

SPECT Replacement Enables Efficiency and Service Line Expansion

Boice-Willis Clinic, a primary care and multi-specialty practice with seven locations in North Carolina, USA, replaced two aging SPECT scanners with one Siemens Symbia Evo™ Excel* SPECT system. Edward O'Neal, MHA, RT(R)(CT), Imaging Manager, and Candie Wachowicz, RT(R)(N), Nuclear Medicine Technologist, talk about the process.

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Edward O'Neal, MHA, RT(R)(CT), Imaging Manager (left), and Candie Wachowicz, RT(R)(N), Nuclear Medicine Technologist (right).

Boice-Willis Clinic replaced its two SPECT scanners in January 2016. What led to this decision?

Edward O'Neal: Prior to Symbia Evo Excel, we used two older systems from a different vendor. One scanner was installed in 1997, and the other was installed in 2002. When both hit their end of service life, it limited what we could accomplish. For example, if we wanted to add new procedures, it was very costly to do so.

Was there a set of core criteria your new scanner had to have?

Edward O'Neal: Iterative reconstruction was a must-have. Our cardiologists have used systems with iterative reconstruction at other hospitals, so that was especially an interest for them, and we made sure to get it.

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Imaging Manager, Boice-Willis Clinic
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Increased weight limit on the patient bed was another must-have. Our older cameras had a 350-pound weight limit, so we looked for options that could accommodate more bariatric patients. Our patient base was limited due to size.

The size of the scanner was another criterion. We are located on the fourth floor in our building, and we have limited available space. Getting the system into place, in our limited space, was important. The small footprint was definitely a benefit.

What questions did you ask during the replacement process?

Edward O'Neal: In addition to our interest in iterative reconstruction and the table weight limit, we looked at system reputation and talked with references about their experiences. We also looked into aspects such as camera life, how long has it been in service, service contracts and the cost of those contracts. One important aspect of Siemens' service contract was non-obsolescence.

Why is non-obsolescence important?

Edward O'Neal: We are a primary care and multi-specialty practice representing 13 clinical specialties including cardiology and oncology. We want

the ability and option to grow into different areas, and we want equipment that will enable us to do so.

Have you been able to expand into new services with your new scanner?

Edward O'Neal: Yes. When we went with Symbia Evo Excel, we added, for example, ¹²³I uptake imaging scans without purchasing any additional hardware or software. Boice-Willis Clinic has built a growing endocrinology practice, so we wanted to offer our patients in-house thyroid imaging.

In addition to what was already mentioned, how else has the scanner enabled your department?

Edward O'Neal: We are able to complete cardiac and bone scans much quicker. These account for about 85 percent of our work. We are also in the process of investigating additional types of exams, but have not reached any conclusions yet. Overall, the ability to grow into different practice areas, as well as the previously mentioned options that came with the system, are the biggest benefits for us.

Boice-Willis Clinic replaced two SPECT scanners with only one. After about four months of using

the scanner, what is your operational throughput look like?

Candie Wachowicz: We are routinely doing 10-13 heart scans per day, with three additional studies such as gastrointestinal (GI), thyroid or hepatobiliary (HIDA) on this one scanner. Our patient volume has increased since installing the new system.

Edward O'Neal: In the past, we averaged about six cardiac patients per day, with two additional other studies per day. Overall, though, across the entire clinic, patient volume is up. Last month, for instance, between our cardiac and our routine nuclear medicine scans, we did 200 procedures, which is about 50 procedures more than we normally do.

Could you have handled that increased volume on the older scanners?

Edward O'Neal: Not on one camera alone. The iterative reconstruction helps to reduce imaging times.

What is the exam mix at your facility?

Edward O'Neal: Our mix is comprised of about 80 percent cardiology, 10 percent GI, five percent oncology, and five percent in thyroid and endocrinology types of imaging.



At Boice-Willis Clinic, the Symbia Evo Excel scanner is located on the fourth floor at the Rocky Mount Medical Park location in North Carolina, USA. With limited space, it was a requirement that the facility's new SPECT system have a small footprint that fit into the pre-existing space.

Have you found the flexibility of the detector heads, the caudal tilt or the easy gurney bed imaging to be important?

Edward O'Neal: Since we are essentially an outpatient facility, we don't do much gurney imaging. But the flexibility of the camera heads and the ability to move them pretty much in any direction does come in handy, especially with some of the HIDA scans and gastric studies.

Candie Wachowicz: The flexibility is nice, because you can pretty much have the detector heads positioned any way you want.

Describe the learning process for the new scanner?

Candie Wachowicz: I went to the Siemens training and development center in Cary, North Carolina, USA, for training. Once we started using the system at our department, the following week, an apps specialist visited us onsite to train our other technologists. He went through the basics, such as patient handling, and helped set up and customize our protocols.

The applications specialist pulled our protocol books, worked with our providers to better understand our needs and made the protocols specific to

those requirements. He went through it all with us and demonstrated how it works. The process was very good. After that initial training, we worked for two weeks on our own, and then the applications specialist returned for a two-day follow-up. That way if we had questions or if any minor issues arose in the meantime, we were able to have those quickly addressed.

Is there a need for you to have standardization in protocols and quality of care at your facility?

Edward O'Neal: Since Boice-Willis Clinic is accredited by the ACR, we are required to operate on standard protocols and reporting.

Does having new technology impact your facility's reputation amongst patients and physicians?

Edward O'Neal: It helps out a great deal, absolutely. Patients feel like we have state-of-the-art equipment and that they are receiving a high level of care. Likewise, when physicians visit us, and see that we have newer equipment, they know we invest resources to help them offer better services to their patients and provide them with the best possible results.

Candie Wachowicz: I think it gives our patients confidence. For example, we have many repeat patients, and when they come in and realize that the scanner is different than from before, they seem to have a confidence boost in that they are getting quality imaging. Also, the study is faster than before, so that helps to increase their overall satisfaction.

Are you measuring patient satisfaction through surveys?

Edward O'Neal: We do clinic-specific, patient satisfaction surveys.

Four Steps to Successful SPECT Replacement

Boice-Willis Clinic, a primary care and multi-specialty practice, replaced two aging SPECT scanners with one Symbia Evo Excel SPECT system. Here are their tips for approaching SPECT scanner replacement.



Define your needs. Identify which capabilities will best address your exam mix now and support growth in the future.



Engage a few vendors. Determine which provider can meet or exceed your needs for the best price without compromising quality.



Talk with users, including technologists. Learn about their experience with the system from both an administrative perspective and in clinical routine.



Evaluate vendor reputation. Confirm equipment and service performance are equally strong.

Have you noticed an increase in the survey scores?

Edward O'Neal: Our surveys account for the department as a whole, and the scores are very positive overall, so it is hard to relay it back to any one piece of equipment. We do receive a lot of verbal feedback from the patients, especially with the cardiac patients when they are here for the best part of the day undergoing a procedure.

What are your top recommendations for departments looking to replace their scanners?

Edward O'Neal: First, define your needs. What do you need out of the system? And then make a list of what you really would want out of a system, but is not necessarily a need. Then choose potential vendors for negotiation.

But I would also call references, talk to the technologists and see how they like the system. People will often say, "Call this administrator." There is nothing wrong with talking to the administrator, but I like talking to the people who are routinely using the system too. Also, look at the reputation of the company and the service history. If a piece of equipment is good, but the service isn't good, then you could have a problem. We believe that we made a very informed decision with this system, and so far, it has met all of our expectations. ■

The statements by Siemens customers described herein are based on results that were achieved in the customer's unique setting. Since there is no "typical" hospital and many variables exist (e.g., hospital size, case mix, level of IT adoption) there can be no guarantee that other customers will achieve the same results.

* Symbia Evo Excel is not commercially available in all countries. Due to regulatory reasons, its future availability cannot be guaranteed. Please contact your local Siemens organization for further details.