

SAN ANTONIO

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## **Best Practices, Bright Possibilities:**

Southwest  
General Hospital's  
Cardiovascular  
Department

 CardioVascular

Jorge C. Magallon





Jorge C. Magallon, MD, FACC, FSCAI, interventional cardiologist at Southwest General Hospital, reviews patients' results with J.J. Leal, RN, Director of Surgical Services, Director of Cardiology Services, and Director of the Cardiac Catheterization Laboratory at Southwest General Hospital.

# Best Practices, Bright Possibilities: Southwest General Hospital's Cardiovascular Department

By Michael Ferguson

AT SOUTHWEST GENERAL HOSPITAL, CARDIOVASCULAR CARE IS PERSONAL. THE HOSPITAL'S CARDIOLOGY DEPARTMENT PROVIDES COMPREHENSIVE TREATMENT GEARED TOWARD THE SPECIFIC NEEDS OF ITS COMMUNITY.

**I**N 2010, APPROXIMATELY 8 percent of the south Texas adult population had been diagnosed with heart disease or stroke. Southwest General Hospital recognizes the specific cardiovascular needs of the Bexar County and south Texas population and is dedicated to providing the highest levels of care with a personalized approach.

Over the last decade, Southwest General's Cardiology Department has grown to match the needs of the local population, obtaining certification and accreditation by the Society of Chest Pain Centers, as well as Primary Stroke Center accreditation from DNV. Establishment of the cardiac catheterization laboratory approximately eight years ago ushered in a new era of cardiovascular care on San Antonio's southside.

"It's hard to believe how many patients within our community have diabetes, renal disease, hypertension and a number of other risk factors for cardiovascular disease," says Jorge C. Magallon, MD, FACC, FSCAI, interventional cardiologist at Southwest General Hospital. "The cardiac catheterization laboratory is a benefit to the community and enables patients to receive tertiary-level cardiovascular care without having to travel."

The lab's latest technological addition is the Impella Ventricular Assist Device, which provides support for the most complicated and high-risk patients. Because it's introduced via a minimally invasive, catheter-based procedure, the device improves upon intra-aortic balloon pumps — the traditional means for circulatory support.

The Impella, which has been called the world's smallest heart pump, enables Southwest General Hospital cardiologists to perform coronary angioplasty and stenting in patients whose heart disease contraindicates bypass. After inserting the device via a catheter through a small incision in the groin, Dr. Magallon inserts the pump into the left ventricle, where it generates as much as 2.5 liters per minute of blood flow.

"The Impella provides necessary blood pressure and perfusion to help support patients through angioplasty," Dr. Magallon explains. "If a complication occurs, the Impella allows the opportunity to quickly fix and treat it, whereas before, the outcome could have been poor."

The Impella is employed when the severity of a patient's condition makes surgery a

poorly tolerated option and medical therapy provides no cure.

“In the past, these patients have had two options: bypass surgery or medical therapy,” explains Dr. Magallon. “Having the Impella device at Southwest General Hospital allows patients with severe left ventricular dysfunction and patients with previous bypass in whom grafts are failing and are not reoperative candidates the opportunity for therapy.”

### An Inside Look

The Southwest General team also has the capability, via newly acquired technology, to prevent unnecessary intervention by assessing blood flow through potentially clogged vessels.

When patients present with unstable angina, treadmill tests, which are often the next line of evaluation, can exacerbate the condition. Fractional flow reserve (FFR) is a catheter-based procedure that allows Dr. Magallon and the team to measure the blood flow across suspected arterial lesions.

Based on established parameters, the amount of blood flow indicated by FFR directs subsequent treatment. This enables physicians to more deliberately deploy stents and proceed with treatment when indicated.

“My philosophy is: the fewer stents, the better,” Dr. Magallon says. “Because stents come with their own complications, if a patient doesn’t need one, I shouldn’t implant it. FFR gives us the information we need to make that determination.”

Intravascular ultrasound (IVUS) goes hand-in-hand with FFR, providing Dr. Magallon with real-time ultrasound images from within the artery. While traditional angiography shows arterial channels through which the blood flows and vessel stenoses, this modality offers a dynamic portrait differentiating the plaque from the arterial anatomy.

“We’ve recently added the capability for IVUS,” says J.J. Leal, RN, Director of Surgical Services, Director of Cardiology Services, and Director of the Cardiac Catheterization Laboratory. “This modality provides our interventional cardiologists with an inside view of the arteries so they can achieve a better understanding of the artery’s pathology, which helps them identify the best method for treating the lesion.”

### Making the Call

When stenting is necessary, Dr. Magallon can use IVUS to confirm optimal stent placement. Restenosis or stent thrombosis after stent deployment are two major complications of stenting procedures. Results of a study published in the *Journal of the American Medical Association* attributed mortality rates as high as 45 percent to stent thrombosis.

If stents do not extend across the artery’s entire diameter, a pocket can form and trapped platelets and other debris can create another blockage. Using IVUS in concert with angiography during angioplasty and stent deployment enables the cardiologist to fully crush the plaque with the angioplasty balloon and accurately place the stent against the arterial walls.



Dr. Magallon in the main lobby of his southside clinic.

## CARDIOVASCULAR SCREENING GOES MOBILE

**SOUTHWEST GENERAL HOSPITAL** is making preventive cardiovascular screening more accessible than ever. The AngioScreen mobile unit utilizes state-of-the-art vascular screening technology in a concerted effort to reduce the cardiac and stroke disease burden in the San Antonio and south Texas population.

In as little as 10 minutes, patients undergo a series of noninvasive screens to identify risk factors for potentially life-threatening conditions, such as abdominal aortic aneurysm, atrial fibrillation, peripheral arterial disease and stroke.

### Starting a Conversation

Patients exit the unit with personalized color printouts of their results, which locate and detail arterial plaque buildup. Additionally, digital copies are provided to encourage patients to take ownership of their cardiovascular health by returning to their primary care physicians and establishing a partnership to reduce preventable risk factors for heart disease and stroke.

The AngioScreen mobile unit can travel throughout Bexar County communities and south Texas, and local employers can arrange to bring it to their business. In this way, Southwest General Hospital expands its care beyond its walls and provides affordable and convenient cardiovascular screening.

**To schedule an AngioScreen, call 877-215-WELL.**



Dr. Magallon (right) discusses a patient’s treatment options with Cesar Cuellar, Cardiac Catheterization Lab Clinical Coordinator (left).



Cesar Cuellar and Dr. Magallon

## COMPREHENSIVE CARDIOVASCULAR SERVICES

### SOUTHWEST GENERAL HOSPITAL'S

expansive cardiovascular treatment offerings provide San Antonio's southside with a comprehensive range of care options close to home. Its surgical, interventional cardiology and testing capabilities include:

- + Abdominal aortic aneurysm repair
- + Arterial color flow Doppler
- + Arteriography
- + Balloon angioplasty and stent placement
- + Cardiac catheterization
- + Chest and abdominal X-rays
- + Coronary artery bypass graft surgery
- + Echocardiography of the heart — both transthoracic and transesophageal
- + Ultrasounds of the neck, abdomen and extremities
- + Electrocardiography
- + Fractional flow reserve
- + Heart valve replacement
- + Intracardiac/intravascular ultrasound
- + Laboratory blood tests
- + Laser atherectomy for peripheral arterial disease
- + Minimally invasive coronary artery bypass
- + Nuclear cardiology
- + Pacemaker and defibrillator — including implantable cardioverter defibrillator — implantation and checkup
- + Ventricular assist device - Impella

### A Step Ahead

Leading-edge technology and expert physicians are key ingredients of Southwest General's cardiovascular program's success, and the specially trained nursing staff further enhances the hospital's standard of care.

"Anticipation is the name of the game when it comes to cardiology procedures," Leal says. "Physicians want nurses who are thinking ahead and can anticipate procedural steps. We have an extremely skilled staff of nurses — our youngest team member has ten years of experience in cardiac catheterization."

Dr. Magallon adds that the nurses serve as additional sets of eyes, constantly watching vital signs and indications of potential complications. Having experienced personnel around the table enables the cardiologist to devote undivided attention to the procedure.

"We have a well-seasoned nursing staff that is attuned to the complexities of cardiovascular care," Dr. Magallon notes. "The nurses' constant monitoring and attentiveness, as well as their caring and compassionate bedside manners, elevate the quality of treatment we provide and enhance our patients' experience from referral to discharge."

### Breaking Down the Barriers

Southwest General's extensive cardiology services are readily accessible for referrals or for patients seeking treatment on their own through Dr. Magallon's clinic. Open Monday through Friday between 8 a.m. and 5 p.m., the cardiology clinic offers not only standard cardiovascular care but also an entry point through which patients have access to more comprehensive treatment.

"The relationship between the cardiology clinic and our specialty services facilitates continuity of care," Dr. Magallon says. "If a patient is referred to me through the emergency room or has been discharged and a physician has a concern, I can see the patient in the clinic the very next day. This way, patients are not lost to follow-up. We provide the entire spectrum of cardiovascular care, from evaluation to treatment."

But obstacles to care take many forms, and in Bexar County's diverse community, cultural differences can prevent some residents from pursuing care. Dr. Magallon is familiar with these challenges and sees each patient as an opportunity to give back to a community like the one he lived in as a child. His bilingual abilities break the language barrier that can so often impair the medical process and also let him connect with patients on a personal level.

Growing up in a small border town in southern California, Dr. Magallon's family didn't have medical insurance, so when medical emergencies occurred, they went to an emergency room or Mexico. The memory of friends who harbored untreated medical issues until they progressed into serious medical concerns inspires Dr. Magallon's philosophy of medical care.

"I understand the need for access to medical care and preventive education," Dr. Magallon explains. "After I completed my medical training at Harvard and my cardiology training at Columbia University Medical Center in New York, I began searching for a place to establish my career. I wanted to work in a community similar to the one I grew up in. I jumped at the opportunity to come to San Antonio and Southwest General because it gives me the opportunity to give back to a community that so closely resembles the one where I spent my childhood. In my heart of hearts, I see myself in each of my patients and give it my all each time I take care of them."

For more information, please visit [www.RCCVSA.com](http://www.RCCVSA.com). ■

