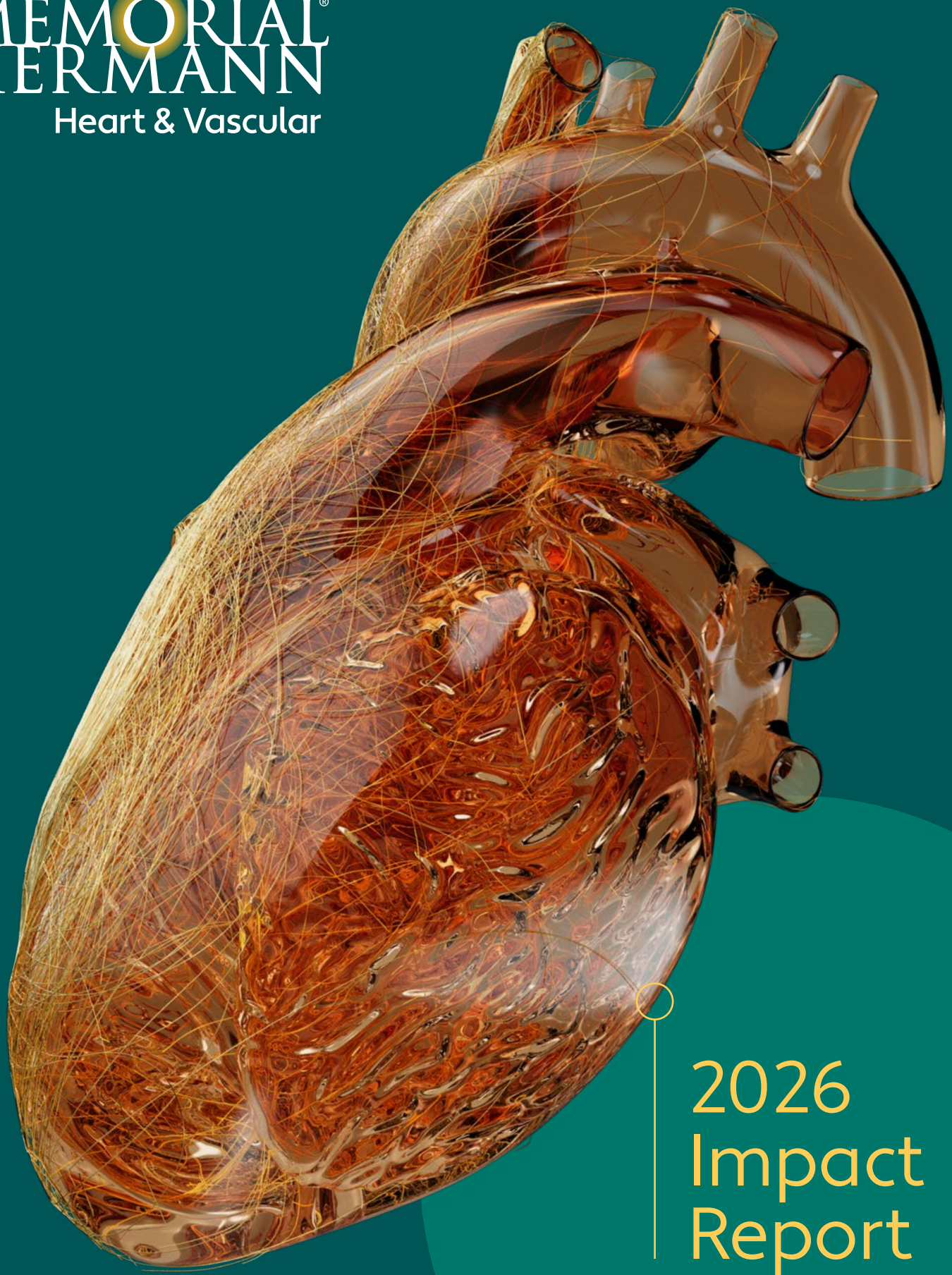
MEMORIAL HERMANN
Heart & Vascular



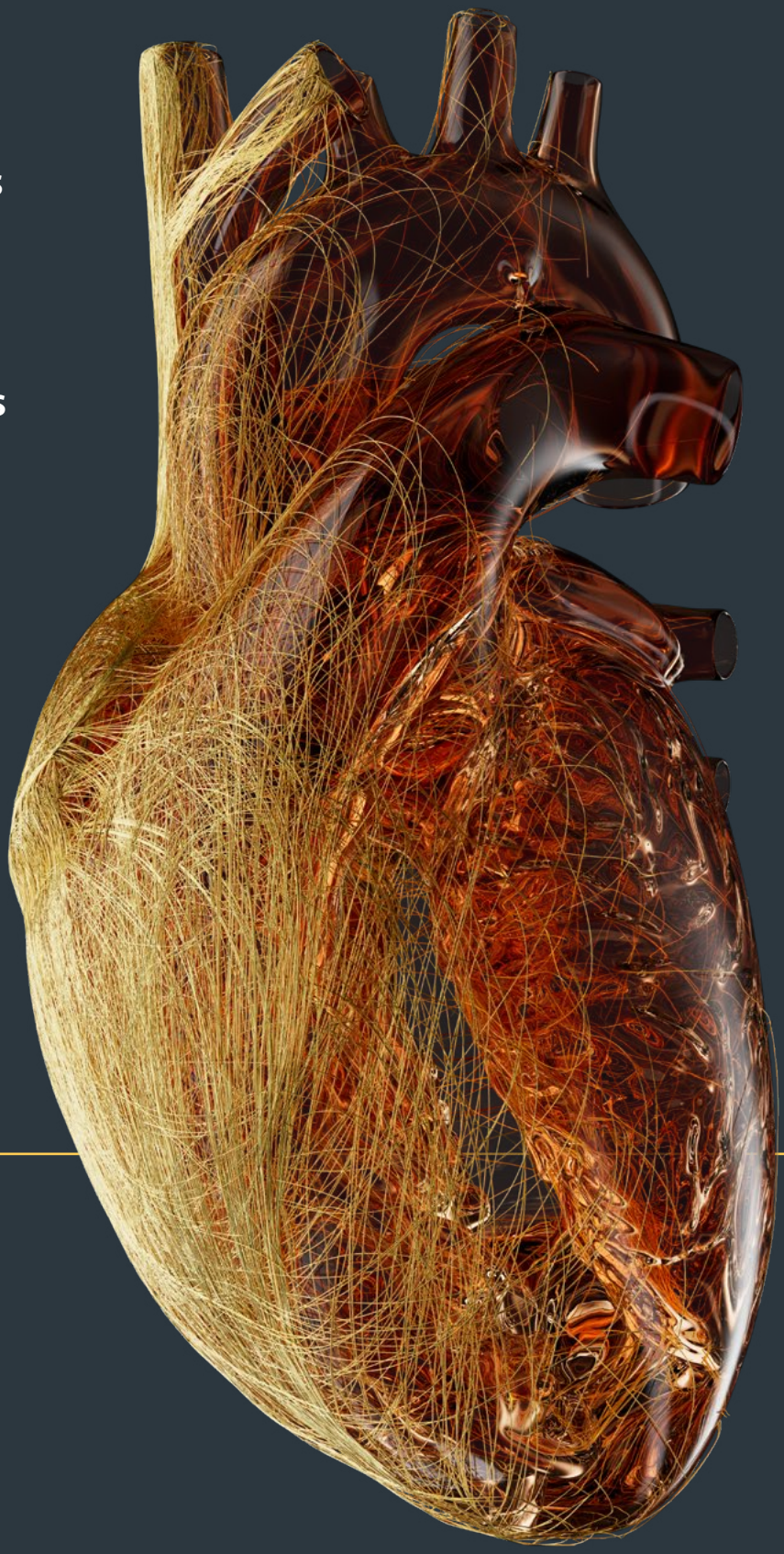
2026 Impact Report

AWARDED

AMERICA'S BEST CARDIAC HOSPITALS 2025*

-NEWSWEEK

*Memorial Hermann-Texas Medical Center



Recognized for Excellence

National Cardiovascular Data Registry (NCDR) Chest Pain—MI Registry™

Platinum Performance Achievement Award

Cypress
Greater Heights
Memorial City
Northeast
Southeast
Southwest
Sugar Land
Texas Medical Center
The Woodlands

Silver Performance Achievement Award

Katy
Pearland

Memorial Hermann-Texas Medical Center

American College of Cardiology Cardiac Cath Lab Accreditation

American College of Cardiology Chest Pain Center with PCI Accreditation

American College of Cardiology Heart CARE Center of National Distinction of Excellence

American College of Cardiology Transcatheter Valve Certified

NCDR CathPCI Registry®

4-star Rankings (highest available)

Memorial City
Southeast
Southwest
Texas Medical Center
The Woodlands

Society of Thoracic Surgeons National Database

3-star Rating Overall for Isolated CABG

Southeast

2-star Rating Overall for Isolated CABG

Greater Heights
Memorial City
Southwest
Texas Medical Center
The Woodlands

Transcatheter Valve Registry

3-star Rating

Texas Medical Center

Extracorporeal Life Support Organization

Platinum Status as ECMO Center of Excellence

Texas Medical Center

Society for Vascular Surgery® Vascular Quality Initiative®

3-Star Rating

Katy
Sugar Land

2-Star Rating

Greater Heights
Memorial City
Northeast
Southeast
Southwest
Texas Medical Center
The Woodlands

The Joint Commission Chest Pain Certification

Cypress
Greater Heights
Katy
Memorial City
Northeast
Pearland
Southeast
Southwest
Sugar Land
The Woodlands

Contents

Service Line Administration Leaders

KYLE PRICE
Senior Vice President
Service Lines
Memorial Hermann Health System

AMY HARBERG
Vice President
Heart & Vascular Service Line
Memorial Hermann Health System

Physicians Governance Council Leaders

ANTHONY ESTRERA, MD, FACS
Professor and Chair, Cardiothoracic and Vascular Surgery, McGovern Medical School at UTHealth Houston

Co-Chair, UTHealth Houston Heart & Vascular

Medical Director, Heart & Vascular Service Line, Memorial Hermann Health System

BISWAJIT KAR, MD
Professor & Chief, Division of Cardiology

Vice President, Strategy and Development for Heart and Vascular

Co-Chair, UTHealth Houston Heart & Vascular

Director, Transplant Institute and Heart & Vascular Service Line, Memorial Hermann Health System

Medical Director, Center for Advanced Heart Failure, Larry D. Johnson Heart & Vascular Institute at Memorial Hermann-Texas Medical Center

Delivering Advanced Cardiovascular Care Across Our Entire Network

At Memorial Hermann Heart & Vascular, we are committed to quality outcomes and the health of our community members. Our program includes affiliated physicians with deep clinical experience and curiosity, many of whom participate in landmark research and innovative patient care.

Patient outcomes are a core element of our program, and quality improvement is a cornerstone of all we do. As a multifacility program, with a distinguished history of research and treatment innovations thanks in part to our long-standing affiliation with McGovern Medical School at UTHealth Houston, we are dedicated to maintaining a high standard of care. If one site has a challenge, all sites come together to find a solution. We are making positive progress through a strong partnership with our affiliated physicians, our care providers and our care delivery sites. Some of our most impactful quality care improvements have been realized through multidisciplinary work groups, best practice sharing, consistent review of our Registries, critical evaluation of our patient outcomes and collaboration with other programs to learn what they (maybe even you) have accomplished.

Another key aspect of our organization is our dedicated quality team within our Heart & Vascular Service Line which focuses on our Registries and accreditations. Working closely with our System Quality team, they review our abstracted data and facilitate initiatives to drive our quality performance forward. In recent years, we have added technology for abstraction and tools for reporting that have improved efficiency in both areas.

We are proud of the work our care teams do every day and are excited to share some recognition we have achieved. From our 3-star overall rating for isolated CABG surgery at Memorial Hermann Southeast Hospital to Platinum Chest Pain—MI Registry™ status at the majority of our sites to the only 3-star rating for TAVR in Texas, awarded for the third year in a row at Memorial Hermann-Texas Medical Center, our program and care teams have received national recognition for outstanding cardiovascular care.

Please let us know if you would like to learn more about our quality journey or any of our clinical programs.

For more information on our programs, we invite you to visit us online at memorialhermann.org/heart. To refer a patient, visit memorialhermann.org/heart-refer.

Memorial Hermann Hospitals Recognized for MI Care Excellence

We proudly deliver award-winning MI care at every hospital across the Memorial Hermann system.

Over the past two years, Memorial Hermann's commitment to raising the bar for MI care has resulted in a significant system-wide milestone: securing the American College of Cardiology (ACC) National Cardiovascular Data Registry® (NCDR) recognition for MI care.

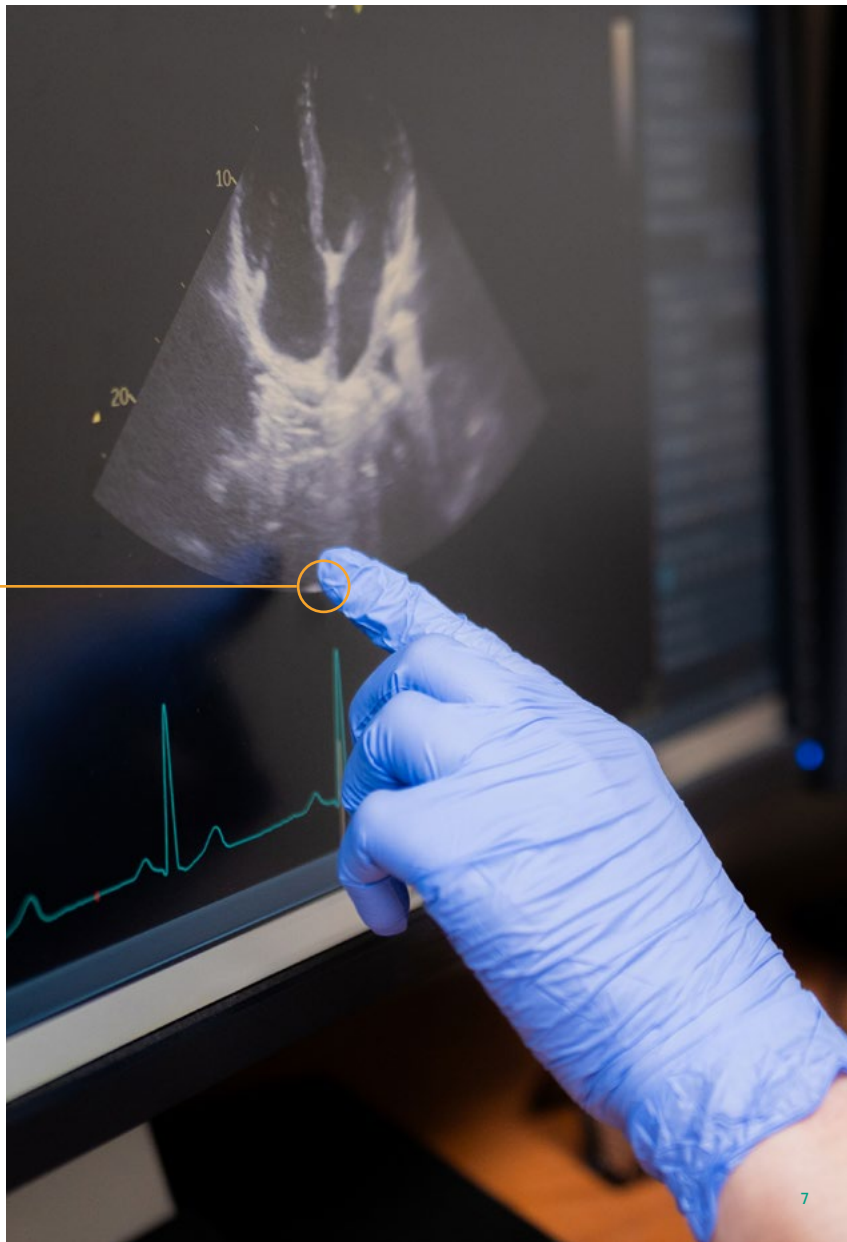
This distinction is not merely an accolade; it signifies sustained achievement in the Chest Pain—MI Registry™ and performance at the highest level across key metrics. Quality improvement initiatives across the system led to recognition for all 11 hospitals in 2024, with nine earning Platinum and two achieving Silver status.

This recognition results from our patient-first culture that encourages each member of the team to recognize the importance of their contribution in creating superior outcomes. The result is a united and nimble team that responds to data-driven quality initiatives with efficiency and impact. We continue to build on these achievements, making great strides to benefit our patients and invest in the bright future of cardiovascular care at Memorial Hermann.

The Driving Force of Chest Pain Coordinators

The Chest Pain Coordinators (CPCs) at Memorial Hermann hospitals are the operational architects of this Platinum-level care. They drive the daily practice adjustments necessary to meet the Registry's stringent requirements by reviewing data and making recommendations to affiliated physicians in real time. CPCs make a difference every day by supporting early preparation for percutaneous coronary intervention (PCI), verifying recommended medications are considered and administered correctly, and facilitating thorough discharge planning. To facilitate this work, CPCs are instrumental in building customized reports within the EMR system, allowing them to notify physicians of any areas for improvement in patient care.

In addition to reviewing workflows at their assigned hospitals, CPCs meet regularly to pool knowledge, share successes and strategize on ways to affect lasting, positive change in care practices. This open exchange of information allows for a cohesive, productive approach to quality improvement across the Memorial Hermann system.



Of 11 acute care hospitals:

Nine Platinum & two Silver

performance achievement awards from the ACC NCDR Chest Pain—MI Registry™

3,000+

MI patients treated in 2025

66 mins

Median door-to-balloon time

83%

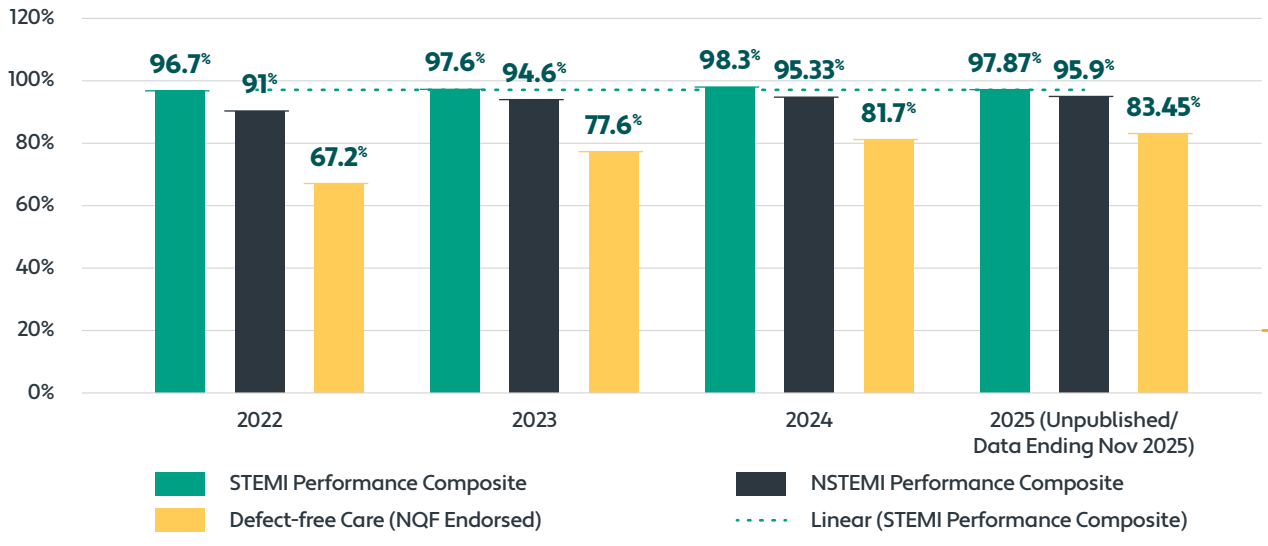
System compliance for overall defect-free care on the ACC NCDR Chest Pain—MI Registry™

Process Enhancement and Advanced Tools

Implementing specific process enhancements and advanced technology has improved patient outcomes and streamlined patient care.

- ***Sharper imaging:*** 4D intracardiac echocardiography (ICE) provides excellent resolution and detail, enabling physicians to understand nuanced pathology and adjust the intra-operative plan in real-time. Improved accuracy decreases the incidence of repeat procedures while reduced case time limits radiation exposure, resulting in safer procedures with better outcomes.
- ***Advanced practice support:*** Designated nurse practitioners (NPs) in the cath lab facilitate a smooth transition to the hospital floor. They work closely with patients and cardiologists so that patients at risk of kidney complications and anemia are managed appropriately. That support continues after the cath lab, where the same NPs work closely with hospitalists to streamline pain management, facilitate patient education, oversee wound management and encourage a smooth transition from hospital to home.
- ***EMS partnerships:*** Consulting with paramedics on suspected MI cases has resulted in quick activation of Memorial Hermann cath labs, integrating the essential experience of our EMS partners more fully into our care pathways. Expediting life-saving care through direct, two-way communication with EMS providers has been a key facet of our journey to provide the highest level of care possible for STEMI and NSTEMI patients across Greater Houston.

ACC NCDR Chest Pain—MI Registry™ Composite Metric Results



Data reported by calendar year.

“A big part of Platinum status is creating an environment where everyone can work at the top of their game, and the providers lead by example to implement change.”

Majid Basit, MD
Medical Director of Cardiology,
Memorial Hermann Medical Group

Better Outcomes for PCI Patients

We're relentlessly committed to incorporating innovation into every facet of PCI care.

From emergent cases to high-risk patients with chronic disease, we offer advanced procedural techniques and technology. This dedication to quality and timely intervention is the reason all Memorial Hermann hospitals participating in the American College of Cardiology (ACC) CathPCI Registry have received the highest rating available: 4 stars.

Studies that Advance Patient Care

To achieve excellent cardiovascular care at every point of a patient's journey through our hospitals, Memorial Hermann Heart & Vascular empowers medical providers at all levels to lead and support ongoing quality improvement work. To this end, our affiliated medical providers have reviewed several key complications with the goal of deploying prevention more often than treatment:

- ***Acute kidney injury (AKI).*** An 18-month advanced practice provider-led quality improvement initiative at Memorial Hermann Southeast Hospital ended this past year with a 52% decrease in AKI following PCI. By establishing a consistent kidney protocol, medical staff gauged each patient's risk of kidney injury and followed an adjusted hydration protocol to prevent kidney damage. This protocol is being shared with the entire system.
- ***Blood transfusions.*** Memorial Hermann Southeast (MHSE) has implemented quality improvement measures to decrease the risk for blood transfusion following cath lab procedures. These efforts to highlight high-risk patients, including those with anemia, and increase pre- and postoperative communication have resulted in significant decline in the number of blood transfusions given postoperatively.

AKI and bleeding event reductions following PCI risk mitigation implementation

- ***Lipid management.*** A new quality improvement project is underway to standardize use of cholesterol-lowering medications for patients with a history of MI across transitions of care. To meet the ACC and American Heart Association guidelines, the Memorial Hermann Heart & Vascular team works with cardiologists and primary care providers to support adherence to evidence-based care pathways.

  Last year also saw the addition of more powerful data analysis software as part of an electronic medical record upgrade. A sharper ability to analyze our patient outcomes will improve our ability to treat and prevent MI.

PCI for High Risk Patients

Memorial Hermann offers careful planning and precision intervention, combined with investigational devices in the hands of trained clinicians, for optimal care of chronic artery occlusion. Our team possesses extensive clinical experience managing patients with complete vessel occlusion or advanced-stage heart failure who need PCI.

Chronic total occlusion (CTO) requires an experienced team for effective treatment, and few have more experience than we do. As one of the busiest CTO centers in Houston, performing over 150 CTO interventions a year, we are also among the top 20 hospitals for CTO volume in the nation. Our patients receive innovative solutions tailored to their specific needs. We also have access to advanced data and studies through our participation in the Progress-CTO Registry, an international registry dedicated to the study of CTO intervention, and have submitted abstracts to the Registry.

For patients with heart failure and chronic coronary artery disease who need PCI, our program's involvement in the Protect IV randomized controlled trial gives our patients an exciting new option. The trial looks at the efficacy of the Impella® heart pump, which is inserted into the heart at the time of PCI and pumps blood into the aorta or pulmonic artery as needed to decrease the strain of the procedure on already weakened hearts. With the Impella® device, patients with chronic angina can access life-altering treatment that was previously unavailable to them.

75th percentile

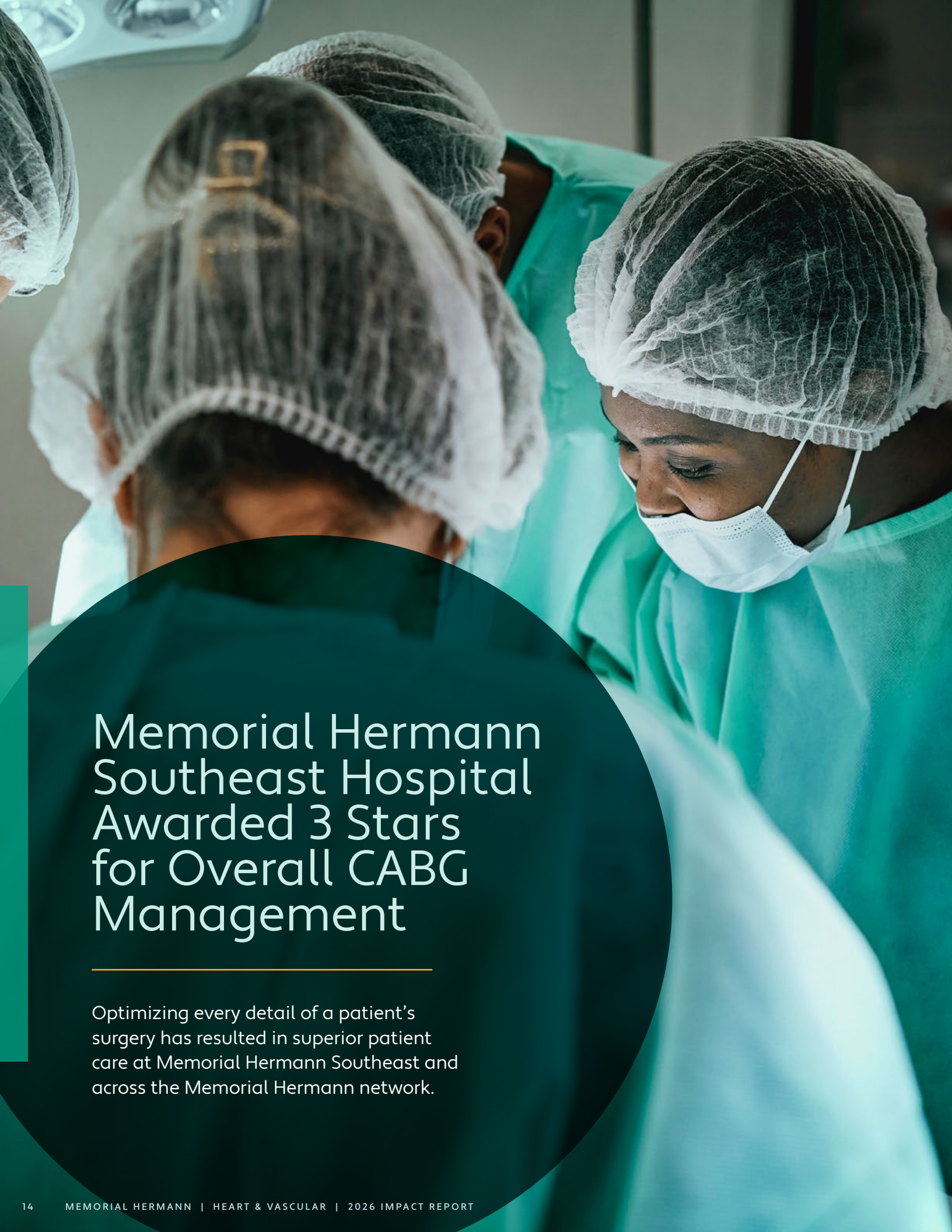
for procedural CTO success on the CathPCI Registry®

Top NCDR rating

for appropriate medication use with PCI at all participating sites

“Communicating and connecting with our referring partners is something we take pride in. We value having good relationships with them and strive to provide their patients with the best care possible.”

Daniel Hermann, MD
Director of Structural Cardiology,
Memorial Hermann Memorial City



Memorial Hermann Southeast Hospital Awarded 3 Stars for Overall CABG Management

Optimizing every detail of a patient's surgery has resulted in superior patient care at Memorial Hermann Southeast and across the Memorial Hermann network.

Over the past seven years of cardiothoracic surgery at Memorial Hermann Southeast, the program has grown and evolved to successfully achieve a 3-star isolated CABG overall composite score from the Society of Thoracic Surgeons, the highest award possible.

This degree of success is built on a foundation of quality and collaboration, with every member of the affiliated surgical team executing protocols that optimize patient recovery across multiple critical areas, including extubation time, pain control and blood utilization.

*Every Memorial Hermann Cardiothoracic Surgery program has achieved a **2- or 3-star rating** in a variety of measures related to quality CABG surgical outcomes.*

A Powerhouse Nursing Team

The cardiovascular intensive care unit (CVICU) at Memorial Hermann Southeast employs a series of protocols that empower nurses to practice at the top of their license, enabling them to identify and address problems on the unit more quickly. Nurses' proximity to and relationship with patients enables them to be integral partners to physicians in early recognition of complications and signs of deterioration. Allowing nurses to independently identify and address problems on the unit within the scope of their license, and encouraging a care team partnership with surgeons, gives patients the care they need in a timely manner.

Close collaboration between anesthesia and the ICU nursing teams at Memorial Hermann Southeast is an essential part of quality patient care. Using a standardized transition protocol that includes both a written form and an in-person warm hand off, nursing and affiliated physician teams are thoroughly aware of each patient's needs and completely satisfied that the patient is stable for transfer. When the patient arrives in the CVICU, extubation planning, pain control and chronic medical needs are clear to the critical care team.

Early Extubation for Improved Recovery

Evidence-based research and best practice shows that extubating a patient within six hours of finishing isolated CABG surgery can significantly decrease their risk of complications, but achieving early extubation requires a team effort. Nurses and affiliated physicians both shared their expertise in crafting an effective, evidence-based protocol for successful early extubation.

Planning for early extubation begins before the operating room and continues through the CVICU. Pain control must be adequate, likelihood of return to the operating room should be low and CVICU staff must be ready to facilitate the transition. Collaborations between cardiothoracic surgery, anesthesia and nursing before and after surgery at Memorial Hermann Southeast have resulted in improved pain control techniques and a standard bed-side handoff protocol that prepares the team to expect early extubation as the rule, not the exception. Additionally, education about the associated decreased risk of renal failure and overall mortality increased understanding of why the extubation protocols were changed. These protocols and educational efforts are now shared with all Memorial Hermann open heart programs.

The result has been a measurable improvement in key patient recovery metrics, such as length of stay in both the postoperative care unit and the hospital overall.

Pain Control That Starts Before the First Incision

Adequate pain control is an essential component of a patient's recovery, starting with pre-operative management and continuing through the final day of cardiac rehabilitation therapy. Beyond patient comfort, adequate pain control improves a patient's ability to walk, breathe deeply, eat well and participate in medical decision-making, all of which decrease the likelihood of complications.

Before surgery, the affiliated anesthesia and surgical teams discuss the patient's medical history to make a customized pain control plan that includes adequate operating room temperature control and early initiation of IV pain medications, including a 48-hour IV acetaminophen protocol to decrease narcotics use. Postoperatively, close collaboration with intensivists, hospitalists and nursing allows for the pain management plan to be carried through to the patient's hospital stay and discharge plan.

Empowering Patients Through Education and Support

A new pilot program across Memorial Hermann will provide each patient with educational information before and after surgery to help them know what to expect and how to participate in their recovery. Exercises for better breathing, advice for skin and wound care and contact information for the heart team are all included to empower patients in their own recovery.

Careful Blood Utilization

Memorial Hermann Southeast maintains excellent blood utilization numbers through meticulous surgical technique and careful fluid management. We utilize TEG 5 and 6 testing in the operating room, which provides faster, easier data to help clinicians make real-time decisions about blood utilization before the patient leaves the operating room. By analyzing blood coagulation factors and clot stability, the team can address issues like intra-operative coagulopathy, bleeding risks and clot risks earlier, allowing for strategic use of blood products or medications.

Harvest 3 2025 Isolated CABG STAR Ratings

ISO CABG	Overall	Mortality	Morbidity	IMA	Medication
Memorial Hermann Southwest	★★	★★	★★	★★	★★★
Memorial Hermann-Texas Medical Center	★★	★★	★★	★★★	★★★
Memorial Hermann Memorial City	★★	★★	★★	★★★	★★★
Memorial Hermann Greater Heights	★★	★★	★★	★★	★★
Memorial Hermann The Woodlands	★★	★★	★★	★★★	★★★
Memorial Hermann Southeast	★★★	★★	★★★	★★	★★★

Data ending June 2025

UT Quality Consortium

Memorial Hermann-affiliated physicians from UTHealth Houston participate in the UT Cardiac Surgery Quality Consortium (UTCSQC), which brings together surgical leadership from each UTHealth-affiliated program to share best practices to elevate patient care.

Since joining the UTCSQC in 2023, our affiliated physicians have shared data and developments from Memorial Hermann, leading initiatives to decrease postsurgery blood transfusions, repeat operations and supply chain inefficiencies. Through our collaboration with the UTCSQC, we are helping to lead the way to better cardiovascular health throughout Texas.

“Cardiac surgery is a complex process, and I believe success is achieved by optimizing all the components. The big ones are obvious, but the smaller ones, when added together, are essential to making a significant difference.”

Cesar Nahas, MD
Associate Professor, Cardiothoracic and Vascular Surgery, McGovern Medical School at UTHealth Houston and Medical Director, Cardiac Surgery Program at Memorial Hermann Southeast

A Look Inside Texas' Only 3-Star TAVR Program

At Memorial Hermann Heart & Vascular, consistency, planning and shared expertise drive our TAVR achievements.

For the past three years, the Larry D. Johnson Heart & Vascular Institute at Memorial Hermann-Texas Medical Center (TMC) has held a unique distinction: our 3-star rating for transcatheter aortic valve replacement (TAVR) from the Society of Thoracic Surgeons and the American College of Cardiology TVT Registry. This rating marks the highest level of quality awarded—an achievement earned by only about 5% of hospitals in the United States. Memorial Hermann-TMC is proud to be the only hospital in Texas to have achieved this rating.

This elite designation recognizes hospitals that consistently outperform national averages in safety, outcomes and recovery. Ratings are based on a rigorous, risk-adjusted analysis of patient data, comparing mortality, stroke, bleeding, kidney injury, valve leakage and other key measures within 30 days of TAVR. In short, 3 stars reflects superior performance in risk-adjusted outcomes and quality.

The Process Behind Superior Results

Memorial Hermann Health System's TAVR programs performed more than 600 procedures last year across five hospitals. Every TAVR case at Memorial Hermann-TMC is planned and executed through a process built on collaboration and data. The key to achieving 3 stars for Memorial Hermann-TMC is the focus on precision and disciplined adherence to processes and protocols.

Each week the program's Valve Conference brings together affiliated interventional cardiologists, surgeons, imagers, anesthesiologists, nurses and structural heart coordinators to review upcoming cases. High-risk cases often include additional specialties, such as pulmonology or oncology, to allow for comprehensive care planning. This structured and diverse team carefully considers each case as well as associated risks and comorbidities, with a true dialog that challenges assumptions and offers additional perspective to enhance each patient's care plan.

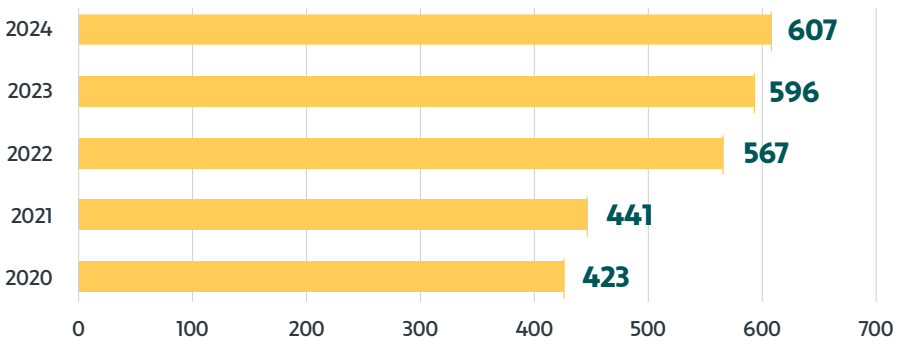
Through this process, the team refines patient selection, reviews imaging in detail and determines the optimal device and access route. Using advanced planning tools such as image guidance software, they analyze CT scans to assess the aortic root, simulate procedural views and select the ideal valve size and approach. When needed, advanced imaging with transesophageal echocardiography provides additional precision.

The weekly TAVR meeting is highly structured and interactive. A multidisciplinary team conducts thorough reviews of patient selection and procedural strategies to ensure the most appropriate treatment approach. Complex postprocedure cases are also presented and discussed to optimize long-term management and drive continuous improvement in patient outcomes. In addition, a review of the program's quality metrics is presented to support the consistent maintenance of superior safety and performance.

In addition, the monthly Structural Heart Council connects our structural heart coordinator team from all five Memorial Hermann Structural Heart Program campuses, enabling shared learning and quality review across the system—helping provide the same high standards wherever patients receive care.

The team frequently reviews their star rating metric fallouts to determine the root cause and apply any applicable best practices to future cases. Meticulous documentation to allow that all risk is captured—every time for every patient—is central to the program's success.

TAVR Volume by Calendar Year



Source: NCDR, system-wide data ending Q4 2024

Preparing Patients for Success

In addition to our internal processes, we employ a holistic approach to preparing patients and their families for the TAVR procedure. To help enhance emotional readiness, the affiliated care team explains the procedure in understandable terms using visual aids and models. Likely outcomes, recovery time and follow-up expectations are discussed, allowing for the patient and loved ones to be informed and their questions answered. The care team assesses the emotional needs of the patient to address any fear, anxiety and stress so the patient feels empowered to make decisions throughout the process. Continual follow-up after the procedure allows the patients to be supported with open-door communication.

The same level of precision extends to preparing patients physically and clinically for TAVR. Patients undergo an extensive preoperative evaluation to optimize their health before intervention. For example, for those with advanced heart failure, right heart catheterization with Swan-Ganz monitoring helps the team evaluate hemodynamics and tailor treatment before proceeding. Some patients may receive pacing or other optimization measures to minimize risk and support recovery.

Post-procedure, our team communicates with referring providers to allow for continuity of care throughout the patient's recovery. We also continue to follow up with the patient directly to address any symptoms or concerns promptly.

This meticulous approach enables the team to anticipate needs so that patients enter the procedure in the best possible condition and leave it with the best possible outcome.

"It's the best of both worlds: Memorial Hermann provides excellent infrastructure, the latest advancement in cardiac imaging and emphasis on research and clinical excellence. That's combined with operator experience and academic excellence from UTHealth Houston."

Abhijeet Dhoble, MD
Professor, Cardiovascular Medicine, McGovern Medical School at UTHealth Houston and Interventional Cardiologist affiliated with Memorial Hermann

600+
TAVR procedures annually across 5 campuses

Nearly 3,500
TAVR procedures performed to date

The only Texas facility to achieve a
3-star rating
in TAVR by the NCDR*

*Memorial Hermann-Texas Medical Center

Expanding Options Through Transcatheter Tricuspid Therapies

Memorial Hermann was among the first in the region to offer catheter-based tricuspid valve repair and replacement, and our affiliated team offers both TriClip™ and EVOQUE™ transcatheter therapies, allowing individualized treatment for patients who once had limited surgical options. Through our collaboration with McGovern Medical School at UTHealth Houston, we are participating in several clinical trials to continue to evaluate and expand options for patients, including TRILUMINATE Pivotal trial, TRISCEND II, CLASP II and TRICAV EFS. (To learn more about all our clinical trials, see page 26.)

These minimally invasive approaches, available at Memorial Hermann-TMC and Memorial Hermann Memorial City Medical Center, have opened lifesaving pathways for patients with severe tricuspid regurgitation.

Through dedicated teams and a commitment to research and care innovation, Memorial Hermann Heart & Vascular is helping restore hope and improve quality of life for this underserved population in cardiac care.

Memorial Hermann distinguishes itself in the market by bringing advanced valve therapies—including transcatheter aortic, mitral and tricuspid interventions—into the community, where patients can receive advanced care closer to home. This approach reflects our mission to expand access while maintaining the same clinical rigor and quality across our health system.

Platinum-Level ECMO Impact: Saving Lives Today, Training Innovators for Tomorrow

We translate ECMO excellence into advanced perfusion education and leadership development.

Memorial Hermann sets the bar for excellence in mechanical circulatory support, evidenced by being named a Platinum Level Center of Excellence by the Extracorporeal Life Support Organization (ELSO) since 2020. ELSO's Platinum status is the highest level of recognition for education, performance, innovation, satisfaction and quality. We are 1 of only 46 programs worldwide to achieve this designation and the only adult hospital system in Houston with this level of recognition.

Our program meets—and significantly exceeds—the eligibility requirements for this designation, which include sustained ELSO membership for a minimum of three consecutive years, a minimum of five years of ECMO program experience with at least five cases annually and comprehensive reporting to the ELSO Registry. In the most recent year alone, our team managed more than 170 ECMO cases. Since 2012, more than 1,350 patients have received ECMO support at Memorial Hermann through June 2025.

Achieving Platinum status also demands a sustained commitment to clinical discipline, education and continuous improvement. Our ECMO program is built on standardized, evidence-based protocols and a deeply collaborative multidisciplinary care model. Affiliated physicians, perfusionists, nurses and critical care teams participate in structured rounds and shared decision-making to provide consistency across complex cases. The program uses ELSO Registry data and other metrics to drive regular performance review and ongoing refinement of care processes, adjusting clinical pathways to reflect the latest advancements. One example is the team's focused work on addressing cardiac cachexia—recognizing that nutritional status and metabolic decline can significantly influence outcomes for patients requiring advanced mechanical support. Through earlier identification, closer monitoring and coordinated nutritional and heart failure management, the team has worked to improve patient resilience before, during and after ECMO support.

Equally critical is the program's emphasis on training and competency, with standardized education and skills validation that support reliability and excellence across all ECMO providers. This culture of accountability and learning has enabled Memorial Hermann to deliver high-acuity ECMO care at scale while meeting the stringent requirements for Platinum recognition.

In addition to our inpatient ECMO service, we have provided mobile ECMO care through Memorial Hermann Life Flight® since 2014. Life Flight is our air medical ambulance service that transports critically ill and injured patients within a 150-mile radius of the Texas Medical Center.

This proactive approach not only supports accreditation standards—it's a core part of Memorial Hermann's identity as a teaching hospital and referral center for high-risk cases.

Leadership Through Learning: UTHealth Houston's Cardiovascular Perfusion Program

Behind every successful ECMO run is a highly skilled perfusionist, responsible for extracorporeal oxygenation of the blood during open-heart surgery and providing critical support during complex procedures. Our team is developing the next generation of perfusionist leaders through the Cardiovascular Perfusion Program at McGovern Medical School at UTHealth Houston, one of only a few in the nation. 2025 marks the program's 10-year anniversary, celebrating over 60 graduates during its tenure. Beginning with two students per year, the program has grown to accept eight students annually.

The program has become a sought-after training destination for future perfusionists from across the country. Each year, it welcomes students from multiple accredited perfusion schools, offering hands-on experience in one of the most advanced and diverse clinical environments available.

Trainees are exposed to a high volume of mechanical circulatory support cases, including cardiopulmonary bypass, ECMO, VADs, heart transplants and more. The program's teaching model integrates students directly into multidisciplinary care teams, giving them a front-row seat to the full continuum of advanced cardiovascular management.

The breadth and depth of this program is unique due to the high-acuity patient population served by Memorial Hermann Heart & Vascular. Trainees not only observe but also participate in real-world scenarios. The program prepares perfusionists to enter the workforce with a deep understanding of both the technical and collaborative demands of modern heart failure care.

1,350+
ECMO runs

Platinum status
for ECMO

"We have the highest passing rate from first time students taking the American Board of Cardiovascular Perfusion in the country. Our graduates are prepared to provide the highest levels of care in the cardiovascular arena."

Igor Banjac, BS, CCP, LP
Senior Director of Perfusion Services, Cardiovascular Perfusion Program, McGovern Medical School at UTHealth Houston

Educational Opportunities

HOUSTON SHOCK SYMPOSIUM: ELEVATING CARE THROUGH COLLABORATION

Memorial Hermann is the title sponsor of the Houston Shock Symposium, the largest cardiogenic shock conference in North America. Launched in 2018 by UTHealth Houston with Memorial Hermann as its title sponsor since inception, the event has grown to welcome thousands of attendees from the United States, Canada and Europe.

This prestigious three-day event brings together global experts for case reviews, education and advanced hands-on training—including training in percutaneous MCS device support, large bore access/closure and the latest therapeutic devices—enabling the most innovative lifesaving approaches to be discussed, disseminated and deployed worldwide.

Learn more at houstonshock.org.

HOUSTON AORTIC SYMPOSIUM: RAISING THE BAR THROUGH EDUCATION

In March every year, over 500 top faculty and leadership in the field of aortic medicine come together to share ideas and innovations at the Houston Aortic Symposium. The Symposium fosters collaboration between international aortic specialty centers to discuss best practices and share research. UTHealth Houston and Memorial Hermann-affiliated surgeons established the conference in 2008 and have been leading the multiday symposium ever since, often welcoming back former fellows as distinguished colleagues.

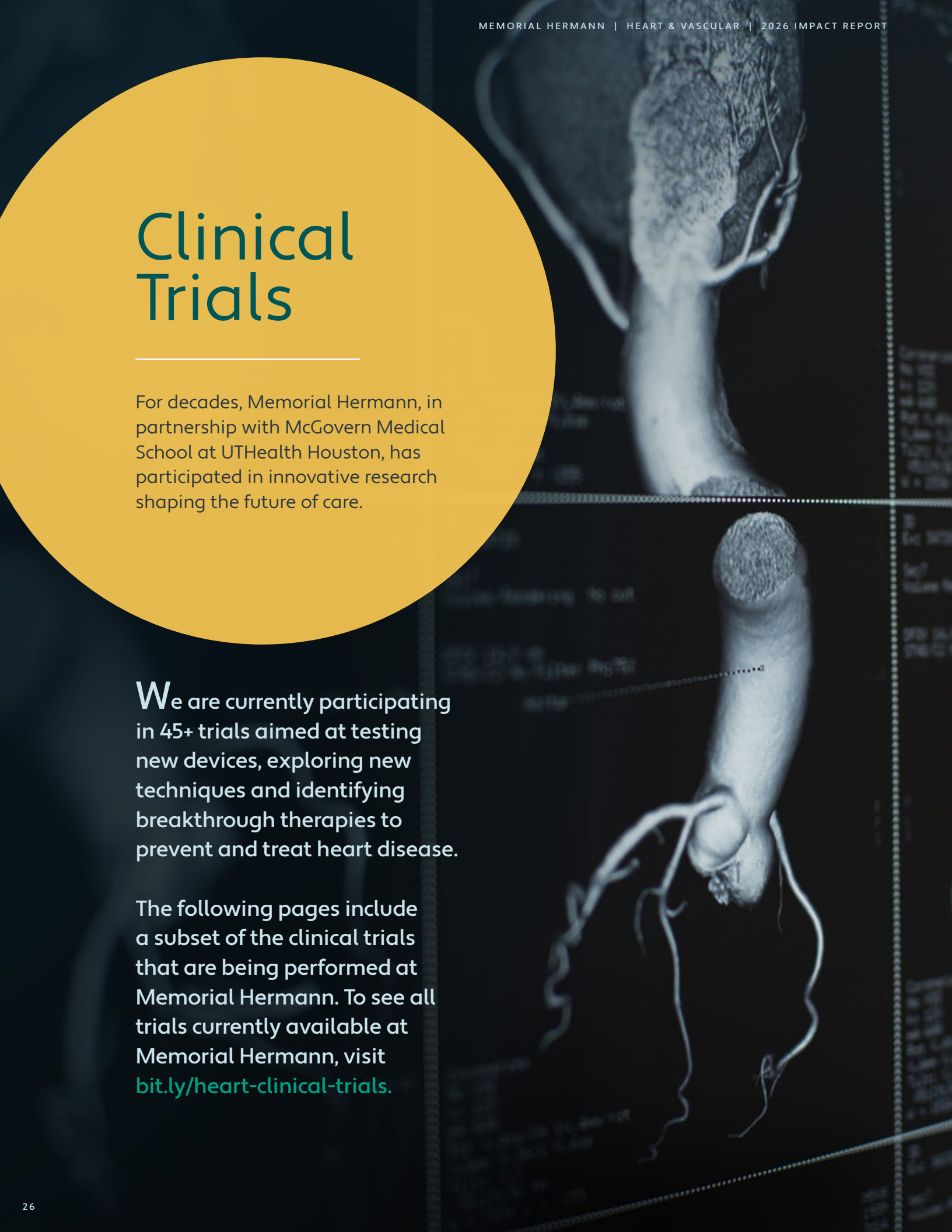
The 2025 Symposium placed special emphasis on diagnostic and therapeutic tools to prevent death and morbidity from aortic disease. Experts in cardiology, genetics, radiology and other related fields shared ways to improve education and raise the profile of aortic dissection to improve the rate of early diagnosis.

The 2026 Symposium will emphasize surgical techniques in treating aortic dissection and the powerful capabilities of artificial intelligence in disease management.

Learn more at houstonaorticsymposium.com.

Clinical Trials

For decades, Memorial Hermann, in partnership with McGovern Medical School at UTHealth Houston, has participated in innovative research shaping the future of care.



We are currently participating in 45+ trials aimed at testing new devices, exploring new techniques and identifying breakthrough therapies to prevent and treat heart disease.

The following pages include a subset of the clinical trials that are being performed at Memorial Hermann. To see all trials currently available at Memorial Hermann, visit bit.ly/heart-clinical-trials.

Interventional Cardiology

Impella®-Supported PCI in High-Risk Patients with Complex Coronary Artery Disease and Reduced Left Ventricular Function (Protect IV)

The purpose of this study is to assess if using the Impella® CP (or Impella® 2.5) device during high-risk PCI in patients with reduced left-sided heart function will result in an improvement in symptoms, heart function and health after a heart procedure compared to the current standard of care.

ID NUMBER: **NCT04763200**
PRINCIPAL INVESTIGATOR: Abiomed Inc.

Cardiothoracic Surgery

Century Trial, a Randomized Lifestyle Modification Study for Management of Stable Coronary Artery Disease

The study hypothesis is that a combined image-treatment regimen of PET + comprehensive program of lifestyle modification and lipid lowering drugs to target lipid level will result in an improved cardiovascular risk score when compared to current standard optimal medical therapy, potentially resulting in a lower rate of death, non-fatal MI and revascularization procedures during long term follow-up when compared with current standard of care.

ID NUMBER: **NCT00756379**
PRINCIPAL INVESTIGATOR: K. Lance Gould, MD

Post-Cardiac Surgery Acute Kidney Injury Prevention by Administration of Proton Pump Inhibitor (P2 Trial) (P2 AKI PPI)

The central hypothesis of this research study is that perioperative administration of the proton pump inhibitor (PPI) pantoprazole could reduce the development of acute kidney injury (AKI) following cardiac surgery by activation of molecular pathways for kidney protection.

ID NUMBER: **NCT06706258**
PRINCIPAL INVESTIGATOR: Yafen Liang, MD
CONTACT: Yafen Liang, MD (**yafen.liang@uth.tmc.edu**)

Aortic and Vascular Surgery

Thoraflex™ Hybrid IDE Study

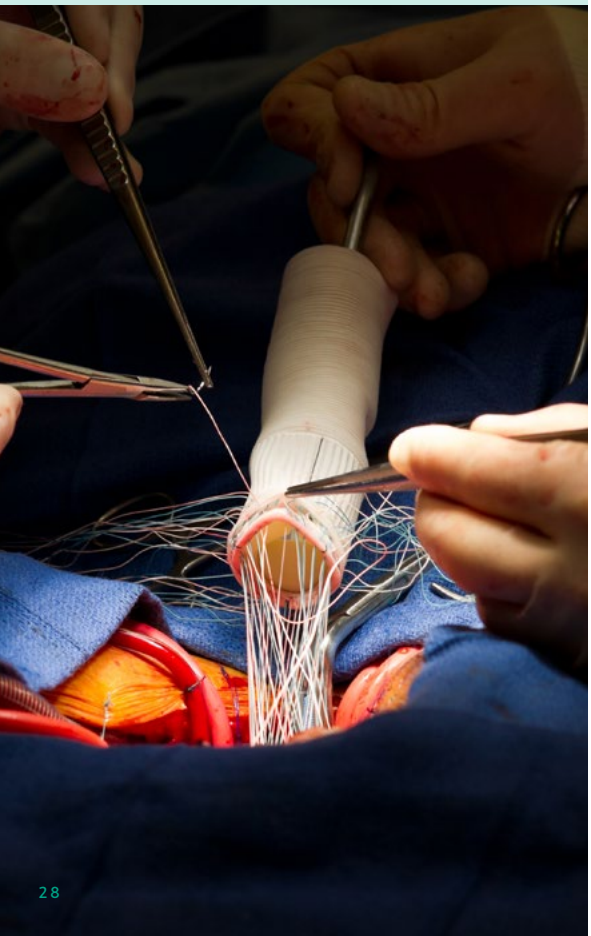
The study assessed the effectiveness, safety and clinical outcomes of the Thoraflex™ Hybrid Device in the treatment of aortic disease affecting the aortic arch and the descending thoracic aorta, with or without involvement of ascending aorta.

ID NUMBER: **NCT02724072**

Best Endovascular vs Best Surgical Therapy in Patients with Critical Limb Ischemia

This study will compare the effectiveness of best available surgical treatment with best available endovascular treatment in adults with critical limb ischemia (CLI) who are eligible for both treatment options.

ID NUMBER: **NCT02060630**



Valve and Structural Heart

The PROTEMBO Trial

This prospective, multi-center study compares the safety and efficacy of the ProtEmbo Cerebral Embolic Protection device to a hybrid control (no embolic protection device and the Sentinel device) in patients with severe symptomatic native aortic valve stenosis undergoing a TAVR procedure. We are currently the only study center in Texas for this trial and one of only 20 locations worldwide.

ID NUMBER: **NCT05873816**
PRINCIPAL INVESTIGATOR:
Abhijeet Dhoble, MD
CONTACT: Anna Menezes (**713.500.5683, anna.m.menezes@uth.tmc.edu**)

ALLIANCE AVIV: Safety and Effectiveness of the SAPIEN X4 Transcatheter Heart Valve in Failing Aortic Bioprosthetic Valves

This prospective study evaluates the safety and efficacy of the Edwards SAPIEN X4 Transcatheter Heart Valve in subjects who are at high or greater risk with a failing aortic bioprosthetic valve. We are currently the only study center in the Greater Houston area for this trial.

ID NUMBER: **NCT05172973**
CONTACT: Memorial Hermann Clinical Innovation & Research Institute (**713.222.2273**)

MitraClip REPAIR MR Study

This clinical trial compares the clinical outcome of the MitraClip™ device versus surgical repair in patients with severe primary MR who are at moderate surgical risk.

ID NUMBER: **NCT04198870**
PRINCIPAL INVESTIGATOR:
Richard Smalling, MD
CONTACT:
Matthew Franciskovich (**832.803.3389, matthew.r.franciskovich@uth.tmc.edu**)

Edwards PASCAL Transcatheter Valve Repair System Pivotal Clinical Trial (CLASP II TR)

This prospective, multi-center study evaluates the safety and efficacy of the Edwards PASCAL Transcatheter Repair System in patients with symptomatic severe tricuspid regurgitation who have been determined to be at an intermediate or greater estimated risk of mortality with tricuspid valve surgery.

ID NUMBER: **NCT04097145**
PRINCIPAL INVESTIGATORS:
Abhijeet Dhoble, MD; Biswajit Kar, MD; Richard Smalling, MD

Electrophysiology

The CONFORM Pivotal Trial

This clinical trial evaluates the CLAAS® device for safety and efficacy by establishing its performance as non-inferior to the commercially available WATCHMAN® and Amulet™ left atrial appendage closure devices in patients with non-valvular atrial fibrillation.

ID NUMBER: **NCT05147792**
PRINCIPAL INVESTIGATOR: Amir Kashani, MD
CONTACT: Maddie Peek (**maddie@whactc.com**)

Amplatzer Amulet LAAO vs. NOAC (CATALYST)

This prospective, multicenter study evaluates the safety and efficacy of the Abbott Amplatzer™ Amulet™ Left Atrial Appendage Occluder compared to nonvitamin K antagonist oral anticoagulants in patients with nonvalvular atrial fibrillation who are at increased risk for ischemic stroke.

ID NUMBER: **NCT04226547**
PRINCIPAL INVESTIGATOR: Abhijeet Dhoble, MD
CONTACT: Anna Menezes (**713.500.5683, anna.m.meneze@uth.tmc.edu**)

Anticoagulation in ICH Survivors for Stroke Prevention and Recovery (ASPIRE)

This phase III clinical trial aims to determine if apixaban is superior to aspirin for prevention of the composite outcome of stroke or death from any cause in patients with recent intracerebral hemorrhage and atrial fibrillation.

ID NUMBER: **NCT03907046**
PRINCIPAL INVESTIGATOR: Andrew Barreto, MD, MS
CONTACT: Andrew Barreto, MD, MS (**713.500.7002, andrew.d.barreto@uth.tmc.edu**)

Heart Failure

Post Approval Study (PAS) of the OPTIMIZER Smart and CCM Therapy (PAS)

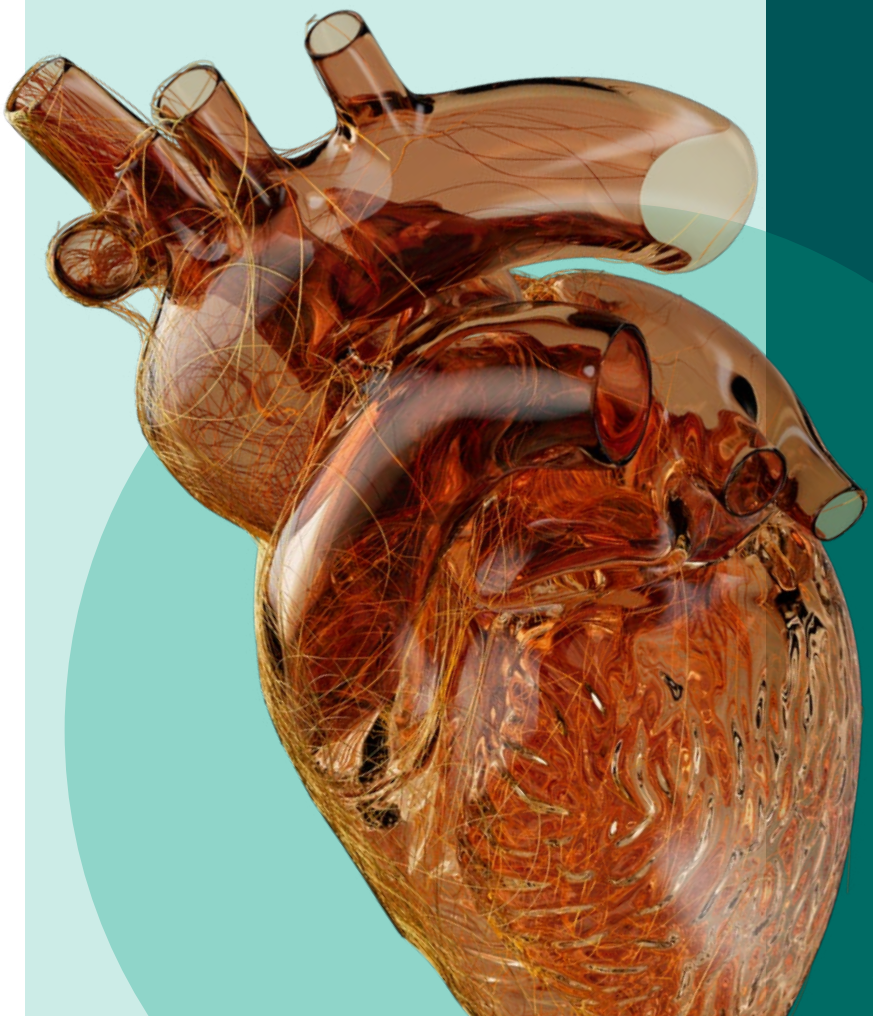
This postapproval study evaluates the long-term safety and efficacy of the OPTIMIZER Smart in a real-world setting for patients receiving an OPTIMIZER implant as standard of care.

ID NUMBER: **NCT03970343**
PRINCIPAL INVESTIGATOR: Anju Bhardwaj, MD, FACC, FHFSA
CONTACT: Chandni Patel (**713.500.7572, chandni.patel@uth.tmc.edu**)

Assessment of CCM in HF With Higher Ejection Fraction (AIM HIGHer)

This prospective, multicenter trial will evaluate the safety and efficacy of cardiac contractility modulation therapy in patients with left ventricular ejection fraction ≥40% and ≤60%.

ID NUMBER: **NCT05064709**
CONTACT: Lawana Self (**lawana.self@uth.tmc.edu**)



Memorial Hermann Heart & Vascular Locations

To refer a patient to Memorial Hermann Heart & Vascular, scan this QR code or visit memorialhermann.org/heart-refer.

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