Liberty Pacific Medical Imaging

A Group Effort

Two imaging centers bring CVCTA programs to life

By Steven R. Renard, MBA

Cardiovascular CT angiography (CVCTA) has been at the forefront of the diagnostic imaging industry for the past several years. But, with the recent introduction of 64-slice CT technology, the industry is changing fast. The IMV 2004 CT Census Market Summary report places the cardiac CT market at more than $350 million in sales by year-end. As a result, imaging centers are furiously trying to keep up with these expansions/transformations and vendors are reaping the benefits to the tune of an extra $1.2 billion in 64-slice sales.

In 2005 alone, sales of CT scanners with more than 16 slices grew by an astounding 187.5 percent. It's easy to see why CVCTA is becoming a more widely accepted and clinically approved procedure across both cardiology and radiology communities. In fact, CT angiography scans totaled approximately 6 million in 2005, according to studies provided by Malvern, Pa.-based Siemens Medical Solutions and are expected to reach about 8 million in 2006.

Further, demographics point toward a 5 percent to 20 percent increase in the audience ripe for this type of service over the next five years, according to the Advisory Board Company, Innovations Center Research and Analysis in Washington D.C.

CVCTA involves CT imaging of different vascular territories in the body including the heart, abdomen, pelvis and extremities. In cardiac CTA, contrast is injected into the patient while images are taken of the heart. The heart must be slow enough (low pulse rate) to ensure that the CT machine can freeze the beating heart so that there is no blurring of the images. Once the images are acquired, 3-D processing computers are used to analyze the coronary arteries, chambers of the heart, valves, heart muscle and more.

Experts can also visualize how well the heart is contracting. The most exciting component of a successful CVCTA is the ability to see into the walls of the arteries in the heart to spot plaque formation. In addition, CVCTA is a fairly non-

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invasive, patient-friendly procedure that is generally is performed on an outpatient basis.

But how many outpatient centers today have the capability to conduct CVCTA? Virtually none.

In 2005, Los Angeles-based Liberty Pacific Medical Imaging (LPMI) set out to incorporate CVCTA into its practice. LPMI decided to embrace the challenges typically associated with creating innovative cardiovascular centers, which it hoped would increase its business. As a result, the company's Long Beach, Calif., and San Francisco centers have emerged among a small number of centers nationwide that have successfully integrated CVCTA programs.

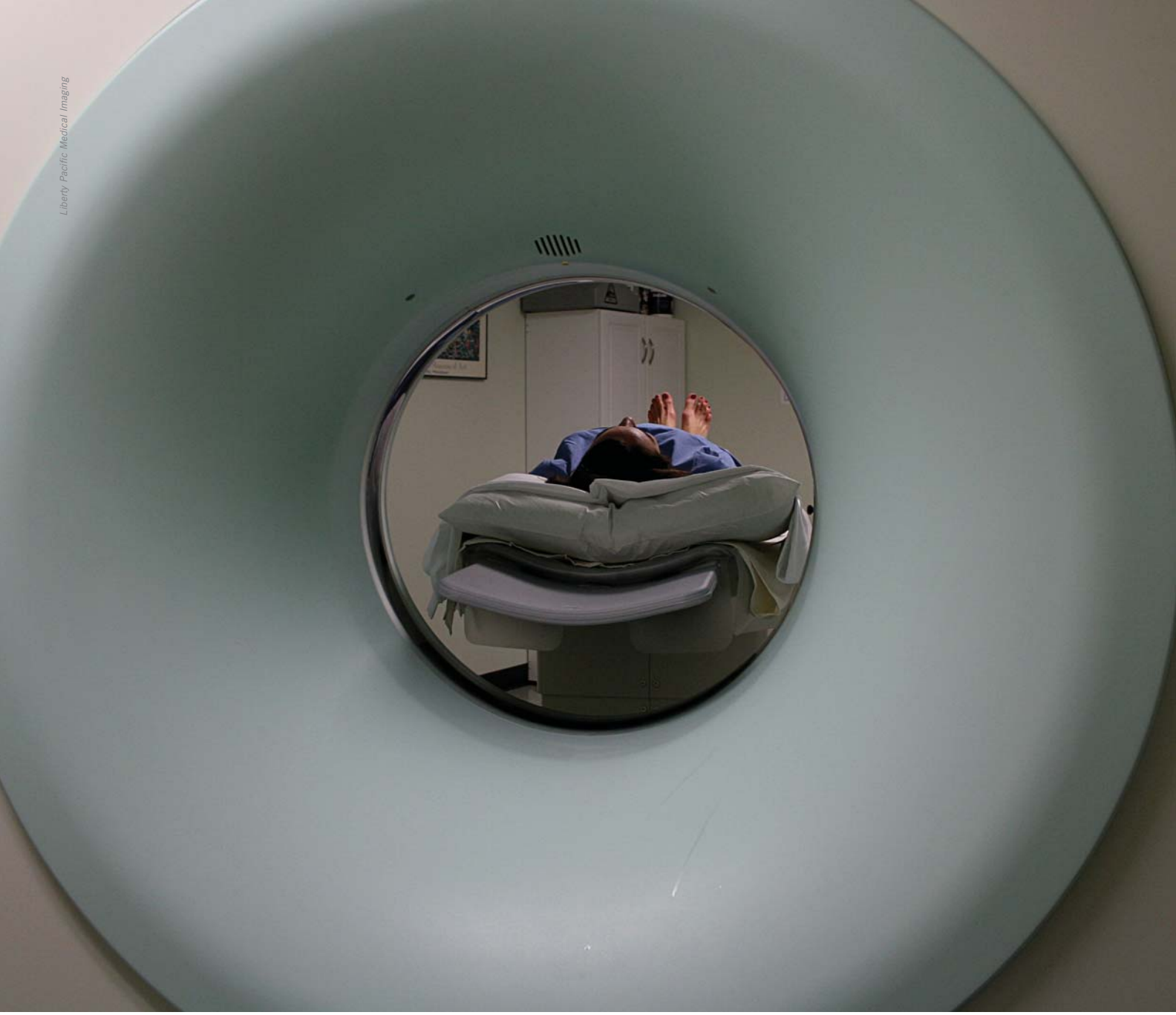
Combating Turf Wars

A key step in incorporating CVCTA into an imaging business involved figuring out how to integrate efforts of both cardiologists and radiologists. The trick was finding ways in which these professionals could work together for the ultimate benefit of the patient. But as hard as it may seem, LPMI managed to overcome this hurdle.

Despite initial turf wars between the two professional sects to determine who should read what, LPMI solved these tiffs by partnering with members across each of the different sectors and establishing a training program, which assigned specific responsibilities and set internal guidelines.

The end result was that the cardiologist would be assigned to read the cardiac component, while the radiologist focused on the non-cardiac structures, peripheral angiographies and the technical portion of the exam. While experts agree that radiologists can read cardiac studies on their own, management at LPMI recognized that it was equally important to capitalize on the symbiotic relationship between these two specialties.

LPMI also forged a relationship with a leading cardiologist to create and implement a distinctive training program designed to merge these two professions. This allowed them to gain a keener sense of affinity for each other's crafts – which, in turn, led to improved working relationships.



Patients and technologists alike benefit from 64-slice CVCTA technology at LPMI.

As a result, these two sub-specialties have learned to appreciate each other's core competencies, thus allowing LPMI to form a cohesive CVCTA program at two of its California-based centers.

Overcoming Challenges

Another challenge for LPMI was finding a way to create an even-keeled playing field amid a political landscape saturated with multiple, competing cardiology entities. Rather than forging an alliance with a single cardiology group, LPMI quickly sought to align itself with multiple cardiology groups. The traditional model employed at its imaging centers is based on the premise of forming mutually beneficial relationships with radiologists.

But, management realized that in this case, if they signed professional contracts with various cardiology groups to participate in the reading fees, they would earn a reputation as being politically correct and fair. This balanced approach enabled LPMI to attract multiple cardiology groups to its practice and has led to additional business and less political turmoil.

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Realistically, this may not always be possible. If this is impractical, then another legal option is having the cardiologist establish a professional reading relationship with the company. In this case,

the cardiologist can be offsite, while still providing reading services and billing for the organization. By structuring tailored cardiology relationships, LPMI is able to continually provide strong continuity of care to its patients.

Further, LPMI recognized that in order to integrate CVCTA into its practice, it had to re-configure two of its centers to add necessary components to accommodating cardiology patients. Working in tandem with San Francisco-based CVCTA Education Inc., the company completed a build-out that included the addition of office space, installation of a prep and injection room, selection of specialty equipment designed to meet the needs of cardiologists and more.

In addition, precise protocols were established and appropriate supervision was appointed to oversee the effort. The company also developed policies and procedures for working with cardiologists and radiologists to determine which members of the patient population might be suitable for this procedure.

Number Crunchers

Another integral obstacle to face when incorporating CVCTA into a practice involves the proper billing and coding of every procedure. Although experts anticipate that Medicare will reimburse for CVCTA services beginning in 2007, many payers have been slow to jump on the bandwagon.

Moreover, payers approved for CVCTA reimbursement have already received specialized billing and coding requirements to which they must adhere to process claims in accordance with Medicare guidelines. To conquer this, LPMI hired an outside billing group specializing in CVCTA to ensure timely payment and reimbursement.

The company offered LPMI guidance on how to follow the proper billing and coding guidelines and documentation of coding for patient reimbursement. Since employing this service, LPMI's day sales outstanding (DSO) was reduced by 10 percent and claims are being processed at an average of 53 days.

Building Success

With the wider acceptance of CVCTA came many entities wanting to jump on the bandwagon. Take, for instance, hospitals. Lately, hospitals have been vying for CVCTA business, seeking to set up their own cardiology centers or partner with local cardiology groups to provide this specialty.

LPMI recognized that working directly with physician groups could help circumvent the hospital powerhouse. To this end, the company forged strong ties to physicians, which has eliminated the bureaucracy typically associated with these types of relationships.

Moreover, getting referred healthcare professionals trained and teaching them how to reach CVCTA studies was critical to LPMI's long-term success. Once all the protocols were established, the key component lied in ensuring referral sources were appropriately trained how to reach the CVCTA studies. This is crucial to the success of any CVCTA program; and LPMI wasted no time here either.

The company contracted with leading cardiologist Tony DeFrance, MD, who is trained in educating physicians from all over the country. Today, at LPMI's San Francisco center, 20 to 30 physicians are trained each month. This has allowed LPMI to gain exposure as a premier site, with competent, local physicians who serve as referring physicians.

Still, even for imaging centers that have made a successful move to PACS, the leap to CVCTA presents a difficult digital hurdle to overcome. As the size of CVCTA studies climb to the 1-gigabyte mark, systems that were built to manage studies about one-tenth that size soon become challenged and overwhelmed.

To maintain an archive for such large amounts of data, LPMI has deployed a hybrid of both on- and offsite storage. This strategy requires a comprehensive review of the imaging center workflow so that the archival system does not prevent radiologists, cardiologists and patients from retrieving prior studies in a timely fashion.

Endless Opportunity

LPMI's CVCTA program identifies symptomatic patients with a moderate risk of coronary disease. But, many asymptomatic patients live with undiagnosed coronary artery disease, such as someone who visited the emergency room although his/her electrocardiogram was normal. Another example would be a patient with multiple risk factors for heart disease (i.e., high cholesterol, high blood pressure, diabetes) with atypical chest pain.

Currently, CVCTA testing is conducted across patient populations that have demonstrated cardiac symptoms due to unwarranted radiation dosing. But, as technology decreases, the exposure to patients and new data comes to light – and, perhaps, asymptomatic patients can be included in this process as well. Regardless, these are all candidates for insightful CVCTA studies, resulting in an enormous market opportunity for professionals able to master the process.

Each day, LPMI's goal is to educate patients and physicians about a new, less invasive testing protocol that can assess whether or not coronary artery disease is prevalent. Now, armed with the right prescription for success, LPMI has emerged a leader in this imaging niche. And as centers like LPMI's continue to surface, we can only hope that prevention outweighs incidence.

References:

1. IMV 2004 Market CT Census Market Summary Report

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