

MedStar Health Heart Rhythm Research.

Integrating research into clinical care.

Recognizing the need to develop academic output reflective of the robust clinical care provided by MedStar Cardiac Electrophysiology, MedStar Health made an academic investment in early 2023 to develop infrastructure supporting sustainable research in collaboration with Population Health at MedStar Health Research Institute.

Achievements of the first 6 months include:

- Development of 8 research studies, ranging from retrospective case series to clinical registries
- Exploration of opportunities in underdeveloped fields such as clinical genetics
- Initiating partnerships with industry giants including Abbott, Boston Scientific, Merit Medical, Medtronic, and Biosense
- Establishment of an informatics working group to improve clinical workflow and integrate research outcomes into clinical care
- Initial groundwork for a research database to facilitate clinical reporting as well as retrospective research
- Recruitment of a full-time dedicated Project Manager to support these efforts

These efforts in Heart Rhythm Research at MedStar Health are just the beginning.



Best practice
clinical care
necessitates
highest quality
clinical research

Knowledge and Compassion
Focused on You

It's how we treat people.



MedStar Health

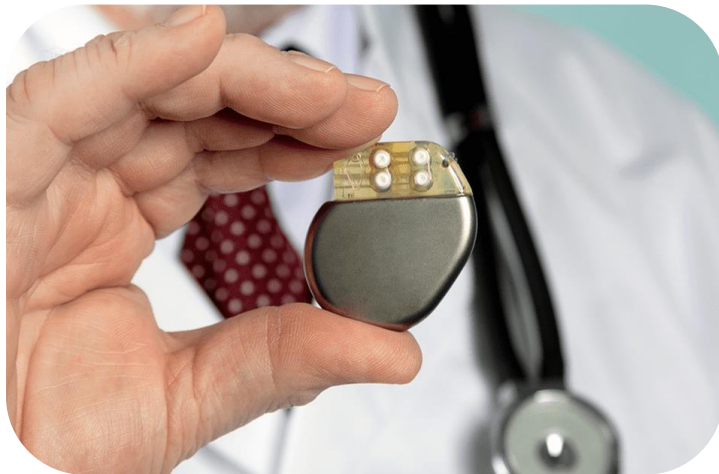
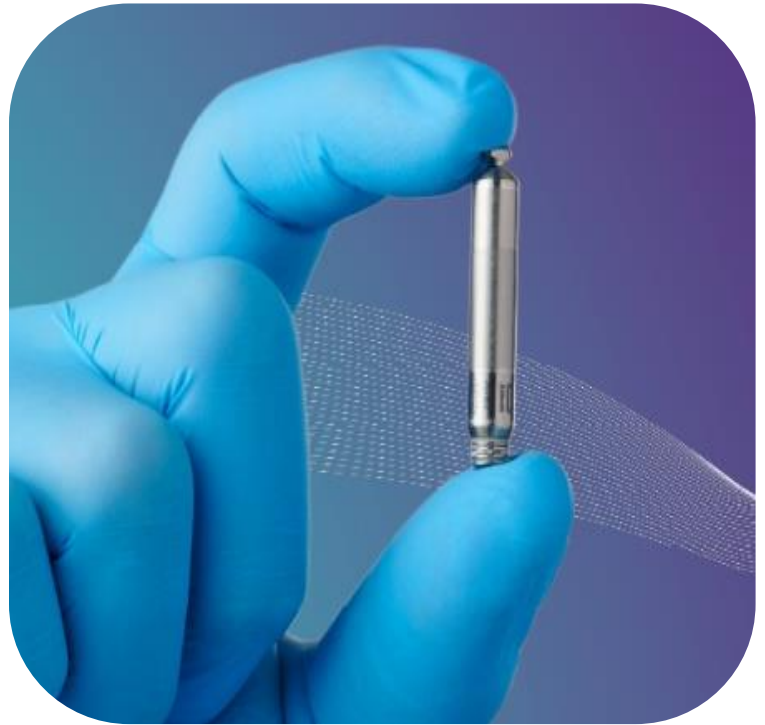
Leadless Pacemaker Registry

PI: Cyrus Hadadi, MD

Fellow(s): Nebu Alexander, MD

Potential Industry Sponsor: Abbott Medical

The Leadless Pacemaker Registry is a long-term observational registry examining the placement and outcomes for patients receiving leadless pacemaker devices. Participating locations include MedStar Health, St. Bernards Medical Center, and Medical University of South Carolina. We anticipate enrolling 100 patients each year with follow-up at 1 month, 3 months, 6 months, and then annually for 3 years or longer. Outcomes will be device placement by CT and adverse events.



Pacing Rate for Permanent Pacemakers: Case Series

PI: Athanasios Thomaides, MD, David Strouse, MD

Fellow(s): Rajiv Kabadi, MD, Evan Czulada

This is a case series of patients with permanent pacemakers. The objective is to determine if patients may benefit from different pacing rates. Patients will be studied using physiologic (6-minute walk test) and quality of life measures.

Vein of Marshall Alcohol Ablation: Case Series

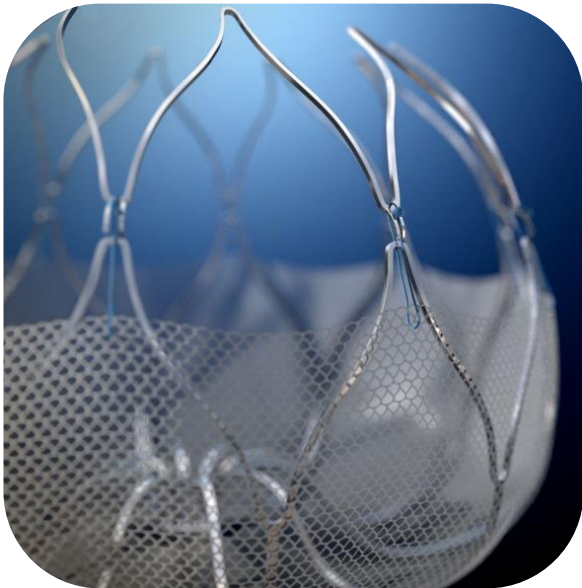
PI: Athanasios Thomaides, MD

Fellow(s): Apostolos Tsimploulis, MD

Potential Industry Sponsor: Merit Medical

This is a case series of patients undergoing Vein of Marshall (VoM) alcohol ablation for atrial fibrillation (AF) or atrial flutter. VoM alcohol ablation is emerging as a successful method to reduce recurrence of AF and atrial tachyarrhythmias in patients with persistent AF. This detailed description of the new ablation method will include assessment of the procedure duration, fluoroscopy time, contrast volume, and clinical outcomes.





Single Antiplatelet Therapy after Left Atrial Appendage Occlusion (ASA-LAAO)

PI: Manish Shah, MD

Fellow(s): Connor Oates, MD

Potential Industry Sponsor: Boston Scientific

This study is a single arm trial comparing the efficacy and safety of single antiplatelet therapy following left atrial appendage closure (LAAC). This study will enroll 200 patients in the MedStar Health System with non-valvular atrial fibrillation and a history of intolerance of oral anticoagulation due to bleeding undergoing LAAC for stroke prevention with a Watchman FLX-Pro™ who have no other alternative indication for lifelong oral anticoagulation or dual antiplatelet therapy. Patients will be medically managed with aspirin 81 mg daily following Watchman implantation and will then undergo serial follow-up with transesophageal echocardiograms (TEE) and/or cardiac computed tomography (CT) imaging at 30-45 days, 90 days and 365 days to evaluate device-related thrombus (DRT). The primary outcome will be the cumulative incidence of DRT and major bleeding in study patients compared to an efficacy performance goal of 10% based on an estimated 4% risk of DRT, 5% risk of major bleeding, and a 1% change based on variability in event rates. Secondary outcomes will include the incidence of death, ischemic stroke, major bleeding, and DRT.

Device-related thrombus and associated stroke lead to significant patient morbidity following percutaneous left atrial appendage closure

Alcohol VT Ablation: Case Series

PI: Athanasios Thomaides, MD

Fellow(s): Apostolos

Tsimploulis, MD

Potential Industry Sponsor: Merit Medical

This is a case series of patients undergoing ethanol VT ablation. Alcohol ablation has emerged as a successful method to reduce incessant ventricular tachycardia. This detailed description of the new ablation method will include assessment of the procedure duration, fluoroscopy time, and contrast volume as well as clinical outcomes.





MedStar Health

Our goal is to be recognized as a national leader in **heart rhythm research.**



We have accomplished so much but we have bigger plans ahead. In the next 6 months, we plan to:

- Onboard a dedicated, full-time Project Manager
- Release a detailed infrastructure plan assessing institutional assets, goals, and milestones
- Debut our EP research database
- Develop internal reports on patient care and procedure volume
- Develop randomized trials
- Secure contracts with industry partners to support data collection
- Publish results in peer-reviewed journals
- Present results at national industry conferences
- Submit applications for federal grants

<https://www.medstarhealth.org/innovation-and-research/medstar-health-research-institute/research-networks/population-health-research>

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