

using technology

to
bring

specialized
care

patients at OMHS
benefit from the
expert knowledge
of specialists

When patients arrive at Owensboro Medical Health System with symptoms of a stroke, they quickly receive treatment through advanced technology that makes specialized university healthcare available to regional medical centers.

Patients are promptly assessed while doctors consult with their counterparts more than 100 miles away, made possible by a remote physician robot network and partnership with the University of Louisville (U of L) Health Care.

Kerri Rimmel, M.D., Ph.D., a neurologist and director of the University Hospital's Stroke Center, often responds to urgent cases through a face-to-face interaction with patients and doctors in the OMHS Emergency Department.

Wearing a headset and operating a laptop computer in Louisville, Rimmel virtually "walks" up to a patient's bedside and uses the robot to perform a neurological examination. Patients and caregivers in Owensboro see Rimmel on a monitor as she assesses them using the robot's camera and digital stethoscope.

Virtual exams provide a better option than immediately putting patients in helicopters or driving them to other hospitals in speeding ambulances. Quick assessments also provide time for patients to receive clot-busting drugs, which are only effective if given within three hours of stroke onset.

"Delaying care can rob precious time and postpone treatment," says Brad Olds, M.D., an emergency medicine physician



Kerri Rimmel, M.D., Ph.D., a neurologist and director of the University Hospital's Stroke Center

at OMHS who consulted with Rimmel about one of the first patients treated this way after the network was launched in November.

immediate care

After Rimmel sees patients via the robot, they are sometimes transferred to the U of L hospital for additional care. Communicating through the robot allows her to become familiar with patients and their needs ahead of time. “I can’t tell you just how rewarding it is to have interaction with patients before they arrive,” Rimmel says.


Doctors at OMHS regularly consult with Rimmel (via the robot) for advice with stroke patients. “We’re able to use her expertise,” says Robert Knight, M.D., president of the Emergency Physicians Group at OMHS. “Actually seeing the patient is much better than describing a patient’s condition.”

Family members who are often at the bedside during examinations also have the opportunity to interact with Rimmel through the robot.

“It was just like she was there,” says Regina Coomes, an OMHS nurse who was with her father during a consultation with

Rimmel before he was transferred to the U of L hospital. “It made our family feel much better. When they got there, they knew who they were going to be seeing.

“We had a specialist. She could examine exactly what was happening and knew what was going on,” Coomes says.

“Using the robot and having this technology available to interact with the patient, families and other physicians makes me much more comfortable,” Rimmel says. “Our interaction is much more advanced because I can witness the patient. It allows us to do a better job of caring for those patients.” 



Kerri Rimmel, M.D., Ph.D., a neurologist at U of L Health Care, and Robert Knight, M.D., an emergency medicine physician at Owensboro Medical Health System, illustrate how a neurological exam is performed on a stroke patient with Rimmel behind the remote control station at U of L.

behind the scenes

OMHS was the first hospital to join the University of Louisville (U of L) Health Care’s remote physician presence robot network.

Through the use of a secured wireless, broadband Internet connection, the RP-7 Robot (invented, designed and manufactured by InTouch Health, Santa Barbara, Calif.) can provide physician care to patients in another location. Within moments of a request for a medical consultation, a U of L Health Care physician connects via the Internet to the RP-7 Robot located in the OMHS Emergency Room to consult on the patient. The remote physician can be seated

at a computer ControlStation (either at home, at the office, airport terminal or anywhere in the world that has a wireless connection).

Through the robot (which stands 5 feet, 6 inches tall), a doctor can interact and converse with a patient, patient’s family, physician or nurse through live, two-way audio and video. Using a joystick, the camera and the guidance of 360-degree infrared sensors, the physician can maneuver the robot through the hospital to a patient’s bedside and move the robot’s head to view vital signs on monitors and charts. The physician drives the robot through remote access and the robot is almost self-sufficient; the only thing it needs assistance with is plugging in to recharge its battery.

All the robot needs to operate is a wireless Internet signal. The signal is secure and encrypted to protect patient privacy.

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Patients benefit in numerous ways from the robot network at OMHS. Here are four of them:

- 1 The patient is more likely to receive treatment at the home hospital rather than being transferred to a faraway facility.
- 2 Improved patient safety.
- 3 Faster treatment decisions, which are especially important to stroke care.
- 4 Increased communication between physician, patient and family.