

On Call On Video - System Allows Remote Neurological Exams

By Vicky Eckenrode February 24, 2011

If you suffer a stroke in Brunswick County, there's a good chance your doctor will roll up to the side of your hospital bed and examine you through the lens of a video camera.

Without a neurologist on staff, Brunswick Community Hospital recently turned to distance technology that an increasing number of rural hospitals are using to provide specialist care for patients that would otherwise not be available.



Kim Adams, a RN at the Brunswick Community Hospital, tests the facility's teleneurology equipment – Paul Stephen

"We've not had a staff neurologist for many years. So having one available 24/7 is great," said William Sherrod, a doctor in Brunswick Community's emergency department.

The hospital ventured into telemedicine at the end of last year, contracting with a California-based company named Specialists On Call Inc. to provide tele-neurology care.

The company has more than 45 board-certified specialists, each with at least a decade of experience in neurology and psychiatry. They do more than 1,000 emergency consultations a month across the country for hospitals like Brunswick Community.

"We use it for patients who are having neurological emergencies. Mainly we use it for stroke patients," Kim Adams, a charge nurse in the hospital's emergency department, said while recently performing a daily check on the system.

Through an Internet connection, the system uses a video camera and screen so that when the ER doctor or hospitalist needs a neurology consultation for anyone 18 and older, a remote physician is called up.

From wherever they are in the country, the neurologists can exam patients' functions by asking them to do things, such as raise their arms or speak, and watch the responses to see whether their brains are processing information properly.

"We are trained to make these assessments, but we do it infrequently," Sherrod said. "These people do it over and over and over."

Having a neurologist at the call of a remote button also can increase the chances being able to give a stroke patient a clot-busting drug that can reduce the effects and permanent disability. The general window for using those drugs has been three hours after stroke symptoms start.

Recent studies, however, have shown the treatment could be effective four and a half hours later in certain cases.

But a neurologist is more likely to be able to gauge that window, Sherrod said. He said emergency doctors at the hospital used the clot-busting drug, known as tPA, about twice a year before the tele-neurology system.

"We've already used it more since they've come," he said.

The biggest factor in being able to consider the drugs is how quickly stroke patients get to the hospital after they start feeling symptoms, Sherrod said.

"Most patients don't end up being eligible for stroke treatment because they present so late," he said.

As health information technology improves, including the sharing of electronic medical records, more hospitals are incorporating telemedicine. Several states have passed legislation requiring health insurance companies to cover telemedicine services. Last month, the federal Agriculture Department gave out \$34.7 million in telemedicine grants to more than 40 health care groups and hospitals to help pay for telehealth equipment and services in rural areas. And the health care reform law includes ways to use telemedicine such as remote-monitoring of patients in medically underserved areas as federal officials explore new models for delivering care.

New Hanover Regional Medical Center recently linked its pediatric intensive care unit to the one at the N.C. Children's Hospital in Chapel Hill. It was the first step of a system to link pediatric ICUs across the state for education and case conferences to improve patient care, said Erin Balzotti, spokeswoman for New Hanover Regional. She said a specialist at the N.C. Children's Hospital can talk with patients and their family members at the dermatology clinic of New Hanover Regional's Nunnelee Pediatric Clinic.

The telemedicine connection also comes in handy when providers need to talk across town and not just across the state. The hospital's Zimmer Cancer Center uses telemedicine technology for patients undergoing radiation therapy.

Balzotti said each week nurses, dieticians, radiation therapists, social workers and physics staffers review patient treatment plans with radiation oncologists, who might be conferencing in to the 17th Street cancer center from their own office elsewhere in the local area.

Amy Myers, spokeswoman for Brunswick Community, said the hospital is considering other options for the telemedicine connection such as having behavioral health specialists available.

"It's really a part of an overall strategy of bringing more specialists to the community," she said.

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