

Hospital Scales up to Improve Stroke Assessments

By Tyler Smith

It's a truism of neurology that for stroke patients "time is brain." The quicker providers can recognize the signs of stroke and begin delivering care, the better the chances of preventing serious disability or death.

So it would seem to follow that providers at an academic medical center like University of Colorado Hospital would all speak the same language when it comes to stroke care. Yet until recently, nurses and residents in key departments at UCH didn't necessarily have the same training in assessing the signs of ischemic stroke.



Kimberly Rapp, clinical coordinator for the Stroke Program (left) and Susie Schreiber, RN, nurse on the Neurosciences Unit, demonstrate some of the materials used in the NIH Stroke Scale.

Now they do. The hospital recently completed a large-scale training program, led by neurologists and neuro nurse educators, for some 250 nurses from the Emergency Department and Neuroscience and Neuro Intensive Care units. The aim: ensure that all providers on these units use the [National Institutes of Health Stroke Scale](#) when they assess patients for signs and severity of stroke and measure changes in neurologic status during their hospital stays.

Nearly all of those required to take the training passed a certification exam scored by the National Stroke Association, said Kimberly Rapp, RN, clinical coordinator for the Stroke Program.

The training rollout continues. All new hires in the ED and neuro units are required to take the three-hour course. It is also now open to providers throughout the hospital. Two dozen or so attended an afternoon session in an Anschutz Inpatient Pavilion 2 conference room June 11.

The instruction was "invaluable," said Nicole Huntley, RN, who attended the June 11 training. Huntley works in the Cardiothoracic ICU and as a [clinical resource nurse](#) – a position recently created at UCH to give additional support to nurses on the medical/surgical floors. As a nurse who does not work primarily in neurology, Huntley said she "got a lot of great info from the training, namely the ins-and-outs of a successful [stroke] assessment."

Mixed message. The initiative followed the Joint Commission site visit and survey in March 2013 that resulted in the hospital earning [Comprehensive Stroke Center](#) certification. The surveyors praised the Stroke Program for its array of integrated services for patients, but noted the hospital did not have a single method for assessing stroke, Rapp said, and asked that program leaders remedy the situation.

"The surveyors identified that residents were using the NIH Stroke Scale to assess ischemic stroke patients but that nurses sometimes lacked an understanding of what the score means," Rapp said.

The NIH scale is not the only available assessment tool, but it is considered "the gold standard," Rapp said. Most importantly, training on a single scale puts providers on the same page in situations where communication is critical, she said.

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“We looked at other stroke centers where nurses use a scale to assess patients,” Rapp said. “We found the best way to ensure continuity of care is to use one assessment tool.”

Human factor. The reasons for the training were compelling, but given the heavy schedules and obligations of physicians and nurses, it was also “incredibly hard to roll out,” said [Jennifer Simpson](#), MD, a neurohospitalist who helped to teach the classes.

“It was labor-intensive and massive in terms of the amount of time and money it required,” Simpson said.



Kristen Case, RN, associate nurse manager for the Neurosciences Unit (front of room), leads NIH Stroke Scale training June 11.

Still, she added, the effort was justified, and not only because it satisfied a Joint Commission directive. The training helps a provider understand, for example, the symptoms that point to the areas of the brain affected by stroke and provides a “common language” to discuss severity in neurologic terms. If a patient scores 15 on the NIH Stroke Scale, for example, everyone should know that’s a serious stroke that requires a rapid response involving a large team of responders.

The scale also helps physicians and nurses work together to gauge the effectiveness of stroke treatments, such as tissue plasminogen activator (tPA), which is used to dissolve blood clots in the brain, Simpson said.

“If we are going to administer a medication like tPA, we want to know if a patient has declined objectively – by losing points in an area of the scale,” she said.

Simpson said the classes helped her to build relationships with the nurses who attended. She and the other instructors also offered

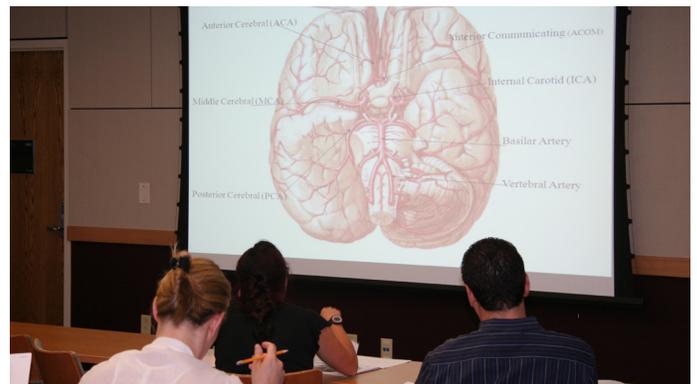
important guidance for the attendees, said Susie Schreiber, RN, a clinical nurse on the Neurosciences Unit. Schreiber said she took and passed the NIH Stroke Scale training in 2004, but got only video instruction. She welcomed the addition of live instructors this time around.

“I couldn’t ask a video for clarification,” Schreiber said. “I passed both times, but now I feel more confident in my ability to assess real patients in real situations.”

The mixture of video and human instruction allowed providers to offer nurses “tips and tricks” for using the scale, Rapp said.

“Stroke patients can be challenging to assess,” she said. Some nurses, for example, asked about how to use the scale when a patient is intubated or aphasic (unable to communicate through speech or writing). As Simpson noted, a patient’s difficulty in wiggling his or her fingers might be a sign of stroke – but it might also simply be a sign of physical weakness.

“It’s a unique assessment,” Rapp said. “The brain is so different from the rest of the body. There is no monitor that measures the changes.”



Attendees at the June 11 training view a diagram showing the anatomy of the brain.

Nurses and providers outside the ED and the neuro units will probably use the stroke scale training only rarely, Schreiber said, but it’s important to their clinical development.

“It gives them an opportunity to expand their knowledge and get a total picture of what’s happening with a patient rather than just speculating,” she said. “We are a Comprehensive Stroke Center, not just a stroke unit. We need to work as a team for the benefit of stroke patients.”