

HEART CARE NEWS



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NORTHSIDE
HOSPITAL
HEART INSTITUTE

Northside Hospital Heart Institute: Providing Exceptional Cardiovascular Care to the Atlanta Region

Northside Hospital Heart Institute boasts over 100 expert cardiovascular physicians practicing at more than 55 heart and vascular clinics across the Atlanta region and north Georgia, with services available at all five Northside Hospital locations. Providers are trained in an array of diverse subspecialties, including cardiac rehabilitation, cardiac surgery, cardio-obstetrics, cardio-oncology, cardiovascular imaging, cardiovascular research, extracorporeal membrane oxygenation (ECMO), electrophysiology/heart rhythm disorders, general cardiology, heart failure therapy, interventional cardiology, structural and vascular surgery.

Recognized for excellence, Northside Hospital Heart Institute holds several accreditations:



- **Emergency Cardiac Care Center (ECCC)**

- All five hospitals
- Northside Hospital Gwinnett is a Level 1 ECCC

- **American Heart Association Gold and Gold Plus Recognitions**

- All five hospitals: Get With The Guidelines®-Heart Failure Gold Plus with Target: Heart Failure and Target: Type 2 Diabetes and Get With The Guidelines®-Coronary Artery Disease NSTEMI Gold with Target: Type 2 Diabetes
- Northside Hospital Atlanta and Forsyth Campuses: Get With The Guidelines®-Coronary Artery Disease STEMI Receiving Gold with Target: Type 2 Diabetes
- Northside Hospital Cherokee and Gwinnett Campuses: Get With The Guidelines®-Coronary Artery Disease STEMI Receiving Gold Plus with Target: Type 2 Diabetes
- Northside Hospital Atlanta, Cherokee and Forsyth campuses: Get With The Guidelines®-Stroke Gold Plus with Target: Stroke Honor Roll Elite Plus and Target: Type 2 Diabetes

- **Women's Choice Award for Best Hospital for Heart Care in Georgia**

- Northside Hospital Atlanta and Forsyth campuses

- **Intersociety Accreditation Commission Accreditation for Echocardiography, Vascular Testing and Nuclear Cardiology**

- **American Association of Critical Care Nurses Beacon Award for Excellence**

- Intensive Care Unit at Northside Hospital Gwinnett



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Northside Hospital Heart Institute: Providing Exceptional Cardiovascular Care to the Atlanta Region

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- **Cardio-Oncology Center of Excellence Certification from the International Cardio-Oncology Society**
 - Northside Hospital Heart Institute
- **Comprehensive Cardiac Center (CCC) Certification from the Joint Commission**
 - Northside Hospital Gwinnett
- **Acute Myocardial Infarction Certification from the Joint Commission**
 - Northside Hospital Atlanta, Forsyth, and Cherokee campuses
- **Heart Failure Certification from the Joint Commission**
 - Northside Hospital Forsyth
- **Society of Thoracic Surgeons 3-star AVR+CABG (Aortic Valve Replacement in Combination with Coronary Artery bypass Graft) Overall Composite Score**
 - Northside Hospital Gwinnett
- **Silver Level Extracorporeal Life Support Organization Award Recipient *2025**

Northside Hospital Heart Institute is committed to delivering comprehensive services tailored to meet the diverse needs of the Atlanta region and surrounding communities. Whether managing complex cardiac conditions or pioneering new treatments through cutting-edge research, Northside Hospital Heart Institute is determined to provide exceptional cardiovascular care, ensuring the best possible outcomes for every patient.

Clinical Trials and Research

Sponsor	Study/Protocol Number and Study Title	NCT Identifier
Abiomed	C-511; VV-TMF-06250 Primary Unloading and Delayed Reperfusion in ST-Elevation Myocardial Infarction: The STEMI-DTU Trial	NCT03947619
	<div> Study Design <ul style="list-style-type: none"> • Eligible patients are randomized 1:1 to the following: <ul style="list-style-type: none"> Arm A: Standard of care treatment Arm B: Impella CP® device placement (percutaneous catheter-based transvalvular axial flow pump) </div> <div> Key Eligibility Criteria <ul style="list-style-type: none"> • First myocardial infarction, with an acute anterior STEMI • Indicated for primary percutaneous coronary intervention (PPCI) • Cannot have had prior CABG or LAD PCI </div>	
REDNVIA	C-544; TR-CAVD-001 An Adaptive Phase 2/3 Multicenter, Double-Blind, Placebo-Controlled, Randomized, Parallel, 3 Arm Study to Evaluate the Efficacy and Safety of DA-1229 (Evogliptin) in Patients Calcific Aortic Valve Disease with Mild to Moderate Aortic Stenosis (EVOID-AS)	NCT05143177
	<div> Study Design <ul style="list-style-type: none"> • Eligible patients are randomized 1:1:1 to the following: <ul style="list-style-type: none"> Arm A: DA-1229 Placebo PO QD Arm B: DA-1229 5mg PO QD Arm C: DA-1229 10mg PO QD <p><i>DA-1229 is a dipeptidyl peptidase (DPP)-4 inhibitor</i></p> </div> <div> Key Eligibility Criteria <ul style="list-style-type: none"> • Calcific aortic valve disease with mild to moderate aortic stenosis as defined by: <ul style="list-style-type: none"> – Aortic valve mean pressure gradient between 10-30 mmHg and aortic valve area ≥ 1.2 and ≤ 2.0 cm² on TTE – Aortic valve calcium score ≥ 200 AU on baseline cardiac CT • Cannot have concomitant moderate or more aortic valve regurgitation; moderate or severe mitral or tricuspid valve disease; OR NYHA class III or IV heart failure • Cannot have left ventricular ejection fraction < 50% • Cannot have had previous history of aortic valve surgery </div>	
Abbott Medical Devices	C-559; ABT-CIP-10514 (VOLT-AF; CRD-1034) VOLT-AF IDE Study	NCT06223789
	<div> Study Design <ul style="list-style-type: none"> • All eligible patients will undergo ablation with the Volt PFA Catheter </div> <div> Key Eligibility Criteria <ul style="list-style-type: none"> • Documented symptomatic paroxysmal or persistent AF • Cannot have had previously diagnosed long-standing persistent AF • Cannot have arrhythmia present in the preceding 90 days </div>	

AF=atrial fibrillation; CABG = coronary artery bypass graft; CT= computed tomography; LAD PCI = left anterior descending percutaneous coronary intervention; NYHA= New York Heart Association; PFA = pulsed field ablation; PO=by mouth; QD=once daily; STEMI, ST elevation myocardial infarction; TTE, transthoracic echocardiogram.

In the News: Updates for Clinicians

Updates from Society for Cardiovascular Angiography and Interventions (SCAI) Scientific Sessions



Prioritizing Occupational Safety: A Vital Investment for Hospitals

By Allison Dupont, MD, FSCAI, FACC

Health care workers are at an increased risk of injury and illness from radiation exposure. The risk of cancer from ionizing radiation exposure is 1%. The Occupational Safety and Health Administration (OSHA) defines even a 0.1% excess risk as significant, highlighting the importance of stringent safety measures.

The consequences of inadequate safety protocols extend beyond health concerns. From an economic standpoint, the toll is substantial. Fatal and nonfatal cancers resulting from radiation exposure carry staggering costs—\$9 million and \$200,000 respectively.

Investing in occupational safety will not only improve safety within the hospital, but also enhance staff retention and recruitment efforts, and yield significant cost savings. Radiation exposure is costly to hospitals when a physician misses work.

Recognizing the urgency of this matter, SCAI has taken proactive steps to address occupational safety hazards through its Wellbeing Task Force. Through initiatives such as surveys, stakeholder meetings, publication of position statements and creation of toolkits, SCAI is leading the way in advocating for a culture of safety within our health care institutions.

Hospitals should prioritize the creation of a safe working environment at every level. By aligning with SCAI's efforts to establish standards for safety, Northside Hospital Heart Institute is committed to the well-being of their invaluable staff members.

Reference: Dupont A. Convincing Hospitals to Invest in Occupational Safety: What Works and How Can SCAI Assist? Presented at: SCAI 2024 Scientific Sessions; May 2-4, 2024; Long Beach, California.



MANIFEST-PF Sub-analysis Demonstrates Safety and Efficacy of Pulsed Field Ablation for Atrial Fibrillation in Patients with Heart Failure

By Alok Gambhir, MD, PhD, FACC, FHRS

MANIFEST-PF is a multicenter patient-level registry of consecutive patients undergoing pulsed field ablation for paroxysmal atrial fibrillation or persistent atrial fibrillation. In a sub-analysis of patients with heart failure published by Turagam et al, patients were stratified into three groups as follows: no history of heart failure, heart failure with preserved ejection fraction (HFpEF; LVEF \geq 50%) or heart failure with reduced/mildly-reduced ejection fraction (HFMR/REF; LVEF<50%). Of the 1,381 patients in the registry, 6.2% were HFpEF and 8.6% were HFMR/REF.

Findings demonstrated that one-year freedom from atrial arrhythmia was significantly higher in patients with no history of heart failure versus those with HFpEF or HFMR/REF (79.9%, 71.3%, 67.5%; $p<0.0001$), but similar between HFMR/REF and HFPEF ($p=0.26$). Major adverse event rates were similar between patients with no history of heart failure, HFpEF and HFMR/REF groups (1.9%, 0% and 2.5%, respectively). These findings suggest that pulsed-field ablation is safe and effective in patients with atrial fibrillation and heart failure.

Reference: Turagam M, et al. *J Am Coll Cardiol EP*. 2024.

Updates from the 2024 American College of Cardiology Scientific Session



ULTIMATE-DAPT Trial Demonstrates Safety and Efficacy of Eliminating Aspirin Post Percutaneous Coronary Intervention

By Allison Dupont, MD, FSCAI, FACC

Dr. Gregg Stone, from Icahn School of Medicine at Mount Sinai, presented results from the prospective, multicenter, randomized, double-blind, placebo-controlled ULTIMATE-DAPT trial assessing the safety and efficacy of ticagrelor monotherapy following completion of one-month dual antiplatelet therapy (DAPT) for acute coronary syndrome (ACS) percutaneous coronary intervention (PCI) compared DAPT with aspirin and ticagrelor for 12 months in 3505 patients.¹ Eligible patients had either biomarker-positive non-ST-segment elevation myocardial infarction (NSTEMI), STEMI or biomarker-negative unstable angina. All participants had been previously randomized in the IVUS-ACS trial² of intravascular ultrasound-guided versus angiography-guided PCI (for ULTIMATE-DAPT) and had remained event-free after

PCI with contemporary drug-eluting stents for one month on ticagrelor (90 mg BID) plus aspirin (100 mg QD).

Clinically relevant bleeding (BARC 2, 3 or 5) at one year (the primary endpoint) occurred in 4.6% of patients continuing DAPT and 2.1% of patients on ticagrelor monotherapy (hazard ratio [HR], 0.45; 95% CI, 0.30-0.66; $p<0.0001$). No significant difference was observed between groups for major adverse cardiovascular events and cerebrovascular (MACCE) events (composite primary endpoint), with 3.7% of patients who continued DAPT and 3.6% of those taking ticagrelor monotherapy experiencing such events (HR, 0.98; 95% CI, 0.69-1.39; p for noninferiority <0.0001 ; p for

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ULTIMATE-DAPT Trial Demonstrates Safety and Efficacy of Eliminating Aspirin Post Percutaneous Coronary Intervention

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superiority =0.89). Additionally, net adverse clinical events (MACCE or BARC types 1-5 bleeding) were lower in the ticagrelor monotherapy group versus DAPT group (5.7% versus 8.2%; $p=0.007$). These findings suggest that eliminating aspirin and continuing ticagrelor as soon as one month after PCI for patients with ACS is as effective as continuing DAPT over a longer period, but is also associated with less clinically relevant and major bleeding in the population studied. Notably, the multi-national trial did not enroll patients in the U.S. The trial was conducted at 58 medical centers in China (88%), Pakistan, Italy and the U.K. However, the trial

showed similar results to the previously published TWILIGHT trial³ that evaluated three versus twelve months of DAPT. Both TWILIGHT and ULTIMATE-DAPT studied patients receiving ticagrelor. Additional studies are needed to determine if patients receiving other P2Y12 inhibitors can be managed with short-term DAPT.

References:

1. Stone G, et al. One-Month Ticagrelor Monotherapy After PCI in Acute Coronary Syndromes. Presented at: ACC 73rd Annual Scientific Session & Expo; April 6-8, 2024; Atlanta, GA.
2. Li X, et al. *Lancet*. 2024;403(10439):1855-1865.
3. Mehran R, et al. *N Engl J Med*. 2019;381:2032-2042.



Immune Checkpoint Inhibitors and Cardiotoxicity: Isolated Pericardial Effusion Without Associated Myocarditis in a Small-Cell Lung Cancer Patient Undergoing Atezolizumab Therapy – A Case Study from Northside Hospital

By Lalitha Medepalli, MD, FACC, FASE, RPVI

Immune checkpoint inhibitors (ICIs) are a promising immunotherapy approach to treat cancer. However, alongside their potential benefits, ICIs can trigger immune-related adverse events (irAEs), including cardiotoxicity.

Our case highlights a 67-year-old male with recently diagnosed metastatic small-cell lung cancer with metastasis to the thoracic spine. Two months into treatment with carboplatin, etoposide and atezolizumab, the patient developed pericardial tamponade. This event initially manifested as hypoxia during the third treatment cycle and led to hospitalization due to multifocal pneumonia. The patient was subsequently diagnosed with pericardial tamponade stemming from a significant pericardial effusion.

Pericardiocentesis successfully resolved the tamponade, with infectious causes ruled out. Notably, the absence of myocarditis, evidenced by negative cardiac markers and MRI findings, and the absence of malignant cells in pericardial fluid cytologic analysis, underscored an isolated immunologic etiology for the effusion. Following effective management, including oxygen support and prednisone tapering, chemotherapy was resumed after a one-week delay, without immunotherapy. This rare case emphasizes the importance of promptly leveraging multimodality imaging alongside timely cardiology intervention and pericardial fluid analysis in diagnosing and managing cardiac irAEs, thereby enhancing patient outcomes.

Reference: Jamison K, Medepalli LC, & Ye S. Isolated Pericardial Effusion Without Associated Myocarditis in a Small-Cell Lung Cancer Patient Undergoing Atezolizumab Therapy. *Cureus*, 2024;16(5).

Advancing Cardiac Safety in Georgia Schools: The Impact of House Bill 874

The Georgia Chapter of the American College of Cardiology led the charge in advocating for legislation mandating sudden cardiac emergency response plans and automated external defibrillators (AEDs) in all K-12 public schools. Northside's own Dr. Jeff Marshall played a pivotal role by testifying in support of House Bill 874 before the Senate Education Committee. This legislation, signed into law by Georgia Governor Brian Kemp on Tuesday, April 23, marks a significant achievement in cardiac care accessibility and underscores Dr. Marshall's leadership within the cardiology community.



Elevating the Patient Experience

Introducing FARAPULSE™ Pulsed Field Ablation at Northside Hospital Heart Institute



Northside Hospital Heart Institute has achieved a significant milestone by performing the state's inaugural cardiac ablation using the innovative FARAPULSE™ Pulsed Field Ablation System for treating atrial fibrillation (AFib). FDA-approved in January, this cutting-edge technology has demonstrated safe and effective use worldwide. Unlike traditional thermal

ablation methods that involve extreme temperatures to target AFib-related heart tissue, FARAPULSE employs tissue-selective, non-thermal electric fields. This approach minimizes damage to surrounding structures while effectively treating abnormal heart rhythms. This advancement underscores Northside Hospital Heart Institute's commitment to pioneering technologies that enhance patient care and outcomes in cardiovascular medicine.

Around Our Campuses and Community



The Cardiovascular Diagnostic Clinic (CVDC) – Forsyth opened on June 3, 2024. This clinic is located at 2000 Howard Farm Drive, Suite 400, Cumming, GA 30041. Northside CVDC centers offer comprehensive non-invasive diagnostic cardiovascular imaging services to screen for and diagnose heart and vascular conditions.

Team Features and Recognitions



Mark Davidson, MD is a cardiac anesthesiologist practicing at Northside Hospital Gwinnett as of May 7th. To learn more, visit northside.com/mark-frederic-davidson.



Richard Trent, MD is a cardiac anesthesiologist practicing at Northside Hospital Gwinnett and Northside Hospital Duluth as of May 7th. To learn more, visit northside.com/richard-william-trent.



Northside proudly announces the appointment of **Paul Braum**, System Coordinator Echo/Vascular Services at Northside Hospital to the Guidelines & Standards Committee of the American Society of Echocardiography. This committee plays a crucial role in setting global standards for cardiac and vascular ultrasound practices, ensuring they align with current trends and international best practices. Paul's representation underscores Northside's commitment to maintaining the highest standards in cardiovascular care, with direct input into shaping and updating these critical guidelines. In addition to his committee role, Paul Braum was also recognized as Ambassador of the Year for the American Society of Echocardiography.



Sreeni R. Gangasani MD, FACC has been appointed the new chairman of the Georgia Composite Medical Board.



Whitney Normanton, a sonographer with Northside Hospital Heart Institute at the Lawrenceville CVDC, has passed the Advanced Cardiac Sonography exam (ACS).



Dr. Allison Dupont, MD, FSCAI, FACC, Interventional Cardiologist and Medical Director of the Cardiac Care Unit and Extracorporeal Membrane Oxygenation Program (ECMO), was elected to the Board of Trustees for 2024-25 for the Society for Cardiovascular Angiography & Interventions (SCAI®).

Education and Events

Cardiovascular Screening in the Community

Wednesday August 14, 2024 from 9 a.m.-noon at Big Canoe Chapel, 266 Wolfscratch Village Circle, Marble Hill, GA 30148.

To schedule an appointment, please call [404.851.6550](tel:404.851.6550) or visit northside.com/services/cardiovascular/cardiovascular-screening-event.

Cardiovascular Update in the Primary Care Setting

Saturday, August 17, 2024 from 7 a.m.-3:30 p.m. at Marriott Alpharetta

northside.com/cardioupdate2024

CMEs for physicians and CNE for nurses

2024 Greater Atlanta Heart Walk benefiting the American Heart Association

September, 21, 2024 at 8 a.m. at Lenox Square Mall in Atlanta

heart.org/site/TR?fr_id=10886&pg=company&company_id=469054

The Heart of the Matter: Managing Cardiovascular Risks in Pregnancy

February 28-March 1, 2025 at Hyatt Regency Atlanta Perimeter at Villa Christina

Save the date. Additional information will be available soon.

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vimeo.com/northsidecme

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