## Award Winning Heart Care

### 2012 Annual Report & Outcomes







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### **Report to the Community**

It is important to St. Rita's commitment to excellence to provide the best heart care to our region. We are proud to provide a leading heart center right here at home.



Once again, we were pleased to be recognized by both the American Heart Association with the Gold Performance Achievement Award and the American College of Cardiology Platinum Performance Achievement Award. Both awards speak to our commitment to quality and the highest standards of patient care.

In 2012, we added a second surgical robot, improving our ability to provide quality, state of the art, less-invasive care with faster recovery times.

Our STEMI program continues to be one of the best in the country. And we are working on a formalized, regional approach to STEMI care. An ST-Elevation Myocardial Infarction (STEMI) is a very serious type of heart attack during which one of the heart's major arteries (one of the arteries that supplies oxygen and nutrient-rich blood to the heart muscle itself) is blocked.

We are increasing the number of radial (wrist) approaches versus femoral (groin) approaches in the catheterization lab. Radial access has several advantages as compared to femoral, including less bleeding and bruising. The patients can sit up and walk immediately after the procedure, resulting in faster recovery and discharge.



Bob Baxter President and CEO, St. Rita's Health Partners This report can only include a few of the exceptional services provided by the staff and physicians of The Henry and Beverly Hawk Heart & Vascular Center. I urge you to take the time to see the kinds of services that are saving and improving lives in West Central Ohio. These are just some of the reasons St. Rita's continues to be an outstanding regional referral center for heart and vascular services.

It is an honor to serve the residents of West Central Ohio.

Bob Baxter President and CEO, St. Rita's Health Partners



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### **Overview**

2012 proved to be another progressive and innovative year for The Henry & Beverly Hawk Heart & Vascular Center at St. Rita's. Two cardiologists joined The Heart Specialists, one being long time local cardiologist, Dr. J. Scott Wolery, who merged his practice with The Heart Specialists' practice. The Heart Specialists opened a new satellite office in Celina along with other SRPS specialty physicians to serve the Grand Lake area.

New technology was introduced into the cath lab and operating room in the form of a much smaller left ventricular assist device, the Impella 2.5 and 5.0 LVAD. Our second da Vinci robot also arrived and was immediately put to work in the OR.

Our cath lab staff and cardiologists began working towards our 2013 goal of being a destination center for radial catheterization. The goal is to increase and have a significant percentage of our procedures being done through the radial artery versus the femoral artery. Multiple staff and physicians went to additional education and training to support the initiative of increasing radial approaches, and promoting the safety, as well as the quick recovery and discharge associated with this approach.

St. Rita's was recognized with two of the highest awards that can be awarded to a hospital for the care of cardiac patients. We received the American College of Cardiology 2012 Mission: Lifeline PCI Receiving Center Gold Award for our STEMI program, as well as the Action Registry GWTG Platinum Performance Award for our care of cardiac patients. You can read more about this later in this report. Additionally our 2010 Heart & Vascular Annual report received two Silver awards for advertising, one for general marketing and the other was specific to cardiovascular advertising.

Community education was at the forefront in 2012 with a focus on recognition of signs and symptoms of heart attack, call 911, and "compression only" CPR. Several programs were held to educate the public on how to do compression only CPR.

Please take a few minutes to review our 2012 Heart & Vascular Annual Report.

Mary L. Marker Administrator The Henry and Beverly Hawk Heart & Vascular Center



Mary Marker Administrator Henry and Beverly Hawk Heart & Vascular Center

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### **Division of Cardiology**

I have been honored to serve as the cardiovascular division chief for the last four years.

I have witnessed our department grow to cover services that we are very proud of. Today we provide such a wide spectrum of services ranging from noninvasive diagnostic testing to different cardiac catheterization and interventional procedures utilizing both femoral as well as radial approaches, to a state of the art EP service in collaboration with OSU.

As we continue to advance to meet the community's cardiac needs, I am very proud to be part of SRMC family and I hope to be able to meet all the new challenges in our field.

Zoheir Baki, M.D. Chief, Division of Cardiology



Zoheir Baki, M.D. Chief, Division of Cardiology



Hemraj Makwana, M.D.



Adel Shaheen, M.D.



Ossama Rahman, M.D.



Scott Wolery, M.D.



Ebere Ugwanyi, M.D.



Bekele Ayele, M.D.



Julius Kato, M.D.

### A message from J. Scott Wolery, M.D., FACC Director, Cardiac Catheterization Lab

2012 has been a year of change and memories. January 1, I joined The Heart Specialists at St. Rita's after 28 years of private practice. EPIC (CarePath), which is our new electronic health care system debuted June 17. More changes in health care delivery are coming with the mandated changes from the government. Catholic Health Partners and St. Rita's Medical Center have been very proactive with the coming changes to make sure we can still deliver excellent care you deserve and have come to expect.

This past year, St. Rita's Medical Center received the American Heart Association's MISSION:LIFELINE Gold Award (the highest level possible), one of only 25 hospitals in the nation and one of only 2 hospitals in Ohio. St. Rita's also received a Platinum Performance Achievement Award for the American College of Cardiology Foundation's ACTION Registry – "Get With the Guidelines" Program for cardiac care. We have now completed our participation in the VIRGO and Ascent studies and await their published results.

Earlier this year, I had the privilege to do a presentation at the Cardiovascular Symposium '12 and also the honor of speaking to the Mended Hearts Chapter 111. I would like to recognize Dr. Robert Biggs for his timeless work with the Mended Hearts program. Dr. Biggs, a friend & colleague for many years, passed away earlier this year. He will be missed. I also have had the pleasure of presenting an AED (automatic external defibrillator) with Jan Katz, RN (manager of CCU/3B) to our home church, Zion Lutheran. Let us not forget that God works with us, through us, and for all of us.

As we go forward into 2013, we will continue to work toward providing the best care possible, with new and cutting edge technologies.

### J. Scott Wolery, M.D., FACC Certified by the American Board of Internal Medicine Diplomat in Interventional Cardiology Diplomat in Cardiovascular Disease Diplomat in Critical Care Medicine Diplomat in Internal Medicine



J. Scott Wolery, M.D.

### **Electrophysiology Services**

#### Ohio State's Trailblazing EP Program Opens Doors to Regional Partnership and Groundbreaking Research

Ohio State's Ross Heart Hospital Electrophysiology (EP) Program has undergone major expansion over the past few years, with the addition of an innovative new facility that provides a superior patient experience, greater coordination of care and improved efficiencies and outcomes in the management of patients with arrhythmias. Features of Ohio State's EP Services include:

• A \$20-million lab expansion at the Richard M. Ross Heart Hospital, which increases the number of invasive heart rhythm laboratories and places all the labs in the same location

• Six state-of-the-art invasive heart rhythm procedure labs, all equipped with sophisticated imaging and mapping technologies and linked by integrated technology

- A dedicated 30-bed inpatient unit for arrhythmia management
- Twenty-five recovery units staffed by nurses who specialize in pre- and post-op management of arrhythmia patients

• Specialty clinics for genetically related arrhythmias, with patient access to genetic counseling, gene therapy and testing to identify genetic tendencies toward arrhythmias

• Outpatient subspecialty care through cardiac device and antiarrhythmic medication specialty clinics

Many healthcare facilities do not have the capability to provide a comprehensive level of EP care. To make high-level electrophysiology more widely available, physicians from Ohio State travel to multiple regional sites to deliver Ohio State's expertise to the surrounding communities.

#### The Largest Group of EP Specialists in Ohio Delivers State-of-the-Art Arrhythmia Management Services

Ohio State's Richard M. Ross Heart Hospital houses the largest group of EP specialists in Ohio. When the heart goes into an abnormal rhythm, Ohio State's unique team responds immediately to determine and perform the most appropriate procedure to restore proper rhythm. Catheter ablation



Dr. Ralph S. Augostini, M.D.

Electrophysiology studies, radiofrequency ablation therapy, pacing therapy, intracardiac cardioverter defibrillation therapy, cardiac resynchronization therapy and device extraction.



Dr. E. Rhodes, M.D., PhD

Electrophysiology studies, ablation of supraventricular and ventricular arrhythmias, pacemaker and ICD implantation, revisions, lead extractions, cardiac resynchronization therapy, syncope evaluations, tilt table testing, vasovagal syncope, genetic arrhythmias, risk stratification of sudden cardiac death. therapy, which involves burning, deadening, or freezing the specific source of the abnormal rhythm, is the primary means to treat such rhythm abnormalities. The program also is a Center of Excellence for robotic navigation into the heart to correct rapid heartbeat.

State-of-the-art technology is always a key component of heart care. Treatment may involve implantation of a pacemaker or defibrillator. New devices being reviewed will offer such benefits as better memory, greater processing capability and monitoring of physiological changes — and then alerting physicians to intervene and prevent an event from occurring. Ohio State's EP Program is also expert at removing devices that have failed or otherwise reached the end of their working life. The OSU Medical Center is among the best in managing implantable lead complications and one of the world's largest-volume lead-extraction centers.

#### Ohio State Leads Investigational Device Trials in Field of Electrophysiology

Ohio State's Medical Center is deeply involved in creating and testing the latest EP devices and technologies. Ohio State physicians act as principal investigators on many of these trials, design or contribute to study protocols, consult with device makers, enroll patients in clinical trials, conduct the studies and monitor results.

As a leader in investigational device trials, Ohio State participates in significant studies that evaluate the safety and efficacy of various devices and technologies, including:

- A magnetic resonance imaging (MRI)-compatible pacemaker
- Innovative pacemaker lead wires that combat the problems of breakage and infection
- A catheter-embedded pressure monitor that measures pressure against the heart wall to help electrophysiologists determine the appropriate energy-delivery setting for the device

• An implantable defibrillator with no wires inside the heart On the horizon are trials for a percutaneously implanted pacing lead that is attached externally to the heart, an injectable loop recorder and a medication to suppress abnormal heart rhythms. Additional investigations explore new ways to use existing devices. These important trials give Ohio State patients access to cutting-edge technologies and life-changing therapies that often are not available elsewhere.

# **Robotic Cardiothoracic Surgery at St. Rita's Center for Robotic Surgery**

St. Rita's is proud to announce the expansion of their minimally invasive robotic surgery service line by recently purchasing a second da Vinci robot. The pair of robots are affectionately known as Laverne and Shirley by the team. The Center for Robotic Surgery is well established and is now performing over 500 procedures a year ranging from Cardiac, Thoracic, GYN, and our newest service line General Surgery. For more information about the robot, please visit StRitas.org.

Coronary Artery Disease [CAD]– Coronary artery disease (also known as hardening of the arteries) is the most common form of heart disease in the United States. Despite new treatment options, many patients will still require the surgical bypassing of blocked arteries. This involves taking a healthy blood vessel from another part of the body and patching it into the heart to move blood past a blockage in the existing heart blood vessel.

Using the da Vinci Robot, the surgeon enters the chest through smaller incisions to harvest blood vessels and perform the bypass surgery without making the traditional incision. Surgery can often be completed without the need for additional pump machines. This leads to less risk of infection, smaller incisions, less pain and a faster recovery. Additional benefits include reduced blood loss and a shorter hospital stay. Although not all surgeries for CAD can be performed with robotic assistance, many can.

Dr. Fotouhi is currently performing robot-assisted coronary bypass surgeries for CAD. He has extensive experience with minimally invasive techniques and is part of the Heart and Vascular Center of St. Rita's Medical Center.

Mitral Valve Regurgitation - Mitral valve regurgitation is a condition in which one of the major valves of the heart does not work correctly, causing heart dysfunction. Over time this can lead to the heart becoming overworked which then leads to more problems with the valve. Eventually this can lead to heart failure and death. If non-surgical repair has not worked, the best available treatment is surgery. Mitral valve repair potentially offers a number of significant, life-long benefits as compared to valve replacement. These include a lower risk of death, a better chance of long-term survival and more freedom from future valve operations. The least invasive approach to cardiac surgery, the "keyhole" approach or port-access technique used in minimally invasive and or robot-assisted surgery, is available for some types of cardiac and thoracic procedures like mitral valve repair.

Lung Cancer – Lung cancer is the second most common non-skin cancer in both men and women. When a lung cancer is diagnosed, the extent of the cancer will also be determined. Many lung cancers are amenable to surgical treatment and this can often be performed in a minimally invasive way using robot-assisted surgery. Using this technique, the surgeon enters the chest through small incisions and removes the portion of the lung affected by the cancer. This allows for cancer control with less risk of infection, smaller incisions, less pain and a more rapid recovery of remaining lung tissue. Patients who receive robot-assisted lung cancer surgery usually experience a faster return of pulmonary function, a shorter hospital stay and a quicker return to regular activities.

Drs. Fotouhi and Pohl are currently performing robot-assisted thorocoscopy and lobectomy for lung cancers as well as resection of other benign chest tumors for diagnosis and treatment. When treating lung disease, their goals are both surgical cure and rapid recovery.

### **Cardiovascular and Thoracic Surgery**

In 2012, we continued our tradition of excellence at the division of cardiothoracic and vascular surgery providing a full range of surgical and nonsurgical therapies for our patients. We maintain a strong team composed of well trained and certified surgeons, experienced physician



extenders, and highly skilled perfusionists.

Arrhythmia Surgery We offer a wide range of surgical options for treatment of arrhythmias including pacemakers and defibrillators. We have performed numerous Maze procedures, which is a surgical procedure designed for curing atrial fibrillation, and we offer minimally invasive stand alone Maze procedure which does not require a sternotomy. We are collaborating with the Division of Cardiology in offering advanced procedures in this field including biventricular

pacing and robotic assisted pacemaker lead implantation.

*Cerebrovascular Surgery* We provide surgical solutions for carotid and subclavian artery disease via endarterectomy or bypass with superb results.

**Coronary Artery Disease Surgical Options** We offer myocardial revascularization with surgery as a primary or repeat bypass surgery. Properly selected patients can undergo surgery via small incisions with MIDCAB surgery with small chest incision without splitting the sternum and in most cases without cardiopulmonary bypass. We also offer transmyocardial laser (TMR) revascularization for the patients who are not a candidate for bypass surgery or angioplasty. In 2011 we began offering robotic surgery in our division for a variety of surgeries including CABG in select groups of patients.

We have continued to expand our minimally invasive and robotic procedures in 2012. Now we offer Hybrid procedures to the properly selected



Farzin Fotouhi, M.D., FACS Medical Director of Open Heart Surgery Chief of Cardiothoracic Surgery patients. This allows us to combine stenting by our cardiology colleagues and robotic surgery to avoid a sternal splitting incision and expedite the recovery, even in patients with multiple blocked arteries or patients with valve problems who also have blocked arteries.

**Thoracic Surgery** Our specialists provide a wide array of thoracic surgical services including open and thoracoscopic surgical options as well as endobronchial laser therapy for treatment of benign and malignant diseases of the lung and mediastinum and advanced thoracic oncologic surgery. In 2010 we performed VATS (Video Assisted Thoracoscopy Surgery) for lung resection and lobectomies. Additionally we started offering robotic surgery for a variety of thoracic procedures. These are aimed to provide less invasive procedures with less pain and quicker recovery.

We have continued to expand our lung surgery options as well as all surgeries for tumors involving the chest wall or chest cavity, chest wall deformity and hernias. Most patients will be considered for minimally invasive surgery with scope or use of Da Vinci robotic system. This has allowed us to operate and discharge these patients and get them back to work in an accelerated fashion while minimizing their discomfort and pain.



Ronald Pohl, M.D, FACS

*Valvular Heart Disease* 2012 was a record year for valve surgery here at SRMC. Our experienced team performs a full array of surgical



options for acquired valve disease. These include valve repair and replacement utilizing highly trained anesthesiologists with skills in intraoperative TEE. We have been utilizing three dimensional echocardiography intraoperatively which has added invaluable information to be used during the valve surgery since 2009. Last year we started offering minimally invasive valve procedures which can be applied to isolated valve disease including aortic, mitral, and tricuspid valve surgeries which leads to quicker recovery, less postoperative pain,

and less postoperative and perioperative complications. Via collaboration with the leaders of technology we are able to offer virtually all available repair and replacement options for all heart valves.

*Vascular Surgery* We offer a wide range of vascular surgical options including surgery of great vessels, ascending thoracic aneurysm, root replacement, descending thoracic aneurysm, and repair of abdominal aortic aneurysm or peripheral vascular disease. These procedures can be done through an open technique or percutaneous interventions with angioplasty and stenting.

We have a robust and highly successful vascular access program for renal failure patients in collaboration with nephrology and interventional radiology. We embrace the Fistula First initiative and utilize cutting edge technology in dialysis access surgery.

We believe that by putting together a group of talented and highly trained and motivated surgeons, physician assistants, nurse practitioners, and perfusionists, and by utilizing highly skilled critical care nursing and ancillary services with over 14 years of experience doing Cardiothoracic and Vascular Surgery at St. Rita's Medical Center, we will continue to offer the most comprehensive and state of the art cardiothoracic and vascular surgical solutions in the region.

Our success rate in dialysis access surgery (including fistulas and grafts) puts us significantly ahead of most other programs in the region.

Farzin Fotouhi, M.D., FACS Medical Director of Open Heart Surgery Chief of Cardiothoracic Surgery



Hector Dox, M.D.

### St. Rita's Medical Center and Outlying EMS Agencies Working Together to Make a Difference

Brian Anderson

In 2012, St. Rita's Medical Center continued to work with Emergency Medical Service agencies in our ten county service area to make a difference in the care given to patients throughout our communities. Through collaboration with these agencies, we have continually worked hand in hand with EMS to decrease door-to-balloon (D2B) times for patients who are noted to be experiencing an ST elevation myocardial infarction (STEMI). This year, St. Rita's donated funds to Lafayette EMS to aid in the purchase of a 12 lead EKG monitor for their ambulance. Through the Chest Pain Committee, St. Rita's Medical Center staff have continued to interact with local EMS professionals in order to make an effort to decrease D2B times. Together, we have realized many successes through this collaboration, which is demonstrated by the following case outlined below:

On the morning of August 15th, 2012, Celina Fire Department

paramedics were called for a male having chest pain at a local business. It was reported that this male had no history of cardiac problems and had never had any pain like this before.

Upon arrival of CFD paramedics to the scene, they found the patient seated in a chair complaining of sharp chest pain that was rated a "9" on a scale of ten. This patient was quickly assessed on scene and a 12 lead EKG was performed. Paramedics quickly realized through this 12 lead EKG that the patient was experiencing a STEMI. They immediately loaded this patient, started an IV, started administering medications including Aspirin,



Pictured from Left to Right are: FF/Paramedic Matt Schlater, FF/Paramedic Joel Lange, FF/Paramedic Aaron Beougher

Nitroglycerine, and Morphine per their protocols, and quickly left for the hospital. After consulting with the local emergency room physician over the radio, the decision was made to bring the patient straight to St. Rita's Medical Center's Cath Lab, so that the patient could receive definitive treatment for a STEMI. Upon arrival at St. Rita's, these paramedics and the patient were met by St. Rita's staff and escorted directly to the Cath Lab where the physician and staff were waiting. The time line for this STEMI is as follows:

- 0705 Celina Fire Department dispatched
- 0710 Celina Fire Department paramedics arrive on scene
- 0715 Initial 12 lead EKG performed on scene, STEMI noted
- 0719 Paramedics consult with local ER physician, decision made to go straight to SRMC
- 0736 STEMI Alert called at SRMC, cath lab staff and physician notified waiting
- 0801 Celina Fire Department arrives at SRMC, patient taken directly to cath lab
- 0805 Case started in cath lab
- 0810 Balloon inflated in the patient's clogged artery restoring blood flow to the heart

Door-to-balloon time is measured from the time that a patient arrives at a facility

capable of doing a cardiac cath intervention until the time that the blockage in their heart is opened. Current American College of Cardiology standards dictate that the goal for a patient experiencing a STEMI is a door to balloon (D2B) time of 90 minutes or less. In the case outlined above, this goal was greatly surpassed. Through St. Rita's Medical Center's collaboration with EMS and the excellent care given by EMS providers this patient had blood flow to the heart restored just 60 minutes from the time that EMS arrived on scene leading to a D2B time of 9 minutes!



Pictured Left to Right are: Lafayette EMS Captain/ Paramedic Brent Bassitt, SRMC EMS Coordinator Brian Anderson, Lafayette Fire Chief Robert Huchinson, and Jackson Township Trustee Ted Smith.

### St. Rita's Medical Center Receives Gold from American Heart Association

St. Rita's Medical Center earned a Gold Performance Achievement Award from American Heart Association Mission Lifeline for the quality of care provided and St. Rita's impact on reducing morbidity and mortality from ST Elevation Myocardial Infarction (STEMI). St. Rita's Hospital joins 225 other hospitals in the US and 18 hospitals in Ohio that are receiving an American Heart Association Mission: Lifeline Performance Achievement Award, and belongs to a very exclusive group as one of the 25 hospitals in the US receiving a Gold Performance Achievement Award. The Mission Lifeline national registry program identifies award-level achievement on the part of participating hospital teams. Award winners are honored at national and regional conferences and in a congratulatory ad in the Best Hospitals issue of U.S. News & World Report. Public recognition The goal of Mission Lifeline is to promote evidence based STEMI systems of care and to help ensure that patients receive timely life-saving heart attack care.

raises awareness of the need for effective STEMI systems of care as well as the lifesaving efforts of specific hospital teams. Currently, the recognition program applies only to STEMI systems of care.

The goal of Mission Lifeline is to promote evidence based STEMI systems of care and to help ensure that patients receive timely life-saving heart attack care. It brings together healthcare resources into an efficient, synergistic system, involving the entire



continuum of care: EMT's and paramedics, the emergency department physicians and personnel, Cardiologists and the cardiac catheterization lab, and the coronary care unit. The commitment is to improve the overall quality of care for the STEMI heart attack patient.



Dr. Shaheen (third from left) receiving our Gold Award at the American Heart Association Scientific Session in Los Angeles, CA, Nov. 2012. With him are Deb Calvelage, RN, Cath Lab and Janelle Fields, RT, Cath Lab. The award was presented by Dr. Gray Ellrodt, Chair of Mission: Lifeline Steering Committee.

### **Radial Access in the Cath Lab**

"That which we persist in doing becomes easier, not that the task itself has become easier, but that our ability to perform it has improved." —Ralph Waldo Emerson (1803-1882)



In 2012, our cardiologists committed to increasing the percentage of radial access procedures versus femoral. To assist in this endeavor, cath lab staff attended training programs in Atlanta, GA, and Seattle, WA, along with Dr. Adel Shaheen.

In the radial access approach, doctors make a small hole in the patient's wrist, instead of the groin, then a catheter is inserted and guided to the heart.

Radial access has several advantages as compared to

femoral, including less bleeding and bruising. The patients can sit up and walk immediately after the procedure, resulting in faster recovery and discharge.

With greater patient comfort, more rapid ambulation and reduced vascular complication rates, transradial has many features that could favorably reduce costs and enhance quality.

Radial access catheterization is particularly beneficial for older or obese patients and those with sleep apnea, poor leg circulation or vascular disease.

As we increase the number of radial cases, it is our plan to enhance the patient experience with the design and opening of a radial recovery lounge in 2013.



Adel Shaheen, M.D.

Radial access has several advantages as compared to femoral, including less bleeding and bruising.

### Three Times Lucky: The right people in the right places saved Ron Keller after a trio of trouble

Ron Keller didn't think he was having a heart attack. Dr. Adel Shaheen wasn't sure he would make it. They were both wrong.

Keller, 68, of Celina, had felt bad for a week before he went to see his



doctor, Edward Hosbach , in Fort Recovery.

He tried to make an appointment on Monday and both doctors were out until Friday, so he waited. He didn't think it was a big deal. When told he needed to get to a hospital, the Kellers were given a choice of Dayton, or St. Rita's. They chose St. Rita's because of its location and reputation, Ron's wife, Carol, said.

She had been treated at St. Rita's Heart Center a few years back. "I felt that cardiac clinic was very well run," she said.

Ron said he'd drive to Lima. Dr. Shaheen nixed that as soon as he saw the EKG from Hosbach's office.

Ron and Carol Keller

"I looked at the EKG and told him, your patient is having a heart attack. Please tell the patient we'd feel more comfortable if he came in an ambulance," Shaheen said.

Carol, remembers it being more forceful. "The doctor said, 'hell no,'" she said.

When Keller arrived at St. Rita's, the outlook was not good.

"He comes in, he's having a big time myocardial infarction, going into cardiogenic shock, as bad as it can get," Shaheen said.

He may have been having the heart attack for as long as a week. His heart was weak, too weak for bypass surgery.

"I told the surgeon, If I take him to the OR, he's probably going to die," Shaheen said.

*"I felt that cardiac clinic was very well run."*  Instead, Keller was taken to the Cath Lab where Shaheen could use a less invasive approach to see and treat the blockage with balloons to open blocked blood vessels and stents to shore them up.

Even then, it didn't look good. Shaheen didn't pull any punches when he explained that to Keller's family.

"He said 'If we get the balloons in, and if we get those in and we can get the stents in...' I remember, one of the surgical team came out and she said the arteries are almost 100 percent blocked and it's in the area they call the widow maker."

They told them Ron's kidneys were failing and, if he survived, he might need dialysis for the rest of his life. A thought his family shuddered at. Ron is an active, outdoors kind of guy. They weren't sure he'd want to live if he had to get regular dialysis.

Carol Keller said the staff didn't want to give them false hope, but kept them informed.

"They didn't pull punches, but they were compassionate" she said.

Those punches would keep coming for the next few days.

"This guy went into every single complication," Shaheen said. "He definitely cheated death."

It was a roller-coaster of emotion for Keller's family. Despite the grim prognosis, Keller came out of the Cath Lab and began to improve.

"I think we felt good about it after the stents were in. He looked good. He was himself and talking," Carol remembers. The family was hopeful. On Saturday, Ron was a little tired, but that could have been from all the activity around him that made it hard to rest. But when the family returned Sunday morning, they saw Deacon Tom Niese pacing outside the waiting room, waiting for them to arrive.

#### **Round Two**

Fluid had built up around Keller's heart, making it hard for it to pump blood. He had already been taken to Cath Lab.

The bottom dropped out again, Carol Keller said. They explained that Ron's heart was still too weak to endure surgery and a less-invasive approach was the only answer.

Dr. Shaheen let the family come down, put on surgical garb and talk to Ron before the doctor poked a needle into a small area, dangerously



Adel Shaheen, M.D.

"The arteries are almost 100 percent blocked and it's in the area they call the widow maker." close to his heart, in an effort to remove the fluid.

"They let us go in and tell him goodbye, and give him our love," Carol recalled, her voice cracking. Once again, Ron Keller beat the odds, and at that point, even Dr. Shaheen felt better about things.

"I checked in on him on Sunday evening and he said he was feeling much better, but his leg hurt," Shaheen recalled.

#### **Round Three**

Keller had a blood clot in his leg. If it broke free and made its way to his heart, he wouldn't likely survive. Blood thinners might break up the clot, they might also cause more bleeding around his heart, so that was out. Surgery was scheduled for Monday morning to install a filter between his legs and his heart to keep any clots from getting through.

Carol Keller asked what happened if the clot moved Sunday night or Monday morning before the surgery.

"That's the only time they didn't give me an answer," she said.

The clot stayed put, the surgery went well, and then, finally, things started to go right. His kidneys started working. He got stronger and, on Thursday, he went home.

#### Faith, science, or both?

The Kellers are people of faith. Until the heart attack, they attended Catholic Mass every day. Ron worked for a while as business manager at St. Charles Seminary in Carthagena. They believe God put the right people in the right places to help him. They also believe The Virgin Mary was watching over them. In fact, a statue of Mary that was once in the chapel at St. Rita's is now in the Keller's living room. The roughly 5-foot statue was one of a pair that became surplus after renovations at the Medical Center around 2001. One statue went to the infirmary at St. Charles. The other went into storage until the Keller's bought it and took it home.

"All these things didn't happen by coincidence," Carol said.

Dr. Shaheen believes Ron survived because a dedicated, talented team did its job well from start to finish.

"This kind of patient needs a lot of intensive care," he said. "We had to call the Cath Lab so many times that week.

"Not a single employee of the Cath Lab complained. Everyone was happy because they felt that they contributed something.

"The care of the nursing staff in the Critical Care Unit was outstanding." It was the nurses who observed and reported the complications as soon as they noticed.

"If they were not paying attention to the patient's progression, how he responded to the treatment, that could have delayed treatment," he said. *"They let us go in and tell him goodbye, and give him our love."*  "The teamwork from the family physician 50-60 miles away, the team in the CCU, the team in the cath lab, the team in other departments of the hospital, from the echo to the radiologist, they all contributed."

The Kellers agree, but also believe God put that team in the right place.

"Without God they can do nothing," Carol said. "With God they can do everything. Their healing can be so much more."

"I know they told us, 'Keep praying.' I know Dr. Shaheen believes that without God he wouldn't be able to work these miracles," Carol said.

#### **Caring for the Family**

The staff at St. Rita's knows that the patient isn't the only one who needs care, it's their whole family. That was certainly true for the Kellers. One son had an anxiety attack the day Ron was admitted. The son was admitted briefly and Dr. Shaheen checked in on him. Carol Keller told Dr. Shaheen on Tuesday that she was having some chest pain.

Shaheen gave her two choices. "Go to my office and have a stress test done this

morning or I'll admit you today and we'll do a catheterization yet today," he said. She got the stress test and is now getting treated as well.

"He cared to take care of me," Carol said. "I didn't feel like we were just a number. Dr. Shaheen, I'm not sure how he keeps up. He was everywhere."

The Kellers had nothing but praise for everyone at St. Rita's. "I can't compliment the staff enough, up in the CCU, the surgical team that he had. Deacon Tom was wonderful to be with our family."

Shaheen said the family wasn't so bad either. "The family was the nicest family. They were asking questions. Despite how sick he was, they were never in the way."



"They wanted to be informed but they were very respectful, very appreciative to the staff."

The Keller family made it through a rough patch and are grateful for the support they received.

"It's like someone is taking care of you," Carol said. "Like you've been in the arms of somebody holding you too, holding you together."

*"It's like someone is taking care of you," Carol said. "Like you've been in the arms of somebody holding you too, holding you together."* 

### **2012 GWTG Platinum Performance** Achievement Award

St. Rita's Medical Center was chosen as a recipient of the ACTION Registry –GWTG Platinum Performance Achievement Award for 2012. St. Rita's is only one of 164 hospitals nationwide to achieve this award. The award recognizes St. Rita's commitment and success in implementing a higher standard of care for heart attack patients and signifies that we have reached an aggressive goal of treating these patients to standard levels as outlined by the American College of Cardiology/ American Heart Association clinical guidelines and recommendations.

For St. Rita's, this award exemplifies our Chest Pain Center team and the entire STEMI team's hard work, dedication, and commitment to improving the quality of care and the life of our Acute Myocardial Infarction (heart attack) patients. This is an achievement worth celebrating!



### **Rescuer Recognition**

On April 3, Brian Vaughn from Culy Construction was walking to his truck in the parking lot of the motel where he and his crew were staying. They are in Lima doing work for AEP.

Brian saw a man on the ground. The man was barely conscious and then quit breathing. 911 was called as Brian started hands only CPR. Two of Brian's co-workers also came out to help if needed.

The man regained consciousness as the LACP rescue squad arrived and paramedic Jennifer Pierce and her team took over. There is no question Brian's actions saved the man's life.

The man was taken to St. Rita's Medical Center for treatment. Later he said he wished he could personally thank Brian for saving his life.

Arrangements were made for Brian to come to St. Rita's.

Accompanied by Jennifer Pierce, Brian visited the patient who tearfully expressed his appreciation saying there was no way he could ever repay him. Brian, also a bit emotional, graciously accepted his thanks.



Sheri Thomas, Mary Marker, Brian Vaughn and Jennifer Pierce

"Encouraging immediate EMS notification and compression only CPR from bystanders is an initiative of St. Rita's Chest Pain Center," said Mary Marker, Administrator of The Henry and Beverly Hawk Heart & Vascular Center. "Brian's lifesaving actions are exactly what we hope bystanders will do until professional help arrives. These are the kind of reports we love to hear."

In appreciation, Brian was presented a plaque for his lifesaving efforts.

### The Heart Specialists of St. Rita's

The Heart Specialists have been a part of St. Rita's Professional Services since 2009. They have played an essential role at St. Rita's Medical Center and the Heart Center. We currently have seven Board Certified Cardiologists and 2 midlevel providers who strive to provide the highest quality of care to their patients to prevent, diagnose and



The Heart Specialists of St. Rita's

treat diseases and conditions of the heart. Their direct communication with The Heart Center is reflective of the hard work and attention to the detailed care of every patient.

The Heart Specialists of St. Rita's is located inside the medical center alongside The Heart Center on the second floor of the K tower. We offer 12 exam rooms and direct access to The Heart Center with many amenities provided for the convenience of our patients.

The Heart Specialists continue to grow, delivering services to Lima, Ottawa, St. Marys, Delphos and, most recently, Celina. This allows for optimal care for surrounding patients and offers them the convenience of local offices.

One of our major areas of focus in 2012 has been the transition to the Epic electronic medical record system implemented at St. Rita's Medical Center. This system has allowed better access for our patients to follow their own regimen of care in the MY CHART portal of Epic. We are excited about what that means to our physicians, staff and, most importantly, our patients.

Strong professional practices flourish while our mission, vision and values come to life and achieve outcomes so vital to the operations of The Heart Specialists. We experienced rapid growth in 2012 providing even more inpatient procedures while our outpatient procedures remain some of the best in the area. Heart catheterization procedures including radial artery approach, angioplasty/stent, peripheral procedures, stress tests, tilt table, echocardiograms, TEE, and ICD/pacemakers.

The Heart Specialists continue to work with The Heart Center to improve the patient experience and services at St. Rita's Medical Center. We make it our promise to stay on a path of continued improvement in our practice and offer the finest care for each patient we care for.

### St. Rita's Medical Center Cardiac Rehabilitation Program Certified by Industry Leader

St. Rita's Medical Center is proud to announce the certification of its Cardiac Rehabilitation program by the American Association of Cardiovascular and Pulmonary Rehabilitation (AACVPR.) St. Rita's Medical Center was recognized for its commitment to improving the quality of life by enhancing standards of care. As of 2011, only 502 applicants in the United States have received this industry standard certification.

Cardiac rehabilitation programs are designed to help people with cardiovascular problems (e.g. heart attacks, coronary artery bypass graft surgery, etc.) recover faster and improve their quality of life. Cardiac Rehab programs include exercise, risk factor modification, education, counseling and support for patients and their families.

St. Rita's Medical Center Cardiac rehabilitation program participated in the one month application process which requires extensive documentation of the program's practices. The AACVPR Program Certification is the only peer-reviewed accreditation process designed to review individual programs for adherence to standards and guidelines developed and published by the AACVPR and other professional societies. Each program is reviewed by the AACVPR National Certification Committee and certification is awarded by the AACVPR Board of Directors.

Certified AACVPR programs are recognized as leaders in the field of cardiovascular and pulmonary rehabilitation because they offer the most advanced practices available. AACVPR Program Certification is valid for three years.

#### About AACVPR

Founded in 1985, the American Association of Cardiovascular and Pulmonary Rehabilitation is a multidisciplinary organization dedicated to the mission of reducing morbidity, mortality and disability from cardiovascular and pulmonary disease through education, prevention, rehabilitation, research and disease management. Central to the core mission is improvement in quality of life for patients and their families.

### **Nuclear Cardiology**

Nuclear Cardiology plays a vital role in the diagnosis of heart disease. Nuclear cardiology studies use noninvasive techniques to assess cardiac blood flow, evaluate the pumping function of the heart, as well as visualize the size and location of a heart attack.

#### **Myocardial Perfusion Imaging**

Myocardial perfusion images are combined with exercise to assess the blood flow to the heart muscle. Exercise can be in the form of walking on the treadmill or riding a stationary bicycle. A "chemical" stress test uses a specific drug to exercise the heart muscle for those patients who are not able to physically exercise to their maximum heart rate.

A small amount of a cardiac imaging agent is injected into the blood stream during rest and during exercise or chemical stress. A gamma camera is used to measure the heart's uptake of the imaging agent during exercise or chemical stress and at rest. If there is significant blockage of a coronary artery, the heart muscle may not get enough of a blood supply during exercise. The decrease in blood flow will be seen on the images.

Myocardial perfusion studies can identify which patients are at an increased risk for a heart attack and may be candidates for invasive procedures such as coronary angiography, angioplasty and heart surgery. Nuclear cardiology studies continue to play an increasingly important role in the noninvasive diagnosis of coronary artery disease.

The Nuclear Medicine Department is accredited by the American College of Radiology, and is staffed by Certified Nuclear Medicine

#### **Technologists:**

Holly Watters, Grace Bailey, Amy Weadock, Angela McCluer, Tina Gilbert, Jessica Kopenhaver, and Jennifer Brandehoff, Manager -Denise Martz

# New Observation Unit dedicated to Low Risk chest pain patients

In March of 2012, low risk chest pain patients placed in observation status were relocated to 7B. By cohorting these patients on one unit, we could really focus the efforts of our nursing staff, and physicians, on patient education and moving these patients to a rule out diagnosis and timely discharge.

Overall length of stay improved, but was not yet at our goal. So in September 2012, care of these low risk chest pain patients was centralized to our Hospitalist group (Physicians and CNPs). The Hospitalist service provides a 24 hour in-house presence which allowed a timelier throughput process. The nurse practitioner collaborates with management, care facilitator, and the charge nurse, meeting daily at 0700, 1430, and 1800 to work toward a timely discharge.

Patients having a primary care provider and/or a specialist will be cared for by the Hospitalist during their observation stay. At discharge, the primary care provider/specialist will be notified that their patient has been an observation patient, is being discharged, and will be given a follow up appointment in their office.

Patients not having a primary care provider/specialist will be scheduled for a follow up appointment with an assigned primary care physician before discharge.

One of our goals for this program was to improve our overall chest pain observation observed to expected length of stay ratio to 1.0. As of this writing we have achieved and surpassed the goal, with a O/E of 0.98.

### Turbohawk

Dr. Rahman introduced a new interventional tool called the TurboHawk device to St. Rita. This device allows the interventionalist to perform a procedure called directional atherectomy, which is a minimally invasive treatment that removes the plaque of cholesterol from the clogged artery and restores blood flow in the native vessel. By removing the plaque, the lumen of the artery is widened and the vessel is preserved.

The catheter used to perform the procedure includes a directional cutter which works as a razor that shaves the plaque of cholesterol building up inside the vessel.

In a recent study (DEFINITIVE LE) that is considered the largest peripheral atherectomy study conducted to date, the device has proven to be an effective frontline therapy in treating peripheral arterial disease (PAD) in diabetics and non-diabetic patients. In this study, the 12-month patency results were comparable to those reported in stent studies. The advantage of the directional atherectomy technique is that many times you don't have to leave a stent in the treated artery; hence, preserving future therapeutic options in that artery. This is particularly important in diabetic patients who tend to have more advanced PAD, are more difficult to treat, and tend to have recurrence of blockage in the arteries.

The American Heart Association identified PAD as a major health problem affecting approximately 10 million people in the U.S., and is associated with increased rate of heart attack, stroke, amputation and death.

PAD occurs when arteries of the legs become narrowed or blocked by cholesterol plaque. These blockages can result in severe pain, limited physical mobility and non-healing leg ulcers.



Sam Rahman, M.D., FACC

### **Spiritual Care**

#### Meeting your spiritual and emotional needs.

At St. Rita's Medical Center, we understand that your spiritual and emotional wellbeing is an important part of the healing process. That's why we offer professionally trained spiritual care experts who are prepared to help you and your loved ones during challenging times.

#### We are here for you

In times of change, crisis or uncertainty, many people find it helpful to speak to someone. Our Chaplains are available to help you cope with grief, find a new sense of meaning and much more.

- Finding a new sense of meaning and purpose
- Explore your connection with the Divine
- Discover hope
- Reconcile and forgive
- Coping with grief and suffering
- Address concerns about death and the afterlife
- Deal with guilt or hopelessness
- Make important heath care decisions

#### **Unique and personal**

Spirituality can be defined as the way you find meaning in life's experiences. Because we all have unique spiritual or religious backgrounds, the way we make important health care decisions, as well as find meaning and hope, varies from person to person. That's why the members of our spiritual care team, though rooted in their own faiths, are knowledgeable and respectful of different religions and world views. They provide ministry to all people, drawing upon the unique and personal belief systems of those they serve.

#### **Our mission**

St. Rita's Medical Center is dedicated to continuing the healing ministry of Jesus. For 92 years St. Rita's has been steadfast in its mission of caring for the poor, the elderly and the vulnerable members of the community and to improving the health of the many communities we serve. The Medical Center continually strives to ensure all residents of West Central Ohio have access to advanced medical technology and quality care.

#### **Core Values**

- Compassion
- Excellence
- Human Dignity
- Sacredness of Life
- Service
- Justice

### **Clopidogrel Testing**

#### About the Drug

Clopidogrel (Plavix®) is used for patients with unstable angina, a condition in which your heart does not receive enough blood flow or oxygen, and can lead to a heart attack. Typically, unstable angina causes chest discomfort as a result of decreased blood flow through the coronary arteries of the heart. The decreased blood flow can damage the heart muscle.



Clopidogrel keeps platelets from sticking together and forming clots that could block blood vessels leading to the heart muscle. This helps blood and oxygen continue to reach the heart muscle. Additionally, some individuals have small tubes, called stents, placed in the coronary arteries of the heart to help maintain blood flow and increase the flow of oxygen to heart muscle. The stents can "clot off" resulting damage to the heart and potentially a fatal heart attack. Clopidogrel helps prevent this.

Clopidogrel is a prodrug, meaning it is inactive and must be metabolized to the active, functional, form in the body.

#### **About the Gene**

The gene of interest is called cytochrome P450-2C19 (CYP2C19; pronounced sip two see nineteen). This gene results in the formation of a metabolizing enzyme. This metabolizing enzyme is responsible for converting clopidogrel to its active form.

#### **About the Drug-Gene Interaction**

There have been a number of single nucleotide changes, SNPs

("snips"), found for the CYP2C19 gene. Some of these SNPs result in the production of an enzyme that has lost its function. That is, the enzyme is not able to convert clopidogrel to its active form.

It has been shown that for individuals that have had stents placed in the arteries of their hearts, there is a relationship between CYP2C19 enzyme function and the risk of clots and heart damage. Individuals that have the loss-of-function form of the enzyme are at increased risk of clot formation and heart attack. A large majority of individuals, about 70%, have normal enzyme activity. However, roughly 30% of individuals have decreased enzyme activity. It is this group of people that do not benefit optimally from clopidogrel treatment and should be switched to another medication that will benefit them.

There is a genetic test that can be used to identify patients that have reduced enzyme activity.

Genetic testing is available to look specifically at the gene responsible for the production of the CYP2C19 enzyme. While not everyone requires genetic testing for CYP2C19, those that have had stent placement (a procedure called percutaneous coronary intervention; PCI) are appropriate candidates, especially those who previously have had stent placement in multiple arteries of the heart or who have previously experienced a poor (adverse) outcome, including a clot of a stent. Additionally, individuals with other high-risk diseases affecting blood vessels likely should undergo genetic testing to determine if clopidogrel is converted to its active form.

It appears that any level of decreased CYP2C19 enzyme function should result in the use of an alternative to clopidogrel for antiplatelet treatment. It is important to talk to your doctor and pharmacist about this. It has been shown that for individuals that have had stents placed in the arteries of their hearts, there is a relationship between CYP2C19 enzyme function and the risk of clots and heart damage.

### Home is where the Heart (Center) is

It came without warning. Around halftime of football games on TV that Sunday, Sept. 23, Janet Maag felt like something wasn't quite right. "'I wonder what a heart attack feels like," she asked her husband, Bob. "Let's go find out," he replied, and they headed to the car to get help

when she collapsed.



"She just opened up the car door and then collapsed right there on the garage floor. "It about made my heart stop," he said. "There was no response out of you at all," he told her. "No heartbeat, no pulse, nothing at all."

Bob called 911, then did CPR until the Cairo fire department arrived.

"He saved me, really," Janet said during a recent checkup.

"That will cost me in the long run," he replied with a laugh. She was brought to St. Rita's Emergency Department, then on to the Cath Lab where Dr. Ossama Rahman put in a stent. Her body temperature was then lowered to promote healing. "They put her on ice," Bob said.

Dr. Rahman said Maag had a complete blockage in one artery, he discovered during catheterization, a process where dye is injected into the heart to allow a better view of blood flow.

"I opened the artery and put a stent in it. That was done quickly and she did fine with that, and then we cooled her down for 24 hours," Rahman said.

That one-two combination of immediate intervention followed by inducing hypothermia is recommended by the American Heart Association and the American College of Cardiology. She just opened up the car door and then collapsed right there on the garage floor. While at the University of Arizona, Dr. Rahman worked with Karl Kern, M.D. Kern is a pioneer in this more aggressive approach. In fact, Kern and Rahman co-authored a paper, published in 2009, showing that early cardiac intervention can improve long-term survival rates.

Some cardiologists argue that, especially in comatose patients, there's little point in taking aggressive action. Kern and Rahman say it's hard to get a good diagnosis that early in the crisis.

"Some will argue there's only a one percent chance, well, give them that chance," he said.

"The key issue is the combination of two things, number one, taking her to a cath lab without any delay and opening the artery quickly enough that she could benefit from that," Dr. Rahman said. "And then the hypothermia."

Cooling the body down can prevent additional neurological injury, mainly in the brain.

"They sustained a major hit," Dr. Rahman said. "Huge metabolic disturbances take place there which could lead to injury of the cells. By



cooling patients down you prevent that cascade of events."

After her initial hospital stay, Maag needed bypass surgery. Her family's experience with St. Rita's Heart Center made them comfortable in choosing Dr. Farzin Fotouhi to do the procedure.

Janet said the family heard nothing negative about Dr. Fotouhi when asking around. "Everybody

praised him," she said. "I've not heard one bad thing about him."

Bob heard the same thing.

Some will argue there's only a one percent chance, well, give them that chance. "As I talked to more of our neighbors on that, I found out, for the surgery like that, our one neighbor had Dr. Fotouhi for his a surgeon, then another one, then another one and had quite a few of them in the area." Not only was he highly recommended, he had a local connection. His neighbor is Bob's sister's neighbor. "I've got to do good, you know where I live," he told the family.

The Heart Center's reputation overcame any doubts they had.

"Because you are a small community, you think, 'OK, am I going to get the best care here?" Janet said.

The Maags' daughter, Joni, lives in Cleveland and initially thought it would be better for her mom to be treated there. But after doing research and knowing how well she was treated after her heart attack, they were confident staying close to home.

In November, Janet Maag had triple-bypass surgery. Now the focus is on recovery. But St. Rita's will be there for her through a home health nurse. That was a pleasant surprise for Janet, having someone to check up on her and make phone calls if her heart monitor indicates a problem.

"It's great for the family because they don't know what to do with you after you get home," Janet said. "It's a comforting thing, you know, I think for everybody. I really like the home health aspect of it."

Before September, the Maags had no idea there was such quality heart care close to home. Now they are singing its praises.

"I just can't praise everybody here enough for what we have all been through," Bob said.

When asked if there's one thing they appreciated most from the care at St. Rita's Heart Center, Janet, Bob, and daughter Joni agreed.

"The compassion of a lot of the staff, the nurses and what not," Joni said. "Sometimes you go into hospitals and they are very cold or just get

Because you are a small community, you think, 'OK, am I going to get the best care here? in and get out. They have all been very personable and take an interest in you. So, for me, I think that was comforting to see."

Dr. Rahman said compassion is part of taking care of the patients and the family.

"You can imagine the emotional stress that they undergo. You have to be very understanding, not only in the medical part, but the emotional, social aspects," he said. "We have a team that is superb. They are very compassionate. They take care of the patient and the family."

Bob also liked the idea that those compassionate caregivers were his neighbors.

"You start talking to these nurses now; some of them don't live very far from where we live really." "One is maybe three mile down the road from us, one of the nurses and another one is a cousin to one of the guys I work with."

Now the family is looking ahead, humor intact. Bob says he knew Janet would survive.



"You can't get out of this relationship that easy," he said. To Dr. Rahman, her recovery is a result of using proven best practices.

"You give those patients a chance, and Janet Maag is a wonderful example of what can happen. She's doing very well. " You start talking to these nurses now; some of them don't live very far from where we live really. One is maybe three miles down the road from us, one of the nurses and another one is a cousin to one of the guys I work with.

### **Dr. Shaheen and St. Rita's Cath Lab Team Perform First Impella Procedure**



Paul Schulien, first Impella patient

Dr. Adel Shaheen and a St. Rita's cath lab team performed the first Impella 2.5 Cardiac Assist device procedure on May 3, 2012. The Impella is a temporary device used to aid the heart in pumping blood when the patient's heart is determined to be too weak.

The device supports a patient's cardiac function, while the cardiac interventionalist performs an angioplasty with reduced risk. During an angioplasty procedure, the heart is deprived of blood flow, which can result in heart failure or death. The Impella 2.5 ensures that blood flow is delivered to the body, which may prevent such negative outcomes. Additionally, a patient's blocked arteries can be treated without the need for bypass surgery or even general anesthesia.

Sometimes referred to as the world's smallest heart pump, it is only 6.4mm in diameter, and fits inside a catheter. The pump is passed through the femoral artery and is inserted into the left ventricle. The pump's electric motor which can pump approximately 2.5 liters of blood



Staff in Cath Lab control room monitoring the patient during the Impella procedure per minute is attached to a 3mm wire which extends out of the patient and is attached to a battery and control pack. The second procedure took place at St. Rita's on May 4, 2012.

#### Team:

Andy Nagel, RT Dave Ridenour, RN Tim Morman, RN Janelle Fields RT Deb Calvelage, RN Adel Shaheen, M.D.

Abiomed Rep. Kris Stiver, RN



Paul's family with Dr. Shaheen





Impella placement in the heart

### **Echocardiography Lab**

#### St. Rita's Medical Center Receives Echocardiography Accreditation by the IAC

Cardiovascular diseases are the No. 1 cause of death in the United States. On average, one American dies every 39 seconds of cardiovascular disease – disorders of the heart and blood vessels. The American Heart Association estimates that the direct and indirect cost for cardiovascular disease in the U.S. for 2010 was \$503.2 billion.

Early detection of life threatening heart disorders and other diseases is possible through the use of Echocardiography procedures. While these tests are helpful, there are many facets that contribute to an accurate diagnosis based on Echocardiography testing. The skill of the Echocardiography sonographer performing the examination, the type of equipment used, the background and knowledge of the interpreting physician and quality assurance measures are each critical to quality patient testing.

**St. Rita's Medical Center has been granted a three-year term of accreditation in Echocardiography in the areas of Adult Transthoracic and Adult Transesophageal by the Intersocietal Accreditation Commission (IAC).** 

Accreditation by the IAC means that St. Rita's Medical Center has undergone a thorough review of its operational and technical components by a panel of experts. The IAC grants accreditation only to those facilities that are found to be providing quality patient care, in compliance with national standards through a comprehensive application process including detailed case study review.

IAC accreditation is a "seal of approval" that patients can rely on as an indication that the facility has been carefully critiqued on all aspects of its operations considered relevant by medical experts in the field of Echocardiography.





3D image of the Aortic Valve





*3D image of Mitral Valve* 



2D image of the Mitral Valve IAC accreditation is widely respected within the medical community, as illustrated by the support of the national medical societies related to Echocardiography, which include physicians and sonographers. Echocardiography accreditation is required in some states and regions by the Centers for Medicare and Medicaid Services (CMS) and by some private insurers.

Echocardiography procedures are performed within accredited facilities, because for many facilities accreditation remains a voluntary process.

#### **Technical Staff:**

Jennifer Koenig, D. Michelle Walker, Megan Carpenter, Maile Miller, Brad Cross, Andria Utendorf, Nicole Hoying Manager: Denise Martz The staff members are registered by the American Registry of Diagnostic Medical Sonographers.

#### **Medical Staff**

Physicians that interpret (read) adult echocardiograms are Dr. Zoheir Abdelbaki, Medical Director, Dr. Adel Shaheen, Dr. J. Scott Wolery, Dr. Julius Kato, Dr. Hemraj Makwana, Dr. Bekele Ayele, Dr. Sam Rahman



### **Vascular Lab**

#### **St. Rita's Medical Center Vascular Laboratory Receives Vascular Testing Accreditation by the IAC**

Cardiovascular diseases are the No. 1 cause of death in the United States. On average, one American dies every 39 seconds of cardiovascular disease – disorders of the heart and blood vessels. Stroke, a disorder of the blood supply to the brain, is the third leading cause of death and the leading cause of disability in the country, with nearly 800,000 new strokes occurring annually.

Early detection of life threatening heart disorders, stroke and other diseases is possible through the use of Vascular Testing procedures. While these tests are helpful, there are many facets that contribute to an accurate diagnosis based on Vascular Testing. The skill of the technologist performing the examination, the type of equipment used, the background and knowledge of the interpreting physician and quality assurance measures are each critical to quality patient testing.

**St. Rita's Medical Center Vascular Laboratory has been granted a three-year term of accreditation in Vascular Testing in the areas of Peripheral Arterial Testing, Extracranial Cerebrovascular Testing, and Peripheral Venous Testing by the Intersocietal Accreditation Commission (IAC).** 

Accreditation by the IAC means that St. Rita's Medical Center Vascular Laboratory has undergone a thorough review of its operational and technical components by a panel of experts. The IAC grants accreditation only to those facilities that are found to be providing quality patient care, in compliance with national standards through a comprehensive application process including detailed case study review.

IAC accreditation is a "seal of approval" that patients can rely on as an indication that the facility has been carefully critiqued on all aspects of its operations considered relevant by medical experts in the field of Vascular Testing. IAC accreditation is widely respected within the medical community, as illustrated by the support of the national medical societies related to Vascular Testing, which include physicians, technologists and sonographers. Vascular Testing accreditation is required in



Peripheral Artery Testing





Peripheral Venous Testing

some states and regions by the Centers for Medicare and Medicaid Services (CMS) and by some private insurers.

#### **Technical Staff:**

Lisa Leugers, Penny Howard, Ann Baker, Kathy Eversole, and Jeanna Worthington Manager-Denise Martz

The sonographers are registered by the American Registry of Diagnostic Medical Sonography and/or Cardiovascular Credentialing International.

#### **Medical Staff:**

Dr. Thomas Church, Medical Director, Dr. Kevin Killough, Dr. Pavan Punukollu, Dr. Patrick Rao, Dr. Nicole Nelson, Dr. Aimee Hawley, Dr. Andrew Cook, Dr. Brett Rush, Dr. Peter Knabe, Dr. Hicham Moukaddam, Dr. Patricia McCutchan, Dr. Jeffrey Miller





Extracranial Cerebrovascular Testing



Computer Workstation

### **Cardiovascular Education**

#### **Cardiovascular Medicine and Surgery Grand Rounds**

At St. Rita's our Cardiology Grand Rounds is multidisciplinary, is focused on cardiovascular topics and case presentations. The conference is open to all physicians, nursing staff, allied health care staff, and EMS personnel. AMA PRA Category 1 CreditTM is approved for physicians and Contact Hours are provided for the nursing and allied health care staff. In 2012 Grand Rounds was held every other month. Topics included: Risk Factor Modification – What Does My Patient Need to Know?, Update in Cardiovascular Imaging Technology, Anticoagulation Update, and Case Studies in Systolic & Diastolic Dysfunction.



Sam Rahman, M.D., FACC



Speakers included: Nancy Bonifas, RN, BSN, CTTS, Ann Turnwald, RD, LD, Nicole Nelson, M.D., Laura Schalliol, PharmD, and Julius Kato, D.O., MPA-HCA, FSCAI, FACC

Average attendance was 25. Cardiovascular Medicine & Surgery Grand Rounds will continue to be held throughout 2013.

#### **Echo Conferences**

Echo Conferences are held every other month with echocardiology staff, physicians, nursing and allied health care staff attending. Discussion leaders for these conferences were Dr. Zoheir Abdelbaki, Dr. Julius Kato and Dr. J. Scott Wolery. Topics discussed in 2012 included: Open Your Mind to an Awareness of LV Outflow Tract Obstruction, What's Up with Acute Mitral Valve Regurgitation, Aortic Insufficiency in the Young Adult, Don't Leave Me Broken Hearted Tonight, Aortic Dissection: Cutting Through the Categories, and Serial Echocardiograms: Not Just for Breakfast.

AMA PRA Category 1 CreditTM is approved for physicians and Contact Hours are provided for nursing and allied health care staff. Average attendance was 15.

#### Cardiovascular Symposium '12

The 12th Annual Cardiovascular Symposium was sponsored by St. Rita's on April 12, 2012 at the UNOH Event Center. Dr. Mark Winerman served as Masters of Ceremony. The morning started with Accountable Cardiovascular Care with Jon Fishpaw, MPA, The Evolution of Cardiothoracic Surgery by Hector Dox, M.D., Blood Management in Cardiovascular Patients with Richard Capone, M.D., FACG, Management of Atrial Arrhythmias with Ralph Augostini, M.D., FACC, and Stroke Centers with Ahmad Anouti, M.D. The afternoon sessions included A Day in the Life of an Interventional Cardiologist with J. Scott Wolery, M.D., FACC and Sudden Cardiac Death in Teen Sports with Naomi Kertesz, M.D.

Attendance was over 300 for the symposium in 2012.



### **Department Review 2012**

Total Patient Visits
Admissions
Average Length of Stay
CVICU Beds
Interventional Unit Beds16
CCU Beds
CCU Stepdown Beds18
K Tower Telemetry Beds124

#### NON-SURGICAL PROCEDURES

Diagnostic Catheterizations
Interventional Cardiac Procedures
Interventional Peripheral Vascular Procedures

#### SURGICAL PROCEDURES

Coronary Artery Bypass Graft16	6
Valves (Replacements and Repairs)	9
Other (MAZE, DOR, Aneurism Repair, etc.)1	1

#### ELECTROPHYSIOLOGY PROCEDURES

Electrophysiology Studies and Ablations	.108
Permanent Pacemaker Implants	.239
Implantable Cardiac Defibrillator Insertions	79
(including 26 biventricular ICD implants)	
Cardioversions	.240

#### DIAGNOSTIC AND IMAGING PROCEDURES

Stress Tests	22
Echocardiograms (Echos)	1
Electrocardiograms (ECGs)	7

#### PCI Risk-Adjusted Mortality and Unplanned Bypass Surgery

After adjustment for complexity and severity of illness, the mortality rate of PCI procedures and the incidence of unplanned bypass surgery at St. Rita's Medical Center are comparable to national averages, reported by the American College of Cardiology National Cardiovascular Registry (ACC-NCDR) 2011 report.

PCI Characteristics and Complications	SRMC (%)	Other (%)
Blood Transfusion	1.4	1.8
Stroke	0.2	0.2
Any vascular complications	0.9	1.5
Emergency CABG	0.5	0.3





### BENCHMARKING ST. RITA'S MEDICAL CENTER VS OTHER LARGE (>500 PCI/YR) ACC-NCDR HOSPITALS

Baseline Patient Characteristics	St. Rita (%)	's Other (%)
Age (>65 yrs)	48	51
Prior Myocardial Infarction	32	30
Heart Failure	8	12
Diabetes	32	37
Dyslipidemia	87	79
Family History of CAD	32	25
Hypertension	83	82
Peripheral Artery Disease	15	13
Chronic Lung Disease	17	15
Current Tobacco Use	31	28
Cerebrovascular Disease	13	13

Receiving timely and appropriate care before and after percutaneous coronary intervention (PCI) is an important part of maintaining optimal outcomes. Pre and post procedure interventions have been recognized by the American College of Cardiology as important process measures.

#### **Core Process Measures for Acute Myocardial Infarction**

Process Indicator	St. Rita's	Other
Aspirin at arrival	100%	99%
Aspirin prescribed at discharge	100%	99%
Statins at discharge	99%	98%
Pre Hospital EKG	29.7%	25.3%
Pre Hospital STEMI activation	47.5%	37.7%
Primary PCI within 90 minutes of arrival	96%	94%

Source Comparative Data: Hospital Compare January 2013

#### **External Benchmarking**

Physicians and staff of St. Rita's Medical Center feels it is very important to the organization and the patients and families we serve to compare our outcome results against national studies. St. Rita's Medical Center submits data that can be reviewed by the general public, to the Centers for Medicare and Medicaid Services. St. Rita's Medical Center American College of Cardiology, Society of Thoracic Surgeons, ACTION Registry and the Joint Commission Core Measures Registry.

### The Mended Hearts, Inc.

#### In Memory of Dr. Robert D. Biggs – Mended Hearts President & Friend

In 1991, Mended Hearts began its local Chapter 111 here in Lima. What is Mended Hearts? This nationwide organization partners with hospitals and rehab facilities to help those affected by heart disease to have a positive patient-care experience. They provide services through visiting programs & support group meetings. The meetings alternate each month between St. Rita's Medical Center and Lima Memorial Hospital and the group has 65–75 members who regularly attend meetings. This program has been a great asset to our hospitals and community.

Dr. Robert D. Biggs (a semi-retired physician at that time) came on board because he, himself, had bypass surgery in 1990. He had a remarkable passion for the Mended Hearts (MH) program and enjoyed helping heart patients by visiting with them and setting up educational support group meetings. He aspired to help people understand that there CAN be a rich & rewarding life after heart disease. In 1996, Dr. Biggs set up an "Accredited Visitors Class" with 15 members in attendance for MH Volunteers. Vicki Reindel was a part of that class in 1996. Barb Markward has also been a part of MH before I came to know it, and both of these ladies have been supportive in watching it grow & succeed over the years, by giving valuable time & energy towards its success. I had the privilege of coming on board with MH myself in 2006 as the secretary for the group.

I'm sure when Dr. Biggs began volunteering for MH, he had no idea he would end up dedicating over 20 years of his life to this organization. There was a big heart behind this gentle soul, and everyone who knew him could see the sparkle in his eye for the MH program. He would stop by The Heart & Vascular Center and you could hear the excitement in his voice as he started telling me who would be speaking at the next Mended Hearts meeting. Come rain or shine, I would get a visit from Dr. Biggs, who would bring me a letter he had typed and sit to chat for a while. He shared stories with me about his family, children, and grandchildren. Even towards the end of his life, when walking became very difficult and his visits to the heart patients had come to an end, he would still stop up to the hospital to visit me. His breath was labored and he couldn't walk very far, but he still cared about the Mended Hearts program and wanted to make sure the meeting was taken care of.

Sadly, Dr. Robert D. Biggs passed away on May 22, 2012. He was 85 years young. At the funeral home, his beloved wife Jennie told me that even during the week before his death, Dr. Biggs was calling over to the hospital to make sure the catering had been taken care of for the next meeting.

Why did Dr. Robert Biggs have such a passion for Mended Hearts? I think it was because Mended Hearts offers HOPE. Hope is a powerful force. When dedicated volunteers share that hope, Mended Hearts can impact lives. And that's exactly was Dr. Robert Biggs did .... He impacted lives.



Thank you, Dr. Biggs, for your many years of dedicated & selfless service to Mended Hearts Chapter 111

Dr. Biggs (seated) is pictured with Barb Markward, RN coordinator and Sheri Thomas, Outreach Coordinator. Mended Hearts supports today's medical students in their journey to become tomorrow's doctors and nurses.

### **Stressing the Importance of Early Heart Attack Care & Compression Only CPR in 2012**

Prevention & Awareness are key words for outreach. Our goal, at The Henry & Beverly Hawk Heart & Vascular Center, is to provide teachable & motivational moments to our fellow community members in hopes of preventing the risk factors that can lead to a heart attack. In 2012, our



Go Red!

focus fell on instructing the public to recognize the prodromal stages of a myocardial infarction (with early heart attack care) and what to do in the event you witness someone who needs help.

We encouraged the public to learn the signs & symptoms of a heart attack and what steps to take to assist with lifesaving.

According to the American Heart Association, only 1/3 of cardiac arrest victims get the help they need in the moments immediately following an incident. An estimated 31,000 Americans die each year of cardiac arrest. We all have the tools right in front of us, our own hands, to change this statistic. By performing Compression–Only CPR, a victim's chances of survival can double or even triple. We also demonstrated the use of an AED (automated external defibrillator) and its life–saving abilities by delivering an electric shock through the chest to the heart.

#### A few of the events we participated in for 2012 are:

National Wear Red Day Festivities – February 3, 2012
The February Freeze 5K Run/Walk – February 25, 2012
Community CPR Training Event at St. Rita's – April 21, 2012
The Spring Kiwanis Health Fair at Ottawa Glandorf High School – April 28, 2012
The Delphos Mini–Relay for Life – May 11, 2012
The Lima Community Health & Wellness Fair – May 9, 2012
St. Rita's Resource Library Mini–Annie CPR & DVD instruction – continuous

The Allen County Fair WCOHRA Van for Senior Citizens Day – August 23, 2012 The Fall Kiwanis Health Fair at Ottawa Glandorf High School – September 29, 2012 The Lima Ford Engine Plant Health & Education Fair – December 6 & 7, 2012

In addition to the Heart Fair events we attended over the past year, there are many valuable meetings, educational events, & conferences that have taken place throughout 2012.

Our local Mended Hearts Chapter 111, meets monthly with topics ranging from "What Are Triglycerides?" to "Peripheral Vascular Disease".

The 12th Annual Cardiovascular Symposium was held at UNOH, bringing in over 350+ area medical personnel and a day full of CEU's and excellent speakers. The Cardiovascular Medicine & Surgery Grand Rounds held 6 events in the Auxiliary Conference Center and brought attention to "Risk Factor Modification", "Update in Cardiovascular Imaging Technology", and Case Studies in Systolic & Diastolic Dysfunction". Jennifer Pierce, RN–EMT, from Lima Allen County Paramedics talked with the Lima Noon Optimist Club and educated them on the importance of Compression–Only CPR. The list goes on & on.

One of the most important messages we would like for everyone to retain is the cold hard truth – that a heart attack is DEATH of the heart muscle. Delay and denial can be deadly. Learn the signs & take action! Minutes matter! Don't wait to call 9–1–1. It can help you save a life – maybe even your own.







Through our community programs, screenings and presentations in 2012, The Henry & Beverly Hawk Heart & Vascular Center educated people from all walks of life about heart health.

### Multidisciplinary Chest Pain/Stroke Center Committee

#### "Compress The Chest...We'll Do The Rest"

In 2012 our Chest Pain Stroke Center Committee chose the above slogan to emphasize the importance of by stander CPR in saving lives and preserving heart muscle for those suffering sudden cardiac arrest. Sudden cardiac arrest (SCA) is a public health crisis, striking an estimated 295,000 American each year. Nationally, 92% of those who suffer SCA die before reaching the hospital. Improved survival rates require a collective community response by the general public, first responders, EMS services and in-hospital caregivers. Success begins with public bystanders. Communities with higher bystander CPR participation have higher SCA survival rates. Eighty percent of SCA events occur in the home, which reinforces why everyone should recognize and know how to call 911, and start chest compressions.

Our multidisciplinary committee which consists of area EMS personnel and medical center medical staff, allied health practitioners, support personnel and media relations worked to promote and educate our communities on starting compression only CPR and calling 911. In April of 2012 a compression only CPR training was offered to the general public with members of our committee providing the training. Because compression only CPR can be taught in minutes, we purchased several CPR mannequins to use at health fairs in our Heart & Vascular Center booth.

In addition to community education and training, we donated AEDs to area nonprofit organizations and provided the necessary training. 2012 also saw the donation of a 12 lead EKG monitor to a local EMS company.

Our committee focus in 2013 will be to establish a formal regional system of care for cardiac arrest and STEMI patients that will encompass all the EMS providers and hospitals in our 10 county service area.



#### Chest Pain/Stroke Center Committee

Julius Kato, D.O., MPA-HCA, FACOI William Tucker, M.D., FACEP Mary Marker, BBA, CRT, CPFT, RCP Vicki Reindel, RN, BSN Cindy Mefferd, RN, BSN, CPHQ, CCM Joyce Fishpaw, RN, CCRN, BSBA, MBA Barb Markward, RN, BSN Karen Vorst, RN, BS, CEN Ashley Schulte, RN, BSN, MSN Cynthia Rahrig, RN, BS, HCM David Faulkner, ACSM Joanna Wessell, RN Tom Geis, MT (ASCP) Ryan Wurst, RN Sheri Thomas Deb Calvelage, RN

### Two places at once: Technology brings stroke experts to St. Rita's anytime

The key to surviving a stroke is getting the right care quickly. At St. Rita's we're using technology to have patients seen by neurosurgeons at OSU Medical Center without ever leaving Lima.



Nurses Cheryl Godwin and Ashley Schulte, Education/ trainer look at the TeleStroke technology used to transfer leve video CT scans and other information.

When a suspected stroke patient arrives in the emergency department at St. Rita's Medical Center, a "stroke alert" is activated at both Ohio State and St. Rita's, which mobilizes a team of stroke experts who, through the use of telemetry and real-time testing, video conferencing and patient interview, can determine the best treatment options.

"Any stroke patient that comes in within 24 hours of their symptoms, we have the ability to use the telestroke monitor," St. Rita's Emergency Department Education Coordinator Ashley Schulte said. "The nurses then work with

the doctor to do the stroke scale. They're basically the hands for the doctor," she said.

The primary goal is to administer a clot buster drug within three hours of their symptoms. The whole goal is to send them down to Ohio State for a couple days, then come home for rehabilitation, so they can be close to home.

Ohio State's stroke team, which includes critical care physicians and vascular neurosurgeons, is available around the clock.

Any stroke patient that comes in within 24 hours of their symptoms, we have the ability to use the telestroke monitor. St. Rita's Patient Flow Manager Sam Rahrig saw the benefit of the program from a patient's perspective. A family member was among the first stroke patients at St. Rita's after the system was implemented.

"I was in the Emergency Department waiting for her to arrive," Rahrig said. "It was classic stroke. She couldn't move her arm, she couldn't speak." While Rahrig has faith in St. Rita's staff, she was glad to have another team of doctors on board.

"Knowing that a higher level of care was going to be looking at her, it was very comforting," she said. "She was being taken care of here and in Columbus at the same time. That was the best part, they were working together."

With quick treatment, Rahrig's relative recovered quickly. "She was transferred back here for rehab for 10 days then she went home. Physically, she's doing very well," Rahrig said.

Schulte said similar collaboration took place in the past by phone, but the ability for doctors to see the patient, and vice-versa, combined with real-time information on the patient's condition, makes it more effective.

"This way, they can visualize and see the patient," she said. "It kind of engages their doctors a little bit more.

"It's a better connection, it's better care for the patient, more options for the patient." She was being taken care of here and in Columbus at the same time. That was the best part, they were working together.

### **Pediatric Cardiologists Bring Their Healing to Their Patients**

#### Timothy F. Feltes, M.D., FAAP, FACC, FAHA

Dr. Feltes is affiliated with Nationwide Children's Hospital.

He is a graduate of Kent State University and the Medical College of Ohio in Toledo. He is certified by the American Board of Pediatrics in general pediatrics and pediatric cardiology.

#### Kerry L. Rosen, M.D., FACC, FAAP

- Dr. Rosen is the director of Outpatient Cardiology Services for The Heart Center at Nationwide Children's Hospital.
- He is a graduate of the University of Florida College of Pharmacy and University of South Florida College of Medicine. He completed his residency in 1993.
- He is certified by the American Board of Pediatrics in general pediatrics and pediatric cardiology.

#### James R. Hennessy, M.D.

- Dr. Hennessy is a graduate of the University of Akron and the University of Cincinnati School of Medicine.
- He served as a pediatric cardiologist for the U.S. Armed Forces in the Second General Hospital in Landstuhl, Germany.
- He is certified by the American Board of Pediatrics in general pediatrics and pediatric cardiology.

#### Fouad Butto, M.D.

Dr. Butto has studied at Case Western Reserve University School of Medicine in Toledo and trained at the Rainbow Babies and Children's Hospital in Cleveland and the University of Toledo Medical Center.

He is certified by the American Board of Pediatrics in pediatric cardiology.

#### Nasser Moiduddin, M.D.

Dr. Moiduddin graduated from the University of Maryland and Pennsylvania State University College of Medicine. He did his internship and residency at the Cleveland Clinic.

He is certified by the American Board of Pediatrics in pediatric cardiology.

#### Gary Butchko, M.D., FAAP, MACC

Dr. Butchko is a graduate of The Ohio State University College of Medicine.

He served a Pediatric Cardiology Fellowship at Indiana University James Whitcomb Riley Hospital for Children

He has served as Chief, Pediatric Cardiologist in the United States Air Force.

He is certified by the American Board of Pediatrics in general pediatrics and pediatric cardiology.



Dr. Timothy Feltes



Dr. Kerry Rosen



Dr. James Hennessy



Dr. Fouad Butto



Dr. Nasser Moiduddin



Dr. Gary Butchko

### **Cardiology Specialists**

## Advantage Cardiology, Inc.



#### Ebere Ugwanyi, M.D., FACC

Dr. Ugwanyi, resident in Lima for the past four years, has recently opened up a private cardiology practice, Advantage Cardiology, Inc., in Lima. He received his medical education at the University of Ibadan, Nigeria.

Upon moving to the United States, he was responsible for running the Howard University Hospital arm of some of the clinical trials in cardiology. Subsequently, he completed the internal medicine internship and residency, as well as cardiovascular diseases fellowship, at Howard University Hospital in Washington, DC. Dr. Ugwanyi's major interest is in the prevention of heart failure by treating or eliminating the risk factors that cause heart failure. He has board certification in both internal medicine and cardiovascular diseases. His office is located at 920 W. Market Street, Suite 330, Lima, OH 45805. He can be contacted at 419-222-1100.

### Cardiology Consultants Inc.



### Adel Shaheen, M.D.

Dr. Shaheen is an interventional cardiologist and has practiced in Lima since 1991. He completed his fellowship in Cardiology and received his Internal Medicine degree from Wright State University.

He received his medical degree from the University Cairo - Egypt Medical School. Dr. Shaheen also received a degree in nuclear medicine from Vanderbilt University.

### Ohio Cardiothoracic & Vascular Surgeons Inc



#### Farzin Fotouhi, M.D., FACS Minimally Invasive Cardiac Surgery and Atrial Fibrillation Surgery

Dr. Fotouhi is a cardiothoracic surgeon and has practiced in Lima since 1999. He specializes in minimally invasive cardiac surgery

and atrial fibrillation surgery. He received his undergraduate and medical education from Tufts University in Boston and his M.D. degree in 1991. He completed his surgical internship and surgical residency in 1992 at St. Elizabeth Medical Center affiliated with Tufts Medical School. His Cardiothoracic Surgery Residency was completed in 1999 at Newark Beth Israel Medical Center in Newark, New Jersey.

Dr. Fotouhi is board-certified by The American Board of General Surgery and The American Board of Thoracic Surgery. He is a member of The Society of Thoracic Surgeons.



#### Ronald Pohl, M.D., FACS Endovascular Surgery and Peripheral Intervention

Dr. Pohl has been practicing vascular and cardiothoracic surgery in Lima since 1998, and specializes in endovascular surgery

and peripheral intervention. He graduated from Wright State University School of Medicine in 1985. He completed his general surgery residency at Good Samaritan Hospital in Cincinnati and his cardiothoracic residency at St. Luke's Hospital in Kansas City, Missouri, in 1992.

Dr. Pohl is an Ohio native and is board-certified by The American Board of General Surgery and The American Board of Thoracic Surgery. He is a member of The Society of Thoracic Surgeons.



#### Hector Dox, M.D.

Dr. Dox received his medical degree and completed his Surgical Residency at the University of Puerto Rico. In 1997 he completed his Cardiothoracic Surgery Residency at The Ohio State University, in Columbus

Ohio. He completed advanced training in Congenital Heart Surgery and Transplantation Fellowship at U.C.L.A. Medical Center in Los Angeles, California. Private practice has taken him to Florida, California and Mississippi. His areas of interest include minimally invasive valve surgery, endovascular repair of thoracic and abdominal aneurysms, beating heart surgery and transmyocardial laser revascularization. Dr. Dox joined Ohio Cardiothoracic and Vascular Surgeons, Inc. in November 2011. He is board certified by The American Board of Surgery and The American Board of Thoracic Surgery.







PA-C

Angie Brad Brehm, Bowersock, PA-C PA-C



Mundy, CCP

Beth Wilson. CCP CCP



Greg Davis, CCP

### The Heart Specialists of St. Rita's



#### Zoheir Abdelbaki, M.D., FACC

Zoheir Abdelbaki, M.D. is an invasive cardiologist who has been a member of St. Rita's medical staff for eight years. In October, 2009, he became a member of The Heart Specialists of St. Rita's.

Dr. Baki completed his medical degree at the American University of Beirut. He completed his internal medicine residency at the Washington Hospital Center, Washington, DC, and his cardiology fellowship at the University of Louisville. Dr. Baki is board certified in internal medicine, cardiovascular disease, and nuclear cardiology. Dr. Baki specializes in all cardiac diagnostic testing, including diagnostic cardiac catheterization. He is the Medical Director of the Echocardiography Lab and also the Cardiology Division Chief for St. Rita's.



#### Bekele Ayele, M.D., Msc.

Bekele Ayele, M.D., is an invasive cardiologist who joined the Heart Specialists of St. Rita's in December. 2010.

Dr. Ayele received his medical degree from Addis Ababa University at Gondar College of Medical Sciences in Gondar, Ethiopia. He completed his residency in Internal Medicine at St. Vincent Catholic Medical Center in Staten Island, New York. He also completed his fellowship in Cardiovascular Medicine from New York Medical College at St. Vincent Catholic Medical Center in New York, NY. Dr. Ayele is board certified in internal medicine, cardiovascular disease, and nuclear cardiology.

He is particularly interested in the management of coronary artery diseases, arrhythmias, valvular heart diseases, hyperlipidemia and interpretation of echocardiography. Dr. Ayele comes to St. Rita's with ability to perform cardiac catheterization procedures through the wrist/arm, in addition to the groin approach.



Dr. Kato is an invasive cardiologist, who joined the Heart Specialists of St. Rita's in August, 2009.

Dr. Kato completed an internal

medicine residency at Genesys Regional Medical Center.





His fellowship in cardiology was completed at the Deborah Heart and Lung Center in New Jersey.

Dr. Kato is Board Certified in internal medicine and cardiovascular diseases. In addition, he has post graduate training in public health and health care administration.

Dr. Kato has an interest in all aspects of diagnostic testing and treatment of cardiovascular diseases with special interest in congestive heart failure. Dr. Kato is the Medical Director of Non-Invasive Cardiac Diagnostics, Cardiac Rehab, and the Chest Pain Center.



#### Hemraj Makwana, M.D.

Hemraj Makwana, M.D., is an interventional cardiologist, who joined the Heart Specialists of St. Rita's in September, 2010. Dr. Makwana received his medical degree at Gujarat University in India.

He completed his interventional cardiology training at North Shore University Hospital in New York. His cardiovascular medicine training was completed at Saint Vincent's Hospital and Medical Center in New York. Dr. Makwana is board certified in internal medicine.

Dr. Makwana performs diagnostic and interventional cardiac catheterizations, specializing in radial artery approach. He also performs diagnostic and interventional peripheral vascular procedures and structural heart disease interventions.



#### Sam Rahman, M.D., FACC

Sam Rahman, M.D., FACC, is an interventional cardiologist, who joined the Heart Specialists of St. Rita's in April, 2010. He completed his training in interventional cardiology at the University of

Arizona, and his general cardiology training at the University of South Carolina. Dr. Rahman practiced in South Carolina for several years and is Board Certified in cardiology, echocardiography, and nuclear cardiology. He also holds the certificate of

the Heart Rhythm Society. Dr. Rahman obtained his medical degree at the University of Damascus, in Damascus, Syria; and completed clinical cardiology training at the University of Joseph Fourier in Grenoble, France.

Dr. Rahman performs diagnostic and interventional cardiac catheterizations, including structural heart disease interventions, peripheral vascular interventions, and device implantations (pacemakers and defibrillators). Dr. Rahman is the Medical Director of St. Rita's Pacemaker Clinic.





Dr. Wolery is an interventional cardiologist who has practiced in Lima since 1983 and has practiced interventional cardiology since 1994. He received his Bachelor of Science degree in

1977 and his degree in Medicine in 1980, both from The Ohio State University. He completed his residency in Internal Medicine at Riverside Methodist Hospital in Columbus, Ohio in 1983 and completed a fellowship in Cardiovascular Disease at Wright State University in Dayton in 1994.

Dr. Wolery is the Medical Director of Cardiac Cath Lab and St. Rita's STEMI program.

He is a Fellow of the American College of cardiology and is Board Certified in Internal Medicine, Critical Care Medicine. Cardiovascular Diseases and Interventional Cardiology.



Melinda

Mark Buettner, MPAS



Darcv Harshfield, CNP Schroeder, PA-C MPAS

### **List of Services**

#### Cath Lab:

Right heart cath Left heart cath Coronary Arteriography LV Angiography Aortography Arterial and Venous Graft Angiography PTCA Stent Athrectomy (Rotoblation) IVUS, and fractional flow reserve IABP Insertion Atrial Overdrive pacing, Electrophysiology Studies (EPS) IC Thrombolysis Cardioversion Pericardiocentesis, Temporary and Permanent Pacermaker Insertion Loop Recorder Implant and Explant Pacemaker Lead Extraction (including laser lead extraction) Radiofrequency Ablations, Implantable Cardiac Defibrillator Cardiac rhythm pacemaker (CRT-P) Cardiac rhythm defibrillator (CRT-D). Peripheral diagnostic angiography Peripheral interventional – PTA Peripheral stent placement Impella

#### Vascular Services:

Upper and lower venous Doppler Upper and lower arterial Doppler Carotid US (Extracranial) Vein Mapping Segmental pressure study Ankle-brachial indices CT angiography MR angiography Coronary Calcium Scoring CT Coronary Artery and Cardiac CT Vascular Screening Angioplasty Cryoplasty Turbohawk Atherectomy Peripheral Vascular Stenting Pseudoaneurysm thrombosis Inferior Cave/Superior Vena Filter Insertion Surgical vascular repair Carotid endarterectory Dialysis fistula placement

**Tunneled Dialysis Catheters** Mediports Groshong and Hickman Catheters PAD Rehab

### *Surgery of the Heart* Coronary Artery Bypass

TMR Laser Revascularization On Pump / Off Pump / Beating Heart Redo Operations Minimally Invasive (Non Sternotomy) Arterial Conduit Emphasis Endoscopic Vein Robotic Assisted Cardiac Surgery Valve Repair or Replacement: Mitral, Aortic, Tricuspid, Pulmonary Aneurysms of the Aortic Root and Ascending Aorta Ventricular Aneurysm: Ventricular Restoration Procedures Surgical Correction of Congenital Disorders (ASD, VSD, PDA, Coarctation) Surgical Therapy for Congestive Heart Failure MAZE: Atrial Fibrillation Open / Minimally and Robotic Assisted Surgical Ablation: Atrial or Ventricular Pericardial Window Pericardiectomy

#### Cardiac & Pulmonary Rehab

Phase I inpatient cardiac rehab Phase II, outpatient cardiac rehab Phase II, outpatient pulmonary rehab Exercise counseling Tobacco cessation counseling Energy conservation and breathing retraining

*Echocardiology Lab* Transthoracic echos with and without contrast Transesophageal echos Stress echos Pediatric echos

#### Stress Testing

Gaited Stress Tests (adult & pediatric) Nuclear Stress Tests Pharmacologic Stress Tests

**Tilt Table Testing** Adult and pediatric

EKGs, Holter Monitors, 30 Day Event Monitors Adult and pediatric

Pacer/Device Clinic

### Cardiovascular Symposium '13 UNOH Event Center April 4, 2013



The symposium is designed to provide cardiovascular educational knowledge and skills for all clinicians who care for patients with conditions of the heart. The symposium design offers a curriculum for all healthcare professionals with a specific focus on care provided throughout the spectrum. The curriculum also fosters discussion amongst physicians, physician assistants, nurses, and health care professionals. For more information on the symposium including registration, visit www.lamed-lima.org.

7:00 a.m.	Registration, Continental Breakfast, & Visit Exhibits
7:50 a.m.	Welcome – Mark Winerman, M.D., Director of Education, LAMED
8:00 a.m.	Percutaneous Coronary Interventions: Opening Our Hearts & Minds to New Techniques Adel Shaheen, M.D.
9:15 a.m.	Robotic Surgery: Is it Ready for Primetime? Farzin Fotouhi, M.D., FACS
10:15 a.m.	Break & Visit Exhibits
10:45 a.m.	Counseling Coronary Patients Regarding Lifestyle Modifications: Strategies for Success Barry Franklin, PhD
11:45 a.m.	<b>Update in Cardiovascular Imaging 2013</b> Nicole Nelson, M.D.
12:30 a.m.	Lunch & Visit Exhibits
1:15 p.m.	How Much Exercise is Enough? Barry Franklin, PhD
2:15 p.m.	Cardiovascular Health Guidelines in Children: Controversy vs Consensus William Suarez, M.D., FACC
3:15 p.m.	Evaluation
3:30 p.m.	Adjournment



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