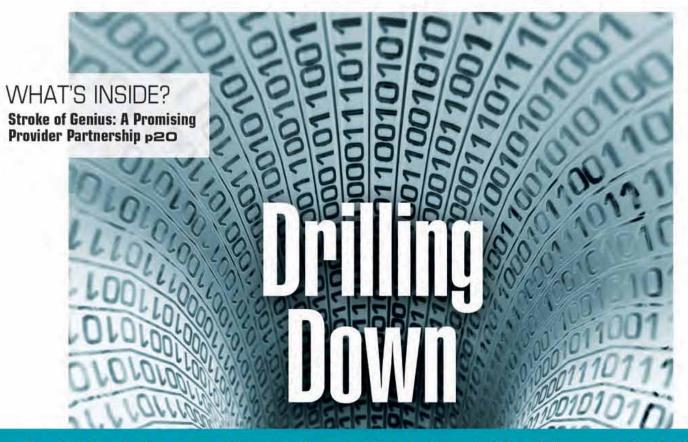


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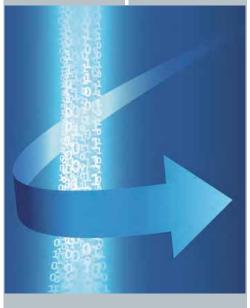
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The Riverside Radiology & Interventional Associates neurointerventional radiology team: Back row, left to right: Ronald Budzik, MD; Peter Pema, MD. Front row, left to right: Nirav Vora, MD; Thomas Davis, MD.

# Neuro Frontiers

Patients win big when hospitals and radiology groups maintain healthy, collaborative relationships.

#### By Mike Suddendorf and Emily Doutre

ase in point is Riverside Radiology and Interventional Associates (RRIA) based in Columbus, Ohio, which effectively manages relationships with 26 hospitals across the state (an increase of 10 since 2012). Noteworthy outcomes of this collaborative group practice model are the group's neurointerventional division and the co-leadership role the neurointerventionalists played in the establishment of the Neuroscience Institute on the campus of OhioHealth's Riverside Methodist Hospital. RRIA has been a part of the Columbus-based OhioHealth system since long before the phrase "health care system" existed, dating back to the 1980s. Together the organizations have grown in concordance with each other, culminating in an archetypal relationship.

Riverside Neuroscience Institute's Comprehensive Stroke Center of Excellence was the first health care facility in Ohio certified as a Primary Stroke Center by The Joint Commission for exceptional efforts to foster better outcomes for stroke care. This accomplishment did not come easy and took a team approach for this multidisciplinary group of experienced and passionate industry leaders. It also took a culture of trust and mutual respect from both sides of the aisle—both the hospital's and physicians' ability to be realistic, pragmatic, collaborative, accessible, and nimble, along with shared decision-making skills. And most importantly, it required a commitment to keep the patient at the center of the equation always.

"We approach all of our hospital relationships with the intent of being a truly integrated strategic partner, not just a service provider, especially in the area of stroke care, where so much is on the line and time is of the essence," says Mark Alfonso, MD, president of RRIA. "A team-based, trusting environment is critical. If you don't have that, the patient ultimately loses out. It's one of those areas that is so specialized—being a part of a regional provider network is a critical element of our overall interventional radiology, vascular neurology, and vascular medicine divisions."

### Launching a Program: Vision, Commitment, Expertise

A critical element of this team approach to building a program, such as a stroke network, that merits both regional and national recognition is a commitment of time and expertise from practice leadership. In the case of the OhioHealth Neuroscience Institute, that translated to Ron Budzik, MD, RRIA neurointerventional radiologist, and chief of the neuroscience clinical operations council at Riverside Methodist Hospital, serving as co-chair of this massive project. Early morning meetings and thoughtful review of all aspects of the project were necessary to keep things moving forward at a pace necessary to keep up with design and construction timelines—all delivered while supporting a very busy regional stroke network and growing radiology group practice.

"Neuro is the next new frontier. Every few months, new technologies are made available that enable us to do more being catheter based, it's essentially minimally invasive brain surgery," Budzik explained. "Having a health system partner that shares that vision for being an early adopter of advanced technologies is extremely important. We've brought a lot of innovative techniques to central Ohio and put them in place, working hand in hand with the hospital administration to get the resources to really build this program. This is one of the main reasons we are able to stay on the cutting edge of stroke intervention and treatment."

The \$321 million Neuroscience Institute is scheduled to be completed in 2015 and will feature 8 neuro operating rooms, 3 open heart operating rooms, 2 stereotactic radiosurgery vaults, 3 interventional neuroradiology labs, and 30 diagnostic and treatment rooms—all within a 10-story tower comprised of 409,000 square feet. The building is expected to be a model of efficiency for patients and staff, making it easier to group patients and move them to treatment areas. Using the latest research in space design, the building will introduce a healing environment with the unique neuroscience patient in mind by way of specially designed floor patterns, colors,

"Through this relationship-based model, the OhioHealth Stroke Network treats more stroke patients than all other central Ohio health systems combined, attending to two out of every three stroke patients in central Ohio."

-Connie Gallaher, RN, MS, System Vice President, OhioHealth Neuroscience



and other interior materials to help with wayfinding, reduce stress, and improve overall patient well-being. Patients and their families will experience quiet areas and beautiful gardens, as well as an atrium in the center of the building that lets natural light into every patient room.

The Neuroscience Institute will have 224 private rooms, providing patients and families with privacy, as well as improving patient safety and the hospital experience, and positively influencing physician and staff productivity.

"It's exciting. I've seen our stroke capabilities evolve at an amazing pace. It used to be that you took a catheter up to try to dissolve the clot. This evolved into taking a catheter that has a device on it that grabs the clot. That has evolved into a technology that allows us to use a combination of suction, thrombolytic drugs, and stents that are dissolvable. So where this is going, who knows?" said Tom Davis, MD, RRIA neurointerventional radiologist. "Our group shifts gears in support of our patients and health system partners more than any other group I know—and that makes it exciting. Ten years ago, we didn't even do aneurysms. We just did cerebral work. Now we do a preponderance of aneurysms, coil them, and treat them. Heaven only knows what's going to happen in the future."

#### **True Collaboration Benefits Patients**

This innovative, "in step" relationship style between hospitals and their radiology group practice partners is not necessarily the industry norm. There continue to be instances in which radiology practices struggle with navigating the politics associated with their local health care service area, as well as the internal politics of their own group. Yet RRIA's neurointerventional division has experienced great support from internal interventional and diagnostic radiology partners, who view the division as a worthy investment. RRIA's hospital partners also agree with this philosophy, translating to a rare collaboration of the physicians, hospital, and radiology group coming together to create something truly unique.

"OhioHealth is the leading provider of stroke treatment in the region and we're very proud of that, as well as the fact that we achieved this through a true team effort with our physician partners, including the leadership team at Riverside Radiology," said Connie Gallaher, RN, MS, system vice president for OhioHealth Neuroscience. "Through this relationship-based model, the OhioHealth Stroke Network treats more stroke patients than all other central Ohio health systems combined, attending to two out of every three stroke patients in central Ohio. We think that's pretty impressive and says a lot about what can be accomplished through having a shared vision for patient care excellence between health systems and their radiology group practice partners."

A good example of that mutually beneficial shared vision was the successful recruitment of Nirav Vora, MD, a stroke neurologist and interventional radiologist, to the RRIA and OhioHealth Neuroscience Institute team. The hospital and the practice worked together to recruit Vora and leverage his skill set to round out the Institute's neurovascular department, ensuring a fully integrated treatment program. Results of studies and randomized trials have shown lower mortality rates, shorter hospitalizations, and greater likelihood of discharge with patients treated in integrated stroke units compared to those treated in general medical units.

"We now have access to technologies that can not only reach any clot that is causing a stroke, but also open up that vessel in a manner of minutes, achieving immediate results for the patient experiencing a stroke," said Vora. "In post-

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"We approach all of our hospital relationships with the intent of being a truly integrated strategic partner, not just a service provider, especially in the area of stroke care, where so much <u>is on the line and time is of the essence.</u>"

–Mark Alfonso, MD, President, Riverside Radiology & Interventional Associates

stroke analysis through MRI scans, we can see large portions of a patient's brain that were successfully salvaged through the stroke team's efforts, enabling any given patient to have a very successful and more complete recovery. That's very powerful and makes the day for all of us."

This partnership between RRIA and OhioHealth has led the way in research, as well, by way of clinical trial participation and early adoption of technologies for new stroke treatments, such as clot busting drugs and innovative devices. Last year, with RRIA's support, OhioHealth became the first health care provider in Ohio and second in the country to use the Solitaire<sup>™</sup> FR Revascularization Device, a tool that vastly improves the chance of a patient surviving a severe stroke. In January, the system was the first in the world to use an updated version of that tool, which now improves the chance of survival over the prior device used to treat stroke. Currently, RRIA and OhioHealth are working together to test the use of stem cells to repair stroke patients' brains. These technological innovations also have enabled virtual stroke evaluations with RRIA specialists to begin within 6 minutes or less upon arrival in the emergency department of a member or regional partner hospital. In the spring of 2013, the Stroke Network reached a milestone of 1,500 consults.

"Because of our volume, experience, and medical training, our neurointerventional team is often given first access to the newest technologies available, often before FDA approval, as part of a clinical trial. We can then utilize the new technology to the benefit of our patients," said Peter J. Pema, MD, RRIA neurointerventional radiologist and chair of the radiology department at Riverside Memorial Hospital. "So we're typically on multiple trials and maintain a close, collaborative relationship with our health system's research department, so that we can continually offer our patients more neurointerventional treatment options before they are available to the rest of the city or nation."

#### IT Infrastructure for Fast Image Sharing

Not to be left out of the integrated stroke delivery equation is RRIA's 80 plus subspecialty trained diagnostic radiologists including 12 neuroradiologists and two fellowship trained vascular medicine physicians. All RRIA radiologists utilize RadAssist, an IT infrastructure created by Columbusbased Lucid Radiology Solutions, to enable images (including any relevant previous studies) to be delivered directly to the appropriate neuroradiology subspecialists and flagged stat priority. In the case of a stroke patient, the images can be interpreted by an RRIA neuroradiologist familiar with the treatment delivery techniques of the neurointerventional team to supply the necessary information as quickly and efficiently as possible. RRIA's vascular division supports the group's entire interventional and vascular services division, including neurointerventional radiology, to ensure continuity of care and patient compliance.

"The neuroradiology specialists, led by Geoff Wiot, MD, are very much on the front line of the stroke center care delivery process through our role in interpreting the scanned images in an expeditious but thorough fashion to assist the intervention team in administering the right care path for the given situation," said Dennis Glatz, MD, RRIA neuroradiologist. "A big benefit from being part of a healthy collaborative between our group and the hospital is how well our IT systems interact with each other and keep images and data moving quickly and seamlessly. Our IT team works hard to make sure this happens consistently and is certainly one of the big reasons why our group has been able to grow and effectively service as many hospitals as we do."

At the core of this effective collaboration between RRIA and its 26 hospital-affiliated partners is a relationship foundation built on trust and mutual respect. It is the one constant that resonates with all key stakeholders, including referring physicians, hospital administrators, as well as hospital and imaging center staff. In combination with an innovative, responsive IT infrastructure that can quickly adapt and integrate with disparate hospital-based systems, as well as healthy flow of new talent into the organization, RRIA's opportunity for continued growth throughout Ohio appears very promising.

"In a time when there is so much change going on, we feel extremely fortunate to be engaged with hospital partners that see us as a strategic asset that can assist their entire organization in navigating the new health care landscape that's unfolding in front of us," said Alfonso. "We are always diligent to not take any of these relationships we have worked hard to establish for granted. We strive to constantly be proactive in supporting the organization's vision and mission, as well as their business, quality, safety, and overall operational objectives. It's not only the right thing to do—it just makes good business sense."

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