CONGENITAL CARDIOLOGY TODAY
Timely News & Information for Congenital/Structural Cardiologists & Cardiothoracic Surgeons Worldwide
North American Edition
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Using RVUs to Track Physician Productivity in Congenital Cardiac Catheterization: A Recipe for Failure

Sergio Bartakian, MD

Recently, a growing number of children's hospitals have started moving towards a system of tracking the relative value units (RVUs) as a means of assessing the productivity of their physicians. Although this may be somewhat accurate for general outpatient or inpatient care, it fails totally for the almost exclusively procedural specialty of congenital interventional cardiology (formerly referred to as pediatric interventional cardiology). Hospital administrators must understand this fundamental fact; your coding departments (including outsourced coding firms) and the payers, are not the experts in understanding how to code for these complex procedures. The reason is simply that they do not understand these procedures or how vastly different they are from what they are accustomed to in the non-congenital catheterization (formerly referred to as adult cardiac catheterization) world. Additionally, due to the massive volume of coding errors, there are no accurate benchmarks of RVUs for the congenital catheterization labs.

In 2015, having recognized the near complete absence of CPT® codes for congenital cardiac catheterization, we set about to create an entirely new and complete set of codes to capture the work congenital interventionalists perform. It is fair to say that prior to these new codes being created, over half of all the work performed daily was not being recognized or reimbursed. Since 2016, nearly 30 new CPT® codes have been created or revised specifically in this specialty by the Congenital Interventional Cardiology Coding Workgroup (CICCW) at the Society of Cardiovascular Angiography and Interventions (SCAI). Although this work continues, unfortunately today the problem

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Nicklaus Children's Hospital
Where Your Child Matters Most

Chief of Cardiology and Heart Institute Co-Director

Join Our Team at Nicklaus Children's Hospital Heart Institute!

Are you ready to lead and innovate in pediatric cardiology? Nicklaus Children's Hospital is actively seeking a Chief of Pediatric Cardiology and Heart Institute Co-Director. Working alongside Dr. Joseph M. Forbess, Chief of Cardiovascular Surgery and Co-Director of the Heart Institute, this individual will spearhead initiatives to advance excellence in clinical care, community outreach research and education.

Nicklaus Children's Hospital Heart Institute is a renowned center of excellence dedicated to providing world-class cardiac care to pediatric patients. With state-of-the-art facilities and a multidisciplinary team of experts, we deliver comprehensive, compassionate, and cutting-edge care to children with congenital and acquired heart conditions. The Heart Institute offers a wide range of services including the management of patients requiring complex congenital heart surgery, interventional catheterization and invasive electrophysiology.

Our cardiac surgical program is one of the most transparent in the world and the first to offer real-time outcomes reporting (**https://rto.nicklauschildrens.org**). Our Advanced Pediatric Care Pavilion houses a 34-bed cardiac inpatient unit with an acuity adjustable model that allows all rooms to accommodate critically ill patients. Nicklaus Children's Hospital is an affiliate of the Florida International University Herbert Wertheim College of Medicine.

Responsibilities

- Provide strategic leadership and direction for the Cardiology Division and Heart Institute
- Oversee the clinical, research and educational activities of the Cardiology Division
- Collaborate with multidisciplinary teams to advance innovative approaches to pediatric cardiac care
- Foster a culture of excellence, collaboration and continuous improvement within the Heart Institute
- Develop and implement strategic initiatives to enhance patient outcomes, quality of care and patient experience
- Mentor and support the professional development of faculty, staff, and trainees
- Facilitate and enhance community outreach and advocacy
- Support the recruitment and retention of top-tier faculty and trainees to promote academic advancement
- Work in partnership with Heart Institute Administrator to plan, evaluate, and manage annual fiscal operating budgets
- Maintain a positive workplace culture that attracts, retains and motivates staff, and empowers their ability to impact decision making

Qualifications and Experience

The Heart Institute Co-Director and Chief of Pediatric Cardiology represents a pivotal leadership role within our organization. The candidate is expected to have demonstrated clinical excellence and leadership success in their career. Additionally, this leader will uphold unwavering integrity and adherence to ethical standards, while also exhibiting strong administrative and managerial skills.

Additional qualifications and desired attributes include:

- MD/DO degree or equivalent from an accredited school of medicine with at least 10 years post-pediatric residency and fellowship in cardiology
- Unrestricted medical license and American Board of Medical Specialties (ABMS) board certified in pediatric cardiology
- Exceptional written and oral communication skills with ability to listen and tailor information to specific audiences
- Collegial and highly collaborative with a track record of fostering a positive workplace culture that promotes teamwork and inclusiveness

About Nicklaus Children's Health System

Founded in 1950, the rebranded Nicklaus Children's Hospital is a 307-bed freestanding children's hospital and ACS-verified Level 1 pediatric trauma center that is renowned for excellence in all aspects of pediatric medicine and has numerous subspecialty programs that are ranked among the best in the nation. It is also home to the largest pediatric teaching program in the southeastern U.S. Highlighting its nationally recognized achievements in patient safety and quality, Nicklaus Children's Hospital was named a Top Children's Hospital by The Leapfrog Group in 2023. In addition, our organization consistently appears on employer award lists such as Newsweek's "Top 100 Most Loved Workplaces®." Nicklaus Children's Pediatric Specialists is the physician-led multispecialty medical group practice of Nicklaus Children's Health System. Join a phenomenal team that brings lifelong health and hope to children and their families through innovative and compassionate care.

Nicklaus Children's Hospital is located in Miami, Florida and offers all the advantages of a tropical, diverse and metropolitan community. Enjoy abundant sunshine and warm weather year-round with easy access to numerous recreational opportunities, cultural and professional sporting venues, and international travel.

Competitive compensation and benefits package. Qualified candidates please contact:

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Nicklauschildrens.org/NCPS

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DFW

of under-reporting or mis-reporting these procedures remains extensive, to say the least. In a recent discussion on this topic with Dr. Zielske from Z-Health Consulting, he confirmed the institutional error rate among their audits of children's congenital catheterization programs was 100%. And among all of the cases audited, they found at least one major error in roughly 80% of cases reviewed. In addition to all of the new codes created and released, we also wrote an entirely new section of introductory language guidelines for the congenital cardiac code set in the CPT® code book. Unfortunately, as clear and distinct as we set out to make these instructions, they are either not well understood, or simply ignored. Common sources of error are shown in **Figure 1**.

Figure 1: Common Sources of Coding Errors

- Improper / incomplete documentation by the provider
- Incorrect codes submitted by the provider
- Correct codes used by the provider, but deleted by coder prior to submission
- Correct codes used by the provider, but changed to the wrong code by coder
- Persistent use of old (deleted) codes
- Lack of knowledge of newly released codes
- Lack of applying proper and commonly used modifiers (62, 63, 80, 81, 82)
- Not resubmitting and appealing all denials
- Reliance on 3rd party coding firms rather than confirming with specialty society experts

Figure 2: Recommendations for congenital catheterization lab medical directors

- Insist your institution provide you with a new copy of the CPT® book each year
- Develop templates for reporting catheterization procedures and have a list of the CPT® codes near the top of the report for your coders to verify against
- Use the actual code descriptor (title) from the CPT® book in your reports when referencing what you did
- Insist on a report from your coding department each quarter (with 1 quarter lag time) showing the codes you reported vs what they submitted vs what was collected
- Ensure the codes you submitted match those submitted, and all denials were appealed
- Have a quarterly (at least) meeting to discuss any discrepancies, and provide ongoing education to your coders on what you do and how to use the congenital codes
- Periodically, have a formal audit performed

It is vital for providers in this specialty to understand they are the experts and to take responsibility for proper documentation and coding. For decades, pediatric trained physicians were taught nothing in the course of their medical education and training regarding how to code for their work. Shockingly, this continues throughout the healthcare industry. Much of this is because of the false belief programs have regarding their coding departments being the experts; therefore, the physician did not need to understand the system. Furthermore, as the vast majority of all congenital interventional cardiologists are salaried employees, the physician had no stake in making sure the proper codes were reported and collected. For decades, hospitals have used the excuse that the congenital catheterization lab simply did not bring in enough revenue to justify purchase of new, vital equipment or hiring of new dedicated staff or faculty, despite the fact the case load far exceeded what would be considered safe and acceptable for the existing number of staff and/or faculty employed. Previously, in the absence of having the proper CPT® codes to benefit from the hard work being performed by these individuals, this was perhaps understandable. But no longer can this excuse be acceptable. And likewise, neither can it be acceptable for institutions to force productivity measures using RVUs if they fail to understand these complex issues and continue in failing to properly report and collect for the work the providers perform.

In order to truly understand how to properly code for the many different procedures in the congenital catheterization lab, it is imperative the individual have some clinical knowledge of the work performed. This work is vastly different than that performed in the non-congenital catheterization lab. In fact, the only thing shared between the two specialties is the name of the procedure, catheterization. But the actual work performed in a catheterization for congenital vs non-congenital indications is entirely dissimilar. For this reason, when in doubt, providers and coders should rely on the specialty society staff and physicians at SCAI and the American College of Cardiology (ACC), who are the experts, to provide further explanation and guidance. To ensure programs are properly capturing and reporting the work performed, the recommendations in **Figure 2** are strongly advised.

One final point; not only is the work of providing care in the catheterization lab completely different for the congenital interventionalist as compared to the non-congenital counterpart, so is the work before and after the procedure. Every CPT® code is designed to capture three elements: pre-procedure, intra-procedure, and post-procedure care. Most administrators tend to focus on the time the physician is in the lab performing a procedure as the measure of their productivity. They fail to recognize the immense burden these procedures place on the provider in communicating with families of patients with severe congenital heart defects. The work of the pre- and post-procedure segments is another source of error in tracking RVUs. Although this work is ideally captured by the CPT® code, the system is quite rigid and not ideal for the highly variable work in this population. The existing times allotted for these segments with respect to case preparation, consent, reporting, communication of results, etc. fall very short. In fact, a congenital interventionalist performing an average of two cases, four days per week, should be considered as being similar to a busy

Nicklaus Children's Hospital
Where Your Child Matters Most

Medical Director of Electrophysiology

Join Our Team at Nicklaus Children's Hospital Heart Institute!

Are you an experienced and passionate Pediatric Electrophysiologist looking for a leadership role in a dynamic and innovative environment? As part of our leadership succession plan, the Nicklaus Children's Hospital Heart Institute is seeking a skilled individual to serve as our Medical Director of Electrophysiology.

The Nicklaus Children's Hospital Heart Institute is a renowned center of excellence dedicated to providing world-class cardiac care to pediatric patients and patients with congenital heart disease. With state-of-the-art facilities and a multidisciplinary team of experts, we deliver comprehensive, compassionate, and cutting-edge care to all children and fetuses with acquired and congenital heart disease and young adults with congenital heart disease. The Heart Institute offers a wide range of services including the management of patients requiring complex congenital heart surgery, interventional catheterization, invasive and non-invasive electrophysiology, non-invasive imaging (fetal and cardiac MR/CT), and preventive cardiology. Our pediatric cardiology and cardiovascular surgery services are ranked among the nation's best for pediatric cardiology and heart surgery by U.S. News & World Report.

Our cardiac surgical program is one of the most transparent in the world and the first to offer real-time outcomes reporting (**https://rto.nicklauschildrens.org**). Our Advanced Pediatric Care Pavilion houses a 34-bed, fully telemetered cardiac inpatient unit with an acuity adjustable model that allows all rooms to accommodate critically ill patients. Nicklaus Children's Hospital is an affiliate of the Florida International University Herbert Wertheim College of Medicine.

Position Overview
As the Medical Director of Electrophysiology, you will work with the Chief of Cardiology to manage the overall strategic direction of the Electrophysiology Program. The qualified candidate will have an established track record of providing expert care to patients with all forms of potential or established cardiac arrhythmias and cardiac implantable electronic devices; mentorship for young faculty and learners; and a demonstrated interest in clinical investigation and innovation. This position also includes collaboration with adult electrophysiologists at neighboring adult hospitals to bridge the gap in the care of older adults with congenital heart disease and arrhythmias. The suitable candidate will be at the associate or full professor level. A keen interest in emerging technologies, such as pulsed field ablation, artificial intelligence, and translational approaches to channelopathies is highly desirable.

Responsibilities
- Lead and oversee the electrophysiology program, including all forms of diagnostic testing and therapeutic interventions for patients with possible or established cardiac arrhythmias
- Provide expert consultation and collaborate with multidisciplinary teams to develop comprehensive treatment plans tailored to each patient's needs
- Mentor and support the professional development of medical staff, young faculty, fellows, and residents in electrophysiology.
- Contribute to research and academic initiatives aimed at advancing the field of electrophysiology
- Foster a culture of excellence, collaboration and continuous improvement within the Heart Institute

Additional qualifications and desired attributes include:
- MD degree or equivalent from an accredited school of medicine with at least three years of fellowship training in pediatric cardiology with an additional 1+ years in a dedicated pediatric EP fellowship
- Unrestricted medical license and board certification by the American Board of Medical Specialties (ABMS) in pediatric cardiology
- Certification by the International Board of Heart Rhythm Examiners [Certified Electrophysiology Specialist-Pediatric (CEPS-P) Exam]
- Associate Professor or full professor level with focused expertise in both non-invasive and invasive management of cardiac arrhythmias. This will include (but not be limited to) invasive electrophysiology testing and ablation of all endocardial arrhythmia substrates and cardiac electronic implantable device implantation and management.
- Understanding of clinical and research infrastructure and operations, as well as an ability to manage a financial and operating budget preferred
- Exceptional written and oral communication skills with ability to listen to and tailor information to specific audiences
- Collegial, collaborative, and respectful foundational approach with a track record of fostering a positive workplace culture that promotes teamwork and inclusiveness
- Commitment to patient-centered care, innovation, and continuous improvement

About Nicklaus Children's Health System
Founded in 1950, the rebranded Nicklaus Children's Hospital is a 307-bed freestanding children's hospital and ACS-verified Level 1 pediatric trauma center that is renowned for excellence in all aspects of pediatric medicine and has numerous subspecialty programs that are ranked among the best in the nation. It is also home to the largest pediatric teaching program in the southeastern U.S. Highlighting its nationally recognized achievements in patient safety and quality, Nicklaus Children's Hospital was named a Top Children's Hospital by The Leapfrog Group in 2023. In addition, our organization consistently appears on employer award lists such as Newsweek's "Top 100 Most Loved Workplaces®." Nicklaus Children's Pediatric Specialists is the physician-led multispecialty medical group practice of Nicklaus Children's Health System. Join a phenomenal team that brings lifelong health and hope to children and their families through innovative and compassionate care.

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adult program performing a full day of coronary, structural, or peripheral interventions. The number of hours worked by the two providers are the same, though the RVUs will never reflect as such.

In time, perhaps the RVU system can be used for this purpose in this specialty. For the time being, institutions need to work with their physician expert to better understand the issues, the extent of work performed, and come up with a better means to acknowledge the great value they bring to the institution.

The work of improving this system for our providers has been long and arduous. I thank all of my co-members on the CICCW, as well as SCAI and ACC staff, for all of their hard work and efforts. I also thank all of my CPT and RUC colleagues for their understanding of the importance of helping to improve a previously ignored specialty.

SERGIO BARTAKIAN, MD

Congenital Interventional Cardiologist
Former RUC Panel Member
CPT and RUC Advisor to SCAI and ACC
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Nicklaus Children's Hospital
Where Your Child Matters Most

Director of Fetal Cardiology

Join Our Team at Nicklaus Children's Hospital Heart Institute!

Are you a passionate and skilled pediatric cardiologist with expertise in fetal cardiology? Nicklaus Children's Hospital Heart Institute is seeking a Pediatric Cardiologist with advanced training in cardiac imaging and fetal echocardiography to lead our fetal cardiology team.

Nicklaus Children's Hospital Heart Institute is a renowned center of excellence dedicated to providing world-class cardiac care to pediatric patients. With state-of-the-art facilities and a multidisciplinary team of experts, we deliver comprehensive, compassionate, and cutting-edge care to children with congenital and acquired heart conditions. The Heart Institute offers a wide range of services including the management of patients requiring complex congenital heart surgery, interventional catheterization, invasive electrophysiology, non-invasive imaging (fetal and cardiac MR/CT) and preventive cardiology. Our pediatric cardiology and cardiovascular surgery services are ranked among the nation's best for pediatric cardiology and heart surgery by U.S.News & World Report.

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Responsibilities

- Develop outreach fetal screening opportunities with a growing neonatal/MFM network
- Provide inpatient care, opportunities for transthoracic and transesophageal echo
- Conduct outpatient clinic responsibilities at our main campus and satellite locations
- Collaborate with multidisciplinary teams to advance innovative approaches to fetal cardiology care
- Foster a culture of excellence, collaboration and continuous improvement within The Heart Institute
- Mentor and support the professional development of staff, fellows and medical students, as well as demonstrate a commitment to clinical excellence in Pediatric and Fetal Cardiology
- Facilitate and strengthen community outreach and advocacy initiatives by fostering collaborative relationships with MFMs and OBs in the local community
- Maintain a positive workplace culture that attracts, retains and motivates staff, and empowers their ability to impact decision making

Qualifications and Experience

As the Director of Fetal Cardiology, you will lead a dedicated team in providing exceptional care to expectant mothers and their unborn babies facing complex cardiac conditions. This role offers a unique opportunity to make a difference in the lives of families by providing advanced diagnostic and therapeutic interventions for fetal heart abnormalities. The candidate is expected to have demonstrated clinical excellence and leadership success in their career. Additionally, this leader will uphold unwavering integrity and adherence to ethical standards.

Additional qualifications and desired attributes include:

- MD degree or equivalent from an accredited school of medicine with at least three years of fellowship training in pediatric cardiology with an additional year of training in advanced congenital cardiac imaging and fetal echocardiography
- Preferably have five-plus (5+) years of pediatric echocardiography practice experience with focused expertise in the imaging and management of fetal cardiology patients and their mothers
- Experience with developing a fetal cardiology program, and those with an interest and track record for academic success in fetal medicine preferred
- Unrestricted medical license and American Board of Medical Specialties (ABMS) board certified in pediatric cardiology
- Should have a Florida license or be eligible for a Florida license
- Exceptional written and oral communication skills with ability to listen and tailor information to specific audiences
- Collegial and highly collaborative with a track record of fostering a positive workplace culture that promotes teamwork and inclusiveness

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Matters of The Heart and Mind: "You're Trying to Kill My Baby"

Neil Wilson, MBBS, DCH, FRCPCH, FSCAI

Those were the exact words Jenna shouted at me one afternoon on the Oxford Chidren's Hospital ICU at the cot-side of her seven-month-old daughter, Kayleigh, about twenty years ago. Seconds later, just as I was thinking about how to refute such an allegation, Jenna stormed out of the room and out of the ICU. My colleagues, attendant nurses and I were probably best described as stunned into silence. I'd better give some context… I had 'inherited' Kayleigh as my responsibility when I replaced her previous consultant (attending) who had left Oxford to a key academic appointment elsewhere.

The story reads… before I arrived in Oxford, Kayleigh had been born in Oxford with Down Syndrome and, cardiologically, an unbalanced atrioventricular septal defect (AVSD). Say canal if you like, but I do not like that description. Big right heart. Is the left heart hypoplastic or merely dwarfed by the enlarged right? Usual question / dilemma. Don't ask me the Z scores, but in good faith and with well documented opinions of valued colleagues elsewhere it was deemed she should undergo reparative surgery. Almost 6kg. Saturations in the low to mid 90%. Catheter not performed. You could be critical but let's face it, she is less than six-months-old, you are not going to write her off as having inoperably high pulmonary vascular resistance and though Z scores were on the limits, surely go for the repair? Mum had been counselled appropriately about the risks and consented, so off to the operating room Kayleigh went.

The repair was performed by a surgeon and team with a stellar reputation for AVSD repair surgery. The story was a bit of a struggle coming off bypass, hypotension requiring inotropic support, the usual. Low output, oliguria, large toe core gap, concern++. Echo had shown (surprise, surprise) mixed mitral valve stenosis and regurgitation. The next three weeks saw ongoing peritoneal dialysis, pulmonary vasodilators and as much systemic vasodilation they dared. Had they made the right decision? Wilson comes on the scene… and no, I did not make some miraculous transformation. Kayleigh remained extremely sick and the conversations around the clinicians on ICU revolved around viability, reoperation? Which operation? Palliative care? Far from saving the day, my first chats with Kayleigh's mum were pretty much focused on the negative, "We have done our best, but we are defeated by the small left pumping chamber which is now voting with its feet to tell us the heart is not viable." Jenna's body language with me carried overtones of 'She was doing OK until you appeared.' I personally did not think further reparative surgery on the mitral valve was viable. The surgeon was not keen, but to give him credit he left a door open with "If you think I can get a valve in there I am willing to have a go." I suggested catheter for haemodynamics and transoesophageal echo though my heart was not really in it. I thought it would be a statement that at least we had looked under every stone and not just given up.

Haemodynamics? Guess what? No surprises. PA pressures high of course (are you surprised?), but wedge 17-18 mmHg. LVEDP 8. PVR in 100%, oxygen 6.7. The echo team were measuring left, right, and centre, each time edging up the mitral ring diameter by 0.1-0.2mm. Kayleigh was safely back in the ICU. I return to the lab flicking through the data and the TOE loops when from behind me the surgeon breaks the silence and says, "Well?" "Not sure, Steve." It is another case of 'definitely maybe.' My colleagues Nick and Satish join in. "What have we got to lose going for an MVR?" "The baby," I quip. About ten minutes of toing and froing. Steve says, "I'll do it on Friday." I think it was Wednesday. "OK Steve, I'll go and speak to mum."

We are now back to where the story started. It seems the ICU team in the cath lab had picked up on my vibes of 'hopeless situation' and this had found its way to the cot-side as "Dr. Wilson thinks we perhaps would be better just making Kayleigh comfortable," as in opt for comfort care. Not exactly true but not far from the truth. The staff were not yet aware of the huddle that had taken place in the cath lab and the offer of a surgical valve replacement. When I appear in ICU now some 30 – 40 minutes post catheter Mum is there and thinks I am going to pile in with "Bad news we are giving up." Tearful she looks up from the cot, eyes me, and yells the "You're trying to kill my baby," line followed by her very rapid dash from the room and ICU. When the silence breaks, I explain to the team around the cot our proposal to do a mitral valve replacement. More silence. The senior anaesthetist, I can tell, thinks it is somewhere in the range, futile-to-pointless, but understands the logic of trying. I get it. The ICU attending staff feel much the same. But what does mum Jenna think? And perhaps we could get her back and have a sit down and full and frank discussion, as the line goes. Jenna is nowhere to be seen: not in the parents 'discussion room,' not in the Ronald McDonald parent accommodation, not in the secret no smoking/smoking area. The cardiac liaison nurse even goes out into the car park. Jenna's car is there but empty. I go back to my office. I'm barely in the door when my pager goes. "We've found her." "OK I'll come right down." "No don't come now, she's locked herself in the staff lavatory and won't come out."

About two hours later I get a call to say that Jenna has just returned to ICU. At the cot-side is Jenna and another woman of a similar age. It turns out she is one of Jenna's best friends and during the attempts to encourage Jenna to come out of the lavatory she had insisted that she would not come out until we called her friend Sheila. Apparently, Jenna has told Sheila: "Dr. Wilson's going to tell me they're going to switch her off."

Stanford MEDICINE
Children's Health

Pediatric Cardiologist

Opportunity in the South Bay Area - Capitola, California

Packard Children's Health Alliance / Stanford Children's Health is actively recruiting a Cardiologist to join our group in Capitola.

Position details/qualifications:

- MD or DO
- BC/BE in Pediatric Cardiology
- Current license to practice medicine in the state of California

Our location:

- Close proximity to Santa Cruz, known for its beaches, redwood forests, and unique surf and arts culture
- Breathtaking views of Monterey Bay
- Enjoy our mild weather where the sun shines 300 days/year

We offer:

- $325,000-$375,000 plus annual productivity incentives
- Full benefits package, including relocation bonus for qualified moves

At Stanford Children's Health, we are focused on bringing world-class, family-centered care to communities throughout the San Francisco Bay Area. A rapidly growing medical foundation, developed in partnership with Lucile Packard Children's Hospital Stanford and the Stanford School of Medicine, we are bringing together some of medicine's premier talent to meet the health challenges faced by today's children and expectant mothers. If you'd like to be part of an organization that's establishing new standards of care—and helping children and their families grow stronger every step of the way—consider joining us today.

To find out more about how you can make an impact on our growing organization, please send your resume with **"Pediatric Cardiologist"** in the subject line of your email to: mlipman@stanfordchildrens.org.

As I approach the two women Jenna gets in the attack, "You're not switching her off, I know that's what you want to do." Sheila quickly comes in "Jenna, behave yourself, let Dr. Wilson explain." So I did explain.

Two days later Kayleigh had her mitral valve replacement. Steve and the OR and ICU teams are heroes. Steve squeezes in the smallest prosthetic valve known to man. I was wrong. Kayleigh did better than anyone could have predicted / hoped. Sure, she is on the ventilator for another two weeks, but home a couple of weeks after that. Through the medium of outpatient clinics in the presence of medical students, Jenna relaxes and comes out of her shell, she is a cabaret of parent behaviour and great fun, we are on good terms with excellent rapport.

Kayleigh has grown up, having had another MVR on the way. She is quite cheeky with her mum (I wonder where she got that from?!). Mum checks her INR at home with a 'CoaguCheck' device. She comes up to the hospital as a subject for student exams and everyone knows the story of how I was once accused of 'Trying to kill a baby' and the mother who spent two and a half hours hiding in the staff lavatory. By the way, she is not the only mother of one of my patients to have done that. But that is another story, for another time… Is it me?

NEIL WILSON, MBBS, DCH, FRCPCH, FSCAI

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University of Colorado School of Medicine
Formerly Director Cardiac Catheter Laboratory
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Pediatric/Congenital Advanced Cardiac Imaging, Medical Director

MemorialCare Medical Group

MemorialCare Long Beach Medical Center / Miller Children's & Women's Hospital Long Beach

MemorialCare Medical Group (MCMG) is seeking a board-certified Pediatric Cardiologist, with advanced cardiac imaging training, to join our growing pediatric cardiac program at MemorialCare Long Beach Medical Center / Miller Children's and Women's Hospital Long Beach (MCWHLB).

MCWHLB is one of eight private, regional, not-for-profit children's hospitals in the state of California and first opened in 1970. It is a 324 bed children's hospital that treats more than 8,000 children each year and has become a regional pediatric destination for more than 84,000 children. It has an active perinatal service with over 7000 deliveries annually to the adjacent birth center and one of the largest Neonatal Intensive Care units (NICU) in the area with over 90 beds. The hospital serves as the major referral center for the over 500,000 people of Long Beach but reaches an additional 2 million people in the immediate vicinity.

Practice Details

- Employed position with MemorialCare Medical Group
- Excellent pediatric sub-specialty support including
  - 24/7 Pediatric Cardiac Intensivist team
  - 8 bed Dedicated Pediatric Cardiothoracic ICU
  - 24 bed Pediatric ICU
  - 90 beds CCS Tertiary Level III NICU
- EMR: Epic

Qualifications

- M.D. or D.O.
- Completed three years of General Pediatric Cardiology fellowship
- Advanced clinical training in congenital cardiac imaging
- Experience in echocardiography, cardiac MRI, and cardiac CT
- Board certification in Pediatric Cardiology
- Must have or be able to obtain an unrestricted California medical license

Financial & Benefits

- Base Salary + Incentives
- Eligible to be considered for Shareholder/Partner status with MCMG after two years of full-time employment
- Full and comprehensive benefits for Physician and family
- 401(k) retirement plan with employer contribution
- 529 College Savings Plan

About Long Beach and Southern California

Located on the coast of the Pacific Ocean south of Los Angeles and just west of Orange County, Long Beach is the sixth largest city in the State of California. Offering all the world class amenities of a large metropolitan city, coupled with its strong sense of community and pride, Long Beach is one of the most vibrant communities in the country. With its ideal location in southern California, year-round comfortable climate, healthy business environment, and far-ranging cultural pursuits, the city is alive with activity. Long Beach is home to an abundance of cultural and recreational options: Expansive beaches, three marinas, five golf courses, the Aquarium of the Pacific, the Queen Mary and more. Long Beach has easy access to all the amenities and attractions of Los Angeles, Orange, and San Bernardino counties, including professional sporting events, music festivals, gourmet dining, film and television studios, Disneyland, and ski resorts in the local mountains.

World's First Partial Heart Transplant Proves Successful in First Year

Novel Procedure Demonstrated Valve Growth & Functionality in Newly Published Study Results

DURHAM, N.C. – The world's first partial heart transplant, https://corporate.dukehealth.org/news/duke-health-performs-worlds-first-partial-heart-transplant, has achieved what researchers have spent more than a year hoping for, functioning valves and arteries that grow along with the young patient, as hypothesized by the pioneering team behind the procedure at Duke Health.

The procedure was performed in the spring of 2022, in an infant who needed heart valve replacement. The previous standard of care, using valves that were non-living, would not grow along with the child, requiring frequent replacement, entailing surgical procedures that carry a 50% mortality rate.

A study led by Duke Health physicians, appeared online January 2nd, 2024 in the Journal of the American Medical Association, found that the new manner of valve procurement used during the partial heart transplant led to two well-functioning valves and arteries that are growing in concert with the child as if they were native vessels.

"This publication is proof that this technology works, this idea works, and can be used to help other children," said Joseph W. Turek, M.D., Ph.D., first author of the study and Duke's chief of pediatric cardiac surgery, who led the landmark procedure.

The study also found the procedure requires about a quarter of the amount of immunosuppressant medication than a full heart transplant, potentially saving patients from detrimental side effects that might compound over decades.

Turek said the innovation has paved the way for a domino heart transplant, where one heart is able to save two lives, https://pediatrics.duke.edu/news/domino-heart-transplant-offers-new-opportunities-children-congenital-heart-disease. During a domino heart transplant, a patient who has healthy valves but is in need of stronger heart muscle receives a full heart transplant; their healthy valves are then donated to another patient in need, creating a domino effect.

"You could potentially double the number of hearts that are used for the benefit of children with heart disease," Turek said. "Of all the hearts that are donated, roughly half meet the criteria to go on to be used for full transplant, but we believe there's an equal number of hearts that could be used for valves."

"If you introduce the donated hearts that weren't being put to use into the supply chain and add the valves from domino heart transplants, that can create a substantial change," Turek said.

The partial heart transplant procedure has been performed 13 times at four centers around the world, including nine at Duke, several of which have been domino heart transplants.

Turek said bringing this innovation to a clinical trial would be the next step to achieving the volume in procedures that would change the availability of hearts by a large amount.

"This innovation adds a lot to the whole donation community," Turek said, "because it's treating more kids, while also honoring the wishes of selfless donor parents who've given the ultimate gift. It allows them to offer hope to another child in the process."

Preclinical data was supported by the Brett Boyer Foundation.

In addition to Turek, study authors include Lillian Kang, Douglas Overbey, Michael P. Carboni, and Taufiek K. Rajab.

Children's MINNESOTA

Pediatric Heart Transplant Cardiologist

SUMMARY

Children's Minnesota is seeking a dynamic, fellowship-trained pediatric heart transplant cardiologist to join the Heart Failure Heart Transplant (HFHT) program. This physician would have the benefit of collaborating with a comprehensive multidisciplinary transplant team that includes: 3 surgeons, 1 cardiologist, 2 nurse practitioners, transplant coordinators, dieticians, pharmacists, therapists and social workers. The HFHT program also offers a growing Ventricular Assist Device program as well as a well-established ECMO program.

Our Transplant program partners closely with The Children's Heart Clinic (CHC). Annually, the CHC cardiologists see more than 16,000 patients and surgeons perform over 400 surgical interventions. The CHC's state-of-the-art facilities include a dedicated pediatric cardiovascular intensive care unit, one of 30 approved pediatric cardiac catheterization laboratories in North America for transcatheter pulmonary valve placement, a complete pediatric arrhythmia service including the latest technology for ablation and devices, a collaborative fetal program for diagnosing and managing congenital heart disease in-utero, a collaborative adult congenital cardiology program, an ICAEL-accredited echocardiography lab and a rapidly growing congenital cardiac MRI/CT program. Children's Minnesota is pleased to announce it is the first pediatric hospital in Minnesota, and second in the United States, to install Siemens Naeotom Alpha® (Alpha) with Quantum Technology – the world's first photon-counting computed tomography (CT) scanner for clinical use.

PRACTICE HIGHLIGHTS

Children's Minnesota's cardiovascular program provides comprehensive pediatric cardiovascular services and on average, we annually perform:

- 400+ cardiac surgeries
- 400+ cath procedures
- 15,000 + echos (1,900+ fetal)
- 370+ cardiac CT/MRIs
- Children's Minnesota and Mayo Clinic Children's Center collaborate in the care of children with congenital heart disease and build on each organization's passion for children as well as the complementary strengths of both programs. The Mayo Clinic – Children's Minnesota Cardiovascular Collaborative is one of the largest and strongest pediatric cardiovascular collaborations in the country.

QUALIFICATIONS

- Board Certified in Pediatric Cardiology from the American Board of Pediatrics
- Advanced Heart Failure/Transplant fellowship training in a program certified by the American Board of Pediatrics.
- Physicians should have clinical competency and expertise in caring for patients who are candidates for or are recipients of advanced heart failure therapies including mechanical circulatory devices.
- Must have an M.D., D.O. with ability to obtain a current Minnesota Medical License.
- Ability to be successfully credentialed by both Hospital and 3rd Party Payers

CONTACT

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ASE Publishes Two Guidelines Recognizing Advances in Pediatric and Neonatal Echocardiography

The American Society of Echocardiography (ASE) published two new guidelines offering updated recommendations on pediatric and neonatal echocardiography, replacing earlier guidelines published by the Society.

Guidelines for Performing a Comprehensive Pediatric Transthoracic Echocardiogram: Recommendations From the American Society of Echocardiography, https://www.asecho.org/guideline/guidelines-for-performing-a-comprehensive-pediatric-transthoracic-echocardiogram-recommendations-from-the-american-society-of-echocardiography/, provides a comprehensive set of pediatric transthoracic echocardiography (TTE) guidelines to replace documents originally published by ASE in 2006 and 2010. The updated guideline establishes an organizational structure and a common language that can be utilized by any practice or institution providing echocardiographic services to children with suspected, congenital, or acquired heart disease.

"In the past decade, the care of children with heart disease has evolved due to improvements in scientific knowledge and technology. Echocardiography has played a major role in this evolution, due to its increasing ability to provide more accurate information related to cardiac anatomy, hemodynamics, and function," says Leo Lopez, MD, FASE, chair of the guideline writing group. "The guideline helps organize the capabilities of echocardiography so that it can be used in a rational and logical way when caring for pediatric patients."

One of the guideline's writing group Co-Chairs, Carolyn Altman, MD, FASE, adds, "The document is designed to be an easy and convenient reference tool for busy clinicians and sonographers, and includes tables that succinctly summarize standard protocols and methods of quality improvement."

The second guideline, titled Guidelines and Recommendations for Targeted Neonatal Echocardiography and Cardiac Point-of-Care Ultrasound in the Neonatal Intensive Care Unit: An Update from the American Society of Echocardiography, provides clarification on the scope of targeted neonatal echocardiography (TNE) versus cardiac point-of-care ultrasound (cPOCUS) to ensure that practitioners use these skills in accordance with approved indications. The guideline replaces the document originally published by ASE in 2011 and has been expanded to provide recommendations for cPOCUS, including:

1. Guidance on the purpose and rationale for TNE and cPOCUS.
2. Disease and/or clinical scenario-based indications for TNE.
3. Training and competency-based evaluative requirements for TNE and cPOCUS.
4. Components of quality assurance.

Chair of the guideline writing group, Patrick McNamara, MD, FASE, says that he anticipates the updated guideline will enable more institutions to establish TNE or cPOCUS programs, generate new research, and continue to encourage collaborations between neonatologists and pediatric cardiologists.

"Close collaboration with pediatric echocardiography laboratories and the support of thought leaders in the field have resulted in the success of TNE and the establishment of neonatal hemodynamics programs. We must also acknowledge the pivotal role of Luc Mertens, MD, PhD, FASE, who chaired the original guideline writing group on this topic 13 years ago, for prompting the growth and evolution of the field of neonatal hemodynamics," he adds.

Both guideline documents are published in the February 2024 issue of the Journal of the American Society of Echocardiography. All guidelines published by ASE are available at ASEcho.org/Guidelines.

About American Society of Echocardiography

The American Society of Echocardiography (ASE) is the Society for Cardiovascular Ultrasound Professionals™. ASE is the largest global organization for cardiovascular ultrasound imaging serving physicians, sonographers, nurses, veterinarians, and scientists and as such is the leader and advocate, setting practice standards and guidelines for the field. Both the pediatric and neonatal echocardiography specialized areas are represented in ASE's Pediatric and Congenital Heart Disease Council and the Neonatal Hemodynamics TnECHO Specialty Interest Group. The Society is committed to advancing cardiovascular ultrasound to improve lives. For more information, visit the ASE website ASEcho.org or social media pages on Facebook, X, LinkedIn, or Instagram.

PennState Health
Children's Hospital

Outpatient Pediatric Cardiologist

Penn State Health Children's Heart Group is seeking a dedicated outpatient pediatric cardiologist who has the desire to develop a community-based practice that will align itself with local hospitals and neonatology practices, provide personalized services to pediatricians and family practice providers in these communities, and grow the practice in these cities. The intention is for the successful applicant to reside in one of the following cities, or a nearby community: Lancaster, York, or Reading.

Join our Division of Pediatric Cardiology now! We are committed to excellent clinical care, teaching, and research. **Interested applicants, please apply here and send CV and Cover Letter to John P. Breinholt, MD Professor and Chief, Pediatric Cardiology jbreinholt@pennstatehealth.psu.edu**

Our team of providers consists of 12 board-certified pediatric cardiologists, 6 adult congenital cardiologists, 5 advanced practice providers and support staff. Our cardiologists have expertise in pediatric cardiology, adult congenital heart disease (ACHD), interventional cardiology, cardiac imaging and MRI, fetal cardiology, electrophysiology, preventive cardiology, and telemedicine.

We have state of the art facilities in these communities, supported by APPs, echo sonographers, and close alignment to the specialized services provided at the medical center, including: exercise physiology, electrophysiology, interventional cardiology, and cardiac surgery. We are closely aligned with the ACHA accredited Adult Congenital Heart Disease program who provide outreach services to these areas. There is an ACGME accredited fellowship program that accepts one fellow per year.

- The ideal candidate has at least one to three years of clinical experience and demonstrated excellence in outpatient pediatric cardiology care
- Supported by on-site clinical support staff and sonography services
- Academic position as an assistant or associate professor of pediatrics at Penn State College of Medicine
- The Echocardiography laboratory at Penn State Children's Hospital is accredited in pediatric transthoracic, TEE and fetal echocardiography
- Fetal cardiology abilities are desirable, but not required. Fetal cardiologists provide services to these areas at present, however a cardiologist with this skill set would be able to utilize it in this practice location.
- Opportunity to participate in the inpatient service is optional, based on applicant preference.

What we're seeking:

- We are seeking someone BC/BE trained in Pediatric Cardiology.
- M.D., D.O., or foreign equivalent
- Candidates must be board certified or board eligible in pediatric cardiology and able to obtain an unrestricted PA license.
- BLS and PALS certification is required.

Opportunity highlights:

- Competitive salary and benefits
- Sign on bonus and Relocation assistance,
- CME time and funds,
- LTD and Life insurance, and so much more!
- Penn State University tuition discount for employees and dependents

Area highlights:
Penn State Health has opened new pediatric outpatient centers in Lancaster and York in 2022. We are looking to open a new clinic in Reading. The Lancaster Pediatric Center (47,000 sq feet) houses more than 40 exam and consultation rooms. It includes 20 medical and surgical pediatric specialty and sub-specialty services. It also offers consultations with psychiatrists and behavioral health specialists. The York Leader Heights Center (5600 sq feet) houses pediatric sub-specialties, reproductive endocrinology and fertility. It provides a wide spectrum of care for children including 5 medical and surgical pediatric sub-specialty services.

Forbes magazine describes Lancaster as a "newly hip Victorian city—just three hours from New York City—is still one of the U.S.'s best kept secrets. The center of Amish country is bucolic but boasts a bustling food scene and is quickly becoming a cultural hotbed. The architecture is the real star, so explore the alleys and cobblestone streets by foot, checking out the many repurposed old warehouses that house thriving businesses... The arts are central to Lancaster's growth, notably the stunning Fulton Theatre and neighboring Prince Street, Lancaster's gallery row, which pulses with art on summer first Fridays."

Founded in 1741, the city of York is considered by many as the first capital of the United States. The Articles of Confederation were signed by the Second Continental Congress here in 1777. Its beautifully restored historic district is an architectural treasure. While York retains its farming and manufacturing heritage, at its heart York is a thriving cultural community that has attracted creative talent and innovative entrepreneurial investors from across the nation. Life in York County offers affordable housing, options for higher education, a thriving arts and cultural community, historical attractions, parks and recreational resources, a semiprofessional baseball team, fine dining and more — within an easy drive of major East Coast cities, including Baltimore, Washington D.C., and Philadelphia. It is also near the scenic Pocono Mountains to the north.

This is an opportunity to direct program growth in one of our population centers, and tailor a practice to your expertise and interests. Neighboring cities are also potential areas of growth.

About Penn State Health: Penn State Health is a multi-hospital health system serving patients and communities across 29 counties in central Pennsylvania. It employs more than 18,000 people systemwide.

The system includes Penn State Health (PSH) Milton S. Hershey Medical Center, Penn State Health Children's Hospital and Penn State Cancer Institute based in Hershey, Pa.; PSH Hampden Medical Center in Enola, Pa.; PSH Holy Spirit Medical Center in Camp Hill, Pa.; PSH Lancaster Medical Center in Lancaster, Pa.; PSH St. Joseph Medical Center in Reading, Pa.; Pennsylvania Psychiatric Institute in Harrisburg, Pa., and 2,450+ physicians and direct care providers at 225 outpatient practices. Additionally, the system jointly operates various healthcare providers, including PSH Rehabilitation Hospital, Hershey Outpatient Surgery Center and Hershey Endoscopy Center.

In 2017, Penn State Health partnered with Highmark Health to facilitate creation of a value-based, community care network in the region.

Penn State Health shares an integrated strategic plan and operations with Penn State College of Medicine, the University's medical school. With campuses in State College and Hershey, Pa., the College of Medicine boasts a portfolio of more than $150 million in funded research and more than 1,700 students and trainees in medicine, nursing, other health professions and biomedical research.

iRhythm Technologies Receives European Union's CE Marking Under Medical Device Regulation (EU MDR) for its Zio® monitor and ZEUS System

CE Mark Reinforces the Zio Monitor System as a Leading Innovation in Ambulatory Cardiac Monitoring and Highlights the Company's Commitment to Providing the Highest Quality Product and Services Globally

GLOBE NEWSWIRE -- iRhythm Technologies, Inc. (NASDAQ:IRTC), a leading digital health care company focused on creating trusted solutions that detect, predict, and prevent disease, announced today that its next generation long-term ambulatory cardiac monitor – the Zio monitor ECG System – has received CE mark certification under the European Union's Medical Device Regulation 2017/745 ("EU MDR") from its Notified Body, the BSI Group. The Zio monitor ECG System secured its CE mark based on compliance to EU MDR standards of performance, quality, safety, and efficacy, along with the body of clinical evidence supporting Zio in detecting potential cardiac arrhythmias.

Zio monitor builds on the high performance of Zio XT that, together with its enhanced long-term continuous cardiac monitoring service, provides an elevated end-to-end experience to patients with potential arrhythmias and demonstrates 99% patient compliance with prescribed wear times.[1] The new Zio monitor is thinner, lighter, and smaller compared to Zio XT to provide a more inconspicuous wear experience.[2-4] Early clinical and patient experience in the United States has shown that Zio monitor has even better wear times and analyzable ECG.[2] Furthermore, the certification incorporates CE mark for the ZEUS (Zio ECG Utilization Software) System, iRhythm's advanced deep-learned AI algorithm which supports the capture and analysis of ECG data recorded by Zio monitor.

"The EU MDR is arguably one of the most stringent regulatory frameworks for product approvals globally that ensures medical devices meet the rigorous standards for healthcare technologies," said Quentin Blackford, iRhythm President and Chief Executive Officer. "Receiving this CE mark certification for our Zio monitor and ZEUS system reflects our team's commitment to delivering the highest quality services as we seek to drive better health outcomes and more equitable access for patients around the globe. Our teams did an excellent job to effectively convey the significant body of clinical study evidence underlying our Zio services and our deep-learned AI algorithm[5] as key differentiators. With improved clinical accuracy compared to existing traditional Holter monitoring,[6,7] we look forward to introducing our innovative technology to many more patients in Europe."

In Europe, there remains significant unmet clinical need for improved arrhythmia detection in many countries as the prevalence of arrhythmias and stroke continues to rise.[8] With the EU MDR CE mark for the Zio monitor and ZEUS systems in hand, iRhythm plans to continue its market expansion strategy in prioritized countries across Europe where there are approximately 1.8 million ambulatory cardiac monitoring tests performed annually.

About iRhythm Technologies, Inc.

iRhythm is a leading digital health care company that creates trusted solutions that detect, predict, and prevent disease. Combining wearable biosensors and cloud-based data analytics with powerful proprietary algorithms, iRhythm distills data from millions of heartbeats into clinically actionable information. Through a relentless focus on patient care, iRhythm's vision is to deliver better data, better insights, and better health for all. To learn more about iRhythm, including its portfolio of Zio products and services, please visit **irhythmtech.com**.

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*Referenced clinical studies and data are based on U.S. subject population.

CAREER OPPORTUNITY

More THAN A Hospital | Akron Children's Hospital

Adult Congenital Cardiologist Opportunity
Northeast Ohio

Ohio-based Akron Children's Hospital seeks an additional ***Adult Congenital Cardiologist*** to join its expanding Heart Center. Akron Children's Hospital is the largest pediatric healthcare system in Northeast Ohio and is ranked among the best children's hospitals.

This integrated healthcare delivery system includes:

- Two free-standing pediatric hospitals
- More than 800 providers, who manage over 1.1 million patient visits annually
- A network of more than 50 primary and specialty care locations
- Robust research and innovation endeavors

The successful candidate will join a well-established group, expanding the services of the Heart Center team, and will treat ACHD patients. Our team includes 16 pediatric cardiologists, 7 advanced practice providers and 2 cardiothoracic surgeons who provide a complete spectrum of coordinated, compassionate, cardiac care to over 10,000 patients annually. Services include: advanced diagnostics, complex surgical procedures, an adult congenital heart disease program, a fetal imaging program and a cardiac MRI program.

This position offers opportunities for:

- Partnership with an established team of Cardiologists affording exceptional work-life balance
- Active involvement in medical student and resident education; academic appointment at Northeast Ohio Medical University is available and commensurate with experience
- An attractive compensation plan that includes bonus compensation

Requirements include board eligibility/certification in Adult Congenital Heart Disease and the ability to obtain an active medical license in the state of Ohio.

Akron Children's Hospital is set in the beautiful Cuyahoga Valley, just minutes south of Cleveland. From major league attractions to small-town appeal, the greater Akron area has something for everyone. The area is rich in history and cultural diversity, and provides a stimulating blend of outstanding educational, cultural and recreational resources. This four-season community offers outdoor enthusiasts more than 40,000 acres of parks for year-round enjoyment. Northeast Ohio has become a premier destination to work, live, play, shop and dine.

Interested candidates may contact Jane Hensley, Physician Recruiter at 330-543-3015 or jhensley@akronchildrens.org. To learn more, visit our website at www.akronchildrens.org.

Mount Sinai Researchers to Develop and Study AI-Powered Models That Identify Risk for Cardiovascular Disease and Treatment Response in Patients With Obstructive Sleep Apnea

Team Studying Predictive Models for Serious Sleep Condition Awarded $3 Million NIH Grant

Mount Sinai researchers are developing and studying models powered by artificial intelligence (AI) to identify the risk of cardiovascular disease events in patients with obstructive sleep apnea. The prediction models, using machine-learning techniques, will also help classify patients who may benefit from the most common treatment option for the disorder.

The researchers said their personalized tools will provide a novel approach to enhancing management of obstructive sleep apnea by optimizing the best decisions for treatment plans and improving cardiovascular outcomes. The study is supported by a four-year, $3 million grant from the National Heart, Lung, and Blood Institute of the National Institutes of Health (NIH).

Obstructive sleep apnea is a serious and chronic condition in which the upper airway becomes blocked, leading to brief pauses in breathing during sleep. It affects more than 1 billion people worldwide. The most common treatment for obstructive sleep apnea is use of a breathing device called a continuous positive airway pressure (CPAP) machine, which provides air pressure throughout the upper airway to keep it open and help with breathing while asleep. Previous studies have established the prevalence of obstructive sleep apnea and its association to cardiovascular disease. However, little research has demonstrated the benefits of continuous CPAP use on the rate of cardiovascular events.

In response to the NIH Sleep Research Plan's call for further research in critical and high-priority areas, Mount Sinai experts will use machine-learning techniques on comprehensive multi-modal datasets to identify patients at enhanced risk for atherosclerosis progression, or buildup of fats and cholesterol in the artery walls, and heightened risk for cardiovascular events such as heart attack and stroke. Researchers said the approach will also predict cardiovascular treatment effectiveness of CPAP therapy for patients with the sleep disorder who scored as "non-sleepy" on a standard clinical test, helping to identify patients who would benefit most from using CPAP as well as patients who should avoid CPAP use.

The foundation of this work is the team's recently published study which revealed the potential harm of CPAP therapy to non-sleepy patients with obstructive sleep apnea and acute coronary syndrome, such as an increased risk of stroke, heart attack, and cardiovascular death. Those findings underscored the importance of identifying apnea patients who could benefit from CPAP and steered the team towards more personalized treatment strategies, said primary Principal Investigator Neomi Shah, MD, MPH, MSc, Associate Dean for Faculty Career Advancement, Vice Chair for Faculty Affairs in the Mount Sinai Health System Department of Medicine, and Professor of Medicine (Pulmonary, Critical Care and Sleep Medicine) at the Icahn School of Medicine at Mount Sinai.

"Supported by a transformative grant, I'm thrilled to lead a project that stands at the intersection of cutting-edge artificial intelligence and sleep medicine," Dr. Shah said. "Our work will epitomize the wealth of expertise and collaborative effort across the Mount Sinai Health System to both enrich our understanding of the condition and improve patient care, impacting millions in the United States. We are committed to validating our AI tools within Mount Sinai's clinical dataset to translate our research into real-world practice, thereby, effectively bridging the research to practice gap."

The research will use data from two cohorts: the Multi-Ethnic Study of Atherosclerosis (MESA) cohort of more than 6,000 ethnically diverse, generally healthy non-sleepy participants, and the Sleep Apnea Cardiovascular Endpoints (SAVE) randomized clinical trial of more than 2,500 non-sleepy participants with moderate to severe obstructive sleep apnea and established cardiovascular disease. They will use these datasets to identify key variables that predict atherosclerosis progression and cardiovascular events such as heart attack and stroke, and to identify subgroups with differential treatment effects with CPAP for cardiovascular events based on demographics or risk characteristics, as well as validation of the models within the Mount Sinai Health System using clinical data from the electronic health record.

"We are inspired by the transformative potential of machine learning techniques in health care, particularly in analyzing vast amounts of complex data to personalize treatment strategies," said a Principal Investigator of the project, Girish Nadkarni, MD, MPH, Irene and Dr. Arthur M. Fishberg Professor of Medicine, Director of The Charles Bronfman Institute of Personalized Medicine, and System Chief of Data-Driven and Digital Medicine at Icahn Mount Sinai. "Our study has the potential to revolutionize the management of obstructive sleep apnea by offering decision support tools that optimize treatment

CAREER OPPORTUNITY

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Interested candidates may contact Jane Hensley, Physician Recruiter at 330-543-3015 or jhensley@akronchildrens.org. To learn more, visit our website at www.akronchildrens.org.

plans, improve patient outcomes, and reduce the burden of sleep apnea-related cardiovascular disease events on both individuals and health care systems."

"Through precision medicine, we are prioritizing rigorous intervention to enhance cardiovascular disease risk reduction," said Mayte Suarez-Farinas, PhD, Associate Director of the Center for Biostatistics, Professor of Population Health Science and Policy, and Genetics and Genomic Sciences, at Icahn Mount Sinai, and a Principal Investigator of the project. "Health care providers will be equipped with innovative tools to identify patients at heightened risk for heart attack or stroke and be able to predict treatment outcomes of CPAP therapy in sleep apnea patients. This personalized approach will enable clinicians to tailor treatment strategies to individual patient needs, optimizing CPAP adherence and efficacy."

Researchers from the University of California-San Diego, Lundquist Institute for Biomedical Innovation at Harbor-UCLA Medical Center, University of Washington, and Columbia University will contribute to the study. The grant number is 1R01HL168897-01A1.

About the Icahn School of Medicine at Mount Sinai

The Icahn School of Medicine at Mount Sinai is internationally renowned for its outstanding research, educational, and clinical care programs. It is the sole academic partner for the eight- member hospitals* of the Mount Sinai Health System, one of the largest academic health systems in the United States, providing care to a large and diverse patient population.

Ranked 13th nationwide in National Institutes of Health (NIH) funding and among the 99th percentile in research dollars per investigator according to the Association of American Medical Colleges, Icahn Mount Sinai has a talented, productive, and successful faculty. More than 3,000 full-time scientists, educators, and clinicians work within and across 44 academic departments and 36 multidisciplinary institutes, a structure that facilitates tremendous collaboration and synergy. Our emphasis on translational research and therapeutics is evident in such diverse areas as genomics/big data, virology, neuroscience, cardiology, geriatrics, as well as gastrointestinal and liver diseases.

Icahn Mount Sinai offers highly competitive MD, PhD, and Master's degree programs, with current enrollment of approximately 1,300 students. It has the largest graduate medical education program in the country, with more than 2,000 clinical residents and fellows training throughout the Health System. In addition, more than 550 postdoctoral research fellows are in training within the Health System.

A culture of innovation and discovery permeates every Icahn Mount Sinai program. Mount Sinai's technology transfer office, one of the largest in the country, partners with faculty and trainees to pursue optimal commercialization of intellectual property to ensure that Mount Sinai discoveries and innovations translate into healthcare products and services that benefit the public.

Icahn Mount Sinai's commitment to breakthrough science and clinical care is enhanced by academic affiliations that supplement and complement the School's programs.

Through Mount Sinai Innovation Partners (MSIP), the Health System facilitates the real-world application and commercialization of medical breakthroughs made at Mount Sinai. Additionally, MSIP develops research partnerships with industry leaders such as Merck & Co., AstraZeneca, Novo Nordisk, and others.

The Icahn School of Medicine at Mount Sinai is located in New York City on the border between the Upper East Side and East Harlem, and classroom teaching takes place on a campus facing Central Park. Icahn Mount Sinai's location offers many opportunities to interact with and care for diverse communities. Learning extends well beyond the borders of our physical campus, to the eight hospitals of the Mount Sinai Health System, our academic affiliates, and globally.

Outpatient Imaging Cardiologist

The Ward Family Heart Center at Children's Mercy Kansas City seeks a pediatric cardiologist at the assistant or associate professor level who would have equal roles in echocardiography and general outpatient cardiology. The successful candidate would join an existing group of 28 cardiologists (25 in Kansas City, 2 in Wichita, KS and 1 in Topeka, KS), 4 CV surgeons, 30 APNs. Experience and interest in peri-operative and peri-procedural TEE is a must. Proficiency in 3D and stress echocardiography is preferred. Training/knowledge in MR/CT imaging is preferred but not required. Trainees in their final year are welcome to apply. In addition to providing echocardiography coverage, the successful candidate will be expected to spend one-two days per week in our local general outpatient clinics and serve as attending on cardiology inpatient or consult service 4-6 weeks/year.

Candidates must be board-certified or board-eligible in Pediatric Cardiology. Strong communication skills are key. There are ample opportunities for clinical/translational research and teaching (medical students, residents and Pediatric Cardiology fellows). Salary and academic rank are commensurate with experience.

Our Heart Center serves a population of over 5 million in the heart of the U.S.A. We perform over 500 cardiac operations, 600 cardiac catheterizations including over 200 invasive EP procedures, 18,000 outpatient visits, and more than 20,000 echocardiograms annually. Our two state-of the art catheterization labs are both hybrid labs and equipped with the latest 3D imaging and EP technology. Telehealth is available and facilitates our outreach clinics. We have video-conferencing capabilities that are routinely used by providers from distant locations to dial into our conferences for patient care and education. In 2022, the Ward Family Heart Center program was ranked #19 nationally by USNWR.

Our super-specialty resources include Electrophysiology (which includes Clinical EP, pacing and Genetic Arrhythmia), Cardiac Transplantation/Heart Failure, Interventional Cardiology and Advanced Cardiac Imaging (fetal echo, 3D echo, trans-esophageal echo, CT, MRI and 3D printing). We also provide specialized, team-based care in Fetal Cardiology (with on-site delivery services for high-risk neonates), Interstage Monitoring (CHAMP), Preventive Cardiology, Cardiac Genetics, Cardio-oncology, Single Ventricle Survivorship, Pulmonary Hypertension, a dedicated POTS clinic and Cardiac Neurodevelopmental Services.

Please submit CV and cover letter to:
https://faculty-childrensmercykc.icims.com/jobs/24847/physician/job

For more information:
Aliessa Barnes MD, Co-Director, Ward Family Heart Center; Chief, Section of Cardiology
816.983.6225, **apbarnes@cmh.edu**

Children's Mercy Kansas City is an independent, non-profit, 390-bed pediatric health system, providing over half a million patient encounters each year for children from across the country. Children's Mercy is ranked by U.S. News & World Report in ten specialties. We have received Magnet® recognition five times for excellence in nursing services. In affiliation with the University of Missouri-Kansas City and the University of Kansas, our faculty of nearly 800 pediatric specialists and researchers are actively involved in clinical care, pediatric research and educating the next generation of pediatricians and pediatric subspecialists. **cmkc.link/TakeYourPlace**.

INOVA
L.J. Murphy
Children's Hospital

Medical Director of Non-Invasive Cardiovascular Imaging

Inova L.J. Murphy Children's Hospital is seeking a full-time pediatric cardiologist to serve as **Medical Director of Non-Invasive Cardiovascular Imaging** to support our rapidly growing team within Inova Children's Heart Center.

Responsibilities and Practice Details:

- The Division of Pediatric Cardiology includes 20 board-certified pediatric cardiologists and 12 APPs.
- Inova Children's Heart Center is a comprehensive team, including congenital cardiac surgery, cardiac intensive care, outpatient and inpatient cardiology, fetal cardiology, non-invasive cardiology, adult congenital cardiology, fetal cardiology, diagnostic and interventional catheterization, heart failure, and electrophysiology.
- Our services include fetal, transthoracic, and transesophageal echocardiography, and a partnership with radiology on cMRI and CT scans. The division is supported by a dedicated team of inpatient and outpatient congenital sonographers.
- Routine patient care will include outpatient clinic, inpatient consultation, supervision of APPs, and hospital service.
- The candidate should have advanced training in non-invasive imaging while possessing professional, clinical, and leadership skills.
- This position will work with the Chief of Pediatric Cardiology and Heart Center leadership to execute personal and programmatic goals focused on the fundamentals of extraordinary care: safety, quality, patient experiences, access, and stewardship.
- Seeking a candidate that thrives in an environment based on teamwork, collaboration and dedication to patients, families, and each other.
- Although patient care is our primary focus, education and research are encouraged and supported by a dedicated research team.

Position Highlights:

- Highly competitive salary with incentives
- Full Medical, dental and vision
- Generous time-away plan and paid time to attend CME
- Paid Parental Leave Program
- Located Northern Virginia

Inova L.J. Murphy Children's Hospital is a 226-bed children's hospital based at Inova Fairfax Medical Campus and is dedicated to providing care in a welcoming environment that offers the latest in technical innovation and kid-friendly spaces. Other features of our hospital include:

- Level IV Neonatal (108 bed NICU, 20,000+ deliveries)
- Level One Pediatric ICU and Pediatric Cardiac ICU
- Inova Children's Cancer Center
- Level One Trauma Center
- Multidisciplinary, complex pediatric care
- Pediatric Emergency Department that sees over 100,000 patients annually
- Child Life Services dedicated in each inpatient space and outpatient procedural area
- Specialized air and ground transport service
- Ronald McDonald House

Requirements:

- Board-certified/eligible in Pediatric Cardiology
- Able to obtain an unrestricted Virginia Medical License.
- The ideal candidate will have extensive experience in the field, specifically in the area of echocardiography (TTE, TEE, etc).
- Preference will be given to those with experience at higher volume centers and demonstrated leadership roles in imaging.
- Additional preference will be given to those with previous experience or education in medical administration and those who have clinical research experience.
- Eligible for faculty appointment at The University of Virginia School of Medicine

Interested Candidates should reach out to:
Mitchell Cohen, MD, FACC, FHRS, Mitchell.cohen@inova.org
Chief of Pediatric Cardiology, Co-Director of the Children's Heart Center

JUNE

05TH-08TH

1st World Summit for Pediatric and Congenital Heart Surgery
Bologna, Italy
https://www.worldsummitpchs2024.org/

19TH-22ND

CSI Frankfurt 2024
Frankfurt, Germany
https://www.csi-congress.org/conferences-courses/conferences/csi-frankfurt

JULY

18TH-21ST

2024 CardioPREP Course
Virtual
https://www.aap.org/en/catalog/categories/primary-care/2024-cardioprep-an-intensive-review-and-update-of-pediatric-cardiology---virtual/

26TH-27TH

CICT 2024
Pasadena, California, USA
https://cictsymposium.com/

AUGUST

18TH-23RD

2024 Pediatric and Adult Congenital Cardiology Review Course
Huntington Beach, California, USA
https://ce.mayo.edu/cardiovascular-diseases/content/2024-pediatric-and-adult-congenital-cardiology-review-course

INOVA
L.J. Murphy
Children's Hospital

Pediatric Cardiologist – Cardiac Multimodal Imaging Physician

The Division of Pediatric Cardiology at Inova LJ Murphy Children's Hospital is seeking candidates to join our dynamic and growing faculty. Inova LJ Murphy Children's Hospital is a quaternary care, academic children's hospital in Northern Virginia and is seeking a full-time pediatric cardiologist to serve as Medical Director of Non-Invasive Cardiovascular Imaging to support our rapidly growing team within Inova Children's Heart Center.

The Heart Center at INOVA L.J Murphy Children's Hospital has been caring for the children of Northern Virginia and the Greater Washington Region for more than 30 years. Each year, the program is responsible for approximately 550 procedures. The program provides surgical repair of the most complex congenital heart defects, including hypoplastic left heart syndrome. In addition to providing care for children with complex congenital anomalies, the program provides a lifetime of care as part of the Inova Schar Heart and Vascular, which includes the Adult Congenital Program. Inova Children's Heart Center is a comprehensive team, including congenital cardiac surgery, outpatient cardiology, fetal cardiology, non-invasive cardiology, adult congenital cardiology, diagnostic and interventional catheterization, and electrophysiology and advanced heart failure therapies. The team includes 23 board-certified pediatric cardiologists, 8 pediatric cardiac intensivists, 3 pediatric cardiac surgeons and 17 advanced practice providers. With respect to non-invasive imaging, the division currently performs fetal, transthoracic, and transesophageal echocardiography, and partners with radiology on cMRI and CT scans.

Inova LJ Murphy Children's Hospital is a 226-bed children's hospital at Inova Fairfax Hospital medical campus, located in Northern Virginia. As the only dedicated children's hospital and pediatric heart center in Northern Virginia, we provide care in a welcoming environment that offers the latest in technical innovation in kid-friendly spaces. The children's hospital has a 108-bed, level IV Neonatal Intensive Care Unit with approximately 17,000 annual deliveries. The Pediatric Cardiac Intensive Care Unit and Acute Care Step-Down Unit are part of the Inova Children's Heart Center.

We are seeking a Board Certified/Eligible Pediatric Cardiologist committed to a career in Pediatric Cardiology with advanced training in pediatric multimodal imaging to join our growing and dynamic practice as Pediatric Cardiology Multimodal Imaging Leader. Our ideal candidate will be energetic, enthusiastic, and work effectively as part of a team. The candidate must be an outstanding clinician dedicated to the care of hospitalized children and their families, and an excellent advanced imager who works well with MRI/CT technicians and heart center care providers.

Responsibilities and Practice Details:

- The candidate should have a passion for advanced training in non-invasive and multimodal imaging while possessing professional, clinical, and leadership skills.
- Flexibility, strong communication and collaborative skills are key.
- This position will work with the Chief of Pediatric Cardiology and the leadership of the Inova Children's Heart Center to execute on yearly personal and programmatic goals focused on the fundamentals of extraordinary care: Safety, quality, patient experiences, access, and stewardship.
- This is a perfect position for the candidate that thrives in an environment that focuses on teamwork, collaboration and dedication to patients, families, and each other.
- Although patient care is our primary focus, education and research are also encouraged and supported with access to dedicated research professionals including a statistician, research manager, and research coordinators.

Position Highlights:

- Highly competitive salary with incentives
- Full Medical, dental and vision
- Generous PTO and paid time to attend CME
- Paid Parental Leave Program
- Located Northern Virginia

Requirements:

- Board-certified/eligible in Pediatric Cardiology
- Advanced training in cardiac MR and CT imaging
- Interested individuals should be board-certified in Pediatric Cardiology and able to obtain an unrestricted Virginia Medical License
- Eligible for faculty appointment at The University of Virginia School of Medicine

Inova Health System is an Equal Opportunity/Affirmative Action employer. All qualified applicants will receive consideration for employment without regard to age, color, disability, gender identity or expression, marital status, national or ethnic origin, political affiliation, pregnancy (including childbirth, pregnancy-related conditions and lactation), race, religion, sex, sexual orientation, veteran status, genetic information, or any other characteristics protected by law.

Interested Candidates should reach out to:
Mitchell Cohen, MD, FACC, FHRS, Mitchell.cohen@inova.org
Chief of Pediatric Cardiology, Co-Director of the Children's Heart Center

HEALTH
UNIVERSITY OF UTAH

Division Chief of Pediatric Cardiology

Department of Pediatrics, University of Utah School of Medicine

The Department of Pediatrics at the University of Utah School of Medicine has initiated a nationwide search for an innovative academic pediatric cardiologist, with a focus on facilitative leadership to serve as the Chief of the nationally recognized Division of Pediatric Cardiology. The Division Chief will define and execute the strategy needed to fulfill the mission of providing outstanding pediatric cardiovascular healthcare, performing high-quality cardiovascular research, and educating future pediatric cardiovascular physicians and healthcare professionals.

The Division Chief will lead the Division's growing and thriving group of 38 faculty physicians, 6 advanced practice clinicians, and other members of the care team in high quality, fiscally responsible care delivery that serves an extensive area of the Intermountain West. The Division Chief will play a significant leadership role as Co-director of the Heart Center at Intermountain Primary Children's Hospital (ranked in the 2023 US News and World Report) and will work closely with leaders and teams from cardiac anesthesia, cardiac nursing, and hospital leadership in advancing the mission and goals of the Heart Center.

The successful candidate will be a Diplomate of the American Board of Pediatrics or the American Osteopathic Board of Pediatrics with subspecialty certification in Pediatric Cardiology. She/he will be an accomplished academician recognized in the field of pediatric cardiology who demonstrates the ability to lead a large and complex pediatric division within a large department at a major public university and which operates within the children's hospital of a large, integrated healthcare delivery system. The selected candidate must meet the requirements for appointment as Professor or Associate Professor of Pediatrics at the University of Utah School of Medicine on the Clinical or Tenure Track and will be nominated for the L. George Veasy Presidential Endowed Chair on the University of Utah Faculty.

For further information about the position and to apply, please visit:
https://utah.peopleadmin.com/postings/163675

The University of Utah Health (U of U Health) is a patient focused center distinguished by collaboration, excellence, leadership, and respect. The U of U Health values candidates who are committed to fostering and furthering the culture of compassion, collaboration, innovation, accountability, diversity, integrity, quality, and trust that is integral to our mission.

The University of Utah is an Affirmative Action/Equal Opportunity employer and does not discriminate based upon race, ethnicity, color, religion, national origin, age, disability, sex, sexual orientation, gender, gender identity, gender expression, pregnancy, pregnancy-related conditions, genetic information, or protected veteran's status. All qualified individuals are strongly encouraged to apply.

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