



# CARDIO BEAT

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## Congestive Heart Failure Services Expand in Jackson

At Henry Ford Allegiance Health, heart failure readmissions were in line with national rates. Congestive Heart Failure (CHF) was the first-listed diagnosis in 875,000 hospitalizations, the most common diagnosis in hospitalized patients 65 and older in the United States, and the most common cause for readmissions for Medicare patients.



*Jenny Cuatt, MOS; Lana Black NP-C; Missy Kennedy, medical assistant; Madia Taylor, practice supervisor; Roxey Meyers MSN, RN.*

The heart failure improvement team led by Sue Cross, RN, MSN/MBA, CNML, clinical director; Dana Schoch, administrative director; Dr. Cathy Glick, medical director; and Lana Black, MSN, NP-C, adult and geriatric nurse practitioner; conducted the analysis to identify causes of readmissions. “We discovered that heart failure patients were at higher risk for readmission within the first 10-14 days. This became our guide to make sure patients were seen by their doctor in that timeframe, post-hospitalization. Outside of that window, patients didn’t stay engaged in their own home care and were sicker,” says Black. “This higher risk population often has co-morbidities and needed quicker access to clinical care, if we were going to reduce readmission rates.”

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*Samer Kazziha, M.D., chief of Cardiovascular Services, Henry Ford Macomb Hospital and Raed Alnajjar, M.D., medical director of Cardiothoracic Surgery Services at Henry Ford Macomb Hospital*

## Dedicated CVICU Added to ICU at Henry Ford Macomb Hospital

The Intensive Care Unit at Henry Ford Macomb Hospital will include a dedicated 12-bed Cardiovascular Intensive Care Unit (CVICU) beginning in September, under the leadership of Samer Kazziha, M.D., chief of Cardiovascular Services, and Raed Alnajjar, M.D., medical director of Cardiothoracic Surgery Services at Henry Ford Macomb Hospital. The CVICU will provide complex invasive hemodynamic monitoring and treatment of adult patients during the critical phase of recovery from cardiogenic shock, STEMI, complex

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### »» INSIDE

CREST 2 TRIAL: SEEKS PARTICIPANTS TO STUDY STROKE PREVENTION

MULTIDISCIPLINARY AMYLOIDOSIS CLINIC PROVIDES NEW TREATMENT

CANADIAN/U.S. HOSPITAL SYSTEMS JOIN TO SAVE LIVES OF CARDIAC PATIENTS

## Crest 2 Trial: Seeks Participants to Determine Best Practices to Prevent Stroke

Determining what is the most appropriate treatment for the prevention of stroke is the goal of Crest-2 Carotid Revascularization and Medical Management for Asymptomatic Carotid Stenosis Trial. This two-parallel, multi-center randomized, observer-blinded endpoint clinical trial is being conducted in over 139 national and international locations, including Henry Ford Hospital. Cardiovascular medicine and vascular surgeons are collaborating to discover which of three interventions: 1) intensive medical management, 2) carotid endarterectomies, and 3) carotid stenting are best prevention of stroke.

Syed T. Ahsan, M.D., senior attending Cardiovascular medicine, explains, “Every patient receives intensive medical management with medications for hypertension, high cholesterol, and diabetes mellitus, and lifestyle modification for smoking cessation, physical activity, and a low glycemic diet. These patients must also be without recent stroke or stroke warning signs.”

Mitchell Weaver, M.D., senior attending vascular surgeon, is the primary investigator at Henry Ford Hospital. He explains, “Patients go into the control arm of the study to receive intensive medical management and may be included in the procedure arm of the study to receive surgical revascularization to treat plaque build-up. My colleagues Dr. Alexander Shepard and Dr. Timothy Nypaver and I perform the carotid endarterectomies.” Other research sites are doing carotid stenting. The results of each approach will be compared to determine which is most effective to prevent stroke.

The study, which concludes open enrollment in December 2020, intends to enroll 2,480 patients. The procedures will then be compared at the four-year mark, patient outcomes of:

1. Stroke and Death – within 44 days after randomization and ipsilateral stroke
2. Cognitive Function
3. Major Stroke
4. Effective Modification

Dr. Weaver shares that “Both revascularization procedures and medical management have significantly improved over the years, yet no research has been conducted to compare the treatment differences between 21st century medical management and the two revascularization procedures. This study is important, as it will help determine the best treatment plan for patients with carotid artery blockages in order to reduce the number of strokes and deaths that occur every year secondary to these blockages.”

Dr. Weaver also points out that physicians who refer a patient to the study will continue to be part of the patient’s care. Basic enrollment criteria for the study includes: Patients who are > 35 years of age, with stenosis  $\geq$  70 percent by catheter angiography (NASCET criteria) or by Carotid Artery Ultrasound with  $\geq$  70 percent stenosis and have no medical history of stroke or TIA within 180 days of randomization.

*For more information on the study, enrollment criteria or to enroll a patient in the CREST-2 study, please call Joshua Weber-Townsend at 313-916-4477 or e-mail: [JWeber6@hfhs.org](mailto:JWeber6@hfhs.org).*



**Mitchell Weaver, M.D.**



**Syed T. Ahsan, M.D.**



# Congestive Heart Failure Services Expand in Jackson

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Part of the strategic analysis looked at what was being done at other institutions, including other hospitals within the Henry Ford Health System.

It was both an operational and clinical effort. Cross shares that the largest change while developing a heart failure clinic with a nurse practitioner, was adding additional access for the heart failure patients and additional support for the primary physician to hopefully keep the patient out of the hospital setting. “Since the changes were implemented in April, there have been 211 patient visits with 40 being in home visits,” explained Dana Snider Schoch, MBA, administrative director, Cardiovascular Services.

Continued review of the program needs includes an expansion to offer local heart failure services provided by Gillian Grafton, D.O., in the fall of 2020.

Cross explains, “HFAH Advanced Heart Failure Clinic’s readmissions through October 2019 were 4.7 percent where the overall hospital readmissions were less at 22.4 percent, a significant reduction.”

In addition to improving access, a nurse educator was added, and significant efforts were made to stay connected with patients during the critical

post-discharge time with in-home visits and a tele-monitoring team. Before discharge, each patient meets with Roxanne Meyers, HFAH advanced heart failure clinical educator. This builds a connection between the hospital and the heart failure clinic.

Patients are given an iPad® and taught how to use it. “For 60 days, the iPad® provides the patient with help to change behaviors, encourage activity, monitor vitals and measure sodium intake,” says Black. “Our tele-monitoring team also provides a connection for the patient to improve their quality of life through education and support from our team of caregivers.” Patients also receive a scale, blood pressure cuff, and pulse oximeter. As the patient uses this equipment, the data is monitored by the advanced heart failure clinicians and appropriate adjustments can be made to medication to achieve maximum outcomes. Not only is this easy for the patient, but this process allows patients to be familiar with the team, have a level of comfort to ask questions, and understand the importance of accountability.

*To refer a patient to the Jackson Congestive Heart Failure Clinic, please call 517-205-3345. Or physicians can request a consult through EPIC.*

## STAFF UPDATE

## Welcome to the Henry Ford Medical Group

The following Henry Ford Allegiance Health physicians and certified nurse practitioners have transitioned from the Michigan Heart Group to join the Henry Ford Medical Group:

Richard Byler, M.D.

Jaclyn Efrusy, C.N.P.

Jennifer Fox, C.N.P.

Cathy Glick, M.D.

Lindsey Jones, C.N.P.

Maurice Jones, M.D.

Matthew Jonovich, M.D.

Usman Khokhar, M.D.

Mumtaz Memon, M.D.

Elizabeth Pielsticker, M.D.

Arvind Prabhu, M.D.

Debora Russ, C.N.P.

Samantha Sherwood, C.N.P.

Timothy Shinn, M.D.

Mark Zande, M.D.

# Multidisciplinary Amyloidosis Clinic Provides New Treatment

Symptoms of amyloidosis may be mistaken for other conditions making it difficult to diagnose. However, “An accurate and early diagnosis is key to minimize damage to organs and other tissues, and to ensure the best treatment outcome,” explains Jennifer Cowger, M.D., a lead physician of the new Henry Ford Multidisciplinary Amyloidosis Clinic. “We offer expertise in diagnosis and offer the most advanced treatments available.”

Amyloidosis is a group of complex diseases that can affect multiple areas of the body. There are many different types of amyloidosis, and each type carries its own prognosis. Amyloid in general is caused by the production and deposition of abnormal proteins. It can vary based on the type of amyloid, and the organ of deposition. When these proteins build up in specific organs and tissues, serious complications, including organ failure, can occur. There is no cure for amyloid, but treatment may control symptoms.

Treatment starts with a thorough medical history and physical exam. Additional evaluation includes lab tests that include:

- **Blood and urine** analysis detects amyloids and liver function or thyroid tests.
- **Bone marrow** testing is generally performed to check for amyloids.
- **Organ tissue** biopsy uses tissue from abdominal fat or an affected organ to determine the specific type of amyloidosis.
- **Imaging** tests are used to determine the extent that amyloid proteins have invaded specific organs.

For some types of amyloid disease, new treatments are available that have markedly improved symptoms and survival.

- **Medical therapy:** New drugs have recently received approval for treatment of hereditary and senile amyloid

transthyretin amyloidosis (ATTR) cardiac amyloid. These new drugs have changed the course of the disease for many patients.

- **Chemotherapy:** This is the primary treatment in many light chain amyloidosis (AL) cases. Chemotherapy includes medications designed to destroy the blood cells that are making the abnormal protein. For selected patients, a peripheral (or autologous) blood stem cell transplant may also be recommended.
- **Organ transplant:** An organ transplant may be recommended for selected patients who have advanced staged amyloid of the heart, liver, and/or kidney.
- **Genetic counseling:** In cases of hereditary amyloidosis, genetic testing may be recommended.
- **Clinical Trials:** Henry Ford participates in clinical trials to ensure patients have access to the latest therapies for AL amyloid.

“Due to the complexity of the Amyloidosis, a multidisciplinary team of physicians came together to create our multidisciplinary clinic to treat the disease,” says Dr. Cowger. “Our team includes hematologists, cardiologists, nephrologists, neurologists, ophthalmologists, and pulmonologists.

The team is led by Karthikeyan Ananthasubramaniam, M.D., senior attending, Cardiology; Jennifer Cowger, M.D., medical director of Mechanical Circulatory Support Program and Co-Director of the Medical Cardiac Intensive Care Unit; Celeste T. Williams, M.D., senior attending, Cardiovascular Medicine; Philip Kuriakose, M.D., division head, Oncology; and Naganand Sripathi, M.D., staff physician, Neurology.

*To refer a patient to the Amyloidosis Clinic, please call 800-436-7936.*



**Karthikeyan Ananthasubramaniam, M.D.**



**Jennifer Cowger, M.D., M.S.**



**Celeste T. Williams, M.D.**



**Philip Kuriakose, M.D.**



**Naganand Sripathi, M.D.**

## STAFF UPDATE

### Daizo Tanaka, M.D.

Thoracic Surgeon



#### **SPECIALTIES**

Heart Surgery, Heart Transplant, Lung Transplant, Structural Heart Disease

#### **MEDICAL SCHOOL EDUCATION**

Tohoku University School of Medicine

#### **FELLOWSHIPS**

Cleveland Clinic, Cardiothoracic Surgery, OH

Thomas Jefferson University Hospital, Heart Transplantation, PA

Kawakita General Hospital

#### **RESIDENCIES & INTERNSHIPS**

Thomas Jefferson University Hospital, Cardiothoracic Surgery, PA

Sendai Kousei Hospital, Cardiovascular Surgery

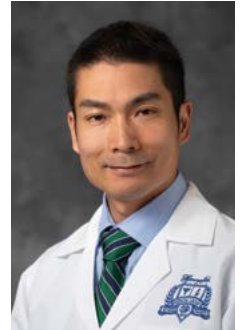
Shonan Kamakura General Hospital, General Surgery

Asahi General Hospital, Resident

#### **RESEARCH INTERESTS**

Dr. Tanaka's research interests include LVAD, heart transplant and ECMO.

Dr. Tanaka also speaks Japanese.



Daizo Tanaka, M.D.

### Farah H. Mohammad, M.D.

Vascular Surgeon



#### **MEDICAL SCHOOL EDUCATION**

Dow University of Health Sciences

#### **FELLOWSHIP**

Henry Ford Hospital, Vascular Surgery, MI

#### **RESIDENCIES & INTERNSHIPS**

Henry Ford Hospital, General Surgery, MI

#### **BOARD CERTIFICATIONS**

American Board of Surgery - Vascular Surgery

#### **RESEARCH INTERESTS**

Aortoiliac occlusive disease, Aortic aneurysms, Treatment of vascular trauma/injuries, Reperfusion injury, & Mesenteric artery occlusive disease.

Dr. Mohammad also speaks Urdu.



Farah H. Mohammad, M.D.

### Athanasios Tsiouris, M.D., Ph.D., F.A.C.S., F.A.C.C.

Cardiothoracic Surgeon



#### **MEDICAL SCHOOL EDUCATION**

University of Thessaly

#### **FELLOWSHIPS**

Yale-New Haven Hospital, Thoracic Surgery, CT

#### **RESIDENCIES & INTERNSHIPS**

Henry Ford Hospital, General Surgery, MI

St George's Hospital, London, UK, Cardiothoracic Surgery

Royal Free Hospital, London, UK, Surgery

#### **BOARD CERTIFICATIONS**

American Board of Surgery - Surgery

American Board of Thoracic Surgery - Thoracic Surgery (Cardiothoracic Vascular Surgery)

#### **RESEARCH INTERESTS**

Mechanical Circulatory Support, LVADs, Aortic Aneurysms, Coronary Artery Disease, Valvular Heart Disease, and Heart and Lung Transplantation

Dr. Tsiouris also speaks Greek.



Athanasios Tsiouris, M.D., Ph.D., F.A.C.S., F.A.C.C.



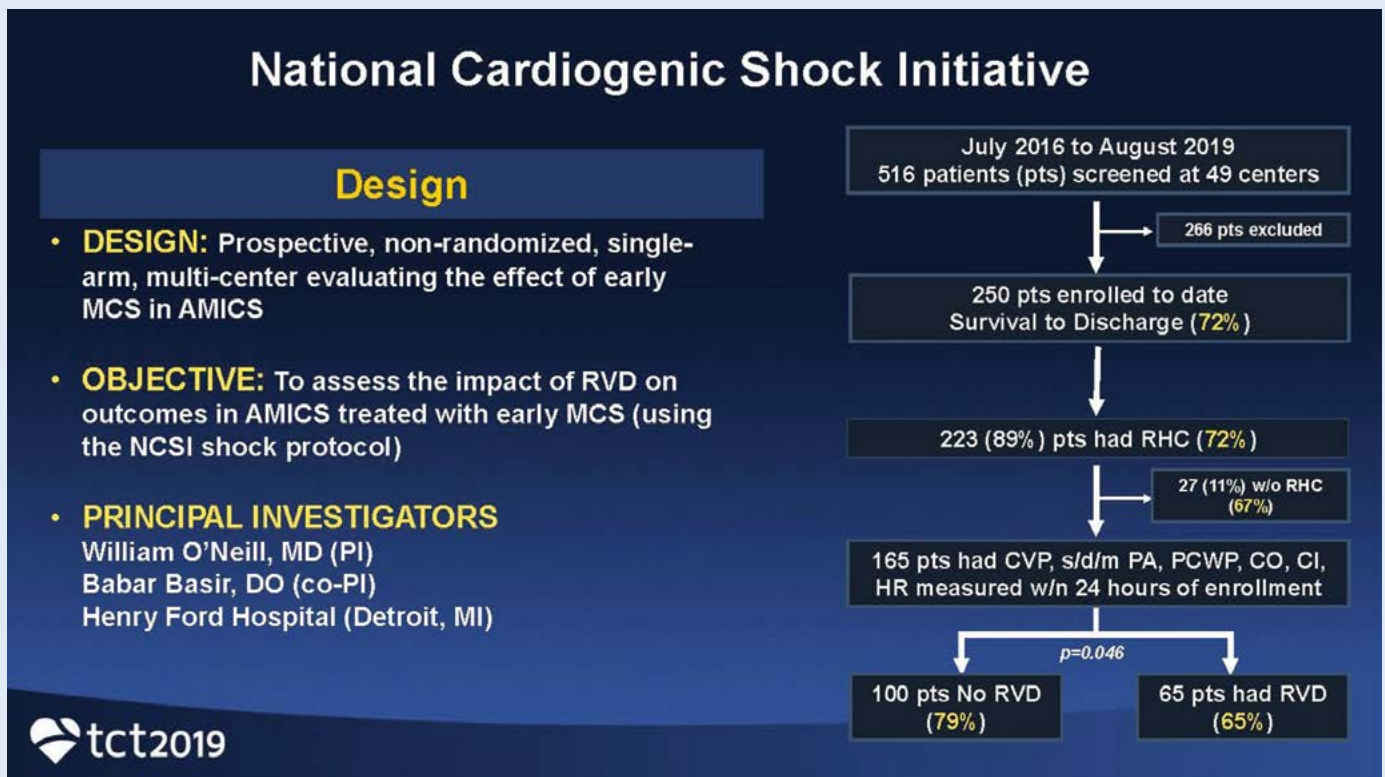
# Impact of Right Ventricular Dysfunction in Acute Myocardial Infarction and Cardiogenic Shock: Insights from the National Cardiogenic Shock Initiative (NCSI)

At the 2019 TCT conference in September, Babar Basir, D.O., FACC, FSCAI, co-principal investigator of the National Cardiogenic Shock Initiative (NCSI), Henry Ford Hospital, presented insights thus far on the NCSI initiative, on behalf of all the investigators.

As background, he reminded attendees that cardiogenic shock (CS) remains the greatest cause of morbidity and mortality in acute myocardial infarction (AMI). Dr. Basir shared new work in which his team has identified that right ventricular

dysfunction (RVD) is common and complicates about 40 percent of AMICS.

The effects of RVD in AMICS have been largely unstudied and effects of early temporary left ventricular mechanical circulatory support (MCS) on right ventricular hemodynamics are mostly unknown. The NCSI has identified that RVD is common, that it worsens mortality and that early left ventricular support helps the patient and improves RVD. The following illustration describes this recent work.



This recent work emphasizes the following points:

- 39 percent of patients with AMICS develop RVD
- RVD is associated with worse mortality
- Early MCS decreases filling pressures rapidly within the first 24 hours
- Achieving a CPO > 0.6 and a PAPI > 1 within 24 hours is associated with high survival (> 80 percent)
- Further studies are needed to assess if improved survival is associated with use of RV-MCS and under what specific hemodynamic state

To learn more about the National CSI and its early findings and protocol, visit [henryford.com/cardiogenicshock](http://henryford.com/cardiogenicshock).

# Canadian/U.S. Hospital Systems Join to Save Lives of Cardiac Patients

Cardiac rehabilitation experts along the Canadian/U.S. border have formed an international consortium to reduce future risk and improve quality of life in people living with heart disease.

The Great Lakes Cardiac Rehabilitation Consortium was created to increase participation in cardiac rehab, to return patients to improved health after a heart attack or other cardiac-related illness. Studies have shown only about 25 percent of eligible patients participate in cardiac rehab post-event.

“Around the world, cardiac rehabilitation is underutilized, despite very strong evidence that the process reduces recurrent incidents and increases long-term survival,” said consortium member Steven J. Keteyian, Ph.D., director of Preventive Cardiology at Henry Ford Health System in Detroit. “The Great Lakes Cardiac Rehabilitation Consortium’s goals are two-fold. First, we will identify commonalities and differences in how cardiac rehab is delivered in the U.S. and Canada. Second, we will identify and implement strategies that improve patient access and participation in rehab, which includes long-term improvement of healthy behaviors by patients.”

Consortium members include southwestern Ontario and southeast Michigan cardiologists, scientists, exercise specialists, clinical exercise physiologists, and statisticians from the University of Windsor’s Department of Kinesiology; Hôtel-Dieu Grace Healthcare; Lawson Health Research Institute; Henry Ford Health System; and the University of Michigan - Michigan Medicine.

“Cardiovascular disease is the leading cause of death worldwide,” said Clinton A. Brawner, Ph.D., clinical exercise physiologist at Henry Ford Hospital. “Cardiac rehabilitation is an important intervention that has been shown to reduce the effects of heart disease and improve quality of life. Unfortunately, there are many factors that limit participation. Working together with our colleagues in Canada and the United States, we hope to identify strategies that improve participation.”

Cardiac rehabilitation is a medically supervised exercise program designed to:

- Improve cardiovascular function
- Lessen risk for another heart-related event
- Assist with long-term adherence to healthier lifestyle habits such as regular exercise and improved nutrition provide behavioral support.

Patients typically travel to a hospital or medical clinic two or three times a week to undergo supervised exercise and receive structured lifestyle and behavioral education. “The top reasons patients do not participate in cardiac rehab include issues with transportation, child or dependent care, an inability to miss work or other time constraints,” Dr. Brawner said.

“One way Henry Ford Health System is addressing this is to offer remote cardiac rehab using telehealth technologies,” he said. Using a smart phone, patients are supervised by a clinical exercise physiologist while they exercise in their home, work, or community fitness facility. The physiologist provides education through online videos, which are then reinforced with one-on-one discussions during the exercise session. “We are currently conducting a clinical trial to test whether this strategy is as effective as traditional, facility-based cardiac rehabilitation,” Dr. Brawner added.

The consortium’s early work will be funded by a Partners in Research (PiR) Seed Grant – University of Windsor and Hôtel-Dieu Grace Healthcare. GLCRC participants are:

- Cheri McGowan and Kevin Milne – University of Windsor;
- Jennifer Voth and Jason Petro – Hôtel-Dieu Grace Healthcare Cardiac Wellness Program;
- Neville Suskin and Peter Prior – Lawson Health Research Institute, St. Joseph’s Health Care London – Cardiac Rehabilitation;
- Steven J. Keteyian, Clinton A. Brawner, Jonathan K. Ehrman, and Dennis Kerrigan – Henry Ford Health System;
- Melvyn Rubenfire, Devraj Sukul, and Cheri McGowan – University of Michigan.



**Steven J. Keteyian**



**Clinton A. Brawner**



**Jonathan K. Ehrman**



**Dennis Kerrigan**

To our knowledge, the GLCRC is the first of its kind in North America and lays a foundation for long-term international collaboration and impact.

*To refer a patient to Henry Ford Cardiac Rehabilitation, call the appropriate number:  
Detroit or Southeast MI Patients: (313) 972-1919  
Jackson or South Central MI Patients: (517) 205-4908*



## New Sarcoid Clinic Offers Patients Advanced Treatment

Sarcoidosis, a disease that causes granulomas to form in one or more of the body's organs, it is an unpredictable condition with variables of typical onset symptoms. For most, the symptoms might include fatigue, cough, shortness of breath, fever, joint pain or enlarged lymph glands and organs, including lumps on the skin. When treatments are not successful or a confirming diagnosis is sought, patients are often referred to the Sarcoidosis clinic at Henry Ford Hospital.

To make an accurate diagnosis, tests beyond a medical history might include:

- **Imaging:** To examine the structures of the chest, including heart and lungs, a chest x-ray, computed tomography (CT scan) or other tests to provide images of organs. Granulomas are visible on these scans.
- **Pulmonary function tests:** Regular pulmonary function tests check lung health.
- **Heart tests:** Patients with sarcoidosis often have abnormal EKG results.
- **Biopsy:** The only sure way to diagnose sarcoidosis is to take a lung tissue biopsy using a bronchoscope.

Based on the severity of the disease, advanced treatments vary and depend on which organs are affected by Sarcoidosis. An individualized treatment plan could include:

- **Observation:** Mild sarcoidosis symptoms may gradually resolve on their own. Routine examination may include blood tests, chest x-rays and an eye exam.

- **Corticosteroids:** More severe sarcoidosis may be treated with corticosteroid medications for one to two years throughout their lives. Bone health is also supported during this treatment.
- **Nonsteroidal immunosuppressive drugs:** Methotrexate, azathioprine and cyclophosphamide, disease-modifying anti-sarcoid drugs (DMASDs), in addition to corticosteroids or instead of steroids may be used.
- **TNF-alpha inhibitors:** Some types of sarcoidosis don't respond to steroids or DMASDs. For these cases, medications, such as REMICADE® (infliximab), often treat autoimmune diseases.
- **Clinical trial therapies:** Some patients have the option of trying new therapies through clinical trials through the National Institutes of Health (NIH) and other sponsored studies. These trials can offer new medications for sarcoidosis that have not yet been approved for wider use.
- **Organ transplant:** It is rare, but sarcoidosis can cause irreversible organ failure. These patients may require a lung transplant or a liver transplant. The Henry Ford Transplant Institute is available to these patients.

Sarcoid team of specialists include: Cori Russell, M.D., cardiologist; Gurjit Singh, M.D., cardiac electrophysiologist; Jennifer Cowger, M.D., advanced heart failure and transplant cardiologist; Patrick Bradley, M.D., and Daniel Ouellette, M.D., pulmonary disease.

*To refer a patient to the Sarcoid Clinic, please call 800-436-7936.*

## Dedicated CVICU Added to ICU at Henry Ford Macomb Hospital

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coronary or endovascular intervention, structural heart procedures, complex electrophysiology procedures and exacerbation and treatment of end stage heart failure.

“Due to the increased volume and complexity of our cardiovascular cases at Henry Ford Macomb, and in line with our expansion of services, it became apparent that a dedicated CVICU would be essential to our growth and would require a team approach,” said Dr. Kazziha.

Cardiologists work closely with cardiovascular surgeons, in association with intensivists when needed, to care for their patients, especially during the first 48 hours following a procedure.

“We’re confident that having our patient’s cardiologist and cardiovascular surgeon work collaboratively with the intensivists while they are in the CVICU will provide the safest care and best outcomes,” said Dr. Alnajjar.



# Cardiac PET Testing Offered At Henry Ford West Bloomfield Hospital

Henry Ford West Bloomfield Hospital Diagnostic Center has added Cardiac Positron Emission Tomography (PET) testing to its advanced cardiac diagnostic capabilities. Cardiac PET provides advanced heart blood flow imaging to study and identify blockages and their significance in coronary arteries. “It is considered the gold standard for assessing myocardial viability (living heart muscle) in heart failure patients,” explains Karthikeyan Ananthasubramaniam, M.D., director, Nuclear Cardiology/Cardiac PET, and senior staff physician, Division of Cardiology, Department of Internal Medicine. “Our team of specialists ensure the right test, assessment and monitoring throughout the test to obtain the best and safest possible result.”

PET stress testing uses a pharmacological stress agent, regadenoson, to create a chemical stress that enables detection of coronary artery occlusions. This is just one of the several advantages over alternative imaging tests.

Others include:

**FASTER SCANS:** Scan time for stress PET is approximately 45 minutes, compared to four hours for SPECT nuclear scans.

**SUPERIOR IMAGE QUALITY:** Including the ability to minimize soft tissue artifacts around the heart, such as the lungs, which can distort the image.

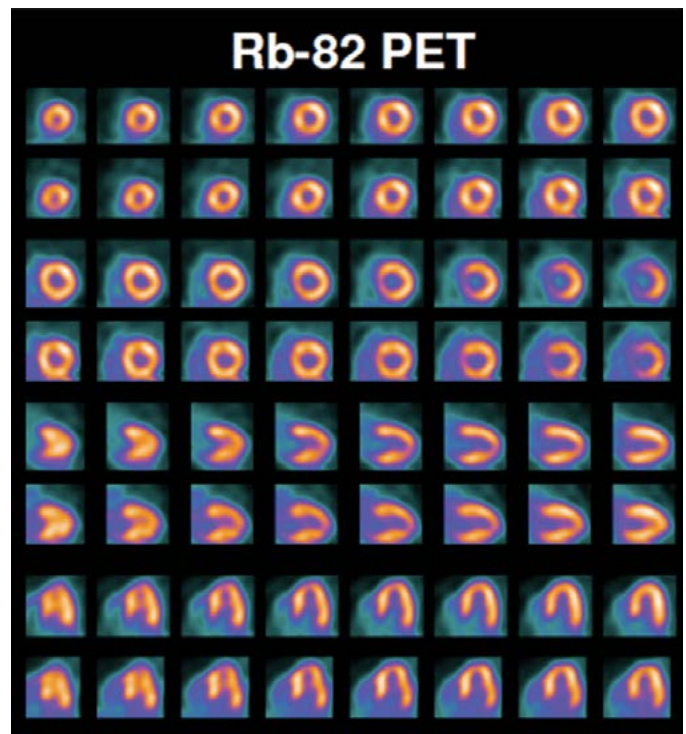
**IMPROVED DIAGNOSTIC ACCURACY:** For higher interpretative certainty.

**FLEXIBILITY:** Less dependent on body size.

**MYOCARDIAL VISIBILITY IMAGING:** Identifies living or dead heart muscle in heart failure patients using an additional isotope called radiolabeled fluorodeoxyglucose (FDG).

**UNUSUAL DISEASES:** Ability to detect and follow treatment for diseases such as sarcoidosis.

*If you would like to speak to a physician regarding cardiac PET, please contact Karthikeyan Ananthasubramaniam, M.D., at 248-703-7261. To refer a patient, please call 248-325-3091 or fax your request to 248-325-3405.*



*Cardiac PET provides advanced heart blood flow imaging to study and identify blockages and their significance in coronary arteries.*

To connect with a Henry Ford physician, call:

Heart & Vascular Institute  
**1-877-434-7470**



Heart & Vascular Institute  
Henry Ford Hospital  
2799 West Grand Boulevard  
Detroit, MI 48202

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## IN THE NEWS



Brian O'Neill, M.D., joined the faculty of Henry Ford Hospital as an interventional cardiologist in the Center for Structural Heart Disease.



**Brian O'Neill, M.D.**

Dr. O'Neill comes to Henry Ford from Temple University in Philadelphia where he was the medical director of the TAVR program. Dr. O'Neill has interests in all areas of structural heart disease, with a particular focus in tricuspid valve disease where he serves as the United States primary investigator for the HOVER trial, a physician initiated investigational device exemption (IDE)

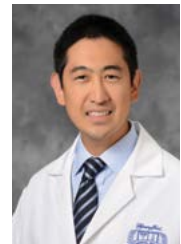
investigating the safety and efficacy for caval valve implantation (CAVI), a non-surgical approach for the treatment of severe tricuspid repair.

In addition, Dr. O'Neill also has a particular interest in left atrial appendage occlusion with the use of intracardiac echo (ICE). Dr. O'Neill will work to continue to enhance the research mission within interventional cardiology, focusing on structural heart and percutaneous hemodynamic support. "I'm excited to join the Henry Ford team having grown up in southeast Michigan and attended medical school just down the street at Wayne State."

To refer a patient to Dr. Brian O'Neill, call 1-887-434-7470.



James Lee, M.D., attending cardiologist, Advanced Structural imaging, has been selected by the American College of Cardiology (ACC) to serve on the Cardiovascular Imaging Section Leadership Council. His two-year term began on April 1, 2020.



**James C. Lee M.D., FSCCT**



AMERICAN COLLEGE of CARDIOLOGY