

SUNDAY • WOMAN GETS 20 YEARS FOR FIRING SHOT THAT DIDN'T HIT ANYONE, NATYON, A5



I'll Have Another victory, thank you, at Preakness
SPORTS, C1



They don't play doctors on TV — they are doctors
BUSINESS, D1



Life's not too hairy on a small farm
OREGON LIFE, E1



'American anthem idols' hit Ems' pitch
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HEALTH CARE



BRIAN DAVIES/The Register-Guard

Using live video conferencing, Dr. Miles Ellenby of Doernbecher Children's Hospital in Portland consults via a video screen with Dr. Paul Bouressa (right) and patient Joseph Pettit, 7, at Sacred Heart Medical Center at RiverBend.

THE VIDEO DOCTORS

Better technology is expanding long-distance consultations



A video console with Dr. Miles Ellenby on screen is wheeled toward a patient's room for a consultation at Sacred Heart Medical Center at RiverBend.

BY SAUL HUBBARD
The Register-Guard

When Grace Cummings, 13, and Carlton Schaffer, 72, faced very different medical emergencies, their respective treatments had one glaring similarity: The first specialists who saw them did so from miles away.

After suffering a major stroke on a March afternoon last year, Florence resident Schaffer came to in the local hospital with what he thought was a hospital drama playing on a television screen at the foot of his bed.

But the doctor on the screen, Dr. Elaine Skalabrin, a neurosurgeon at Sacred Heart Medical Center at Riverbend in Springfield, was very real. Through a "Skype-like" Internet video connection, Skalabrin — who Schaffer now calls his "movie star doctor" — was remotely collecting key visual information about Schaffer's condition and the size and location of the blood clot in his brain, providing care instructions to the local hospital staff, and trying to determine whether Schaffer would have to be rushed to RiverBend.

He was, and, after several attempts, doctors were eventually able to dislodge the life-threatening clot.

In the spring of 2010, Cummings was suffering from Stevens-Johnson Syndrome — a rare, potentially deadly skin disease usually caused by a violent reaction to antibiotics — when she was propped up in front of a computer screen in RiverBend's pediatrics department.

Cummings doesn't remember the video examination she received from a Portland physician in the intensive care unit of OHSU Doernbecher Children's Hospital; she was too sick. But the pediatric specialist was able to determine that Cummings wouldn't have to be airlifted to Doernbecher and could receive the care she needed at RiverBend.

A grueling three weeks later Cummings had recovered and was released from the hospital.

Telemedicine, which literally means any medical treatment provided at a distance thanks to telecommunications or other technology, isn't new — a phone call from one doctor to another seeking advice falls under its broad umbrella.

But the rise of constantly improving video com-

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"It gives us 24/7 expert stroke consultation and care which is great."

— **DR. ERIC SPENCER**, MEDICAL DIRECTOR OF EMERGENCY SERVICES AT MCKENZIE-WILLAMETTE, ON ONE OF THE BENEFITS OF TELEMEDICINE

Telemedicine: Cheaper, safer than traveling

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munication in the last decade has given telemedicine a new edge.

About eight weeks ago, McKenzie-Willamette Medical Center began using an interactive robotic computer to connect with neurologists in Portland to help ER staff in Springfield treat stroke victims.

For the past five years, Sacred Heart doctors have used secure video conferencing to communicate with Doernbacher's — which has one of only two pediatric intensive units in Oregon — in cases involving critically ill children. Sacred Heart was the first to launch a pilot program, but Doernbacher now provides such telemedicine services to nine other major hospitals around the state.

Sacred Heart in turn offers "telestroke" services for a number of smaller nearby hospitals, as well as similar treatments for a variety of geriatric conditions and mental disorders.

So far, Sacred Heart has spent about \$250,000 on telemedicine equipment, some of which was covered by federal grants, according to Dan Reece, the director of the hospital's telemedicine program. But the technology offers a number of cost savings for patients and health insurance companies, Reece said, chief among which is a reduced need for expensive medical transportation.

Dr. Miles Ellenby, who leads Doernbacher's telemedicine effort, said that a single ambulance trip from Eugene-Springfield to Portland costs \$9,000

while an airlift is billed at \$24,000.

"If you save yourself just a couple of trips, you can buy a lot of video-conferencing equipment," he said.

Reece and Dr. Tom Roe, a retired Sacred Heart pediatrician who helped lead the pilot program with Doernbacher, estimate that, thanks to telemedicine and the additional visual cues and clues it provides, between one quarter and one third of all pediatric medical transports can be avoided.

While receiving medical treatment from a face on a screen and being examined by a camera that moves around and zooms in on you might seem eerily futuristic, the patient experience is almost universally positive, said Dr. Paul Bouressa, Sacred Heart's medical director for pediatrics.

"These kids are often pretty sick," he said. "Parents typically find a lot of assurance in getting a second opinion from a higher level of specialist."

Most physicians' agree that telemedicine services will continue to grow as federal and state governments try to lower medical costs by moving away from a "fee-for-service" health care model and focusing on preventative, rather than emergency, care.

McKenzie-Willamette currently uses its robotic computer — essentially a computer on wheels with a very high definition screen — primarily in the treatment of stroke victims, according to Dr. Eric Spencer, medical director of emergency services at the hospital.

"The biggest decision we make in stroke care is whether to treat with a medicine called TPA," he said. "It breaks up blood clots, but there are some risks — it can cause bleeding problems." There are very specific national criteria on when to use TPA, Spencer said, and a very small window when it can be used, 4.5 hours for most patients.

The robotic computer, affectionately known as "Robo Doc," allows the ER staff at McKenzie-Willamette to teleconference with neurologists in the Legacy Health system in Portland if the Springfield hospital's neurologists aren't available, in the middle of the night, for example.

"It gives us 24/7 expert stroke consultation and care which is great," Spencer said. "The emergency physicians love it."

McKenzie-Willamette is planning to expand its use of Robo Doc in the coming months, he said. Among the areas the hospital is looking into are treatment of infectious diseases and pediatrics critical care for very sick children.

"(The goal) is to provide better care in cost effective ways," Spencer said, including reducing the need to transport patients to other hospitals.

Roe said he foresees telemedicine being provided directly into people's homes, particularly for patients with chronic conditions living in rural areas.

"If you live in Reedsport, why would you want to drive 90 minutes and wait an hour for a check-up that could be done in your own home?" he said.

While telemedicine can, to a certain degree, eliminate the issue of distance, other limitations still exist. In Oregon, physicians must be credentialed in any hospital where they provide care, a stipulation that includes telemedicine. Similarly, health care can't be provided across state lines unless a doctor is licensed in the state where the patient is located.

Moreover, while all private insurance companies in Oregon cover telemedicine services, Medicare patients are currently only covered for it if they live in a rural area.

On a more practical level, the technology itself sometimes misfires, although Bouressa said those issues have decreased over the lifetime of Sacred Heart's telemedicine program.

Cummings and Schaffer, the two patients who encountered the technology for the first time when they needed it the most, have certainly come away converts.

Schaffer's wife, Arlene, says she believes that seeing the scans of her husband's clot via the video feed allowed Dr. Skablabin "to know what she was dealing with before we even got there."

As for the Cummings family, the technology prevented an unnecessary medical airlift to Portland that would have separated a scared Grace from her mother, Robin, and forced the family to relocate to Portland for several weeks.

"If you can get treated locally, it's so much easier on your family," Robin Cummings said.