

Eye Robot

Healdsburg hospital uses high-tech helper to aid critical-care patients in-house

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HEALDSBURG - From his office 20 miles away, Dr. James Finn steered the robot through a hallway at Healdsburg District Hospital and into a surgical recovery room.

The 5 1/2-foot-tall robot quietly rolled up to the bed of patient John Reininga, who had awoken following eye surgery.

Sitting in his Santa Rosa office, Finn began to examine Reininga, tilting and zooming the robot's high-resolution camera. The robot's head -- an LCD screen -- was filled with the image of Finn's face as he asked the patient questions via a wireless Internet link.

"A lot can be communicated and patients react very well," Finn said Tuesday. "It's a way of extending ourselves."

The robot -- named RP-7 for its remote presence technology -- allows the hospital to reach critical care physicians and other specialists anywhere in the world. Healdsburg is the smallest of the dozen California hospitals using RP-7 robots, leasing it from InTouch Health, the Santa Barbara company that designed the technology.

Healdsburg hospital brought in the robot to help care for more patients when it reopens an intensive care unit and completes expansion of its emergency room later this year. The hospital has raised nearly \$8 million toward a \$14.5 million goal to increase services.

"This technology will be vital for us. Our revitalization plan has set us on the path to not only survive but thrive," said Evan Rayner, the hospital's chief executive officer.

The emergency room and intensive care units should allow Healdsburg to care for the two or three patients it now sends daily to other hospitals with those facilities, Rayner said.

RP-7 will complement Healdsburg's expanded services by giving the hospital's staff access to a team of critical-care physicians in Santa Rosa and medical specialists anytime and anywhere in the Bay Area or beyond.



From his office at Sutter Medical Center, Dr. James Finn, the medical director of Healdsburg District Hospital's intensive care unit, directs registered nurse Mark Blankenship as they listen to the heart of patient John Reininga. The hospital's new Remote Presence Robotic System will allow specialists to examine rural patients from anywhere in the world using a laptop and a joystick. Photo by John Burgess/The Press Democrat (Photo by - John Burgess)

"The whole idea is to keep more sick patients here rather than having to send them off," Finn said.

Demonstrating how the robot can improve patient care, Finn maneuvered the RP-7 with a joystick into the room where Reininga was recovering from a cataract operation. Finn's face filled the LCD screen on top of the robot and his voice came through a speaker on the blue, steel unit.

Reininga's gaze was drawn to the screen as the Healdsburg resident discussed his medical history with Finn.

When it came to taking vital signs, Finn relied on operating room director Mark Blankenship to position the stethoscope so Finn could listen over earphones for any signs of post-operation complications.

With the wireless Internet connection, doctors can remotely conduct ear and throat exams, check airways, and get digital ultrasound readings on the heart and other organs. Doctors also can view electronic X-rays and medical records.

The robot doesn't replace doctors. But it allows medical technicians, nurses and physicians to work with specialists firsthand rather than over phones.

"You still need human beings, the trained people," Finn said.

The physician has a computer workstation equipped with a video camera, microphone, joystick and specialized software. The computer is linked to the Internet via a broadband connection.

The robot features a video camera, microphone and LCD screen. The sound is clear. The video image is sharp enough to show wrinkles in skin.

Finn and colleagues Dr. James Gude and Dr. Ken Lamb will manage the robot and supporting technology under an agreement with Healdsburg hospital. The team of critical care physicians hopes to provide similar services to other small hospitals in Sonoma and Mendocino counties.

Healdsburg is the first rural, limited-service hospital in California to acquire an RP-7.

The hospital decided to lease the robot for \$4,500 a month rather than buy it for \$170,000. The lease is cheaper than paying for another physician on staff, which could cost \$36,000 a month, the doctors said.

REMOTE-CONTROL CARE

Name: RP-7

Cost: \$170,000 to purchase or \$4,500 a month to lease

What it can do: The robot features a video camera, microphone and LCD screen. It allows doctors at other hospitals to see, hear and examine patients. They can also view electronic X-rays and medical records.

How it is controlled: A doctor operates the robot from a computer workstation equipped with a video camera, microphone, joystick and specialized software. The computer is linked to the Internet.

Where it is used: Healdsburg District Hospital is the first rural, limited service hospital in California to acquire an RP-7.