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Innovating Imaging for Vascular Disease

How Bransist vascular imaging provides the technology needed for today's patients at a cost that is in line with today's budget.

When Christopher Cunningham, MD, of McLeod Vascular Associates brought his practice to McLeod Regional Medical Center in Florence, South Carolina, he came with a vast wealth of knowledge supported by more than 28 years of vascular surgery experience. Dr. Cunningham, a board-certified vascular surgeon, is highly experienced in both minimally invasive endovascular treatments as well as complex surgery.

Dr. Cunningham recognized McLeod Regional Medical Center as a rapidly growing health care system, intent on keeping up with the pace of a fast-growing community. Partnering with McLeod enabled Dr. Cunningham to meet the medical needs of the community and provide cutting-edge care.

McLeod Regional Medical Center is located in the "Pee Dee" area of South Carolina and is known for its ability to provide high-level health care for its patients along with the surrounding community. This region of South Carolina also has a history of high vascular disease prevalence among its residents per capita.

As a member of the McLeod Heart and Vascular Institute, Dr. Cunningham envisioned offering his patients the best vascular care available. While Dr. Cunningham assembled his team (Figure 1), he understood that the team would only be as good as its equipment. He approached Jack F. O'Connor, Vice President of Cardiovascular Services for McLeod



Figure 1. Cletus Sawyer Jr, RN, RTR, Director, Cardiovascular & Surgery (left); Jack F. O'Connor, Vice President of Cardiovascular Services (middle); Dr. Christopher Cunningham (right).

Regional Medical Center, and made his case for a state-of-the-art vascular suite. Mr. O'Connor understood the vision and mission Dr. Cunningham had embarked on but also weighed the financial aspects of balancing a budget during a tough economic time in the health care industry. Mr. O'Connor knew that to pull this project off and to maintain an effective budget, they would have to evaluate many vendor

"Brian Collins of CMS was terrific. He was there with us every step of the way and made the whole experience easy for McLeod Regional Medical Center."

—David Poston, RTR, RDMS,
Director of Radiology

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solutions to choose the perfect fit for McLeod Regional Medical Center. The task would be to manage the cost aspect of the project while maintaining the high level of technology needed.

The team knew they wanted to have

flat-panel detector technology to produce the highest-quality images at the lowest possible radiation dose.

Having a seamless interface with the Dicom Network

and a large capacity of image storage was a must due to the volume of procedures that were going to be performed daily.

The team was pleasantly surprised with the technology of the NAVI-DAS software (navigational digital-assisted software).



Figure 2. Shimadzu Medical Solution's hybrid suite. The Bransist Safire workstation (inset) offers true workflow versatility, allowing multiple tasks to be performed without interruption of cases.



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"Shimadzu Medical Systems has set the bar very high in hybrid room design and imaging. The concepts and features allow for the system to grow and evolve with the procedures being performed in the community."

—Thomas Pompeii, CMS Imaging

"This is one of the success stories of managing health care cost and responsibility along with the future care of a community."

—Dr. Christopher Cunningham

This software minimizes x-ray dose and contrast load to the patient by imaging anatomy from multiple angles in a single acquisition.

With the plan given the go-ahead, Dr. Cunningham relied on Cletus Sawyer Jr, RN, RTR, Director of

Cardiovascular & Surgery at McLeod Regional Medical Center, to help search for a suite that had the ability to perform a wide range of angiography and cardiovascular procedures while at the same time maintaining the characteristics of a trauma and operating room suite. This allows for utilizing multiple imaging angles and positions similar to a trauma room while maintaining the flexibility to transform into open procedures normally associated with an operating room.



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"The 17-inch direct capture detector with the smooth masking capabilities has been one of our most-used applications. The small footprint also allows us to make the suite a comfortable work environment that can accommodate a wide range of procedures. This room fit every need that we seemed to have and allowed us to achieve many goals we were looking to accomplish."

—Cletus Sawyer Jr, RN, RTR, Director of Cardiovascular & Surgery



Figure 3. The Bransist Safire ceiling-mounted vascular package is a true surgical solution in a dedicated environment. Only Shimadzu offers system features and C-arm design to maximize sterility and efficiency of workflow by offering features like NAVI-DAS, RSM-DSA, and transverse travel to improve patient outcomes.

After many hours of onsite visits and evaluating numerous vendors, the team settled on the Bransist solution from Shimadzu Medical Solutions (Kyoto, Japan). The Shimadzu Medical Solution's hybrid suite (Figure 2) offered flexibility and provided an innovative and comprehensive vascular imaging technology.

The Shimadzu Bransist Safire system (Figure 3) could be used as a trauma suite and could easily transform

into a space for angiography or cardiac procedures without the loss of technology, features, or image quality. The team from Shimadzu was focused on providing the McLeod team with clear guidance and expectations.

The Bransist Safire System offers many features that transcend across a wide range of procedures. The SUREPRO engine software (Shimadzu Ultimate Real-time Edge Enhancement With Pattern Recognition Optimizer) offers real-time processing and works flawlessly with the direct-conversion flat-panel detector by evaluating anatomy and devices of the acquisition and optimizing the results to deliver the highest image quality while also maintaining a low dose of contrast.

The cyber grip controls and direct memory functions allow the user to have total control of the movements from the tableside. The program can easily return to previous positions so that they can be obtained again quickly and efficiently. ■

Christopher Cunningham, MD, is a vascular surgeon with McLeod Vascular Associates in Florence, South Carolina. Dr. Cunningham may be reached at (843) 777-7043.

Cletus Sawyer Jr, RN, RTR, is Director of Cardiovascular & Surgery at McLeod Regional Medical Center in Florence, South Carolina.