

Robot elevates GRH to forefront of telemedicine

Written by [Ethan Schowalter-Hay, The Observer](#) September 27, 2008 11:16 am



TALKING WITH EDGAR:
Doug Romer, executive director of patient care services at Grande Ronde Hospital, demonstrates the real-time streaming capabilities of EDGAR, the hospital's remote-presence robot. Onscreen is Yair Lurie, a representative of InTouch, the company that manufactures the unit. - The Observer/CHRIS BAXTER

The robot roaming the corridors and treatment wards of Grande Ronde Hospital is a little over 5 feet tall, and moves at a very modest crawl.

But EDGAR, as the unit is called, is making big waves: encouraging cooperation between big, metropolitan medical centers and rural hospitals, changing state laws and doing its best to eliminate geography as an obstacle to receiving medical treatment.

Since receiving the remote-presence robot, or RP-7, from St. Alphonsus Regional Medical Center in Boise, Grande Ronde Hospital has risen to the cutting edge of telemedicine, which facilitates remote consultations, diagnostics and treatment via communications technology.

Doug Romer, executive director of patient care services at GRH, said, "What I'm excited about it how far we've come in a year."

EDGAR — an acronym for Educated Doctor Guided Assisting Robot — has resided at GRH since the summer of 2007.

Controlled by a wireless software-equipped laptop computer and special joystick, the robot can rove about on its wheels, all the while transmitting the virtual presence of a doctor, nurse or other consultant who might be thousands of miles away.

InTouch Technologies Inc., a California-based robotics company, designs and manufactures RP-7s.

As he maneuvered the robot through GRH from a Portland living room, Yair Lurie, an InTouch representative, emphasized its dexterity and versatility. With high-resolution zoom capabilities, flexible neck, camera eye, telephone for private conversations and printer for generating doctor-approved prescriptions, EDGAR is no slouch.

"It has almost a sixth sense, if you will, so it definitely expands my capabilities as a human," Lurie said.

The St. Alphonsus grant, which derives from the U.S. Army Medical Research and Material Command, initially meant to provide training opportunities for hospital nurses. To connect a Boise instructor with La Grande nurses, the RP-7, which normally costs \$5,000 a month, was provided to GRH free of charge.

GRH belongs to the IDA/ORE Telehealth Network, an affiliation of Eastern Oregon and Western

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Idaho hospitals centered, in “hub and spoke” fashion, around St. Alphonsus.

But while EDGAR excels in the virtual classroom, it’s also a capable tender of patients. It brings advanced specialists into the wards of GRH to work diagnoses and confer with doctors, nurses and staff in real-time.



BIG IMPACT: Promotional videos featuring Grande Ronde Hospital, St. Alphonsus Medical Center in Boise and the IDA/ORE Telehealth Network helped convince the Oregon Medical Board to update its regulations to accommodate telemedicine. - The Observer/CHRIS BAXTER

“It doesn’t take but a few seconds to realize that that’s not a robot — that’s a person who happens to be (broadcast) on a robot,” Romer explained.

Plugged into the port of the appropriate machine, for example, the RP-7 can transfer the remarkable images generated by an echocardiogram — which paints a picture of the heart using sound waves — to a remote cardiologist for interpretation.

The hospital was the first in the nation to send echocardiogram data via robot — a striking update to a process that used to involve packing the sonic images on VHS tapes and shipping them through the mail.

EDGAR has revolutionized the maternity process at GRH as well, sending detailed images of newborn infants to neonatologists at St. Alphonsus to determine whether the baby might need a transfer to Boise.

And even in that event, a mother confined to a La Grande hospital bed may still bond with her child via the RP-7’s mile-spanning monitor.

While a patient often must make an initial visit to St. Alphonsus for complicated procedures, EDGAR can arrange the inevitable follow-ups, eliminating the stress and costs of travel.

“(It’s a) perfect application for this, because patients get to stay in La Grande,” Romer said.

That would be a major relief to many area patients, especially those forced to make the drive to a bigger city across mountain roads made treacherous by winter ice and snow.

Remote doctors controlling EDGAR can also pull up electronic medical records and display relevant data on the screen.

The multi-talented robot’s success at the hospital has had reverberations far beyond the Grande Ronde Valley.

As Romer puts it, “We made history for the whole state of Oregon in telemedicine.”

Earlier this year, GRH had expressed interest in contracting with Advanced ICU Care, a St. Louis-based company that connects its specialists remotely with ICU units in community hospitals.

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But an Oregon Medical Board regulation required that physicians pursuing licenses for practicing across state lines needed to examine patients “in person,” preventing Advanced ICU doctors from practicing telemedicine in La Grande.

This past summer, GRH, with Lurie’s help, made two presentations to the medical board, conducting demonstrations with EDGAR — real-time ultrasounds, echocardiograms, EKGs, etc — in an attempt to convince lawmakers of the utility of remote-presence technology.

So impressed was the board that it quickly passed a temporary rule allowing for out-of-state physicians to achieve Oregon telemedicine licenses.

The regulation will become permanent next year; the temporary ruling, which went into effect in July, simply allowed for its immediate adoption.

Romer said Advanced ICU care became available at GRH at the end of August, although the need to use it hasn’t yet arisen (not necessarily a bad thing).

In addition, GRH is investigating the possibility of offering an outpatient dermatology service at the new Regional Medical Clinic on Fourth Street. A dermatologist in Indiana has expressed interest in doing business in La Grande in such a manner, after successfully testing the high-resolution capabilities of EDGAR in examining skin condition.



CONTROL CENTER: Remote-presence robots are controlled with a wireless-equipped laptop and special joystick. EDGAR can take pictures, print prescriptions and hook into machines to transmit medical data from the hospital to a consultant in a different room or a thousand miles away. - The Observer/CHRIS BAXTER

Romer said that, should negotiations with InTouch pan out, the Regional Medical Clinic might eventually be installed with a “head-only” remote-presence robot to render these types of services.

And the possibilities don’t end there. Romer said GRH, St. Alphonsus and the UCLA Medical Center in Southern California may synchronize their stroke treatment procedures via telemedicine to process patients.

So groundbreaking is the work being done in La Grande that the hospital was chosen as the site of next week’s second-annual IDA/ORE Telemedicine Network Conference.

The gathering will bring together professionals from within the IDA/ORE system and well beyond — representatives from hospitals small and large, from as far away as Boston.

Romer said the original St. Alphonsus grant expires in about a year, but he’s confident the robot will remain.

At GRH, in other words, Doctor Robot is “in.”

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