

# CARDIAC MONITOR

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## MHVI Expands Comprehensive Heart Failure Treatment Program

### Ventricular Assist Device Latest Tool at Mercy

Currently, more than 5.7 million Americans are living with heart failure. As our population ages, that number will continue to grow. For these patients, quality of life can decline dramatically – this is made worse without appropriate treatment. To better address this growing need, Mercy Heart & Vascular Institute (MHVI) has created the Advanced Heart Disease Clinic [see sidebar]. “By establishing this multidisciplinary team, MHVI is able to provide comprehensive heart failure care, from the earliest stages through to advanced, Class IV heart failure,” explains Joseph Rahman, MD, Medical Director for MHVI’s Heart Failure Program.

While medication therapy or interventional procedures are often enough to stabilize heart failure symptoms, for some the disease advances to the point where they are homebound, sedentary and frequently hospitalized. Traditionally, the only treatment remaining at that point would be heart transplant. However there are roughly half a million people living with advanced heart failure and there are only about 2,200 transplants every year, leaving many patients untreated.

Now, however, there is an additional option for patients in the Sacramento area living with advanced heart failure. MHVI has begun screening heart

failure patients who may qualify for a Ventricular Assist Device (VAD), a mechanical device used to support the heart’s failing pumping mechanism. “This technology provides an alternative to patients who previously had very few options. With advanced heart failure, the one-year survival rate was about 25%. With a VAD, that survival rate jumps to 80-85%.”



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## MHVI Unveils Advanced Heart Disease Clinic

As one of the largest, most experienced cardiac care teams in the country, Mercy Heart & Vascular Institute (MHVI) is constantly evolving to best meet the needs of its patients and the community. To meet the needs of the growing number of people living with heart failure, MHVI has created the Mercy Advanced Heart Disease Clinic.

The clinic’s multidisciplinary team includes cardiologists, cardiac surgeons, electrophysiologists, social workers, and a specialized team of nurses, focused on providing personalized care. “Ideally, we would like to begin consulting with patients and their primary care physicians

early on in their disease progression,” says Dr. Joseph Rahman, Medical Director of MHVI’s Heart Failure Program. “Our team tailors a care plan to each patient and works with their primary care physician to continue to monitor their condition and adjust the care plan accordingly as their disease progresses.”

The Advanced Heart Disease Clinic oversees a broad spectrum of therapies and procedures, depending on each individual patient’s needs, including weight and nutrition counseling; medication therapy; interventional and surgical procedures to address the heart’s

function; and, for very advanced cases, implantation of the Ventricular Assist Device (VAD) [see page 1 article].

Dr. Joseph Rahman and Dr. Richard Kaplon are the medical and surgical VAD Directors, respectively. Kara Greene, RN, is the VAD Coordinator. In addition to educating and working with the hospital staff, the team also educates the community providers about VADs and the benefits they can offer. For more information or to refer a patient to the Mercy Advanced Heart Disease Clinic, please call 1-877-999-8287 or (916)453-4768.



**Mercy Heart & Vascular Institute  
of Greater Sacramento.**

A Dignity Health Member

## Alex G. Spanos Heart & Vascular Center: Opening this Fall



The exterior of the new Alex G. Spanos Heart & Vascular Center, showing the new hospital entrance on J Street.

The entire Mercy Heart & Vascular Institute team is preparing to celebrate the opening of the Alex G. Spanos Heart & Vascular Center on the campus of Mercy General Hospital. The new \$170 million, 123,000 square foot four-story facility is designed with cutting-edge technology and improved room capacity which will allow for increased physician efficiency and increased comfort for patients and families.

Among the key features of the new facility are four state-of-the-art cardiac surgery operating rooms; 20 bed cardiac surgical intensive care unit; an innovative hybrid operating room; state-of-the-art diagnostic cardiopulmonary care area; expanded cardiac and pulmonary rehabilitation center; 71 private, family-friendly patient rooms; new chapel and healing garden.

Watch for more information in coming weeks about tours and events celebrating the opening of the Alex G. Spanos Heart & Vascular Center – a world class facility, within easy reach for our community.

## Medication Management After LVAD Placement

By Xiao Zhao, 4<sup>th</sup>-year pharmacy student, California Northstate University College of Pharmacy

A Left Ventricular Assist Device (LVAD) is an option for those with severe heart failure who are waiting for a heart transplant (known as “bridge therapy”), or people who are not eligible for a heart transplant but continue to do poorly despite the best medication management (known as “destination therapy”). If you or a loved one requires a LVAD, there are a few things you should know about medications you may need.

First, people who have heart failure are often on numerous medications used to manage the disease. Some or all of

these drugs may be continued even after LVAD placement, although lower doses may be indicated.

New medications may also be required to prevent or treat complications. People who receive an LVAD are at increased risk for infection and blood clots. Regular daily cleaning of the site where the battery line penetrates the skin is important in order to prevent infection. If an infection does arise, the physician will prescribe antibiotics. You may also need antibiotics before a dental or surgical procedure to prevent infection.

Physicians will also prescribe “blood thinning” agents in order to prevent your blood from clotting due to the LVAD placement. Such anti-clotting medications may include warfarin and aspirin. It is important to take these medications regularly and as prescribed. Contact your physician right away if you experience any unwanted effects that you attribute to your medication. Be sure to notify your health care professionals that you have an LVAD in place so that they can take steps to prevent complications.

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## Journal Recognizes Groundbreaking Treatment

Dr. Scott Baron and Dr. Arvin Arthur, both of Mercy Heart & Vascular Institute, had a groundbreaking case featured in the journal *Vascular Disease Management* [Volume 10, issue 4, April 2013] detailing the case of a 79 year old woman diagnosed with brachial artery stenosis who received a cutting edge treatment.

While treatment for brachial artery stenosis generally depends on the severity and the underlying cause, options can include surgical revascularization or percutaneous catheter-based angioplasty. In this particular case, the patient had undergone coronary artery bypass surgery 10 months prior and began suffering pain and numbness in her right hand. Angiography revealed a dissection of her right brachial artery with concomitant severe stenosis. Dr. Baron stented the right brachial artery with two vascular stents. One year later, the patient had no evidence of restenosis and continued to experience symptomatic relief. The journal article concludes that percutaneous angioplasty and stenting can be a viable option to treat patients with symptomatic upper extremity stenosis.

### Save the Date

Mercy Heart & Vascular Institute’s 23rd annual symposium, “Cardiology & Electrophysiology 2013: Concepts and Controversies,” will be held at the Hyatt Regency Sacramento on **Saturday, Oct. 5**. There is no registration fee, but seating is limited.

Email [mercyheart@dignityhealth.org](mailto:mercyheart@dignityhealth.org) or call 916.733.6966.

### Advanced Treatment Option for Severe Heart Failure *(continued from first page)*

A VAD can serve as a temporary solution for patients awaiting heart transplant (“bridge to transplant”) or as a long-term solution for patients who are not candidates for a transplant but whose quality of life is greatly diminished due to heart failure (“destination therapy”).

A VAD takes over the pumping mechanism of the heart and includes an implanted mechanical pump which is connected via a wire extending out of the chest wall to an external controller and an external battery pack. “This is a very life-altering therapy, involving open heart surgery and then being tethered to an external energy supply for life,” says Dr. Rahman. “A VAD is not for all heart failure patients, but for some it will be a remarkable, life-changing therapy.”

To be considered a candidate for a VAD, a patient must have NYHA Class IV heart failure plus one of the following:

- Inability to walk < 1 block without dyspnea
- Intolerant or refractory to ACE-I / ARB / Beta Blockade
- Diuretic dose > 1.5mg/kg/day
- Measured peak VO<sub>2</sub> < 14 ml/kg/min or < 50% age-gender predicted on treadmill
- One or more CHF related hospital admissions within 6 months in setting of medical and dietary compliance

In addition, a patient must have the appropriate family and social support to help them manage the care and maintenance the VAD requires. Patients will need to take anticoagulants for life, adhere to the right diet and be regularly monitored by their care team.

While the impact of a VAD on a patient’s life is intense, the benefit is obvious. “These are patients who would have just died without this device,” says Dr. Rahman. “And we are talking about not just survival, but quality of life. Patients can go from being bedridden and frequently hospitalized, to returning to normal every day activities. In the treatment of heart failure, that is very exciting.”

While only a small minority of heart failure patients will actually be treated with a VAD, it is an important part of the spectrum of comprehensive treatment offered by the team at Mercy’s Advanced Heart Disease Clinic.

Mercy Heart & Vascular Institute is pleased to offer this exciting treatment option to patients whose quality of life has been compromised by heart failure. For more information or to refer a patient to the Mercy Advanced Heart Disease Clinic, please call 916.453.4647.

## MGH Participates in TAVR Trial

Mercy General Hospital is one of two hospitals in the Sacramento area participating in The PARTNER II Trial (Placement of **AoRTicTraNscatheter** Valves Trial II) studying transcatheter aortic valve replacement.

This trial is randomizing patients diagnosed with severe, symptomatic calcific native aortic stenosis who are at intermediate or high risk for surgery to either transcatheter aortic valve replacement (TAVR) with the Edwards SAPIEN XT transcatheter heart valve or traditional surgical aortic valve replacement (AVR). The PARTNER II Trial uses a multi-disciplinary approach to patient care. The Mercy General Hospital team includes two cardiothoracic surgeons and two interventional cardiologists. Patients who are enrolled in The PARTNER II Trial may be randomized to either surgical AVR or TAVR. For patients who are randomized to TAVR, the balloon-expandable Edwards SAPIEN XT transcatheter aortic heart valve is delivered via a catheter-based approach, typically without the use of cardiopulmonary bypass. All patients enrolled will be followed for five years.

## MHVI Cardiac Surgery Video Displayed in Scotland



A Dignity Health video, featuring Mercy Heart & Vascular Institute Cardiac Surgeon Allen Morris, MD, is on display at a

science exhibit called “BodyWorks,” at the Glasgow Science Centre in Scotland. The video shows Dr. Morris discussing the benefits of using the da Vinci robotic surgical system for mitral valve repair and includes both Dr. Morris and cardiac surgeon Frank Slachman, MD, working together in the operating room.

The Glasgow Science Centre is a unique Scottish facility, providing interactive and engaging experiences that allow visitors to immerse themselves in the world of science. The BodyWorks exhibition is a new display that will raise awareness of the science underpinning human health and wellbeing in the 21<sup>st</sup> century. Research capsules within the exhibition will showcase cutting-edge developments in biomedical science. The video of Dr. Morris will be part of an interactive research screen in the cardiovascular capsule, to demonstrate how science is helping make huge advancements in this area.

### Referral Resources

The following Mercy programs are available for physicians to refer their patients to and to help in managing heart disease.

<b>Heart Smart and CHAMP®</b>	916.564.2880
<b>Cardiac Rehabilitation</b>	
Mercy General Hospital	916.453.4521
Mercy San Juan	916.537.5296
<b>Pulmonary Rehabilitation / Smoking Cessation</b>	
Mercy General Hospital	916.453.4268
Mercy San Juan	916.537.5299
<b>Cardiac Support Group</b> (formerly ICD Support)	916.733.6966
<b>Heart &amp; Vascular HealthScreen</b>	916.733.6245
<b>HeartCaring</b>	916.733.6245

