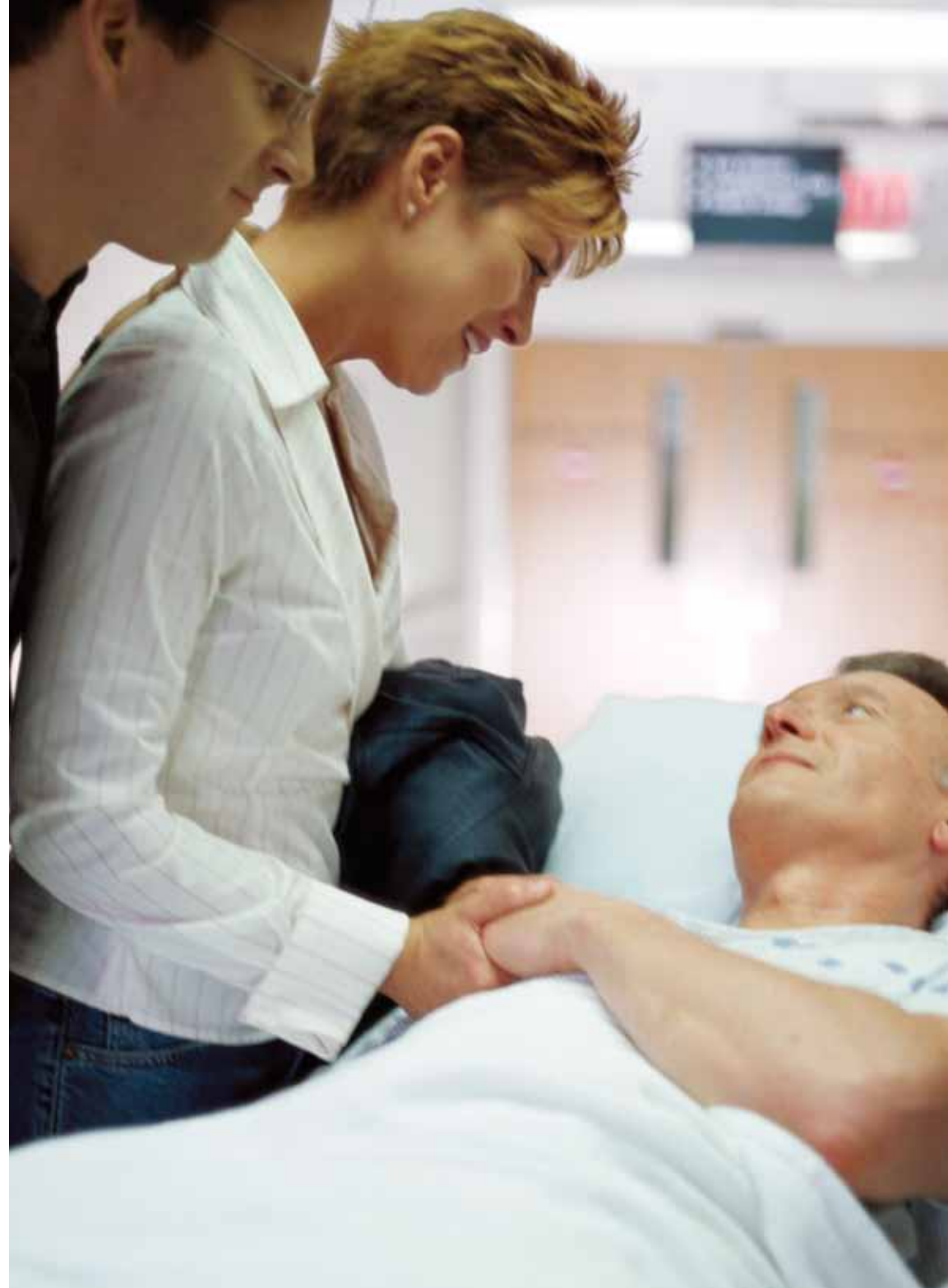


 Chandler Regional Medical Center
A member of CHW



Using the SOMATOM Definition AS+ to Build a CTA Program that Reduces Costs and Improves Care.

Chandler Regional Medical Center
Case Study

www.usa.siemens.com/healthcare





Chandler Regional Medical Center

Key Benefits



Clinical:

Precise and reliable detection of coronary heart disease.



Workflow:

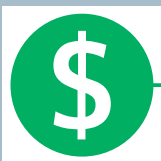
Faster preparation and imaging of patients reduces the staff's workload significantly and saves time and effort.



Financial:

Higher patient throughput, faster time to diagnosis, and increased rate of referrals pays off.

A member of Catholic Healthcare West, Chandler Regional Medical Center is a 225-bed, non-profit hospital serving about 300,000 people. It was ranked as the number one medium-sized acute-care hospital by *Arizona Business Magazine* in 2007 and 2008. Located about 20 minutes from downtown Phoenix, AZ, Chandler's primary service market is highly competitive: There are five other hospitals within its core service area and most of Chandler's 600 physicians practice at two or more hospitals.



“In fact, the system is not only helping Chandler's physicians provide better patient care but it is also helping to lower costs.”

“This technology now has the lowest radiation dose compared to other cardiac imaging systems. At 3-5 mSv radiation and 50cc contrast, we can scan with less radiation and contrast than a cardiac cath, and 3 times less radiation than a nuclear stress test. That’s a powerful statement.”

Roger Bies, MD, Director of Cardiac CT Services

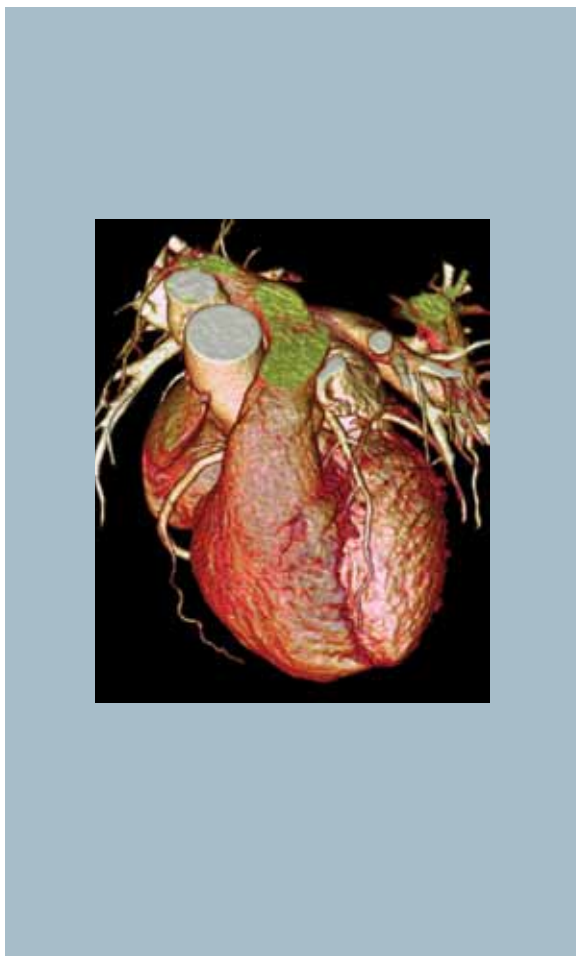
Still, the hospital is incredibly busy. It’s not unusual for there to be more patients in-house than the number of available beds, which results in some patients being held in the Emergency Department (ED). The ability to better triage cardiac patients in the ED and thus reduce the number of one-day admissions as well as open up more beds to patients who truly needed them were key drivers behind the hospital’s decision to develop a CTA program. “Fiscal year to date, through May 2009, we’re running over 90 percent occupied,” says Peter Menor, vice president of Clinical Support Services. “And, we’ve certainly been well above that over the past few months.”

“We also recognized there was a need to get into calcium scoring and the CTA market,” says Roger Bies, MD, director of Cardiac CT Services. “Although we had two 64-slice CTs, one at Chandler Regional Medical Center and another at our sister hospital Mercy Gilbert Medical Center, we wanted to have better quality images and expand the types of patients that could be scanned while shortening the scan time and lowering the radiation dose.”

At the onset, Chandler Regional had a slip-ring CT scanner, one 4-slice CT scanner, and one 64-slice CT scanner, and Mercy Gilbert Medical Center had a 6-slice CT scanner and a 64-slice CT scanner. As part of its decision-making process, Chandler Regional performed a competitive analysis and determined the 128-slice Siemens SOMATOM Definition™ AS+ was the best option. “Installation did not require any retrofitting,” says Menor. “It fit in the same space we used for our previous CT scanner, and the quality and speed of the system was very impressive. With it, we are clearly the cardiac CTA leaders in our market in terms of studies. The SOMATOM Definition AS+ is an excellent machine.”



Roger Bies, MD
Director of Cardiac
CT Services



Building Team Enthusiasm

Embarking on a CTA program requires more than equipment, it requires clinician understanding about what is possible with this advanced technology and how its use can reduce costs and improve reimbursements. "We were committed to making this a joint relationship between our cardiologists and radiologists," says Menor.

"The medical director of radiology and I both went to the training courses together. It was a collegial experience that helped build enthusiasm," says Dr. Bies. "And from the Siemens side, I found everyone involved in the training and applications process simply outstanding."

Although the radiologists and cardiologists at Chandler Regional are composed of physicians from various groups, the hospital has succeeded in getting them to work together for the overall benefit of its patients and the facility. Each CTA is over-read for non-cardiac assessment. "I think we've come to a point where our radiologists and cardiologists realize that to make the program successful, we needed the expertise of both specialty groups," continues Dr. Bies.

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Peter Menor, Vice President of Clinical Support Services

Building Clinical Confidence

The SOMATOM Definition AS+ is the world's first adaptive CT system. Its ability to adapt to virtually any patient, offer complete dose protection, and provide the power of a 128-slice system in a small footprint makes it ideally suited for CTA. “The question I ask myself is: ‘What test is going to help me the most? What is going to give me the most information?’ Cardiac CTA is better than just about any other test because you see coronary disease earlier than it can be detected by other noninvasive imaging techniques,” says Dr. Bies. “With CT, I can tell if a patient needs a statin drug, and the patient is much more agreeable to therapy because I can show him the plaque in his heart. Once you have known coronary disease, the threshold and intensity of proven therapies to reduce the chance of heart attack and death changes.”

In fact, the system is not only helping Chandler Regional's physicians provide better patient care, but it is also helping to lower costs. “It actually complements borderline nuclear studies, and many times will help avoid unnecessary invasive heart catheterization. What we've also done with the SOMATOM Definition AS+ is use CTA on ED patients with intermediate positive calcium scores to better determine if a patient needs to be admitted or discharged,” continues Dr. Bies. “And, the image quality is phenomenal. We're getting excellent pictures.”



Peter Menor
Vice President of Clinical Support Services



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Roger Bies, MD, Director of Cardiac CT Services

Building Focus

Chandler Regional has focused on educating patients about its leading-edge technology and educating physicians, both those who want to learn to perform CTA and those who refer to the medical center for imaging studies.

“We’ve done several press releases regarding the SOMATOM Definition AS+, as well as some advertisements and articles in our local newspaper to increase patient awareness,” says Menor. “We’ve also completed some mass mailings to physician offices, which include short technology descriptions to increase knowledge of the system among referring physicians.”

Education has been a key component of success. Initially, Chandler Regional held CME programs for cardiologists and radiologists, and later did another well-attended session for the ED. Since that time, the hospital has developed a Society of Cardiovascular Computed Tomography-endorsed physician training course. “Our initial attempts were to train all the cardiologists and radiologists that were here on staff,” says Dr. Bies. “And now our goal is to extend our services to grow the outpatient service market.”





Moving forward, Chandler Regional continues to implement marketing strategies for both patients and physicians as it continues to build and broaden its CTA program with the SOMATOM Definition AS+. "This technology has the lowest radiation dose compared to other cardiac imaging systems. At 3-5 mSv radiation and 50cc contrast, we can scan with less radiation and contrast than a cardiac cath, and 3 times less radiation than a nuclear stress test. That's a powerful statement," says Dr. Bies.

"It's been a great marriage," agrees Menor, "both, as Dr. Bies points out, clinically and for our hospital overall. We've found Siemens to be a very supportive partner. They don't just get the sale and vacate the premises. The sale really began once the system was installed."

“The question I ask myself is: ‘What test is going to help me the most? What is going to give me the most information?’ Cardiac CTA is better than just about any other test because you see coronary disease earlier than it can be detected by other noninvasive imaging techniques.”

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