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U.S. News & World Report ranks Aurora St. Luke’s cardiology, heart surgery program in nation’s top 50

Continuing the streak, the cardiology and heart surgery department at Aurora St. Luke’s Medical Center, Milwaukee, was the only heart program in Wisconsin nationally ranked by U.S. News & World Report in its 2014-15 evaluation of the nation’s best hospitals.

Aurora St. Luke’s cardiology and heart surgery department ranked 41st nationally among 708 programs that qualified for review. This is the third year in a row that it was the only heart program in the state ranked among the nation’s top 50.

“To receive this recognition for the third year in a row is a testament to our comprehensive and highest quality cardiovascular care and robust education and research programs,” said A. Jamil Tajik, MD, president of Aurora Cardiovascular Services.

The high-volume program boasts clinical acumen in structural heart and peripheral vascular diseases, atrial fibrillation, channelpathies, congestive heart failure and pulmonary hypertension; surgical expertise with 800 heart transplants and 600 implanted ventricular assist devices; and involvement in diverse clinical trials, from transcatheter aortic valve replacement to implantation of leadless pacemakers to use of regenerative medicine.

This year, 26 fellows-in-training are participating in Aurora Health Care’s active Cardiovascular Disease, Interventional Cardiology, Clinical Cardiac Electrophysiology and Heart Failure fellowship programs, which include basic, translational and clinical research components.

More patients who had specified disorders or received specified procedures in 2010, 2011 and 2012 were seen at Aurora St. Luke’s than at any other hospital in the state.

The department was the only one in the state to score in the top classification (“much better than expected”) for survival of patients.

Aurora St. Luke’s gastroenterology and GI surgery, diabetes and endocrinology, geriatrics, and pulmonology departments also ranked nationally among the top 50 hospitals in their respective categories, contributing to the tertiary care facility’s ranking as one of the best hospitals in the state. Aurora BayCare (Green Bay) and Aurora West Allis also were listed as among the best hospitals in the state.

“I am extremely proud of our dedicated physicians and caregivers,” said Marie Golanowski, RN, president of Aurora St. Luke’s Medical Center. “Our consistency in the rankings is an acknowledgement of our focus on individualized care and support for each patient and on our commitment to medical excellence.”
Clinical trial: Investigators study treatment for in-stent restenosis

Aurora St. Luke’s Medical Center is the only site in Wisconsin where researchers are participating in this prospective, multicenter, single-blinded, randomized, controlled clinical trial. In the United States, the device is limited by federal law to investigational use.

“In-stent restenosis is a common problem after stent placements,” Dr. Mewissen said. “With the development of drug-coated balloons, we hope to have another treatment option available.”

The 2013 Vascular Volumes

- 1,906 peripheral vascular interventions (noncoronary angioplasty and stent insertion)
- 734 other operations on vessels
- 507 other endovascular procedures on vessels
- 307 carotid endarterectomies
- 275 surgical occlusions of vessels
- 173 other endarterectomies
- 165 open bypasses - lower extremities
- 137 percutaneous atherectomy (noncoronary)
- 128 endovascular abdominal aortic aneurysm repairs

A clinical trial: Researchers evaluate valve system to treat aortic stenosis surgically

Aortic stenosis affects about 1.5 million people in the United States. A third of these cases are severe, and in half of those cases, patients experience chest pain, exertional dyspnea and palpitations.

In aortic stenosis, the aortic valve does not fully open and less blood is pumped throughout the body. It can be a precursor to atrial fibrillation and flutter, blood clots, syncope, heart failure and high blood pressure.

Principal investigator Daniel O’Hair, MD, and his team are studying the surgical treatment of aortic stenosis and aortic insufficiency with the Edwards Intuity valve system (Edwards Lifesciences Corp., Irvine, Calif.) at Aurora St. Luke’s Medical Center, the only site in Wisconsin participating in the TRANSFORM™ clinical trial.

All subjects enrolled in this prospective, multicenter clinical trial will receive the device. In the U.S., the device is limited by federal law to investigational use.

“The purpose of the TRANSFORM™ clinical trial is to prove the Edwards Intuity valve system is safe, effective and performs as intended,” Dr. O’Hair said.

After surgical aortic valve replacement with the Edwards Intuity valve system, each patient will undergo routine follow-up tests at discharge, three months, one year and annually thereafter for a minimum of five years.

The 2013 Cardiovascular and Thoracic Surgery Volumes

- 920 coronary artery bypass grafts
- 589 valve repairs and replacements
- 116 valve annuloplasties
- 100 surgical MAZE procedures
Clinical trials: Miniature pacemaker technology under review

Advances in technology have allowed pacemakers to shrink from the size of a pocket watch to a AAA battery or vitamin capsule.

Aurora researchers were the first in Wisconsin to implant these miniature pacemakers—those that do not require leads—as part of ongoing international clinical trials. In the United States, the Nanostim™-leadless pacemaker (St. Jude Medical Inc., St. Paul, Minn.) and Micra™ Transcatheter Pacing System (Medtronic Inc., Minneapolis, Minn.) are limited by federal law to investigational use. Instead of an incision to the skin of the chest, subjects undergo a minimally invasive transcatheter procedure via the femoral vein in the leg, eliminating the need for a subsequent surgical pocket.

The goals are to reduce complications, including device pocket-related infection and lead failure, and improve quality of life by allowing uninhibited lifestyles previously restricted with conventional pacemakers.

Nanostim™ clinical trial
Principal investigator: Irina Niani, MD, and M. Eyman Mortada, MD, and their team are studying the safety and effectiveness of the Nanostim™ leadless pacemaker in subjects indicated for a single-chamber ventricular pacemaker.

Mics™ clinical trial
Principal investigator: Jaskir Sin, MD, and Vikram Nangia, MD, and their team are studying the safety and effectiveness of the Mics™ Transcatheter Pacing System in subjects who have a Class I or II indication for a single-chamber ventricular pacemaker.

All subjects enrolled in this prospective, multicenter clinical trial will receive the device, which is about the size of a AAA battery and weighs 2 grams.

This is a revolutionary technology,” Dr. Niani said. “By avoiding invasive surgery and using interventional techniques for implanting pacemakers, we could reduce patient discomfort and cost significantly. Surgical risk—such as infection—and recovery time in the hospital is greatly reduced. This new technology has the potential to have an enormous impact on cardiac care for nearly 700,000 people worldwide who receive pacemakers each year.”

Dr. Niani and Mortada, and their team are documenting complications, pacing thresholds and R-wave amplitudes, and recovery during graded exercise testing.

2013 Cardiac Electrophysiology and Pacing Volumes

1,243 atrial cardioversions
1,114 electrophysiology studies
1,062 percutaneous cardiac ablations
974 cardiac maps
941 pacemaker implants (initial and replacement)
830 implantable cardioverter-defibrillators (including cardiac resynchronization therapy devices)
650 tilt tests
117 biventricular pacemakers (initial and replacement)
39 lead extractions (performed in the operating room)

2013 Invasive Cardiology Volumes

10,359 heart catheterizations and coronary angiographies
2,812 percutaneous coronary interventions
432 myocardial biopsies
129 patent foramen ovale/atrial septal defect closures
112 endovascular and transcatheter aortic valve replacements
41 transluminal coronary athectomy
37 percutaneous balloon valvuloplasties
3 percutaneous mitral valve repairs with mitral clip

Anthony DeFranco, MD, an Aurora cardiologist and current governor of the ACG’s Wisconsin Chapter, helped secure the grant. He and Aurora executive vice president Patrick Falvey, PhD, will facilitate SMARTCare’s implementation at Aurora as well as for future Wisconsin participants.

“In order to improve coordination of care between specialists and primary care physicians as well as reduce costs without compromising care, health systems need a practical way of implementing rapidly advancing practice guidelines at the bedside,” Dr. DeFranco said. "SMARTCare will enable Aurora to lead the way on value-based care in a way that is feasible for physicians and hospitals and also better for patients.”
More than a number
Patient receives 600th ventricular assist device - and hope

Though they went out of style a while back, John Baker was a fan of the fancy pack with pride. In it are backup batteries and a ventricular assist device, which keeps his blood pumping.

He remembered crying with his fiancée and physician in the hospital room. All three of them were in tears, wondering how he was going to sell his children, ages 11 and 13. His physician then referred him to Aurora St. Luke’s.

Baker received the 600th ventricular assist device since the start of the program at Aurora St. Luke’s Medical Center in 1998. The VAD is serving as a bridge to transplant as he waits for a heart.

Something was terribly wrong

Last year, at age 45, this taciturn Marine from Mukwonago was competing in strength and weightlifting competitions and a regular at his local gym. But something was terribly wrong with his heart.

“All of a sudden, my body filled up with fluid,” Baker remembered. “It felt like my body was going to split. It was hard to breathe and I was coughing up a lot of blood.”

Physicians at another health system diagnosed Baker with congestive heart failure and pneumonitis. After a number of hospitalizations, they told him there was nothing else they could do.

“They told me I was going to die,” Baker said.

Waiting for the gift of life

After meeting a number of wellness targets, Baker was placed on the United Network of Organ Sharing registry for a new heart. Baker feels the heaviness of knowing that a new heart will come from another person who has died.

“It will mean a family will be grieving the loss of their loved one,” Baker said.

He treasures the generosity of a gifted heart and has taken on the mission of talking to people about organ donation.

“People who are organ donors are truly giving life back,” Baker said. “It is spiritual and courageous.”

As Baker waits for a heart, he continues to share his positivity and gratitude with others. He is immersed in designing a new accessory - his funny pack - because it is sustaining his life as he waits for a new heart.

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.

2013 Advanced Cardiac Care Volumes

28 ventricular assist devices
22 heart transplants

Scientific Registry of Transplant Recipients

Transplant Center Outcome Report
July 1, 2010- Dec. 31, 2012

- Aurora St. Luke’s Medical Center has exceeded national benchmarks for patient survival (30 days and one year post-transplant) in heart transplantation.
- Our patient survival is greater than 90% (one month and one year).
- Our heart transplant program continues to have the highest volume in Wisconsin.

Hybrid operating rooms open with latest technology

Aurora St. Luke’s Medical Center was the first site in the Midwest with GE Healthcare’s latest imaging and angiography systems - both housed in the hospital’s two new hybrid cardiovascular operating rooms.

No other site in Wisconsin has this advanced technology that supports the most complex cardiovascular procedures and surgeries.

A multidisciplinary team of physician leaders championed for the state-of-the-art operating rooms that combine full surgical suite capabilities with the vascular imaging systems. The new technology allows a wide range of minimally invasive endovascular, cardiac and hybrid procedures, like transcatheter aortic valve replacement, to open heart surgery.

The Innomed IGS 4-06 provides extensive body coverage for peripheral and abdominal procedures. The Discovery IGS 730 angiography system provides high-quality imaging while leaving collaborating physicians unobstructed during procedures.

Benefits of the rooms include reduced procedure times, shorter hospital stays, faster recovery times and better outcomes for patients.

In addition to the two new hybrid cardiovascular operating rooms, Aurora St. Luke’s is equipped with three electrophysiology and nine catheterization laboratories.

Learning opportunity

Aurora Health Care cardiac specialists will share their expert knowledge Dec. 4 to 6 at the AE VT, VF Summit at Swisstedo Chicago.

The symposium will feature 41 invited national and international faculty. Course directors include clinical adjunct professors Jasbir Sra, MD, and Musaad Akhtar, MD. Aurora faculty invited to present are: Arshad Ijazangi, MD, David C. Kress, MD, and Iman Niazii, MD.

The two-and-a-half day course is open to electrophysiologists, cardiologists, fellows and other health care personnel interested in cardiac arrhythmias. The latest results of basic and clinical research and information about ablation, imaging technologies, device therapies and current guidelines will be presented through oral presentations and prerecorded “live” cases delivered by national and international leaders in the field.

Added this year is a half-day program dedicated to interventions for complex device cases.

“The purpose of the symposium is to help encourage best practice changes in arrhythmia management,” Dr. Sra said.

The symposium is sponsored by Aurora Health Care, which is accredited by the Wisconsin Medical Society to provide continuing medical education for physicians. Attendees can claim a maximum of 18.0 AMA PRA Category 1 Credits.

To register, visit aurora.org/ceactivities. Click on Live Courses, then December and select AE, VT, VF Summit 2014. Click Register. Follow prompts on screen. For information, visit ce@aurora.com. For conference-related questions, contact Laurel Landis at 414-299-7684 or laurel.lanids@aurora.org.

Recent publication

Aurora Cardiovascular Services electrophysiologists Jasbir Sra, MD, and Musaad Akhtar, MD, edited and contributed to a textbook that uses cases and questions to keep the reader engaged.

“Practical Electrophysiology,” published by Cardiostud Publishing (Minneapolis, Minn.), features detailed discussion of the fundamental aspects of electrophysiology and includes more than 70 case studies covering electrocardiograms, supraventricular tachycardias, atrial fibrillation, ventricular tachycardias and more.

“It is difficult to stay current with the ever-changing field of electrophysiology,” Dr. Sra said. “Despite that, there are fundamentals that students of electrophysiology need to understand. I hope this textbook proves a useful tool.”

The book includes contributions from other Aurora cardiovascular specialists.
Connecting the community with cardiac experts – Aurora Health Satellite provides avenue for interaction

Aurora Health Care cardiac specialists volunteered their time and shared their expert knowledge during a unique partnership with Discovery World, Milwaukee’s science and technology center.

As part of the Aurora Health Satellite, called Your Mighty Heart, Discovery World visitors experienced an interactive exhibit and participated in heart health educational workshops featuring innovative research and medical procedures that are the frontier of cardiovascular health.

"The partnership between Aurora and Discovery World provided an exciting opportunity for our cardiovascular researchers and clinicians to work directly with the community in an interactive way, emphasizing wellness and prevention as well as options for those with disease," said Asadul Jahanhat, MD, director of the Sheikh Khalifa bin Hamad Al Thani Center for Integrative Research on Cardiovascular Aging. "The exhibit and workshops were well received with attendees of all ages."

The interactive exhibit, accessible to more than 75,000 people during an 11-week period, featured a demonstration area for the public that included opportunities to learn about exciting research being conducted at Aurora and hands-on experiences with heart anatomy and surgery incisions on animal hearts. The displays highlighted significant pioneering medical technologies and a timeline reflecting Aurora’s dedication to the Milwaukee community’s health. Aurora volunteers staffed the exhibit Saturdays as a way to connect with the public (more than 9,000 people) and showcase Aurora’s cardiac expertise.

The six workshops explored different cardiac topics and provided nearly 500 registered participants with hands-on opportunities led by Aurora’s medical experts and research teams. Participants took on the role of a researcher and conducted experiments, learned about state-of-the-art technology used in the care of patients with cardiovascular disease and heard personal stories from such patients.

"Our cardiology staff was eager and enthused to educate our community about the latest breakthroughs in research and treatment of heart disease," said Nina Garle, PhD, director of the Regenerative Medicine Center, Aurora Research Institute.

SESSION 1: Cardiovascular Basic and Translational Research led by Arshad Jahanhat, MD (pictured left), Nina Garle, PhD, and Mahesh Mirza, MD

SESSION 2: Electrophysiology led by Isabé Sra, MD (picted left), Indrajit Choudhury, MD, and David Krum

SESSION 3: Cardiovascular Imaging led by Bijoy K. Khandheria, MD (picted left), and Domir Spiegel, BSCS

SESSION 4: Heart Failure, Cardiomyopathies and Valve Disease led by Frank Dowsey, MD (picted left), Nasir Z. Sulemanjee, MD, and Christine Rivera, NP

SESSION 5: Cardiovascular Surgery led by David C. Kress, MD (picted top), and Jonathan Howard, CCP

SESSION 6: Interventional Cardiology led by Tammo Buja, MD (picted top), Shubah Allaqaband, MD, Anthony DeFrancesco, MD, Cindy Hoyt Harvey, RN, BSN, and Theresa Briggs, RN, ROG
Physician recruitment

Interventional Cardiology

Dr. Jan joined Aurora Cardiovascular Services as an attending interventional cardiologist in July. He also will serve as the associate director of clinical research for the Cardiovascular Disease Fellowship Program. He completed both the Cardiovascular Disease and Interventional Cardiology fellowship programs at Aurora St. Luke’s Medical Center. Dr. Jan is board certified in interventional cardiology. He is an active author who contributes to the medical literature, including a manuscript on the impact of a 24-hour in-hospital interventional cardiology team on timelines of reperfusion for ST-segment elevation myocardial infarction.

Cardiovascular Surgery

Dr. Weiss joined Aurora Cardiovascular Services as a cardiovascular surgeon in July. He completed residency in general surgery at The Johns Hopkins Hospital, Baltimore, and cardiothoracic surgery at New York Presbyterian Hospital, Columbia University School of Medicine, New York. He pursued advanced training in both mechanical circulatory support and transplantation at Columbia and aortic surgery at the University of Pennsylvania. Dr. Weiss is board certified in general and thoracic surgery. His interests include adult cardiac surgery with special emphasis on aortic diseases and heart transplantation and mechanical circulatory support.

Dr. Haddadian joined Aurora Cardiovascular Services as an attending interventional cardiologist in July. He completed both the Cardiovascular Disease and Interventional Cardiology fellowship programs at Aurora St. Luke’s Medical Center. Dr. Haddadian is board certified in interventional cardiology, peripheral vascular intervention and echocardiography. His interests include high-risk coronary intervention and structural heart disease.

Dr. Kostopoulos joined Aurora Cardiovascular Services as an attending interventional cardiologist in August. He completed fellowship training in cardiovascular disease and interventional cardiology, and advanced fellowship training in structural heart disease and peripheral vascular interventions at Aurora St. Luke’s Medical Center. Dr. Kostopoulos is board certified in interventional cardiology and endovascular medicine. He is a member of several medical societies and organizations.

Medical director appointment

Aurora Cardiovascular Services named John H. Fish III, MD, medical director of its Ambulatory Anticoagulation Clinic.

Anticoagulant medications are well known for causing adverse effects. The goal of Aurora’s Ambulatory Anticoagulation Clinic is to address safety concerns with dosages review and patient counseling and education provided by registered nurses.

“The clinic has been optimized to provide a systematic, evidence-based approach to therapy,” Dr. Fish said. “This systematic approach of anticoagulation management is key to reducing the likelihood of adverse events related to anticoagulation therapy.”

With a focus on vascular medicine, Dr. Fish is active in the evaluation and management of all forms of arterial, venous and lymphatic disorders, thrombotic disorders and hypercoagulable states, cardiovascular risk management and wound care.

To contact the Anticoagulation Clinic staff, call 414-385-2702.

New cardio-oncology center focuses on effects of cancer treatments on the heart

The dramatic aspect of treating patients with cancer is prescribing a potentially lethal therapy to prevent premature death.

Because some cancer treatments can damage the heart and vascular system, the multidisciplinary field of cardio-oncology was born. To treat long-term cancer survivors who develop cardiovascular problems, Aurora Health Care created the Aurora Center for Cardio-Oncology Research and Innovation (ACORII).

Aurora oncologists and cardiologists collaborate in the care of patients whose heart or circulatory system is impacted by cancer treatments. Through the center, these specialists are exploring new and better ways to diagnose and treat these conditions and sharing their advances with patients and other doctors.

Both cardiologist Bijoy K. Khanderia, MD, and medical oncologist Charles Bomzer, MD, served as guest editors of the August issue of Journal of Patient-Centered Research and Review, which was a theme issue on cardio-oncology. Check out the issue by visiting aurorahc.com/jpcr.

Aurora Cardiovascular Services Medical education events

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

Weekly 2014 | Milwaukee, WI
Echo Case Conference – Denise McEldry 414-649-5366 • denise.mcelroy@aurora.org
Course Director: Bijoy K. Khanderia, MD
Oct. 18, 2014 | Milwaukee, WI
A Mediterranean diet (non-CME event)
A dynamic educational event with health monitoring, lectures on wellness and food, and lunch with Joe Bartolotta, co-owner of The Bartolotta Restaurants
Host: Y.S. Murthy, MD, MBBS, PhD

Nov. 3, 2014 | Milwaukee, WI
Greater Milwaukee Heart Failure Society Series 2014
Course Director: Nand Z. Sulemane, MD
Dec. 4 to 6, 2014 | Chicago, IL
ACVIM/AVF Summit
Course Directors: Jarib Sra, MD; Masood Akhtar, MD
Feb. 9, 2015 | Milwaukee, WI
Greater Milwaukee Heart Failure Society Series 2014
Course Director: Nand Z. Sulemane, MD

April 11, 2015 | Pewaukee, WI
New Developments in Cardiology: A Comprehensive Review of Cardiac & Vascular Medicine Issues
Course Directors: Tanvir Bajwa, MD; Suhail Aliqaband, MD; Jayant Khitha, MD
May 2 and 3, 2015 | Milwaukee, WI
Echo Milwaukee
Course Directors: Bijoy K. Khanderia, MD; Arif Taji, MD; Matt Ullmann, RDCS; Christopher Kramer, RDCS
May 21 to 24, 2015 | New York, NY
Sights and Sounds of Echocardiography: In the Heart of the Big Apple – New York City Echocardiogram
Course Director: Bijoy K. Khanderia, MD
May 28, 2015 | Milwaukee, WI
Patient Education Day (non-CME event)
A day of information and fellowship for patients with ICDs
Course Directors: Masood Akhtar, MD; Karthi Atul, MD
May 29 and 30, 2015 | Milwaukee, WI
The Milwaukee Heart Failure Symposium 2015
Course Director: Nand Z. Sulemane, MD