8-8-800: Patient undergoes 800th transplant Aug. 8

That his heart transplant happened to be a local medical milestone was just a happy coincidence.

Tim Rappis, 70, underwent Aug. 8, 2013, the 800th heart transplant at Aurora St. Luke’s Medical Center, Milwaukee, since the program started in 1968.

While the milestone pushed Aurora St. Luke’s Cardiac Transplant Program into the top 5 percent in the nation, more importantly, it ended Rappis’ struggle with heart disease.

Previously, Rappis had undergone aortic valve replacement, coronary artery bypass graft surgery and maze procedure at another institution, but his quality of life remained poor. More recently, those physicians told him his progressive dyspnea was due to mitral regurgitation and recommended a second surgery, this time for mitral valve repair or replacement.

That is when Rappis sought a second opinion from cardiologist A. Jamil Tajik, MD.

Root of the problem
Using echocardiography, Dr. Tajik confirmed the mitral regurgitation, but observed a thick-walled left ventricle, raising suspicion of an abnormal buildup of protein deposits (cardiac amyloidosis). Endocardial biopsy confirmed the amyloidosis (transferrin senile type) was not systemic but confined to the heart.

Rappis’ Aurora Heart Care team offered the option of a left ventricular assist device (LVAD) as a bridge to transplantation.

“When the decision was made to perform the LVAD procedure ... we went into that realizing it would be a temporary process,” said cardiovascular and thoracic surgeon John Crouch, MD.

The LVAD seemed to suffice for a while, but the amyloidosis wasn’t getting any better.

“It was a simple process; if I get rid of the heart, I get rid of the disease,” Rappis said.

Because of Rappis’ good health and how active he was prior to the disease, Crouch referred him for heart transplant evaluation. Rappis underwent a comprehensive “head-to-toe” evaluation, and when it was clear that he would do well with a heart transplant, he was added to the waiting list.

The gift of life
The cardiac transplant team at Aurora St. Luke’s has more than 28 years of experience with heart transplants and LVADs.

Aurora St. Luke’s cardiac transplant patient survival outcomes exceed national benchmarks, with 30-day survival rates at 100 percent and one-year survival rates at 95 percent. Long-term patient survival rates (3+ years) also have been above national benchmarks for the past 18 years.

“Mr. Rappis has many things he wants to still accomplish in this lifetime and, fortunately, he is going to be able to do that and do it well and feeling well,” Crouch said. “And for us, that is the gratification we get and that’s why we do this.”
Clinical trial:
Researchers study implant for heart failure post-myocardial infarction

Aurora St. Luke’s Medical Center is the only site in Wisconsin where researchers are evaluating a CardioKinetix Inc. implant system for subjects with ischemic heart failure post-myocardial infarction.

Principal investigators Nasir Z. Sulemanjee, MD, and Suhail Allaqaband, MD, and their team are participating in the PARACHUTE IV (PercutAneous Ventricular RestorAtion in Chronic Heart FailUre due to Ischemic Heart DiseasE) clinical trial to establish the efficacy and long-term safety of the Parachute Ventricular Partitioning Device (CardioKinetix Inc., Menlo Park, Calif.) compared to all appropriate medical therapy alone (clinicaltrials.gov identifier: NCT01614652). The goal is to enroll 560 subjects with ischemic heart failure throughout the United States in this 1:1 randomized multicenter clinical trial. Half of the subjects are randomized to medical management alone.

In the U.S., the Parachute is an investigational device limited by federal law to investigational use.

“Implanted via the femoral artery during a minimally invasive catheterization procedure, the Parachute excludes fibrous cardiac muscle in the left ventricle, allowing the heart to function more efficiently,” Dr. Allaqaband said. “If the device is successful, it is intended to be permanent and will not need to be replaced or adjusted.”

Drs. Sulemanjee and Allaqaband and their team are documenting death or rehospitalization for worsening heart failure. Other key endpoints include hemodynamic measures by echocardiography and imaging measures by computed tomography.

“The goal of the clinical trial is to determine if the device can slow the progression of heart failure, reduce repeat hospitalizations and mortality, and significantly improve quality of life,” Dr. Sulemanjee said.

Clinicians seeking information on alternative options for subjects who have developed heart failure symptoms post-heart attack may contact clinical research coordinator Maggie Miller, RN, CCRC, at 414-385-1853 or maggie.miller@aurora.org.

Parachute Ventricular Partitioning Device (CardioKinetix Inc., Menlo Park, Calif.)

Caution: The Parachute is an investigational device limited by U.S. federal law to investigational use. Images courtesy of CardioKinetix Inc.
Clinical trial:
Researchers study use of bone marrow cells to treat subjects with critical limb ischemia

Building on 20 years of experience in cellular therapy, Aurora Health Care investigators are studying an investigational treatment option aimed at preventing or delaying major amputation or death in subjects with critical limb ischemia due to severe peripheral arterial disease.

Principal investigators Tanvir Bajwa, MD, and Richard Carballo, MD, and their team are participating in the MOBILE, MarrowStim™ PAD Kit for the Treatment of Critical Limb Ischemia in Subjects With Severe Peripheral Arterial Disease, clinical trial to establish the safety and efficacy of autologous concentrated bone marrow aspirate (cBMA) (Biomet Biologics LLC, Warsaw, Ind.) for critical limb ischemia compared to a placebo (clinicaltrials.gov identifier: NCT01049919).

Aurora St. Luke’s Medical Center is the only site in Wisconsin where researchers are participating in this prospective, randomized, double-blinded, placebo-controlled, multicenter clinical trial. In the U.S., the MarrowStim™ treatment is an investigational therapy limited by federal law to investigational use.

“The ramifications of this study could mean an alternate treatment option for subjects facing amputation and improved quality of life,” Dr. Carballo said.

“The MarrowStim™ therapy is intended for subjects with critical limb ischemia in whom all other revascularization options have been exhausted,” Dr. Bajwa said.

Bone marrow aspirate obtained from the subject's hip is concentrated and delivered intramuscularly to the affected limb.

Symptoms of critical limb ischemia include rest pain and ulcers on the legs and/or feet. Diabetics and smokers have the highest risk of developing critical limb ischemia.

Clinicians treating subjects with critical limb ischemia who have limited treatment options may obtain more information on this study by contacting clinical research coordinator Valerie Williams, RN, CCRC, at 414-649-6853 or valerie.williams@aurora.org.

Tanvir Bajwa, MD
Medical Director of the Cardiac/Peripheral Interventional Program, Clinical Director of the Vascular Center, Director of the Interventional and Advanced Interventional Fellowship Programs

Richard Carballo, MD
Medical Director of Vascular Surgery, Vascular Center at Aurora St. Luke’s Medical Center

Valerie Williams, RN, CCRC
Certified Clinical Research Coordinator
Clinical trial:
Researchers evaluate implantable electrical stimulation device to treat chronic heart failure

As part of an international clinical trial, researchers at Aurora St. Luke's Medical Center are evaluating vagus nerve stimulation with the CardioFit® system in subjects with chronic symptomatic heart failure.

Principal investigators Imran Niazi, MD, and Richard Carballo, MD, and their team are participating in the INcrease Of VAgal TonE in CHF (INOVATE-HF) clinical trial to establish the safety and efficacy of the CardioFit system (BioControl Medical, Yehud, Israel) compared to standard of care alone for the treatment of subjects with heart failure and left ventricular dysfunction (clinicaltrials.gov identifier: NCT01303718).

The goal is to enroll 650 subjects with New York Heart Association Class III heart failure at about 100 centers worldwide in this prospective, 3:2 randomized, open-label, event-driven multicenter clinical trial.

In the U.S., CardioFit, an implantable electronic stimulation device, is limited by federal law to investigational use.

“The CardioFit system directly activates the parasympathetic branch of the autonomic nervous system to treat heart failure,” Dr. Niazi said.

Drs. Niazi and Carballo and their research team are documenting all-cause mortality and unplanned heart failure hospitalization.

“If the device is found to be safe and effective, the treatment may be an option for subjects with heart failure who suffer debilitating symptoms despite optimal medical therapy alone,” Dr. Carballo said.

Clinicians seeking information on alternative options for subjects with chronic symptomatic heart failure may contact clinical research coordinator Rebecca Dahme, RN, CCRC, at 262-249-5432 or rebecca.dahme@aurora.org.

Aurora offers cardiac PET imaging

Aurora Cardiovascular Services is the only cardiovascular provider in the greater metropolitan Milwaukee area to offer dedicated cardiac positron emission tomography (PET) myocardial perfusion imaging, starting last fall.

Under the guidance of cardiologist Steven C. Port, MD, medical director of noninvasive cardiology, Aurora Cardiovascular Services installed a PET system (MiE ECAT/Scintron, Seth, Germany) for the evaluation of patients with known or suspected coronary artery disease.

“The improved diagnostic accuracy should reduce the number of patients referred for unnecessary coronary angiography while increasing the number of patients referred for appropriate coronary angiography,” Dr. Port said.

Aurora Cardiovascular Services works in partnership with referring physicians. Following diagnostic testing, care is returned to the referring physician. To schedule a patient, call 414-649-3400.
Transcatheter therapies at Aurora St. Luke’s Medical Center

Mitral valve
A leader in transcatheter valve therapies, Aurora St. Luke’s Medical Center in January was the first center in Wisconsin where physicians implanted the recently Food and Drug Administration-approved MitraClip, a percutaneous treatment option for patients with degenerative mitral regurgitation.

Aurora St. Luke’s is the only center in Wisconsin with staff trained to implant the MitraClip (Edwards Lifesciences, Irvine, Calif.) The center was selected because of its high enrollment during clinical trial and multidisciplinary team experienced in the management of patients with heart valve disease. As of Jan. 2, Aurora physicians implanted 41 MitraClips.

The MitraClip option is for patients with degenerative mitral regurgitation at prohibitive risk for open mitral valve surgery. Patients who have moderate-to-severe or severe functional mitral regurgitation may be eligible for the MitraClip as a subject in the Clinical Outcomes Assessment of the MitraClip Therapy Percutaneous Therapy for High Surgical Risk Patients (COAPT) clinical trial (clinicaltrial.gov identifier: NCT01626079).

Clinicians seeking information about options for subjects with mitral regurgitation may contact clinical research coordinator Susan Oxborough, RN, CCRC, at 414-385-2475 or susan.oxborough@aurora.org.

Aortic valve
Aurora St. Luke’s surpassed 200 transcatheter aortic valve replacements with the CoreValve prosthesis since June 2011, reaching 215 procedures as of Feb. 18.

Through participation in the CoreValve and Surgical Replacement and Transcatheter Aortic Valve Implantation (SURTAVI) clinical trials, Aurora physicians have treated subjects with severe aortic stenosis at intermediate to very high risk for open aortic valve surgery with the CoreValve prosthesis (Medtronic Inc., Minneapolis, Minn.).

Recent FDA approval for the CoreValve prosthesis in patients with symptomatic severe aortic stenosis who are not candidates for surgical valve replacement puts Aurora St. Luke’s in position to offer two transcatheter aortic valve replacement options. Aurora St. Luke’s staff also is trained to implant the FDA-approved SAPIEN valve (Edwards Lifesciences, Irvine, Calif.) in patients with aortic stenosis who otherwise are at high risk of complications from open surgical replacement.

Clinicians seeking information about options for subjects with aortic stenosis may contact clinical research coordinator Christopher Koblosky, BSN, CCRC, at 414-649-3929 or christopher.koblosky@aurora.org.

Tanvir Bajwa, MD
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Paul H. Werner, MD
Cardiovascular and Thoracic Surgeon

A. Jamil Tajik, MD
President of Aurora Cardiovascular Services, Director of Aurora Cardiac Specialty Centers

Bijoy K. Khandheria, MD
Medical Director of the Echocardiography Laboratory

Steven C. Port, MD
Medical Director of Noninvasive Cardiology, Nuclear Cardiology and Cardiac Computed Tomography Program

Jonathan Kay, MD
Staff Anesthesiologist, Quality Officer
Recent publications

Aurora Cardiovascular Services physicians have a long history of publishing cutting-edge articles in peer-reviewed medical journal and sharing their expert knowledge with textbook chapters.

**PLoS One**

In a multisite effort, Arshad Jahangir, MD, director of the Center for Integrative Research on Cardiovascular Aging (CIRCA), CIRCA research fellow Mahek Mirza, MD, and their coauthors published “Frequent Periodic Leg Movement During Sleep Is an Unrecognized Risk Factor for Progression of Atrial Fibrillation” in *PLoS One* in October, 2013.

The investigators concluded there is a link between frequent leg movement during sleep in patients with restless legs syndrome and progression of atrial fibrillation to persistent and permanent forms.

“In this study, dopaminergic therapy for control of leg movements in patients with restless legs syndrome who experience frequent periodic leg movement during sleep appeared to reduce the risk of atrial fibrillation progression,” Dr. Jahangir said. “The authors suggested that the findings need further study.”

**Color Atlas and Synopsis of Vascular Disease**


The purpose of the textbook is to aid vascular specialists in the identification and management of vascular diseases involving the arterial, venous and lymphatic systems.

**Journal of Patient-Centered Research and Reviews**

In the inaugural issue of *Journal of Patient-Centered Research and Reviews*, Fengyi Shen, MD, Tonga Nfor, MD, and Tanvir Bajwa, MD, published “Recurrent Acute Myocardial Infarction in Patients with Immune Thromboocytopenic Purpura.”

The Aurora Research Institute launched the new quarterly publication this year. The journal features relevant, peer-reviewed original research of interest to a multispecialty audience in medicine, health care, preventive care, research and basic science.

The journal will accept submissions on topics related to cardio-oncology through May 1. The journal will publish theme issues twice a year, but the call for papers from all areas of medical practice is ongoing.

Dennis Baumgardner, MD, serves as editor of the journal and leads a scientific editorial board. Anyone from any institution may submit to the journal. Experts throughout the country provide peer review. Academic medical centers, universities and medical institutions, as well as private and public donors, have access to the journal.

For a complete list of acceptable submissions, visit aurora.org/journal.

For information, email dennis.baumgardner@aurora.org or call 414-219-5191.

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**SUBMIT NOW**

**Who:** authors of articles related to cardio-oncology

**What:** submit to *Journal of Patient-Centered Research and Reviews*

**When:** through May 1

**How:** review author instructions at aurora.org/journal, then submit paper to dennis.baumgardner@aurora.org
Aurora St. Luke’s celebrates milestone

On the heels of reaching 800 heart transplants, Aurora St. Luke’s Medical Center celebrated another milestone last year with its 600th ventricular assist device (VAD) procedure since starting the program in 1986.

The VAD program at Aurora St. Luke’s provides bridge to transplantation or destination therapy options for patients with advanced heart failure. Aurora St. Luke’s has the largest and most diverse VAD program in Wisconsin and is the only Medicare-certified VAD program in the southeastern region of the state.

“Our program encompasses all options for advanced heart diseases, and innovative technology like left ventricular assist devices allow patients to return home and lead full lives,” said Vinay Thohan, MD, director of the Advanced Cardiac Care, Heart Transplant and Ventricular Assist Device Program. “The combination of 600 VADs and 800 heart transplantations, with excellent outcomes for both therapies, is truly a unique milestone that only a few programs worldwide can boast.”

Aurora Cardiovascular Services
Medical education events

To request information or register, please contact Laurel Landis at laurel.landis@aurora.org or 414-219-7684, unless otherwise noted.

May 12, 2014 | Milwaukee, WI
Greater Milwaukee Heart Failure Society Series 2014
Course Director: Nasir Z. Sulemanjee, MD

May 22 to 25, 2014 | New York, NY
Sights and Sounds of Echocardiography:
In the Heart of the Big Apple – Denise Mezydlo
414-412-2837 • denise@medmeetingsetc.org
Course Director: Bijoy K. Khandheria, MD

May 29, 2014 | Milwaukee, WI
Patient Education Day (non-CME event)
A day of information and fellowship for patients with ICDs
Course Directors: Masood Akhtar, MD; Kathi Axtell, RN

Aug. 18, 2014 | Milwaukee, WI
Greater Milwaukee Heart Failure Society Series 2014
Course Director: Nasir Z. Sulemanjee, MD

Oct. 10 to 12, 2014 | Lake Geneva, WI
Valvular Heart Disease: Newer Management Strategies: A Case-Based Approach
Course Directors: A. Jamil Tajik, MD; Tanvir Bajwa, MD; Daniel O’Hair, MD; Bijoy K. Khandheria, MD

Nov. 3, 2014 | Milwaukee, WI
Greater Milwaukee Heart Failure Society Series 2014
Course Director: Nasir Z. Sulemanjee, MD

Fall 2014 | Milwaukee, WI
A Mediterranean Affair (non-CME event)
A dynamic educational event with expert speakers on food digestive health and the Mediterranean lifestyle
Host: V.S. Murthy, MD, MBBS, PhD

Dec. 5 to 6, 2014 | Chicago, IL
AF/VT/VF Summit
Course Directors: Jasbir Sra, MD; Masood Akhtar, MD

TBD 2014 | TBD
ePIC: Excellence in the Practice of Cardiovascular Ultrasound – Denise Mezydlo
414-412-2837 • denise@medmeetingsetc.org
Course Director: Bijoy K. Khandheria, MD

8-8-800 continued

Rappis and his wife, Sally, appreciated the efforts and expertise of the cardiac transplant team and are grateful for the support they received, as well as the gift of life from the donor.

“We made a point to make a list of all the people that we thought were doing a good job, and I’m going to be on that list for two months sending out cards,” Rappis said.

For information about Aurora St. Luke’s Cardiac Transplant Program, call 866-292-8668.
Hospital location

Aurora St. Luke’s Medical Center

Advanced medical services are available at Aurora’s 15 hospitals and 155 clinics located throughout eastern Wisconsin and northern Illinois.

Contact us
Referrals and consultations
888-859-4433 | 414-649-3530
cardiovascular@aurora.org
AuroraHealthCare.org/Services/Cardiovascular

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