



# “You Might Just Get What You Need”

What do you do when your dreams of offering computed tomography angiographic procedures and increasing patient throughput with the latest technology are bigger than your budget? Mark Lopiano, radiologist and head of a community-based radiology practice in suburban Washington, DC, USA, found that his dreams could become reality without breaking his budget – with a refurbished Proven Excellence SOMATOM Sensation 16.

By Tim Friend

With the refurbished Proven Excellence SOMATOM Sensation 16, radiologist Mark Lopiano has helped his community-based practice to obtain cutting-edge technology, while staying within a limited budget.

Just one year after acquisition, the medical center in Washington, DC, has already performed 1,500 CT scans and reports a significant increase in scan referrals.



Mark Lopiano wanted a brand-new SOMATOM® Sensation 64 computed tomography (CT) scanner badly. All of the leading academic medical centers in this region offered 64-slice scanning for cardiac CT angiography (CTA), which they advertised on local radio and television. The ads were like rubbing salt into an open wound for Lopiano, and they even misled some patients to request 64-slice scanning for all of their CT needs. After having enough of the ads and phone calls from prospective patients asking if he had a 64, Lopiano finally broke down and asked the corporation he works for to buy one for him.

Remember the lyrics by Mick Jagger of the Rolling Stones, "You can't always get what you want. But if you try sometimes, well you just might find, you get what you need?" Lopiano, Medical Director of the Medical Imaging Center of Fairfax, VA, USA, did not get what he wanted. A new 64-slice CT scanner was beyond the corporation's budget and experience. Determined to provide the best possible care for his patients, Lopiano kept trying – and he ultimately got what he needed. Nearly one year ago, Lopiano took possession of a refurbished Siemens SOMATOM Sensation 16. Since then, it has already performed more than 1,500 CT scans and only needed one service call. Because the cost of the refurbished 16-slice scanner was unexpectedly low, Lopiano was able

to purchase a system equipped with a Straton® X-ray tube, as well as a Leonardo (syngo® MultiModality) workstation. This refurbished package included new software programs for cardiovascular, endoscopic, and pulmonary CT, as well as Siemens syngo InSpace software for 3D image postprocessing. The final deal was sealed with warranties, service contracts, and guaranteed spare parts availability – all equivalent to options available with a new CT system.

### Proven Excellence Proves Itself

Original equipment manufacturer (OEM) refurbished equipment appears to be catching on. As the highly competitive academic medical centers began purchasing their new 64-slice CT scanners over the past few years, many traded in their SOMATOM Sensation 16 scanners. This created a new window of opportunity for radiologists such as Lopiano, who want to be as up-to-the-minute as possible with their technology, but do not have the deep pockets to buy every piece of the latest equipment as it becomes available. Siemens Medical Solutions Refurbished Systems Division meets this need for high-quality and up-to-date equipment at an outstanding price/performance ratio with its Proven Excellence refurbishing program. Before entering the refurbishing process, every system is thoroughly

inspected to ensure that it can be transformed into a reliable system for new customers. All of the systems undergo a five-step process at the Proven Excellence factories in Hoffman Estates, IL, USA, or Forchheim, Germany, before being shipped out to radiologists like Lopiano. After the initial inspection and assessment, the systems are thoroughly cleaned, disinfected, repainted, and upgraded. Parts are also replaced with new components whenever needed. According to a 2006 *Medical Solutions* article, "Today's customers are used to high technical standards, and they expect flawless technical operability. What they are not accustomed to, however, is buying preowned systems that show almost no difference in appearance to a brand-new system. After making the system look like new, Siemens Proven Excellence technicians replace worn parts with original spare parts and thoroughly check components and subsystems. Software updates to the latest possible edition are performed. Afterwards, the system is checked with original test equipment and procedures. This means that the system must pass the same tests that brand-new systems have to pass. After successful completion of testing, the Proven Excellence quality seal is applied."

Lopiano is more than satisfied with his refurbished SOMATOM Sensation 16: "Part of my job as medical director is to

tell our company my needs – and I have certain minimal requirements in what I need. The corporation first suggested a four-slice scanner, and I said no. It had to be at a minimum 16-slice, and it had to have a Straton X-ray tube in it, and I wanted the Leonardo workstation. With Siemens, we were able to negotiate the better tube and the workstation, and at the end of the day I think my company got – and I got – a tremendous machine.” Since the Proven Excellence SOMATOM Sensation 16 was installed, Lopiano has seen referrals for CT scans increase significantly. Now, his waiting room is regularly filled with patients who have been referred for CT for everything from abdominal pain, to kidney stones, to headaches. For these general radiology indications and peripheral vascular CT, including carotid arteries, Lopiano’s 16-slice CT scanner offers the same high quality and technical capability as any large academic medical center. Lopiano says that he has definitely expanded his practice while increasing his skills as a radiologist.

“We keep data on how many scans we supply, and I think last year in January, we did 125 studies. We did 180 this year for January. Two years ago we did 85 studies in the month of January. I know that with this machine, especially with the Straton tube, I can scan one patient after the other. The throughput is just great – no problem at all.”

### Keeping it Cool: The Straton X-ray Tube

The Proven Excellence SOMATOM Sensation 16 sits in the room two doors down from Lopiano’s office and had performed nearly a dozen scans on the day of his interview with *Medical Solutions*, which began at 1 p.m. With the Straton tube, which comes standard in a SOMATOM Sensation 64, the scanner virtually never has to be stopped for cooling. The 16-slice CT, with a Straton tube as an option, allows Lopiano to conduct CTA for many cardiovascular indications. “When I started doing my research before we bought this machine, I knew I was probably going to end up with a 16-slice

scanner. So if I had to have a 16-slice scanner, I needed the Straton tube to be able to at least try cardiac studies. With the Straton tube, the 16-slice scanner is closer to a 64 than a standard 16-slice scanner. With the old machines, we always ran into overheating problems, so we had to stop and wait to let the tube cool down. With the Straton tube, you can just keep on going. Even if I don’t end up doing cardiac, I feel like I can use this machine for five to seven years without the machine slowing me down,” Lopiano says.

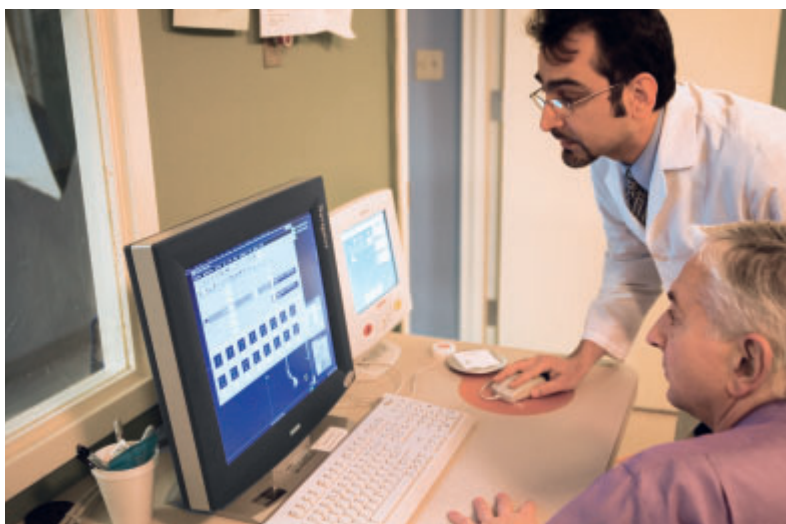
Since working with the Proven Excellence program, Lopiano says he has been quite surprised at the value he has received from his refurbished system. He also expresses satisfaction with the flexibility that the Siemens Refurbished Systems Division offers when making the purchase. “Siemens really worked hard with us to try to mix and match what we really needed with what we wanted. They were very good about working with our needs,” Lopiano says. “In my opinion, you can do everything you need to do with a 16-slice machine. With the exception of cardiac CTA, I feel that I am state-of-the-art with this machine.”

### The Single Vendor Advantage

The national corporation that owns Lopiano’s radiology center is Insight Imaging, based in California. The corporation owns three imaging centers in the Washington, DC, area and has sites in numerous other states, including Florida and Texas. However, Insight is primarily a magnetic resonance imaging (MRI) company; about 80 percent of Insight’s imaging centers are MRI only. Lopiano’s center also houses a relatively new Siemens MAGNETOM® Espree MRI system. Because of a lack in broad experience with CT, Lopiano says the company was reluctant to invest in a new 64-slice CT scanner. “This site used to have an antiquated GE CT scanner. It was a single slice machine, and it just got to the point where from all different aspects – from patient care as well as marketing – state-of-the-art equipment was needed in order to keep up with the competition. I told Insight Imaging

that if I wanted to stay competitive and practice good medicine, I needed a minimum of a 16-slice CT scanner,” Lopiano says. “However, looking at the volume of work we did at the time, they could not justify spending the amount of money for a 64-slice machine. Also, looking at the other sites they own, they did not feel that having a CT scanner increased their business. So Insight did not want to spend a lot of money on a CT scanner, even though they do like new technology – as you can see, we have the MAGNETOM Espree. When I stated that I needed a minimum of 16 slices, they asked me if I would consider refurbished equipment. I said I would look at refurbished equipment if they stayed with one of the big vendors.” Another possible factor in the resistance to invest momentarily in 64-slice CT is the Deficit Reduction Act of 2007. The act has stirred uncertainty about the future of Medicare reimbursements for cardiac CTA.

Lopiano also wanted to stay with a single vendor for all of his imaging technology. He has been satisfied with Siemens over the years, particularly with the company’s service and its IT platform, *syngo*, Siemens universal software platform for its imaging systems. With the MAGNETOM Espree, Lopiano’s staff was already familiar with *syngo*. Lopiano believes that this made a big difference in his decision to go with the Proven Excellence program for the purchase of a refurbished 16-slice CT scanner and a Leonardo workstation. “Our primary MRI technician had not done CT, but since she had experience on *syngo* and had training with the Espree, making that transition over to the SOMATOM Sensation 16 really was just an on-the-job type of training,” Lopiano says. “With *syngo*, it was very easy for her to pick it up. I feel very comfortable with Siemens equipment, and since we had already been pretty much committed to Siemens products at our other sites, I thought the best thing to do was to try to stay with one vendor. I knew that if I did, I could be more efficient with how I used my people and they wouldn’t have to learn a whole different system, a whole different language, or a whole different way of doing things. It also helps with



Thanks to its MAGNETOM Espree MRI system, the medical center staff was already familiar with the syngo user interface – so the decision to go with the Proven Excellence program for the purchase of a refurbished 16-slice CT scanner and a Leonardo workstation was easy.

the workflow tremendously. If one tech is out sick, the other one spins around and can do the job, because it is all the same to her. It just makes for much better workflow.”

### A Favorable Price-Performance Ratio

Lopiano still has his sights set on getting a 64-slice CT scanner in the future. During this interview, he even asked a Siemens representative and found out that 64-slice scanners are now part of the Siemens Proven Excellence refurbishing program. Lopiano says that after he has proven the value of CT to his corporate parent, he may be able to purchase a refurbished 64 in a few years. Meanwhile, he has become sold on the overall-quality of refurbished systems. “I had kind of known about refurbished imaging equipment for years, but I hadn’t really looked into it... I started thinking that if the CT scanner comes with a warranty, and I buy it from a reputable company like Siemens who tells me, ‘Yes, this scanner is used, but we’ve gutted it, we’ve refurbished it, we’ve painted it, it’s basically new, and you won’t notice the difference, and it’s a fraction of the cost,’ why wouldn’t somebody do that?” Lopiano says. “I am actually trying to convince my group right now, since we are in the market for three more CT scanners, to consider more refurbished equipment,” Lopiano says. “If you would not have told me that our SOMATOM Sensation 16 was refurbished when we first got it, I would have assumed it was new. It still looks and operates like new.”

*Tim Friend, a USA Today reporter for 17 years, is now a freelance science and medical writer based in Alexandria, VA, USA. He is the author of Animal Talk: Breaking the Codes of Animal Language, and has just finished a second book on the discovery of a new life form on earth, titled The Third Domain: The Untold Story of the Archaea and the Future of Biotechnology.*



The world's first MAGNETOM Avanto T-class featuring *syngo* TimCT has been installed at the University Hospital Essen.