasound, directing the technician to move to certain areas on a patient's abdomen.

It's almost like being there, Rimmel said, except "you can't touch the patient."

'A great benefit for us'

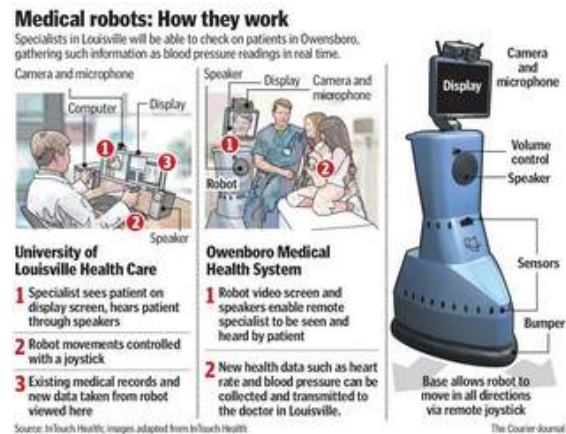
Since the Owensboro hospital began using the technology on Thursday, it has helped Higdon and another patient who was suffering from a clotting disorder.

"Patients accepted it very quickly," said Dr. Robert Knight, president of the emergency physicians group at Owensboro Medical Health System. "It is a great benefit for us."

Officials said they hope eventually to bring the technology to other areas of Western and Central Kentucky. They already have one robot in [Louisville](#) that can be used in the next remote location they choose.

"We believe these partnerships we have will just continue to grow," U of L President James Ramsey said in a videotaped statement.

Coomes, a nurse at the hospital where her father was taken, said she is glad to hear that the robot system might help other families as it helped hers.



She said she appreciated having Remmel's expertise when her father needed it -- especially since the neurologist at the Owensboro hospital was out of town.

Higdon wound up having a reaction to his medication, and Coomes said Remmel was "on top of things." When he was transferred to Louisville, Coomes said, Remmel recognized immediately that he wasn't doing as well as when she had observed him in Owensboro.

Although Higdon remains in intensive care, Coomes said she expects him to recover -- thanks in part to the robot.

"It's wonderful it was there. I don't know what we would have done otherwise," she said. "To me, it saved the quality of his life."

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