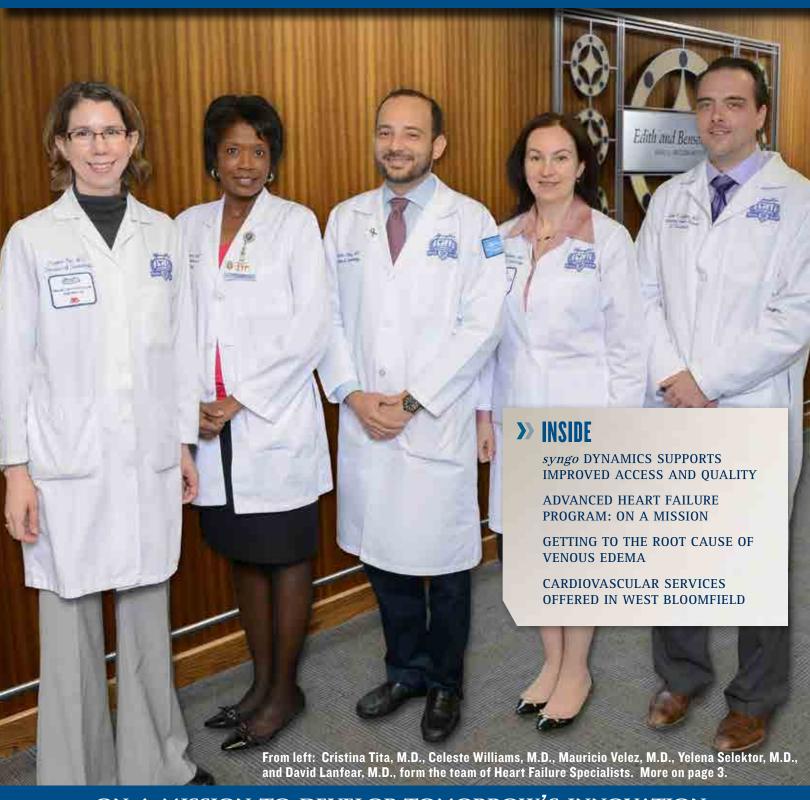


CARDIO BEAT

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PUBLISHED BY HENRY FORD HEART & VASCULAR INSTITUTE

SUMMER 2014



ON A MISSION TO DEVELOP TOMORROW'S INNOVATION.

CARDIOLOGY IMAGING

syngo DYNAMICS **Supports Improved** Access and Quality

Numerous studies show that improved communication and ready access to patient diagnostic information reduces errors and costs, while it increases quality outcomes for the patient. Determined to achieve all three, Karthikeyan Ananthasubramaniam, M.D., director, Nuclear Cardiology and Echocardiography Laboratory at Henry Ford Hospital explains, "Our goal was to improve communication, share images and have standardized high-quality reports for the sake of the patient and the quality of our care."

As one of the largest collections of non-invasive laboratories in the Midwest, Henry Ford Health System needed a much more robust system to share larger images and reports. The Siemens software product, syngo Dynamics, was selected for electronically sharing cardiac images and reports. Because of its use since 2009 in several Henry Ford medical centers, its capabilities were known and proven.

"Today, as more insurance providers are paying based on performance, being questioned about our reports is not an option – the bar has been raised to produce quality reports. It was obvious that simply sharing the images and reports did not provide the level of evidence-based performance now required by insurance providers," says Dr. Ananthasubramaniam. "We needed to standardize the reports and terminology to ensure all reports submitted for insurance payment are evidence based. Also, it is important to have access to these reports as patients move throughout the Henry Ford system, to reduce or eliminate wait times for treatment and duplicate testing."

Syed Jafri, M.D., a community-based cardiologist at Henry Ford Wyandotte Hospital, adds, "This project is a good example of gaining input from all the hospital site users and making it work well for all cardiologists and their patients."

Currently, through syngo Dynamics software, all echo and vascular study images are available from each Henry Ford campus, satellites and allied hospitals, including Henry Ford Wyandotte Hospital and Henry Ford Macomb Hospital. The use of syngo Dynamics allows the cardiologist to evaluate the patient in a comprehensive way. The images can be remotely reviewed from a secure syngo Dynamics web portal when the physician is outside the medical facility. "I can view previous tests and treatments from the hospital or my office in routine or urgent consulting situations. It's very user friendly and we can now add our own measurements and calculations to those of the sonographer," says Dr. Jafri.

In addition to reducing duplicate tests, using one software product that works throughout the System further reduces costs. Future goals include incorporating nuclear cardiology and cardiac catheterization images with common reporting throughout the Henry Ford system, creating a one-stop digitized cardiac imaging and reporting system. An added benefit for the cardiac research team is the ability to mine data to conduct collaborative research to improve patient care in the future.

For more information, call the Referring Physician Office at 1-877-434-7470.



Karthikevan Ananthasubramaniam, M.D.



Sved Jafri. M.D.

Watch the new Emmy awardwinning "Minds of Medicine **Last Chance: Saving Hearts** and Lives" featuring the Henry Ford team of experts. The show follows two structural heart disease patients from Lansing and Warren and highlights the new telemedicine clinic. To view the show, visit henryford.com/ structuralheart

HEART FAILURE

ADVANCED HEART FAILURE PROGRAM: On a Mission

In 2013, the American Heart Association reported that about half of the 5.1 million people diagnosed with heart failure in the United States will die within five years of the initial diagnosis. A staggering \$32 billion is estimated to treat heart failure, including medications and missed workdays. The growing Advanced Heart Failure program at the Henry Ford Heart & Vascular Institute has declared its mission to reduce the number of deaths and improve the quality of life for these patients through its expertise and working in partnership with community physicians.

Through a multidisciplinary team approach, challenging or high-risk heart failure patients gain access to physicians who are board certified in advanced heart failure. The team also includes cardiothoracic surgeons, nurses, pharmacists, psychologists, social work, palliative medicine and quality specialists, all of whom are completely focused on advanced heart failure and treating the most complex cases.

"Partnering and collaborating with our colleagues in the community helps us provide better access and seamless care for their heart failure patients," says David Lanfear, M.D., head of the Advanced Heart Failure and Transplant Cardiology section at Henry Ford Hospital. "These patients then have access to the most advanced treatments and clinical trials, things not offered anywhere else in the area. We see this as a big part of our mission – to reach out and be a community resource and partner."

Celeste Williams, M.D., medical director of the Cardiac Transplant and LVAD program at Henry Ford Hospital and medical director of the Pediatric Cardiac Transplant program at Children's Hospital of Michigan, says, "A good example of our collaborative spirit is Henry Ford's working relationship with Children's Hospital of Michigan for the benefit of their pediatric and adult patients with congenital heart disease." At Children's she shares her expertise in heart transplantation and LVAD therapy, helping provide a continuum of care through adulthood and a better quality of life.

"The gold standard for end-stage heart failure is heart transplantation," says Dr. Williams. "However, there are certainly not enough donor organs to meet the need." For patients who have the option of a heart transplant, Henry Ford Hospital's heart transplant program has been active since 1985 with nearly 500 heart transplants performed. If transplant is not an immediate option, ventricular assist devices (VAD) can provide mechanical circulatory support for patients with end-stage heart failure.

For some patients, the left ventricular assist device (LVAD) is the bridge to transplantation, while for others the LVAD may provide life-long therapy known as destination therapy. The Henry Ford VAD program, due to the complex nature of the evaluation, and pre- and post-operative care required, embraces a multidisciplinary team approach to successfully manage individual patient needs across the spectrum.

In an effort to continually innovate, the Advanced Heart Failure team of five heart failure cardiologists and three surgeons, participates in a large



David Lanfear, M.D.



Celeste Williams, M.D.

variety and number of clinical trials, including every major VAD trial. Both Dr. Lanfear and Dr. Williams agree that their participation in the research studies definitely benefits their own patients and those cared for collaboratively with community physicians. "Due to clinical trials, research and experience, our LVAD volumes are up 30 percent over the last seven years. In 2013, we performed 40 LVADs," says Dr. Williams.

The Interagency Registry for Mechanically Assisted Circulatory Support (Intermacs®) is the United States national registry for FDA-approved VADs which tracks data on major outcomes after an LVAD implant. Henry Ford's patient survival rates meet and often exceed these national benchmarks. Expertise and quality is further assured by continuous certification for LVAD therapy since 2008 from The Joint Commission. Dr. Williams supports the multidisciplinary team to maintain these high standards set forth by The Joint Commission.

Physicians interested in advanced heart failure treatments are encouraged to request a meet-and-greet session. At this session, the Advanced Heart Failure team will share their experience and the many treatment options available to patients. Training is available for physicians who are interested in providing LVAD aftercare for their own patients, as well. Please call (313) 916-5620 to request a patient consultation or a physician meet-and-greet session.

CARDIOLOGY

CARDIOLOGY SERVICES Offered in West Bloomfield

Cardiovascular disease (CVD) continues to be the number one cause of death in Michigan and the United States. One in three deaths in Michigan is due to CVD, earning the state a top-10 worst state in the U.S. ranking for the disease. Contributing factors are the aging population, increasing obesity and the prevalence of diabetes. However, having local access to the best in cardiac diagnostics and treatments that Henry Ford has to offer is life-saving for many patients.

"We know patients are comfortable being in their own neighborhood, near family and are more likely to accept care and recover faster when their families are there to support recovery," says Shalini Modi, M.D., service chief of Cardiology and director of the Non-Invasive Lab at Henry Ford West Bloomfield Hospital. "Our focus in building this service at West Bloomfield is first to prevent heart disease and in cases where heart disease is present, to diagnose and quickly treat so patients recover and enjoy a good quality of life."

Particularly important in providing high-quality cardiac care to the local community is the acute heart attack or ST-Elevation Myocardial Infraction (STEMI) program. "In 2012, we were approved by the state to perform angioplasty and stents for acute heart attack patients," says Dr. Modi. In collaboration with local EMS, these patients can now receive an immediate angioplasty stent for STEMI. For best outcomes, strict quality measures in the cardiac cath lab for both patients and staff have been implemented by Gerald Koenig, M.D., Ph.D., director of the Cath Lab at Henry Ford West Bloomfield Hospital.

Critical diagnostic evaluation of cardiac patients is provided by a well-equipped non-invasive lab. Capabilities include echocardiograms, 3-D echo, echo stress tests, and transesophageal echocardiograms (TEE).

Other diagnostic tools available include the nuclear stress test, and PET scans to diagnose the burden of ischemia, viability of the myocardium and cardiac sarcoidosis. Additional testing offered at Henry Ford West Bloomfield Hospital includes cardiac MRI, cardiac CT angiogram and strain imaging for serial follow-up of chemotherapy patients.

Patients with electrical rhythm disorders have quick access to the electrophysiology (EP) lab with full capability to insert pacemakers, biventricular devices, defibrillators and implantable loop recorders. Under the guidance of Marc Lahiri, M.D., director of the EP Lab at Henry Ford West Bloomfield Hospital, upgrades are planned to include performing EP studies and ablation procedures.

"We want area physicians to be aware they can confidently send their patients to our hospital for their cardiac diagnostic testing and evaluation. Their patients are carefully monitored and timely results are communicated directly to the referring physician," explains Dr. Modi. "We hope they will choose us to be partners in the care of their patients with assurance they are receiving the highest quality of care."

Dr. Modi explains that all cardiac procedures available at Henry Ford West Bloomfield Hospital are the same at Henry Ford Hospital in Detroit. Many of the cardiologists rotate between the two locations.

To refer a patient for diagnostic testing and evaluation, please call (248) 661-7021. Physicians who would like to discuss diagnostic testing for their patients may call Dr. Modi at 1-877-434-7470.

ORGAN TRANSPLANT PROGRAMS Earn Excellence Designation

Henry Ford Hospital's Heart and Liver Transplant programs have been designated Blue Distinction Centers for



Transplants by health insurer Blue Cross Blue Shield, earning recognition for superior outcomes and patientcentered care in organ transplants.

Henry Ford is one of only three hospital systems in Michigan to

receive this Blue Cross recognition for transplants. Blue Cross has designated only about 100 Blue Distinction Centers for Transplants nationally. Henry Ford's designation took effect July 1, 2014.

To learn more about Henry Ford's Heart Transplant Excellence Designation, visit http://www.bcbs.com/why-bcbs/blue-distinction/blue-distinction-transplants.

VASCULAR

VEIN DISEASE: Getting to the Root Cause of Venous Edema

Nearly nine million people in the United States suffer from edema, the most common symptom being swelling in the legs or arms. This swelling is caused when excess interstitial fluid is trapped in the body's venous system.

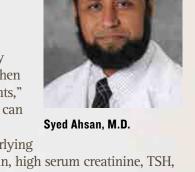
Two types of edema affect women. Venous edema affects 30 percent of those over 50 years of age. Those under 50 years old most commonly experience idiopathic (cyclic) edema. Common bilateral causes could include venous insufficiency (which could also be unilateral), lymphedema, obesity, or idiopathic. Less often, chronic bilateral causes could include renal or liver disease, diuretic-induced edema or anemia.

"The lack of diagnosing the underlying issue of edema has the potential to increase overuse of diuretics, causing poor kidney function, renal disease and in some patients, severe dehydration," says Syed Ahsan, M.D., senior staff physician and vascular medicine specialist at the Henry Ford Heart & Vascular Institute. "Patients placed on diuretics for long periods of time may experience some relief, yet the long-term effects can be damaging to the patient's overall health. Undiagnosed, the edema persists and the patient continues to be uncomfortable or in pain – sometimes for years." Medication can also be the cause, including hypertensive drugs, calcium channel blockers, beta blockers, hormones and even some NSAIDs.

Diagnosis

The most common cause of edema in one in three women over the age of 50 is venous reflux or insufficiency.

"It is important to identify the cause of the edema when the patient initially presents," explains Dr. Ahsan. "This can be done through baseline blood tests, CBC for underlying



anemia, CMP, low albumin, high serum creatinine, TSH, UA, BNP, non-invasive vascular imaging, echocardiogram, CT scan and the patient's self-weight record."

Treatments

Venous Insufficiency – the first step for treating venous insufficiency is leg elevation, skin care, compression stockings and a decreased salt load. Step two might include Horse Chestnut Seed extract, for its active ingredient, Esculin, to constrict the veins. Step three may include Radio Frequency Ablation (RFA) or Endovenous Laser Treatment (EVT), with patient downtime less than one day, minimal side effects and 89-95 percent closure after three years.

Idiopathic Edema – The initial treatment for idiopathic edema is weight loss, avoidance of a high-fluid intake and a low sodium diet. The next step is the preferred medication Spironolactone and low doses of thiazide diuretic. Finally, the patient might benefit from compression stockings.

Dr. Ashan treats patients at Henry Ford West Bloomfield Hospital, Henry Ford Medical Center - Livonia, and Henry Ford Hospital. For a physician consultation or patient referral, call 1-877-434-7470.

New Vein Center Opens in West Bloomfield

Patients who experience tired, achy legs have a new outpatient service available for varicose veins and venous disease at Henry Ford West Bloomfield Hospital. "Patients benefit from the vast expertise of vascular medicine and vascular surgery in one location," says Nicole Kennedy, M.D., director of Henry Ford West Bloomfield Hospital Vascular Lab. "Often patients with venous disease can be treated medically, and we have one of the best - Dr. Ahsan." Syed Ahsan, M.D., is one of the area's leading vascular medicine experts. (See story above)

"We offer patients all of their diagnostic testing in one same-day visit, rather than multiple visits to several locations," explains Dr. Kennedy. "Often, patients who need these tests are physically challenged and find it difficult to complete testing at more than one location."

When surgical intervention is necessary, a team of vascular surgeons treat patients with peripheral arterial

disease (PAD), carotid disease or aortic aneurysms. Dr. Kennedy says, "We have our own team of vascular surgeons onsite and work closely with our colleagues at Henry Ford Hospital in Detroit, which increases our capabilities to resolve a broader Nicole Kennedy, M.D. range of vascular issues. We

also partner with community vascular surgeons like Dr. Ajith Kadokol, of Premier Vascular Care, who complements our expertise."

Physicians interested in talking with a Henry Ford vascular expert or referring a patient for vascular diagnostics or a surgical consultation may call (248) 325-3HFH (434) or visit henryford.com/ veincenter.

To connect with a Henry Ford physician, call:

Heart & Vascular Institute
1-877-434-7470

Center for Structural Heart Disease I-855-518-5100



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CARDIAC CATH

NATIONAL CARDIOLOGY CONFERENCE (ACC) Amplified Reputation for The Center for Structural Heart Disease

In March, more than 12,000 specialists in the field of cardiology gathered in Washington D.C. to advance their knowledge during the annual American College of Cardiology (ACC) 63rd Scientific

and Expo Conference.



Kristin Sexton, R.N., outreach coordinator of The Center for Structural Heart Disease program, explained this was the first-ever Henry Ford Center for Structural Heart Disease program exhibit. "Many took advantage of the

opportunity to meet Dr. William O'Neill, Dr. Adam Greenbaum, and Dr. Mayra Guerrero," said Sexton. "These doctors are the creators of several innovative procedures, including the transcaval TAVR procedure."

