MedStar Health

MedStar Heart & Vascular Institute

Cardiovascular Physician

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Progressive paths forward.

OFF-LABEL TAVR APPLICATION | NEW AFIB TREATMENT | CARDIAC IMPLICATIONS OF COVID

Perspective from Stuart F. Seides, MD, physician executive director, MedStar Heart & Vascular Institute

Back on track, back on target.

Just 12 months ago, during the summer of 2020, we were amidst the unknown as a new and deadly virus raced across the nation. Medical science struggled to develop and digest torrents of information. An effective vaccine was still on the distant horizon. As practicing physicians, we were learning on the go.

What a difference a year makes. At COVID-19's peak, MedStar Washington Hospital Center alone averaged 200 affected patients a day; now that number is much lower. Of course, we still have hurdles ahead, with the dual problems of rapidly spreading variants and stubborn vaccine-resistance among large swaths of the U.S. population. But at MedStar Heart & Vascular Institute, we have gained much insight and knowledge through the experience.

In fact, I can safely say that we're now well back on track. Our cardiovascular volume is strong; programs are growing; new leaders, emerging.

Steven Abramowitz, MD, was recently appointed chair of Vascular Surgery, a position formerly held by Edward Woo, MD, now president of the MedStar Medical Group. It is a story of how the best of the best rise within MedStar Health, forwarding continuity and consistency in care for the greater good of our community and system (page 3).

Importantly, consider our momentum in breaking down barriers between cardiovascular specialties, fostering interdisciplinary teamwork toward improved outcomes. A prime example occurred when MedStar Union Memorial Hospital's Brian Bethea, MD, incoming chief of Cardiac Surgery, and John Wang, MD, chief of Cardiac Catheterization, worked side-by-side in a cooperative procedure. Their integrated efforts transformed the life of a high-risk patient who had previously been rejected from three other prestigious heart centers (page 4).

Our platform of accomplishment in managing rhythm disorders was once again enhanced through simultaneous clinical trials conducted to study a revolutionary new technology for atrial fibrillation. Sponsored by two competing companies, each with their own version of pulsed field ablation, the dual grant awards are testament to our size, reputation, and ability to run concurrent major projects.

In related news, the FDA recently labeled Convergent Atrial Fibrillation Ablation as first-line therapy for longstanding, persistent atrial fibrillation, an approach MedStar Heart & Vascular Institute helped pioneer and refine since 2011. It's gratifying to see how our early efforts have advanced and influenced standards of care.

Moving forward, we're still keeping a wary eye on COVID-19 and its sequelae. As you'll see on page 10, Ankit Shah, MD, director of MedStar Sports & Performance Cardiology, is helping professional and amateur athletes alike safely return to their pre-pandemic activities through modified and updated guidelines and return-to-play algorithms. I hope that these guidelines may prove useful to you in your own clinical decision-making.

This issue of *Cardiovascular Physician* includes further evidence of the Institute's continuing progress despite the pandemic and the constraints imposed, including new trials, new people, and new technologies.

Until the virus' long-term implications for cardiovascular patients are fully defined, our clinical and research teams will remain vigilant for new information concerning potential consequences in the months and years ahead.

For now, let's celebrate the progress we've made together over the past 12 months. We will need to remain cautious, but it's good to be back!

Pictured on the cover:
(l to r) John Wang, MD, and Brian Bethea, MD, at MedStar Union Memorial Hospital. See story on page 4.

Steven Abramowitz, MD, to lead MedStar Health Vascular Surgery.

Since joining MedStar Heart & Vascular Institute in 2014, Steven Abramowitz, MD, has been central to expanding the Vascular Surgery program to become the largest such practice in the region.

Chief among his innovations was broadening applications of minimally invasive techniques to treat an ever-growing range of cardiovascular conditions. Endovascular iliocaval reconstruction, a two-stage minimally invasive reconstructive technique paramount in the treatment of vena cava stenosis and central venous occlusive disease, is one such example. Dr. Abramowitz says the approach, associated with reduced healing times and infection risks, underscores MedStar Health's commitment to "lifelong relationships with patients, with systems in place for every step of that care."

Dr. Abramowitz has served as program director for the Vascular Surgery Fellowship and Integrated Residency programs. Under his leadership, our fellows graduate with an extensive clinical case load, and have had a 100-percent first-time pass rate on their qualifying and certification examinations.

Now, as the system's new Chair of Vascular Surgery, Dr. Abramowitz admits he faces a tall order to sustain the momentum fostered by his predecessor, Edward Woo, MD, now president of MedStar Medical Group.

"It's like inheriting a wonderful estate," Dr. Abramowitz says. "Dr. Woo did a phenomenal job of growing the program, which has helped attract high-quality surgeons with unique skills that align perfectly with the diverse needs of our patients."

Dr. Woo is equally pleased about his successor. "In addition to Dr. Abramowitz's international acclaim for his own innovative work, his history of exceptional leadership has positioned him well for this new role—a role I have no doubt he will succeed in," he says.

Sustaining the service's growth and strengthening existing bonds with the Institute's regional referral network will continue to be priorities, Dr. Abramowitz says.

"We want to be the gold standard for vascular and venous disease care—an example that referring physicians and our peers can look to for complex aortic procedures, pulmonary embolism, deep-vein thrombosis, and limb preservation," he says, adding that thinking globally doesn't mean sacrificing individual patient needs.

"By ensuring the department functions as one program, a patient can walk into any MedStar Health facility and tap into a systematic, caring organization," Dr. Abramowitz says. He notes that the geographic distribution of the system's hospitals through the Baltimore-Washington region ensures patients have convenient access to specialized expertise.

"Not only do they receive care from some of the best physicians in the field, they can continue their recovery within their community," he says.

Dr. Abramowitz will continue to guide and support the program's leadership in research, industry collaboration, and application of new technology. His own research interests include venous obstructive diseases, endovascular stenting, and limb salvage techniques. He's also pursuing clinical trials for Vesper Medical's® innovative new DUO Venous Stent System®, as well as collaborating with Javairiah Fatima, MD, co-director of the Complex Aortic Center, on initiatives related to treating aortic pathology.

Finally, Dr. Abramowitz hopes to expand the program's community outreach, assisting primary care physicians and others in addressing underlying conditions that can contribute to heart and vascular issues.

"Patients don't simply wake up one day and find they have vascular disease," he says. "By building partnerships with referring physicians and other providers, we can engage patients with these conditions early, averting potentially catastrophic outcomes."

Three valves, two physicians, one patient.

How an off-label application and innovative approach proved lifesaving.

(l to r) Cardiac Surgeon Brian Bethea, MD, collaborates with Interventional Cardiologist John Wang, MD

This time last year, Joe Orlando, MD, was poised to die.

The 81-year-old was weak, and dependent upon both a walker and supplemental oxygen, the result of severe heart failure. With Type 2 diabetes—and three of his four valves almost completely dysfunctional—the retired plastic surgeon knew he was living on borrowed time. Unless, that is, he could find a highly skilled cardiovascular specialist willing and able to take him on.

He found two.

Brian Bethea, MD, chief of Cardiac Surgery at MedStar Union Memorial Hospital, and John Wang, MD, the hospital's chief of the Cardiac Catheterization Laboratory and director of the Structural Heart program, accepted the challenge. In a sophisticated, conjoined procedure, the two experts were able to accomplish what other specialists had refused to try.

"Before I found Drs. Bethea and Wang, I had contacted some of the nation's most renowned cardiovascular centers to see if they could help me," Dr. Orlando says. "And to my shock and disappointment, they all turned me down."

That didn't surprise Dr. Bethea.

"Dr. Orlando had severe mitral valve stenosis and regurgitation," explains Dr. Bethea, who specializes in minimally invasive approaches to valvular and structural heart disease. "Compounding his condition, he also needed an aortic valve replacement and a tricuspid valve repair. In view of his advanced age and other co-morbidities, he was at prohibitive risk for an open procedure, yet was ineligible for percutaneous approaches or a clinical trial."

So the two specialists from different training backgrounds combined the best that both open and catheter-based approaches have to offer.

Interdisciplinary collaboration for improved outcomes.

"The longer a patient, particularly an elderly one, is on the table, the more dangerous," says Dr. Bethea. "Our goal with Dr. Orlando was to do what we could to safely fix his problems in the shortest amount of time possible."

Fittingly for a heart patient, Dr. Orlando was admitted to MedStar Union Memorial on Valentine's Day 2021. Two days later, Drs. Bethea and Wang went to work, side by side.

The procedure included an innovative, off-label surgical application of transcatheter aortic valve replacement (TAVR) technology.

"The transcatheter approach to valve replacement is much faster and simpler than traditional open surgery," explains Dr. Wang. "And that's a great benefit for patients, since there's less time spent on the pump and cross-clamped, resulting in a lower complication rate."

Using an approach through the left atrium, Drs. Bethea and Wang first placed the TAVR valve (Sapien-3 device), by original protocol restricted to the aortic valve, into correct position within the native mitral orifice and deployed the balloon-expandable device, effectively correcting his mitral valve dysfunction.

Next, Dr. Bethea replaced the aortic valve surgically with a rapid deployment valve system. The relatively recent and novel technique utilizes a self-expandable frame that balloons to fit the patient's native anatomy, anchoring the new aortic bioprosthesis into place. Lastly, he repaired Dr. Orlando's tricuspid valve with a traditional surgical annuloplasty.

Today, Dr. Orlando is off supplemental oxygen, and is experiencing no angina, dyspnea, or peripheral edema. His heart failure status has improved from a level IV on the New York Heart Associations Functional Classification guide to a level I—normal.

"I've got the heart of a 50-year-old now, inside an 81-year-old body," Dr. Orlando says. "From my professional perspective, this was one of the most incredible operations I've ever heard of. I consider myself very fortunate to have been referred to MedStar Union Memorial, Dr. Bethea, Dr. Wang, and the whole team."

Pushing past boundaries.

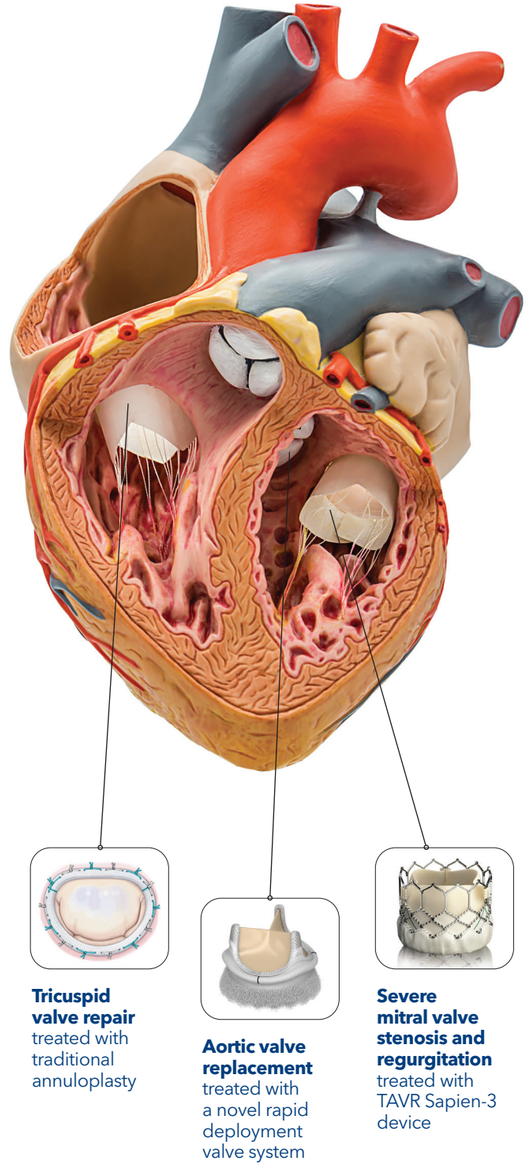
The collaboration between Drs. Bethea and Wang illustrates the deep thoughtfulness and progressive approach that has earned MedStar Health its reputation for excellence in managing the most complex patients. That history is built, in part, on teamwork across disciplinary lines, and on early adoption of new tools and technology.

TAVR is a prime example. A pioneer in the field, MedStar Health has been involved in testing and improving the technology's effectiveness, efficiency, and safety since its debut. Today, we are among the nation's premier TAVR providers, with more than 500 procedures performed annually across our entire system. Our clinical research continues to investigate new applications for TAVR-based technology and approaches to help more patients avoid open surgery.

Dr. Bethea has participated in nearly every major U.S. clinical trial for TAVR, and has been involved in early feasibility trials for transcatheter mitral valve repair and replacement. Together with Dr. Wang, the two are principal investigators or co-investigators on several current multi-center trials, studying novel catheter-based approaches to treating tricuspid, mitral, and aortic valve disease.

"Thanks to the continuing evolution of the field, we now have a toolbox of new techniques and technologies, enabling us to tackle more complex conditions with less invasive hybrid approaches than ever," says Dr. Wang.

Dr. Bethea concurs, saying, "We have so much available to us today, that we can find the right technology to fit each patient's unique situation, rather than the other way around."



Tricuspid valve repair treated with traditional annuloplasty

Aortic valve replacement treated with a novel rapid deployment valve system

Severe mitral valve stenosis and regurgitation treated with TAVR Sapien-3 device

The perfect blend.

Collaborative care for local wine connoisseur.

VICKI GRAY IMAGES

Al Spoler, co-host of "Cellar Notes" and "Radio Kitchen" on Baltimore's WYPR, the local NPR station, and "Maryland Farm and Harvest" on Maryland Public Television.

Al Spoler didn't think he had a particularly dangerous job. A local celebrity and a wine and food aficionado, Spoler co-hosts "Cellar Notes" and "Radio Kitchen" on Baltimore's WYPR, the local NPR station, and "Maryland Farm and Harvest" on Maryland Public Television. However, a cardiac event last fall made him recognize a work hazard that he had to address.

A trip to the Emergency Department at MedStar Union Memorial Hospital in October landed him in the hospital for four days. The diagnosis: heart failure and atrial fibrillation (AFib) with rapid ventricular rate (RVR).

"You could have knocked me over with a feather," says Spoler, 72, who had never been to the hospital—except for stitches—and was unaware of any heart conditions.

Spoler's journey began in February 2020, when a nagging cough prompted a visit to his allergist, who had treated his chronic asthma for years. After a perfunctory exam, the allergist prescribed an inhaler. It helped briefly, but by June, "I was waking up around 4 a.m. and having trouble breathing," he says. "It wasn't behaving like asthma." His allergist did not entertain any other causes, doubled his medication, and in September, prescribed prednisone. No medication helped. On Oct. 20, Spoler says he had had enough. "I told my wife, 'Something else is wrong. I've got to go the hospital.'" He chose MedStar Union Memorial, "because it was the closest," not realizing he was turning to a hospital with comprehensive, integrated, clinical expertise in cardiac care.

(l to r) Electrophysiologist Sunjeet Sidhu, MD, and Cardiologist Sandeep Jani, MD

"Within five minutes, the triage nurse hooked me up to an EKG, and said, 'You've got AFib,'" he recalls. Over the next four days, in the heart failure service at MedStar Union Memorial, he met his new doctors—heart failure specialist Sandeep Jani, MD, and cardiac electrophysiologist Sunjeet Sidhu, MD. "We often collaborate," says Dr. Jani. "Heart failure and AFib tend to go hand-in-hand."

Dr. Sidhu adds, "Because of our clinical expertise, we have a greater appreciation of AFib and its deleterious effects. This can be overlooked in heart failure patients—they sometimes wind up living with it for the rest of their lives. But here, our team knows that early rhythm management can help with new diagnoses of AFib."

Dr. Jani immediately started Spoler on Lasix® to reduce fluid in his lungs, which allowed him to breath normally again. To treat his AFib, Dr. Sidhu might normally schedule a cardioversion to correct his abnormal rhythm. "But one concern with AFib," says Dr. Sidhu, "is that blood pools in the upper chamber of the heart, can stagnate, and create a clot, which can break off and cause a stroke." A transesophageal echocardiography (TEE) confirmed his concern—a large blood clot. "Since we couldn't do the cardioversion for fear of dislodging the clot at that time," Dr. Sidhu explains, "we put him on medication hoping to dissolve the clot." Spoler was also given a drug regimen to strengthen his heart and slow his heart rate.

Dr. Jani says, "With heart failure and AFib, it's hard to know if AFib caused the heart failure, or the heart failure caused the AFib. It's the chicken and egg thing. In this situation, his heart was weak but not enlarged, so we believed it was not a longstanding issue, and hoped if we could get him out of AFib his heart would recover. It was really challenging because we couldn't get his heart to slow down." Spoler was released, with LifeVest™, a wearable cardiac defibrillator for patients with weak hearts who don't quite qualify for an implantable defibrillator.

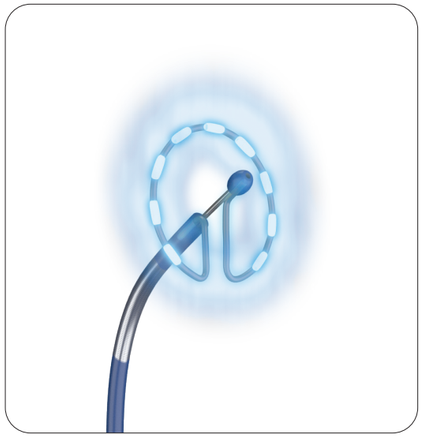
A second TEE in January showed the clot had dissolved. Dr. Sidhu performed the cardioversion and started him on a heart rhythm controlling agent. A follow-up in March indicated his heart had recovered and was working normally, with a recovered and now-normal ejection fraction and no AFib. He now has a LINQ™ monitor, a tiny implantable loop recorder (ILR), which sends daily data to Dr. Sidhu. Should his AFib return, monitoring the data allows for early recognition and prevents progression to heart failure as he had in the fall of 2020. If AFib were to return, he would be a candidate for cardiac ablation. "But for now," says Dr. Sidhu, "he has complete resolution of his heart failure and AFib."

Spoler says he feels fortunate to have the clinical expertise of Drs. Jani and Sidhu. "From the time I arrived in the Emergency Department, my experience was terrific. I was very impressed by the competence, calmness, reassurance, and sheer affability of Dr. Jani and Dr. Sidhu. And high praise goes to the staff—the nurses and other people who took care of me. I try to be a good patient. They made it very easy."

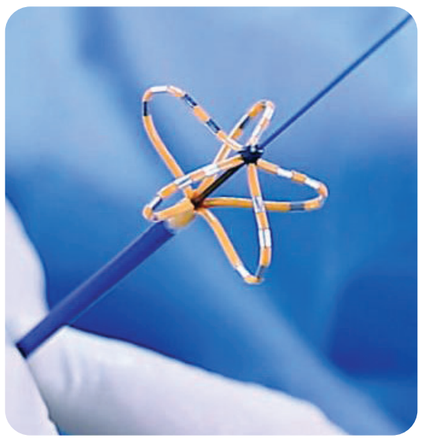
In addition to his medications and monitor, Spoler has made some lifestyle changes. He routinely does a cardiac workout on a rowing machine, and more importantly, has taken Dr. Jani's recommendation with wine: "Sip and spit." Dr. Jani says, "I felt kind of bad saying it, but alcohol can definitely cause AFib."

Adding to the toolbox: Introducing new treatments for atrial fibrillation.

Atrial fibrillation (AFib) is a serious, widespread, and rapidly growing problem, making it the focus of enormous attention and resources to find safe and effective therapies. As technology to treat AFib evolves, our cardiac electrophysiology program continues to expand options for delivering leading-edge solutions to our patients. This year, we moved the needle toward better outcomes for patients with both paroxysmal and longstanding, persistent AFib.



FARAPULSE Pulsed Field Ablation System



Medtronic PulseSelect™ Pulsed Field Ablation System

Two trials underway for pulsed field ablation, a novel technology to treat AFib.

In an unprecedented study model, MedStar Health's cardiac electrophysiology program was selected to conduct two competing trials for pulsed field ablation (PFA), a novel modality to treat AFib.

Typically, an institution will conduct a trial with a single manufacturer's technology, but due to our program's size, geographic reach, and longitudinal relationships with large numbers of patients, running two separate, concurrent studies was made possible.

"Our highly experienced team of catheter ablation specialists and supporting caregivers continually seeks to stay at the forefront of the field, and to offer patients tomorrow's technology, today. We are humbled and pleased to contribute doubly to this critically important effort," says Zayd Eldadah, MD, PhD, director, Section of Cardiac Electrophysiology.

PFA is a revolutionary technology, which has been introduced for clinical testing in two respective systems by Medtronic and FARAPULSE. A catheter-based, non-thermal approach, it applies a series of high-intensity pulses of energy to achieve fast, complete, and targeted ablation of the heart tissue associated with irregular electrical activity. It was developed to provide electrical protection of the heart from chaotic atrial fibrillation impulses with greater efficiency and selectivity than prior methods. The promise of PFA is greater success, with sharply reduced risk of unintentional injury to surrounding tissues, such as the lungs or esophagus.

It is an alternative to current ablation techniques, which rely on radiofrequency-generated heat or cryoballoon-generated freezing to modify heart tissue. While still effective, these traditional options can be inadequate for patients because they may not deliver sufficient energy to achieve enduring protection from the abnormal electricity that causes atrial fibrillation, leading to the need for repeat ablation. PFA offers enormous potential to overcome frustrating challenges with traditional ablation or medical therapy for atrial fibrillation.

Medtronic's trial, PULSED AF, has completed enrollment and data analysis is in progress. The ADVENT trial by FARAPULSE, is now recruiting patients.

For more information about pulsed field ablation or how it may help your patients, please call 202-877-7685.

New FDA label expands convergent ablation to first-line therapy for longstanding, persistent AFib.

Convergent atrial fibrillation ablation is now a first-line therapy for longstanding, persistent atrial fibrillation (continuous AFib lasting longer than a year).

This hybrid approach combines epicardial and endocardial ablation, performed collaboratively by a cardiac surgeon and electrophysiologist. The potential for use has been bolstered by the recent U.S. Food and Drug Administration approval of AtriCure's EPi-Sense® Guided Coagulation System—a unique tool used by the surgeon during the procedure.

The new FDA label follows results of the landmark CONVERGE trial, which demonstrated that this hybrid procedure is superiorly safe and effective compared to endocardial catheter ablation for the treatment of longstanding persistent AFib. (MedStar Health cardiac surgeons and electrophysiologists were key investigators on the multi-center CONVERGE trial).

"This new approval provides compelling validation of our decade-long use of this unique procedure, since our combined surgical-electrophysiology team first introduced convergent technology to the region in 2011," emphasizes Dr. Eldadah.

It also brings hope and expands therapeutic options for patients who otherwise might face uncertain futures dealing with AFib. These patients may experience debilitating symptoms and refractoriness to medications and traditional ablation. And the potential population is large and growing—an estimated 3.5 million people in the United States today have longstanding, persistent AFib, representing nearly 50% of all AFib diagnoses. In addition to being more effective than other therapies at eliminating or sharply reducing AFib, the convergent procedure has been shown to reduce the need for medication therapy. Although patients undergoing this procedure must be hospitalized for 2 to 3 days (due to the small chest-wall incisions that are made), this is a shorter recovery period than that required by other surgical approaches.

"This potent and well-studied technology is a large leap forward for patients," Dr. Eldadah says. "But therapy continues to evolve. We must remember that AFib is a chronic and progressive process, driven by the unique interplay of human aging with one's individual genetics and other conditions. MedStar Health's collaborative, multidisciplinary team is committed to innovative, state-of-the-art, tailored therapy to deliver to our patients the best possible outcomes and care experience."

Return to sport after COVID-19: Cardiac implications for athletes.

by Ankit B. Shah, MD, Director, MedStar Sports & Performance Cardiology

For a consultation with Dr. Shah, please call 410-554-2201 or email sportscardiology@medstar.net.

The concern of cardiac injury, particularly when active myocarditis is present, has focused much attention on the safe return to play for athletes after contracting COVID-19. Exercise during acute myocarditis has been shown to increase viral titers, myocardial fibrosis, and mortality in a murine model of viral myocarditis. Additionally, myocarditis has been implicated as the cause of cardiac arrest/death in 4 to 20 percent of cases of sudden cardiac arrest/death in studies performed in athletes prior to the pandemic.

Preliminary published data report a high prevalence of inflammatory cardiac injury in competitive athletes with rates of myocarditis or pericarditis as high as 15 percent and 40 percent respectively.[1,2] Although these data were limited by small sample sizes, lack of controls, and utilization of MRI on all athletes after COVID-19, regardless of symptoms in the absence of normative data. More recent data published on professional athletes and subsequently, on NCAA athletes, suggest a much lower prevalence of cardiac injury, less than one percent, when cardiac MRI was pursued only when clinically indicated.[3,4]

Short term outcomes have been favorable with no reports of sudden cardiac death or arrest related to COVID-19. Cardiac testing in athletes that were asymptomatic or only mildly (headache, mild malaise, anosmia, ageusia, nausea, vomiting, diarrhea, sore throat, nasopharyngeal congestion) symptomatic is not required prior to return to play. At present, the routine use of cardiac MRI as a screening tool is not encouraged and cMR should only be pursued when clinically indicated.

Practical algorithms for cardiovascular evaluation after COVID-19 in competitive and master athletes have been published and are included on the opposite page for your review.[5]

1. Starekova J et al.Evaluation for Myocarditis in Competitive Student Athletes Recovering From Coronavirus Disease 2019 With Cardiac Magnetic Resonance Imaging. *JAMA Cardiol.* Published online January 14, 2021.
2. Brito D et al.High Prevalence of Pericardial Involvement in College Student Athletes Recovering From COVID-19. *JACC Cardiovasc Imaging.* 2021; 14(3):541-555. doi:10.1016/j.jcmg.2020.10.023
3. Martinez MW et al. Prevalence of Inflammatory Heart Disease Among Professional Athletes With Prior COVID-19 Infection Who Received Systematic Return-to-Play Cardiac Screening. *JAMA Cardiol.* 2021 Mar 4
4. Moulson N et al. SARS-CoV-2 Cardiac Involvement in Young Competitive Athletes. Circulation. 2021 Apr 17.
5. Kim JH et al. Coronavirus Disease 2019 and the Athletic Heart: Emerging Perspectives on Pathology, Risks, and Return to Play. *JAMA Cardiol.* 2021 Feb 1;6(2):219-227.

Figure 3. Proposed Coronavirus Disease 2019 (COVID-19) Return-to-Play Algorithm for Adult Athletes in Competitive Sports

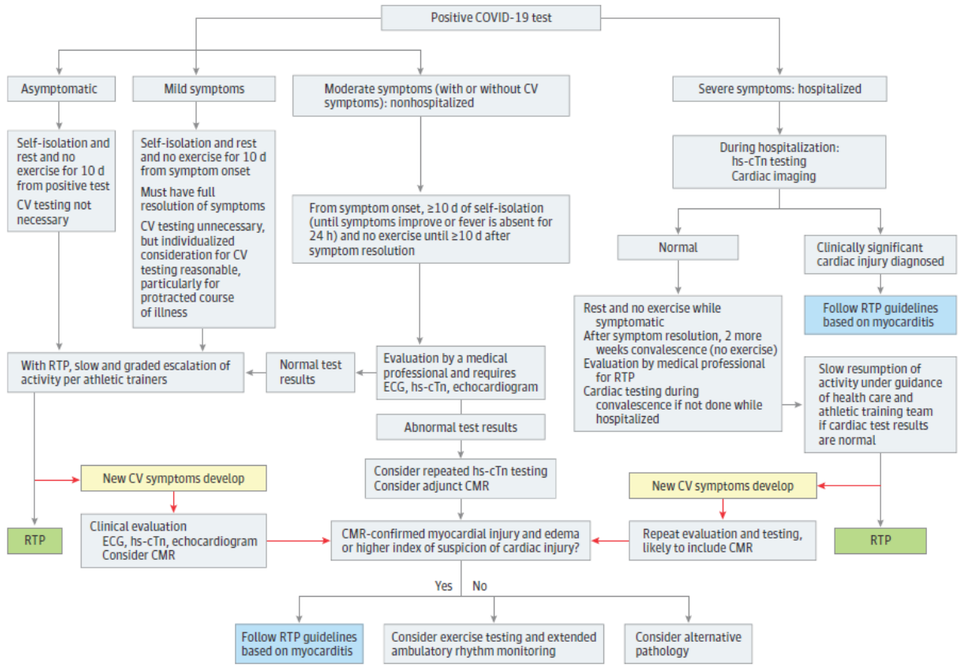
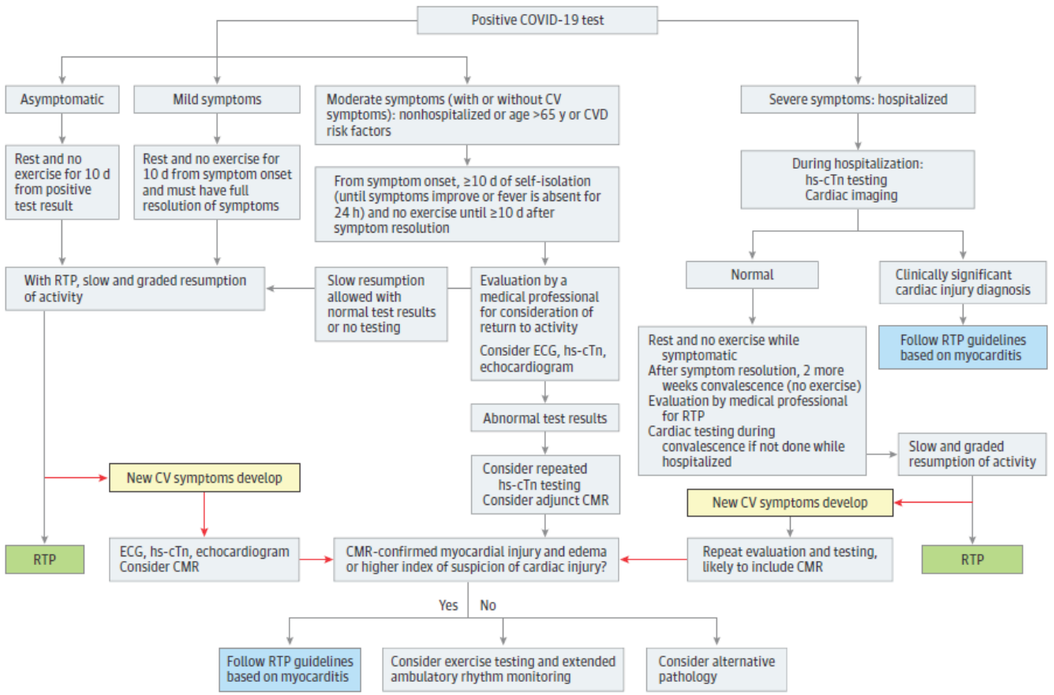
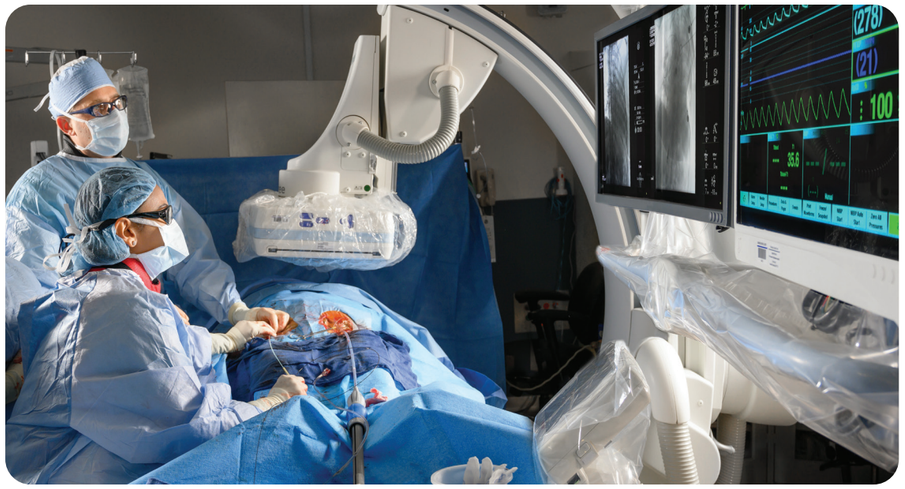


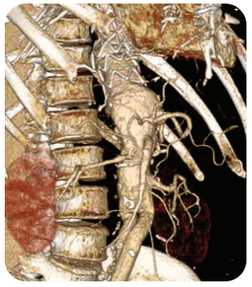
Figure 2. Proposed Coronavirus Disease 2019 (COVID-19) Return-to-Play Algorithm for Recreational Masters Athletes



Unique therapy for fenestrated and branched endovascular aortic aneurysm repair receives IDE approval.



Javairiah Fatima, MD, vascular surgeon and co-director of the Complex Aortic Center



A unique aortic therapy using fenestrated and branched graft technology for patients with juxtarenal, pararenal, and thoracoabdominal aortic aneurysm, as well as thoracoabdominal aortic aneurysm secondary to aortic dissection, is now available to patients.

Impressively, Javairiah Fatima, MD, received an FDA-approved Investigational Device Exemption (IDE) to use physician-modified endografts with fenestrations and branches that are tailored specifically to each patient's individual anatomy.

These endografts extend our ability to offer minimally invasive aortic repair to patients who are considered high risk for open thoracoabdominal aortic repair using commercially available stent grafts. Our patients are cared for by the complex aortic multidisciplinary team to ensure the best outcome possible.

Dr. Fatima serves as the co-director of the Complex Aortic Center at MedStar Washington Hospital Center. She is one of only a few vascular surgeons nationally to have an IDE to study fenestrated endovascular repair of complex aneurysm of thoracoabdominal aorta including aneurysm secondary to aortic dissection.

For more information on the study, please contact Dr. Fatima at 507-250-5160 or javairiah.fatima@medstar.net.

New cardiac hospitalist brings unique worldview to MedStar Health.

The term "think globally, act locally" has special meaning for Bethel Woldu, MD, MPH, who recently joined MedStar Heart & Vascular Institute as a cardiac hospitalist at MedStar Good Samaritan Hospital. A native of Eritrea, Dr. Woldu has devoted a large part of her career to researching global health issues, especially cardiovascular diseases including heart failure in HIV-infected patients in sub-Saharan Africa.

Thinking globally.

Growing up in the capital city of Asmara, Dr. Woldu recalls feeling helpless when family members and others fell ill and died. Becoming a physician would be her way to effect change, and she eventually came to the United States to study at the University of Colorado School of Medicine. After her internship and residency at NewYork-Presbyterian/ Weill Cornell Medical Center, Dr. Woldu spent a year at Moi Teaching and Referral Hospital in Eldoret, Kenya, to focus on early manifestations of heart disease in asymptomatic HIV patients.

Dr. Woldu also spent time in Tanzania, where she saw the devastating effects of cardiovascular disease, particularly among young people. "That reinforced both my choice of cardiology as a specialty, and the need to raise awareness about risk factors and prevention," she says.

Back stateside, Dr. Woldu maintained a busy schedule balancing her fellowship at Johns Hopkins Hospital with earning a Master of Public Health in Biostatistics and Epidemiology from Johns Hopkins Bloomberg School of Public Health.

Acting locally.

Although Dr. Woldu's work has taken her around the world, she finds many similarities with the cases she sees every day in the Baltimore area.

"There can be many unknowns about cardiac disease and its causes and risk factors which will influence our approach to treating it," she explains. "And because many patients don't have routine access to healthcare, there are often contributing factors that we have to address as well."

Dr. Woldu has tapped into MedStar Health's wide variety of patient services and has begun working with colleagues in specialty and primary care teams.

"We have an environment and culture here that produces the ideal dynamic for providing patients with the most appropriate treatment for their unique needs, and for helping them improve their overall health and reduce the risk of re-admissions," she says. "Our extensive outpatient services also extend our patient relationships further into the community, helping address the needs of their families as well."

Bethel Woldu, MD, MPH

Dr. Woldu is a recent recipient of the Innovation in Cardiovascular Ultrasound Research Award from the ASE Foundation, the charitable arm of the American Society of Echocardiography. This one-year, $45,000 scholarship was granted for her research proposal "Non-invasive Assessment of Myocardial Work to Differentiate TTR Cardiac Amyloidosis from Hypertensive Cardiomyopathy." Award-winning proposals were selected for their scientific excellence, innovative nature, and research team.

Welcome new medical staff.

Nana Afari-Armah, MD, is an advanced heart failure specialist at MedStar Washington Hospital Center. He has a special interest in transplantation and LVAD patients, mechanical circulatory support, and infiltrative cardiomyopathy. Dr. Afari-Armah is board certified in advanced heart failure and transplant cardiology, nuclear cardiology, echocardiography, and cardiovascular disease.

Education and training:

- **Fellowships:** Advanced Heart Failure, MedStar Washington Hospital Center; Cardiology, Temple University Hospital, Philadelphia, Pennsylvania
- **Residency:** Internal Medicine, Temple University Hospital, Philadelphia, Pennsylvania
- **Medical School:** The George Washington University School of Medicine and Health Sciences, Washington, DC

Bolanle Akinyele, MD, is a general cardiologist at MedStar Health Cardiology Associates in Bowie and Annapolis, Maryland. She has special interests in advanced echocardiography and structural heart disease. Dr. Akinyele is board certified in nuclear cardiology, echocardiography, and cardiovascular disease.

Education and training:

- **Fellowship:** General Cardiology, Johns Hopkins Hospital, Baltimore, Maryland
- **Residency:** Internal Medicine, Johns Hopkins Bayview Medical Center, Baltimore, Maryland
- **Medical school:** Howard University College of Medicine, Washington, DC

Tamara Ashvetiya, MD, is a general cardiologist at MedStar Franklin Square Medical Center. She has a special interest in preventative cardiology and patients with heart failure. Dr. Ashvetiya is board certified in echocardiography and nuclear cardiology, and board eligible in cardiovascular disease.

Education and training:

- **Fellowship:** Cardiovascular Disease, University of Maryland School of Medicine, Baltimore, Maryland
- **Residency:** Internal Medicine, Johns Hopkins Bayview Medical Center, Baltimore, Maryland
- **Medical school:** Johns Hopkins University School of Medicine, Baltimore, Maryland

Brian Case, MD, is an interventional cardiologist at MedStar Washington Hospital Center, MedStar Georgetown University Hospital, and MedStar Southern Maryland Hospital Center. Dr. Case has a special interest in treating complex coronary artery disease, acute coronary syndrome, and chronic microvascular dysfunction, often incorporating the use of state-of-the-art intravascular imaging. Dr. Case is board certified in nuclear cardiology, echocardiography, and cardiovascular disease, and board eligible in interventional cardiology.

Education and training:

- **Fellowships:** Interventional Cardiology, MedStar Washington Hospital Center; Cardiology, MedStar Georgetown/Washington Hospital Center, Washington, DC
- **Residency:** Internal Medicine, Winthrop University Hospital, Mineola, New York; MedStar Georgetown University Hospital, Washington, DC
- **Medical school:** St. George's University School of Medicine, Grenada

Richa Gupta, MD, is an advanced heart failure specialist at MedStar Washington Hospital Center. She provides care for patients with a wide range of heart failure diagnoses—newly diagnosed and longstanding—as well as patients being evaluated for or who have undergone heart transplant or LVAD implantation. She is board certified in cardiovascular disease and cardiovascular magnetic resonance imaging.

Education and training:

- **Fellowships:** Advanced Heart Failure and Transplant Cardiology, Cardiovascular Medicine, Vanderbilt University Medical Center, Nashville, Tennessee
- **Residency:** Internal Medicine, Johns Hopkins Osler Medical Residency Program, Baltimore, Maryland
- **Medical school:** Johns Hopkins University School of Medicine, Baltimore, Maryland

Syed Waqas Haider, MD, is a cardiologist at MedStar Georgetown University Hospital and MedStar Washington Hospital Center. He treats the whole spectrum of cardiovascular diseases and has a major focus on advanced imaging and echocardiography. Dr. Haider is board certified in nuclear cardiology and echocardiography, and is board-eligible in cardiovascular disease and vascular medicine.

Education and training:

- **Fellowship:** Cardiovascular Disease, Icahn School of Medicine at Mount Sinai Mount Sinai Morningside Hospital, New York, New York
- **Residency:** Internal Medicine, Icahn School of Medicine at Mount Sinai St Luke's-West Hospital Center, New York, New York
- **Medical School:** Ziauddin University Medical College, Karachi, Pakistan

Ali K. Salah, MD, is a cardiologist at MedStar Washington Hospital Center and MedStar Georgetown University Hospital. He specializes in the diagnosis and treatment of a variety of complex, advanced cardiac conditions, such as coronary artery disease, peripheral arterial disease, heart failure, and valvular heart diseases. Dr. Salah is board certified in internal medicine, cardiovascular disease, echocardiography, cardiovascular MRI, cardiovascular CT, nuclear cardiology, and vascular ultrasound.

Education and training:

- **Fellowships:** Advanced Cardiovascular Imaging, Stony Brook University/Saint Francis Heart Hospital, Stony Brook, New York; Cardiology, University of Kentucky, Lexington, Kentucky
- **Residency:** Internal Medicine, Medical College of Georgia, Augusta, Georgia
- **Medical School:** Addis Ababa University School of Medicine, Addis Ababa, Ethiopia

News and notes.

MedStar Washington Hospital Center again ranks among the nation's best hospitals for cardiac care.

Once again, MedStar Washington Hospital Center has been recognized among the nation's top cardiac centers in the 2021-22 U.S. News & World Report "Best Hospitals" rankings. Our Cardiology and Heart Surgery programs climbed to number 30, up seven spots from last year's survey. It is the only nationally recognized heart program of its kind in the Washington, DC region. MedStar Washington also received the highest rating possible in aortic valve surgery, heart attack, heart bypass surgery, heart failure, and transcatheter aortic valve replacement.

"Our continuing and ascending stature amongst the best regarded cardiovascular centers in the country is a tribute to the tireless teamwork and dedication of our physicians and associates who strive to put the principle of keeping patients at the heart of everything they do," said Stuart F. Seides, MD, physician executive director of MedStar Heart & Vascular Institute. "And to all those patients and their physicians who entrust us with their care, we offer our most sincere gratitude."

Brian Bethea, MD, named chief of cardiac surgery at MedStar Union Memorial Hospital.

Brian T. Bethea, MD, has been named chief of cardiac surgery at MedStar Union Memorial Hospital. With MedStar Health for nearly two years, he previously served as vice chief of cardiac surgery and the regional chief of surgical outreach for the Baltimore region.

Dr. Bethea is a leader in the field of cardiac surgery. He has participated in nearly all major U.S. clinical trials for TAVR and has been involved in early feasibility trials for transcatheter mitral valve repair and replacement, including Tendyne™, MitraClip™, ENCIRCLE, and TRILUMINATE. He is the only surgeon in Maryland to offer patients the latter two options. Dr. Bethea teaches valve repair and replacement techniques to other surgeons, and is widely published, particularly on the topic of transcatheter mitral valve replacement–a rapidly evolving and expanding field.

Michael Fiocco, MD, outgoing chief, will remain a valued member of the cardiac surgery team and will continue to bring his considerable expertise in coronary revascularization and aortic valve surgery to benefit our community. Dr. Fiocco has led the cardiac surgery team in receiving a 3-star rating for coronary artery bypass grafting and combined aortic valve/CABG procedures from The Society of Thoracic Surgeons–the highest achievable metric in the United States for these procedures. This achievement places the team in the top seven percent of high-performing hospitals nationwide.

Generous philanthropic gift establishes new cardio-oncology fellowship program.

We are pleased to announce the establishment of the J.D. Murphy Jr. Cardio-Oncology Fellowship program at MedStar Washington Hospital Center. This post-graduate training program is one of only a handful nationwide designed to train the next generation of cardio-oncology leaders.

The program will be funded with a generous $500,000 gift from philanthropist Genevieve Murphy, in honor of her late husband, J.D. Murphy Jr., a MedStar Washington heart patient, board member, past chair of the philanthropy committee, and friend to many nurses and doctors. Mrs. Murphy gifted the donation over five years to reflect her late husband's lifelong love of learning. As the founder and president of an international information technology company, "he knew that even the most sophisticated technology was only as good as the people who were trained to use it," says Mrs. Murphy.

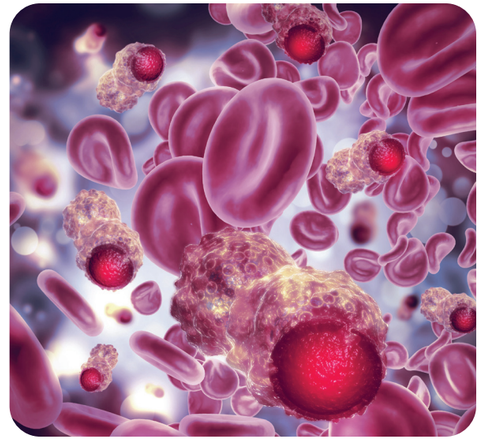
This fellowship is the newest addition to MedStar Health's post-graduate cardiovascular medical education program–one of the largest in the United States–offering subspecialty training in the fields of general cardiology, interventional cardiology, heart failure, electrophysiology, echocardiography, cardiac CT and MRI, and now cardio-oncology.

From the cardio-oncology program's initiation in 2012, MedStar Health has been a national leader in the field, pioneering and participating in progressive research to develop new cardiovascular diagnostic and treatment protocols that are compatible with evolving oncologic approaches. This growing medical subspecialty is dedicated to minimizing the effects of cardiovascular morbidity and mortality in people with cancer. Chemotherapy and radiation therapy, along with new cancer treatments such as certain immunotherapies, can contribute to a number of cardiovascular complications including heart failure, coronary artery disease, heart rhythm disorders, peripheral vascular disease, valvular heart disease, and more.

Ana Barac, MD, PhD, is the cardio-oncology program's founding director. She also served as the founding chair of the American College of Cardiology's new Cardio-Oncology Council from 2015 to 2019 and is the director of the ACC Live course on Advancing Cardiovascular Care in Oncology Patients. She is an associate editor of the JACC: CardioOncology.

"Today's cancer treatments help patients live longer, healthier lives, but some have unintended cardiovascular side effects, especially those with heart disease or who are at risk for the condition. Our goal is to treat and protect the heart at every stage of cancer treatment and beyond, and shepherd each patient through successful treatment," says Dr. Barac. "We are so grateful for this generous gift, as we now have a fellowship to help educate and train the leaders of tomorrow in promoting the cardiovascular health in patients with cancer."

Our multi-site consultative practice can establish a comprehensive cardiovascular treatment plan before, during, and after a patient's cancer treatment. For more about the cardio-oncology program, or to schedule a consult, please visit MedStarHeartInstitute.org/Programs/Cardio-Oncology, or call 202-360-6367 (Washington, D.C. region) or 877-452-0725 (Baltimore, Md. region).



Ana Barac, MD, PhD
Director, Cardio-Oncology Program

Ron Waksman, MD, presented with Master Interventionalist designation by SCAI.

Congratulations to Ron Waksman, MD, recipient of the distinguished award of Master Interventionalist from the Society for Cardiovascular Angiography & Interventions. This designation recognizes some of the "most exceptional and innovative interventional cardiologists in the world, recognized by their peers as having demonstrated excellence in the field over their career, manifested by a commitment to the highest levels of clinical care, innovation, publication, and teaching" (SCAI, 2021).

Dr. Waksman is the associate director of Cardiology at MedStar Washington Hospital Center, and director of Cardiovascular Research and Advanced Education for MedStar Heart & Vascular Institute at MedStar Washington Hospital Center.

With decades of experience in developing and testing leading-edge medical technologies, he is a world-renowned interventional cardiologist and a highly sought-after principal investigator for pre-clinical and clinical studies conducted in the United States and abroad. Dr. Waksman serves as the editor-in-chief of the journal Cardiovascular Revascularization Medicine, and leads the annual Cardiovascular Research Technologies meeting, one of the world's leading interventional cardiology conferences.

Society for Cardiovascular Angiography & Interventions. (2021). https://scai.org/scai2021/recognition

1,000th TAVR performed at MedStar Union Memorial Hospital.

On June 29, the structural heart team at MedStar Union Memorial Hospital performed a milestone 1,000th transcatheter aortic valve replacement procedure. The hospital has been a regional leader in performing TAVR since it was first introduced as an alternative to traditional open aortic valve replacement.

John Wang, MD, chief of the cardiac catheterization lab and director of the structural heart program at MedStar Union Memorial, credits his team of interventional cardiologists, cardiac surgeons, valve coordinators, nurses, and techs for the momentous success.

MedStar Health has pioneered TAVR since its inception in 2007, serving as clinical testing sites for every advancement thereafter. We remain the largest system in the Baltimore/Washington region to offer TAVR for severe aortic stenosis and aortic regurgitation, and perform a combined average of 500 procedures each year, systemwide.

Reginald Robinson, MD, named President of the American Heart Association's Eastern States Region Board of Directors.

MedStar Health cardiologist Reginald Robinson, MD, has assumed the role of President of the Board of Directors for the Eastern States region of the American Heart Association (AHA). The Eastern States region includes 13 states and Washington, DC, and supports the greater AHA mission to transform the health and well-being of local communities. Recently, in the area, the AHA helped pass the Prince George's County Healthy Kids Meal Act and Washington DC's *Flavored Tobacco Product Prohibition Amendment Act of 2021*.

"As President of the Board, I look forward to building on the incredible work done to advance health as a champion for health equity across the Eastern States region," Dr. Robinson says of his new post.

Dr. Robinson also serves on the board of MedStar Health Cardiology Associates, where he is a member of the Quality Committee. He is a past member of the AHA's former Mid-Atlantic Affiliate Board of Directors, and past president of the AHA's Greater Washington Region Division Board of Directors. In 2020, Dr. Robinson received the Eastern States Volunteer Health Equity Award from the AHA Greater Washington Region. Dr. Robinson sees patients at MedStar Washington Hospital Center in Washington, DC, and MedStar Health Cardiology Associates in Bowie, Md.

Dedicated cardiac unit opens at MedStar Southern Maryland Hospital Center.

MedStar Southern Maryland Hospital Center has opened a dedicated unit for patients with cardiovascular disease. By cohorting patients with certain cardiac diagnoses, clinical teams can concentrate their expertise and resources to provide more focused care. This is an established best practice of MedStar Heart & Vascular Institute already in place at other hospitals across our system.

"In addition to enhancing each patient's experience at the hospital, this dedicated unit will facilitate our ability to more positively impact their health outcomes," explains William O. Suddath, MD, chairman of cardiology at MedStar Southern Maryland. "We are now better able to prepare each person and their family for the discharge, including detailed attention to medications, scheduling of follow-up visits, changes in diet, the addition of exercise, and tobacco cessation. These individualized discharge instructions are sometimes unique to cardiovascular conditions, and better managed by a specialized unit."

MedStar Southern Maryland Hospital Center cares for a rapidly growing cardiac population in Prince George's County as well as the broader Southern Maryland region, so this initiative further supports the hospital's advancement of its cardiology service line and overall services offered to the community.

Cardiology Chairman William O. Suddath, MD
MedStar Southern Maryland Hospital Center

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Cardiovascular Physician is a publication of MedStar Health and our experts at MedStar Heart & Vascular Institute. It is a forum to share clinical, research, and teaching information in cardiology, cardiac surgery, and vascular care.

Please submit any comments to Managing Editor Karoline Hutson, at **karoline.m.hutson@medstar.net.**

Department of Continuing Professional Education

Please visit **MedStar.Cloud-CME.com** for updated conference information, or call **202-780-1655.** CE transcripts are available online. You can download, print or e-mail your CE transcript. Visit **CME.MedStarHealth.org** and click on **"View Your CE Transcript"** for complete instructions.

Upcoming conferences and courses

DMV Cath Lab Case Review
Monthly, Tuesdays, 7:15 p.m.

CRTvirtual Masters Course
September 11 to October 9, 2021
Saturdays, 8 a.m. to noon

This course will target advanced-practice, complex topics including complex coronary, structural, and imaging and physiology.

Controversies in Cardiac Arrythmias (CICA)
Friday, October 8, 2021
8 a.m. to 4:30 p.m.
The Cosmos Club, Washington, D.C.
CME is available.

CICA 2021 is designed to provide clinicians with a review of selected topics in present day management of patients with cardiac arrhythmias, emphasizing new advances in the field and incorporating current guidelines and evidence-based principles of practice.

CRT Presents New Frontiers in Cardiac Surgery
October 30 to November 20
Saturdays, 9 a.m. to noon
Virtual; CME is available.

This course will provide an interactive platform to catch up on cutting-edge innovations in cardiac interventions and surgery, and to discuss these subjects in depth with some of the leading experts on the subjects in the world today.

Regularly scheduled series–*AMA PRA Category 1 Credit(s)™*

Cardiac Catheterization Conference
Weekly, Wednesdays, 7:30 a.m.
1 AMA PRA Category 1 Credit™
202-877-7808

Cardiac Surgery Grand Rounds
Weekly, Tuesdays, 7:15 a.m.
2 AMA PRA Category 1 Credits™
202-877-3510

Cardiology Grand Rounds
Weekly, Tuesdays, 12:30 p.m.
1 AMA PRA Category 1 Credit™
202-877-9090

Echocardiography Conference
Weekly, Thursdays, 7:45 a.m.
1.25 AMA PRA Category 1 Credits™
202-877-6264

Electrophysiology Core Curriculum Conference
Weekly, Tuesdays, 7 a.m.
1 AMA PRA Category 1 Credit™
202-877-3951

Visit us at **MedStarHeartInstitute.org**

Some of the photos in this publication were taken prior to the COVID-19 pandemic. Photo editing techniques were used to create some group photos. All patients and providers are expected to follow the current MedStar Health guidelines for safety including proper masking and physical distancing where appropriate. Learn more at **MedStarHealth.org/Safe.**