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# How I Do It: Tips, Tricks and Techniques – Percutaneous Carotid Artery Access in Congenital Cardiac Intervention

## *A PICS Society Education Series*

*R. Allen Ligon, MD & Christopher J. Petit, MD*

### **An Introduction to PICS "Tips and Tricks"**

Need a quick and handy review of a novel technique or rare intervention? Want to know how leaders in pediatric and congenital cardiac interventions would approach the case?

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Each topic is authored by a key opinion leader with specific procedural expertise and written in an accessible and succinct format with illustrative case examples and suggested references to make this an impactful educational platform.

In this issue of CCT, we present Dr. Ligon and Dr. Petit's approach to carotid access. We are confident readers will find this duo's experience to be extremely informative in the cases where carotid access is crucial.

We hope you enjoy this issue. We are confident PICS Society members of all experience levels will find this series to be educational and insightful. For the full list of available articles, which will be updated monthly, please visit [https://www.picsymposium.com/tips\\_and\\_tricks.html](https://www.picsymposium.com/tips_and_tricks.html).

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## **Percutaneous Carotid Artery Access in Congenital Cardiac Intervention**

### **Introduction**

Percutaneous carotid access (PCA) is a relatively new form of vascular access utilized for congenital cardiac catheterization. Due to the inherent advantages of approaching interventions from the carotid vessels, carotid artery access via surgical cut-down has been historically employed for

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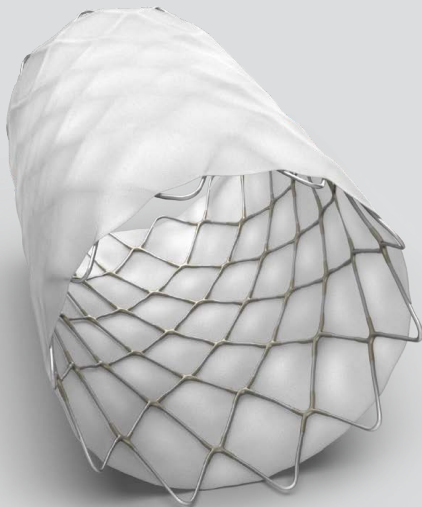
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neonatal interventions. However, PCA has a number of advantages over the cut-down approach, including a less-invasive approach, reduced reliance on surgical colleagues, and greater rate of vessel patency following the intervention.<sup>1-3</sup> Further, PCA has been shown to be an optimal approach (especially compared to femoral artery or vein) for specific high-risk procedures including placement of a ductal artery stent, balloon aortic valvuloplasty, and angioplasty/stent of an occluded systemic-to-pulmonary shunt.<sup>2, 4, 5</sup>

## Anticipated Challenges of the Procedure

1. Equipment: ultrasound guidance, needle selection, hydrophilic radial sheath, guidewire selection
2. Approach: “flipping” neonate and cath lab setup, limiting sheath time in carotid
3. Procedure: heparinization, minimizing vessel trauma, securing sheath
4. Post-procedural: hemostasis, planned ICU admission, intubation overnight, prophylactic heparin drip, surveillance vascular ultrasound

## Tip 1 – Planning and Preparation

1. Access – Performing arterial puncture during PCA can be quite challenging as the carotid artery is not confined in lateral space. Puncture, then, is best completed with a needle that is of small caliber (24-gauge Galt Medical™ or 30-gauge NeoMedical™ Neo-Magic Modified Seldinger Introducer kit) and is exceptionally sharp in order to puncture through the muscular layer of the vessel. Access can be performed with a standard 21-gauge needle perc needle, but improved efficiency with the aforementioned equipment can avoid vessel “rolling.”
2. Imaging – Ultrasound guidance is a requirement during PCA, utilizing a vascular probe with depth set down to 2cm. Pre-procedural advanced cross-sectional imaging (i.e., CTA) is helpful in planning interventions such as ductal stenting, especially as selection of the right vs. left common carotid artery is critical to the success of stenting in these cases. Some centers have utilized such CTA images to help plan camera angulations during the catheterization procedure. Software applications (such as 3Mensio) allow for virtual implants of stents (outlining the ductal tortuosity index and predicting stent length). A decision regarding which carotid artery to access can be influenced greatly by the pre-procedural imaging better characterizing the ductal tortuosity and/or origin.
3. Guidewire selection – It is advisable to use a very floppy, nitinol-tipped 0.014” guidewire through the perc needle when accessing the common carotid artery. Oftentimes, the body of such wires is insufficient to safely advance a 4-French sheath. Therefore, we recommend using a micropuncture dilator to then swap out the 0.014” floppy guidewire for a traditional access guidewire (0.018” caliber) that will be less prone to bending in the percutaneous track. This extra step guards against the devastating vascular complication that can occur if the guidewire easily bends in the perivascular soft tissue with advancement of the sheath.
4. Other – Team preparation and comfort is crucial to limiting sheath time within the carotid artery. Staff familiarity with patient inversion (outlined below) and cath lab setup will improve efficiency. Having all tools/equipment pulled/ready for usage will help limit procedural time during “crucial steps.”

## Tip 2 – Tools Needed

1. Sheaths – Hydrophilic/radial access short sheaths are preferred for PCA in order to limit trauma to the arteriotomy site. Of note, be wary of the “thin-wall” sheaths (such as the Merit Medical Prelude Ideal™ sheath) if ductal stenting is planned. Some stent platforms will not come back into the thin-wall short sheath if the decision is to change stent size.
2. Catheters – The intended intervention will drive catheter selection, but this can be assisted by pre-procedural cross-sectional imaging. A carotid approach in neonates will significantly decrease the distance to intended intervention (e.g. aortic valvuloplasty or ductal stenting), therefore the utilization of short length catheters and wires will save time, if feasible. Additionally, having a “plan for approach” with regards to specific turns/angles, an operator will need to navigate from the pre-procedural imaging will guide catheter choice selection.
3. Devices – The intended intervention will dictate device selection, but having several options of balloons/stents readily available is crucial to limit sheath time with PCA. This is particularly prudent in ductal stenting, where numerous options for stent length(s) should be available for utilization in a timely fashion. Patients with high grade ductal tortuosity indices can lend to quite variable lengths after these ductus are straightened with a stiff wire system. Further, thorough consideration must be placed to the wire over which to perform the transcatheter intervention. For example, with ductal stenting and PCA, we commonly navigate through the ductus arteriosus with a floppy 0.014” wire to establish adequate wire position into the intended lung field. The wire is then exchanged via a microcatheter to a stiffer 0.014” wire platform in order to deliver the stent.
4. Others – Lengthened ventilator and medication line tubing is a must if the neonate “flipped” on the cath table. An inverted patient will take the head of the patient away from the Anesthesia team. Ensuring an adequate length of the ventilator tubing and adequate access to medication line(s) will prevent challenges once the patient is prepped and draped for the procedure.

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**“Percutaneous carotid access is a team sport...involving the Anesthesia team and techs/nurses as much as the primary operator.” – Dr. R. Allen Ligon**

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## Tip 3 – How I Do It

1. Pre-procedural Imaging – The decision of which carotid artery (left/right) to perform PCA will be based on the intended intervention and the pre-procedural imaging. In the example of ductal stenting, consideration of ductal origin and tortuosity index will need to be taken into account as well. As mentioned above, deciding on optimal camera angles and postulating the intended ductal stent length (and diameter) can be greatly aided by CTA imaging. If there is concern for pulmonary artery coarctation, this may play into which lung bed the distal wire is placed during intervention.

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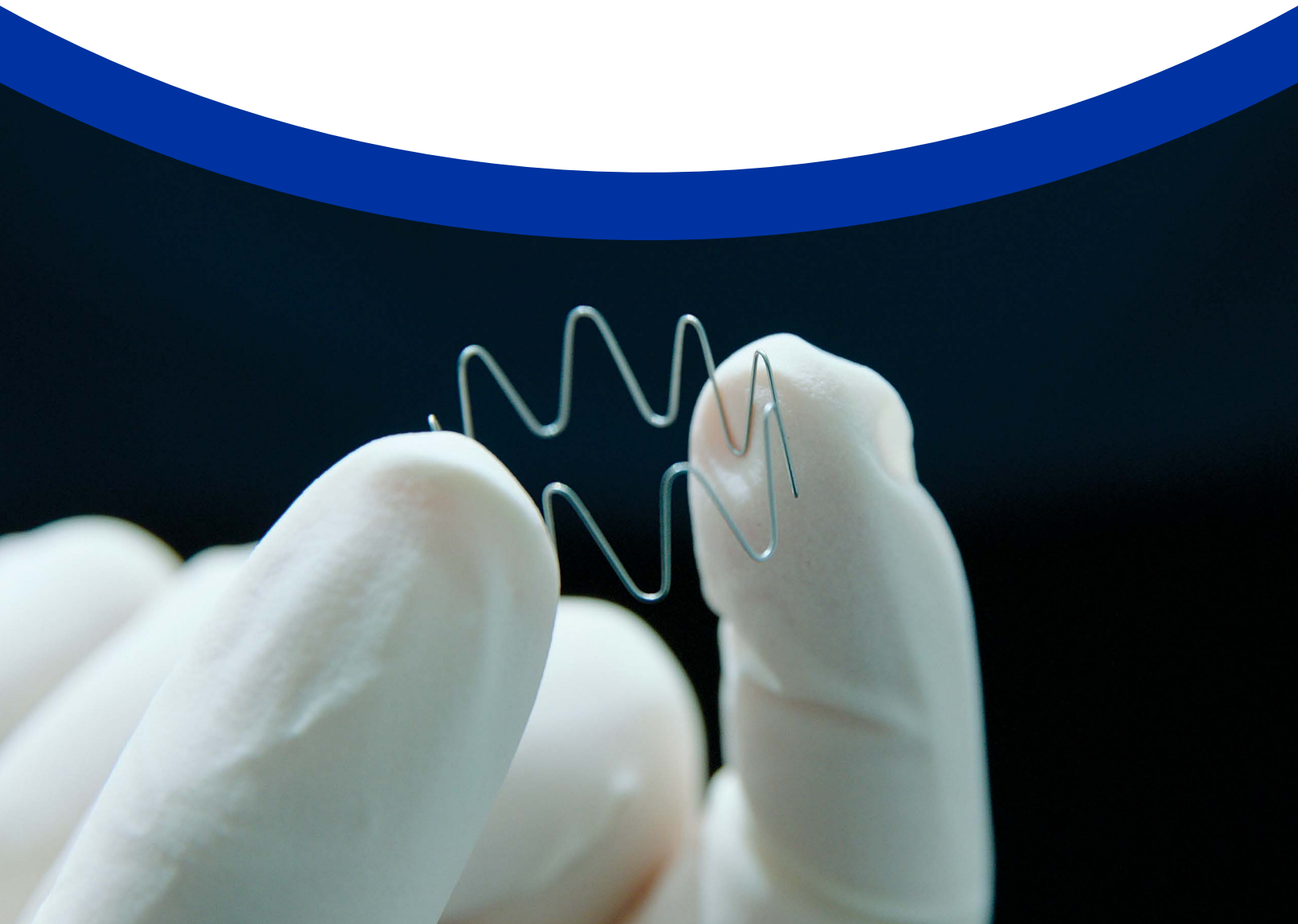
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The Harmony™ transcatheter pulmonary valve (TPV) system is indicated for use in the management of pediatric and adult patients with severe pulmonary regurgitation (i.e., severe pulmonary regurgitation as determined by echocardiography and/or pulmonary regurgitant fraction  $\geq 30\%$  as determined by cardiac magnetic resonance imaging) who have a native or surgically-repaired right ventricular outflow tract and are clinically indicated for surgical pulmonary valve replacement.

## Contraindications

The following are contraindications for the use of this device: active bacterial endocarditis or other active infections, known intolerance to Nitinol (titanium or nickel), or an anticoagulation/antiplatelet regimen.

## Warnings

General: Implantation of the Harmony TPV system should be performed only by physicians who have received Harmony TPV system training. The transcatheter pulmonary valve (TPV) is to be used only in conjunction with the Harmony delivery catheter system (DCS). This procedure should only be performed where emergency pulmonary valve surgery can be performed promptly. Do not use any of the Harmony TPV system components if any of the following has occurred: it has been dropped, damaged, or mishandled in any way, or if the use-by date has elapsed.

Transcatheter pulmonary valve (TPV): This device was designed for single use only. Do not reuse, reprocess, or resterilize the TPV. Reuse, reprocessing, or resterilization may compromise the structural integrity of the device and/or create a risk of contamination of the device, which could result in patient injury, illness, or death. Do not resterilize the TPV by any method. Exposure of the device and container to irradiation, steam, ethylene oxide, or other chemical sterilants renders the device unfit for use. The device is packaged with a temperature sensor. Do not freeze the device. Do not expose the device to extreme temperatures. Do not use the device if the arrow on the sensor points to the symbol that indicates that the temperature limit has been exceeded. Do not use the device if any of the following have occurred: the tamper-evident seal is broken, the serial number tag does not match the container label, the arrow on the sensor points to the symbol that indicates that the temperature limit has been exceeded, or the device is not completely covered by the storage solution. Do not contact any of the Harmony TPV system components with cotton or cotton swabs. Do not expose any of the Harmony TPV system components to organic solvents, such as alcohol. Do not introduce air into the catheter. Do not expose the device to solutions other than the storage and rinse solutions. Do not add or apply antibiotics to the device, the storage solution, or the rinse solution. Do not allow the device to dry. Maintain tissue moisture with irrigation or immersion. Do not attempt to repair a damaged device. Do not handle the valve leaflet tissue or use forceps to manipulate the valve leaflet tissue. Do not attempt to recapture the device once deployment has begun. Do not attempt to retrieve the TPV if any one of the outflow TPV struts is protruding from the capsule. If any one of the outflow TPV struts has deployed from the capsule, the TPV must be released from the catheter before the catheter can be withdrawn. Do not attempt post-implant balloon dilatation (PID) of the TPV during the procedure, which may cause damage to or failure of the TPV leading to injury to the patient resulting in reintervention.

Delivery catheter system (DCS): This device was designed for single use only. Do not reuse, reprocess, or resterilize the DCS. Reuse, reprocessing, or resterilization may compromise the structural integrity of the device and/or create a risk of contamination of the device, which could result in patient injury, illness, or death. Do not reuse or resterilize the DCS. If resistance is met, do not advance the guidewire, DCS, or any other component without first determining the cause and taking remedial action. Do not remove the guidewire from the DCS at any time during the procedure.

## Precautions

General: Clinical long-term durability has not been established for the Harmony TPV. Evaluate the TPV performance as needed during patient follow-up. The safety and effectiveness of Harmony TPV implantation in patients with pre-existing prosthetic heart valve or prosthetic ring in any position has not been demonstrated. The Harmony TPV system has not been studied in female patients of child-bearing potential with positive pregnancy.

Before use: Exposure to glutaraldehyde may cause irritation of the skin, eyes, nose, and throat. Avoid prolonged or repeated exposure to the chemical vapor. Use only with adequate ventilation. If skin contact occurs, immediately flush the affected area with water (for a minimum of 15 minutes) and seek medical attention immediately. The TPV and the glutaraldehyde storage solution are sterile. The outside of the TPV container is nonsterile and must not be placed in the sterile field. The TPV and DCS should be used only in a sterile catheterization laboratory (cath lab) environment. Ensure that sterile technique is used at all times. Strictly follow the TPV rinsing procedure. For TPV 25: Ensure that all green sutures have been removed from the attachment suture loops on the TPV before loading onto the DCS. Prevent contamination of the TPV, its storage solution, and the DCS with glove

powder. Verify the orientation of the TPV before loading it onto the DCS. The inflow end of the TPV with attachment suture loops must be loaded first. Do not place excessive pressure on the TPV during loading. Inspect the sealed DCS packaging before opening. If the seal is broken or the packaging has been damaged, sterility cannot be assured. Proper functioning of the DCS depends on its integrity. Use caution when handling the DCS. Damage may result from kinking, stretching, or forceful wiping of the DCS. This DCS is not recommended to be used for pressure measurement or delivery of fluids. Carefully flush the DCS and maintain tight DCS connections to avoid the introduction of air bubbles.

During use: The TPV segment is rigid and may make navigation through vessels difficult. Do not advance any portion of the DCS under resistance. Identify the cause of resistance using fluoroscopy and take appropriate action to remedy the problem before continuing to advance the DCS. Careful management of the guidewire is recommended to avoid dislodgement of the TPV during DCS removal. Once deployment is initiated, retrieval of the TPV from the patient is not recommended. Retrieval of a partially deployed valve may cause mechanical failure of the delivery catheter system or may cause injury to the patient. Refer to the section below for a list of potential adverse events associated with Harmony TPV implantation. During deployment, the DCS can be advanced or withdrawn prior to the outflow struts protruding from the capsule. Once the TPV struts contact the anatomy during deployment, it is not recommended to reposition the device. Advancing the catheter forward once the TPV struts make contact with the anatomy may lead to an undesired deployment or may cause damage to or failure of the TPV and injury to the patient. Refer to the section below for a list of potential adverse events associated with the Harmony TPV implantation. Physicians should use judgment when considering repositioning of the TPV (for example, using a snare or forceps) once deployment is complete. Repositioning the bioprosthesis is not recommended, except in cases where imminent serious harm or death is possible (for example, occlusion of the main, left, or right pulmonary artery). Repositioning of a deployed valve may cause damage to or failure of the TPV and injury to the patient. Refer to the section below for a list of potential adverse events associated with the Harmony TPV implantation. Ensure the capsule is closed before DCS removal. If increased resistance is encountered when removing the DCS through the introducer sheath, do not force passage. Increased resistance may indicate a problem and forced passage may result in damage to the device and harm to the patient. If the cause of resistance cannot be determined or corrected, remove the DCS and introducer sheath as a single unit over the guidewire, and inspect the DCS and confirm that it is complete. If there is a risk of coronary artery compression, assess the risk and take the necessary precautions. Endocarditis is a potential adverse event associated with all bioprosthetic valves. Patients should make their healthcare providers aware that they have a bioprosthetic valve before any procedure. Post-procedure, administer appropriate antibiotic prophylaxis as needed for patients at risk for prosthetic valve infection and endocarditis. Prophylactic antibiotic therapy is recommended for patients receiving a TPV before undergoing dental procedures. Post-procedure, administer anticoagulation and/or antiplatelet therapy per physician/clinical judgment and/or institutional protocol. Excessive contrast media may cause renal failure. Preprocedure, measure the patient's creatinine level. During the procedure, monitor contrast media usage. Conduct the procedure under fluoroscopy. Fluoroscopic procedures are associated with the risk of radiation damage to the skin, which may be painful, disfiguring, and long term.

## Potential Adverse Events

Potential risks associated with the implantation of the Harmony TPV may include, but are not limited to, the following: • death • valve dysfunction • tissue deterioration • hematoma • heart failure • cerebrovascular incident • perforation • rupture of the right ventricular outflow tract (RVOT) • compression of the aortic root • compression of the coronary arteries • sepsis • pseudoaneurysm • erosion • stent fracture • arrhythmias • device embolization or migration • pulmonary embolism • occlusion of a pulmonary artery • laceration or rupture of blood vessels • device misorientation or misplacement • valve deterioration • regurgitation through an incompetent valve • physical or chemical implant deterioration • paravalvular leak • valve dysfunction leading to hemodynamic compromise • residual or increasing transvalvular gradients • progressive stenosis and obstruction of the implant • hemorrhage • endocarditis • thromboembolism • thrombosis • thrombus • intrinsic and extrinsic calcification • bleeding • bleeding diathesis due to anticoagulant use • fever • pain at the catheterization site • allergic reaction to contrast agents • infection • progressive pulmonary hypertension • progressive neointimal thickening and peeling • leaflet thickening • hemolysis. General surgical risks applicable to transcatheter pulmonary valve implantation: • abnormal lab values (including electrolyte imbalance and elevated creatinine) • allergic reaction to antiplatelet agents, contrast medium, or anesthesia • exposure to radiation through fluoroscopy and angiography • permanent disability.

Please reference the Harmony TPV system instructions for use for more information regarding indications, warnings, precautions, and potential adverse events.

**CAUTION:** Federal law (USA) restricts these devices to the sale by or on the order of a physician.

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2. Perform patient “flipping” (if a neonate):
  - a. The goal is to invert the patient completely on the catheterization table prior to draping and performing PCA. Patients are transferred from the stretcher to the cath lab table in the “normal” orientation. The Anesthesia team then performs induction, airway stabilization (intubation), and line placement as per their standard routine (**Figure 1**). Once completed (and tubing identified to be long enough as outlined above), the staff coordinates a patient flip so as to place the feet at the traditional head of the cath lab table (**Figure 2**). Operators should consider which side of the table to perform the procedure, the camera boom is taken to the side opposite the cath team, and fluoroscopic (AP and lateral) images are inverted. The patient is then positioned for adequate access into the expected carotid artery with a shoulder roll and the anesthesia team ensures stable airway security as well as access to the lines for medications (**Figure 3**). The patient is prepped and draped in a standard fashion. Ultrasound guidance is utilized during PCA and the hydrophilic short sheath is placed as above, the remaining portion of the cath table being dedicated to a working space for the operator and assistant(s) (**Figures 4 & 5**).
3. Pitfalls to avoid:
  - a. If flipping the patient:
    - i. Make sure to invert the fluoroscopic images. Inversion needs to be done on the AP as well as the lateral camera planes.
    - ii. Check the position of the endotracheal tube before prepping and draping the access site. It is much easier to address the tube prior to covering the patient – and in our experience it is quite easy to have a tube advance to the right mainstem, or pulled to the oropharynx, with the flip technique.
  - b. Be very mindful of the depth of the short sheath upon gaining access. One might find themselves already within the ductus arteriosus solely with the distal tip of the short sheath!
  - c. Post-procedure hemostasis should be performed by a very experienced staff member (or operator) to ensure direct pressure on the arteriotomy site. Consider the usage of the ultrasound to guide pressure location and pressure in order to prevent accumulation of a hematoma.

prevent pseudoaneurysm. Utilize ultrasound imaging to guide point of pressure onto arteriotomy site and one finger, no gauze.

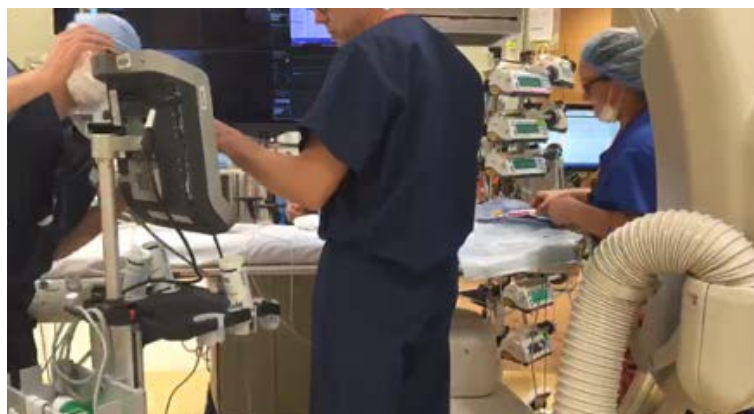
- Pseudoaneurysm or clot formation. Once hemostasis is established, transfer to ICU and keep patient intubated overnight with generous sedation. Ensure hemostasis and then provide prophylactic heparin drip overnight. Follow-up ultrasound imaging of the carotid is performed the following morning. If there is evidence of a clot within the vessel lumen, then place on therapeutic Lovenox dosing for at least 72 hours and repeat imaging to guide further management.

### Summary

PCA has emerged as a new option for transcatheter access with improved efficacy for certain interventions and an encouraging safety profile as thus far outlined in mid-term follow-up. As the experience of operators with PCA increases, techniques particular to this form of access (such as patient flipping/inversion) and technologies have been identified that facilitate the procedure. The inherent benefits of PCA in certain transcatheter interventions have challenged the norm of that which is performed routinely within the congenital interventional catheterization laboratory.



**FIGURE 1 Pre-procedure** The anesthesia team intubates and induces patient with the normal orientation on the cath lab table, having the head (red arrow) towards them.



**FIGURE 2 Patient Inversion** After flipping/inverting the patient, the patient’s feet are now towards the anesthesia team and the boom is taken to the opposite side of the cath table.

### Tip 4 – What Complications to Expect and How to Deal with Them

- Inability to change stent platform through the thin wall short sheath. Prevented by utilizing a hydrophilic radial artery short sheath during PCA.
- Hematoma Formation – Post-procedure hemostasis should be performed by an experienced operator/staff member. Once hemostasis is achieved, consider another 10 minutes of “supportive” digital pressure on the access site to help



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## Congenital Heart Surgeon

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The UNC School of Medicine has a rich tradition of excellence and care. Our mission is to improve the health and wellbeing of North Carolinians, and others whom we serve. We accomplish this by providing leadership and excellence in the interrelated areas of patient care, education, and research. We strive to promote faculty, staff, and learner development in a diverse, respectful environment where our colleagues demonstrate professionalism, enhance learning, and create personal and professional sustainability. We optimize our partnership with the UNC Health System through close collaboration and commitment to service.

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### Position Summary

The Department of Surgery at The University of North Carolina is seeking applications for a full-time academic congenital heart surgeon to join our Division of Cardiothoracic Surgery. The Division of Cardiothoracic Surgery is among 9 clinical Divisions in the Department of Surgery. The Division currently includes 7 faculty members that provide exceptional care to patients from across the state of North Carolina. Academic appointment will be commensurate with the candidate's experience.

The ideal candidate will be mid to late career with a proven track record and requisite experience in all aspects of congenital cardiac surgery. The chosen candidate will be expected to work closely with the current Section Chief of Congenital Cardiac Surgery. The breadth of responsibilities will include neonatal cardiac surgery, pediatric heart failure, transplantation, ECMO, and adult congenital surgery. Preference will be given to individuals who bring unique skills, interests or qualifications to the current faculty in a complementary fashion. Individuals with a strong interest in research are encouraged to apply. Faculty members within the Division of Cardiothoracic Surgery must possess a desire to commit to all three mission of the department and school of medicine, including the clinical, education, and research missions. Regarding the education mission, faculty members are expected to regularly participate in the education of medical students, residents, and fellows. Regarding research, a commitment to any one of a broad array of research interests is desirable, including but not limited to clinical, outcomes, health services, basic science, translational, ethics, education, or global surgery research. Regarding the clinical mission, faculty members must be committed to delivering high quality clinical care that is of value to the patients of UNC. Selected candidate must be team-oriented and have the ability to interact well with colleagues inside and out of the Division.

### Minimum Education and Experience Requirements

Prospective candidates must be Board Certified/Board Eligible or Equivalent in Thoracic Surgery and in Congenital Cardiac Surgery.

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**FIGURE 3 Patient Preparation** A shoulder roll is placed exposing the intended right carotid artery (red arrow) and endotracheal tube secured away from the field.



**FIGURE 4 Access** The primary operator works from the patient's head towards the intended carotid artery and the ultrasound on the opposite side of the table (white arrow). It is crucial to remember to invert the image on the AP and lateral cameras prior to performing fluoroscopy. The medication lines are lengthened to the feet of the patient for easy access by the anesthesia team (red arrow).



**FIGURE 5 Workspace** The operator is now able to have the sheath facing them and perform the intended intervention in a patient caudal direction (towards the anesthesia team). The remaining length of the cath table is utilized for wire/catheter/device manipulation.

## References

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**R. ALLEN LIGON, MD**

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Pediatric and Adult Congenital Interventional Cardiology  
Children's Healthcare of Atlanta  
Atlanta, Georgia, USA



**CHRISTOPHER J. PETIT, MD**

Chief, Division of Cardiology  
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Children's Hospital  
Welton M. Gersony Professor of Pediatrics  
Columbia Vagelos College of Physicians and Surgeons  
New York, New York, USA



# 8th World Congress of Pediatric Cardiology and Cardiac Surgery

AUGUST 27 – SEPTEMBER 1, 2023 | WASHINGTON D.C.

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# A Tribute to Dr. Joseph deGiovanni (1949-2023)



On behalf of the Board and membership of The PICS Society, we would like to pay tribute to our friend and colleague Dr. Joseph ("Jo") deGiovanni, who passed away May 8, 2023, after a lengthy illness. Dr. deGiovanni was a dedicated pioneer in our profession, representing the highest principles of research, leadership, education and above all excellence in patient care. We extend our deepest sympathies to his family, colleagues and friends.

Since 1983 Dr. deGiovanni served as a consultant paediatric cardiologist at Birmingham Children's Hospital in the UK. In a moving announcement on the Association for European Paediatric and Congenital Cardiology (AEPC) website (<https://www.aepc.org/news>), Prof. Sir Shakeel Qureshi and Dr. Chetan Mehta observed he was at the forefront introducing many procedures in interventional cardiology, echo, arrhythmia treatment, adult CHD and other arenas.

Equally important was his dedication to the medically underserved. As Drs. Qureshi and Mehta noted, "Jo was committed to help, teach and promote all the new techniques in many countries around the world, both in developing and developed countries... Dr. deGiovanni always gave his time selflessly in teaching practical interventional procedures, in particular in the developing countries, to bring their services up to modern levels. He made himself available to help them, whenever they asked for his help."

Among many recent tributes was one by his colleague Prof. Victor Grech (Mater Dei Hospital, Malta), who observed in the *Malta Times* (May 15, 2023) that "The world has lost a gentleman, and cardiology has lost a stalwart.... Jo could (incredibly) do anything in the cath lab safely, pioneering quite a few novel interventions, some of them in Malta."

Dr. deGiovanni had a deep, long-standing commitment to the PICS Annual Symposium and the PICS Society. Over the years he chaired many educational sessions, as well as contributing to hundreds of similar events at scientific gatherings throughout the world. PICS President Dr. Ziyad M. Hijazi commented that "we were so grateful for Jo's longstanding commitment to mentor the next generation of CHD interventionalists—no matter how full his schedule, he was always willing to provide his wise advice to anyone who sought it. We were honored that Jo chaired the annual PICS Achievement Award Committee for two years—selecting the best of the best in our profession. Although Jo was a modest man, those of us privileged to have known him would agree that Jo himself was the best of the best! We will miss him terribly."



**In his own words.** Perhaps the best way to honor Dr. deGiovanni's legacy is through his own words. Shortly after The PICS Society's formation, he committed to continuing mentoring and contributing in spite of his own personal challenges. He observed that "I have personally learnt and gained so much from PICS and the many enthusiastic participants, my main role now is to pass on my knowledge and experience and support up-and-coming interventionists and electrophysiologists. It would be an honour and pleasure to further education, good clinical practice, support and respect for colleagues, training, keep up standards and lead by example.... I will continue to give younger colleagues opportunity to discuss any problem cases, even though the support will be remote. Very best wishes despite the unknowns we face." – Dr. deGiovanni

Thank you, Jo! Rest in peace.

On behalf of The PICS Society Board, membership and staff,

**ZIYAD M. HIJAZI, MD, MPH, FPICS, President**  
**DAMIEN KENNY, MD, FPICS, Vice President**  
**NORM LINSKY, Executive Director**  
**KIMBERLY RAY, RN, Deputy Executive Director**





## Pediatric Heart Center Pediatric Cardiologist

The Pediatric Heart Center of UT Health San Antonio in the Joe R. and Teresa Lozano Long School of Medicine and University Health System is seeking a full-time pediatric cardiologist. Candidates with interests in general cardiology, echocardiography and advanced cardiac imaging, pediatric heart failure, or adult congenital heart disease are encouraged to apply.

The Pediatric Heart Center of UT Health San Antonio has been providing care to the children and adults in San Antonio and South Texas for over 30 years and is the only academic Heart Center in San Antonio serving Bexar county, as well as South and West Texas with a catchment area of over 6 million people. San Antonio is one of the fastest growing cities in the US and is a family friendly city with picturesque neighborhoods, affordable housing and local attractions including the Alamo, River Walk, Sea World and a vibrant food scene.

The pediatric cardiology division is growing and has a strong and collegial relationship with our cardiothoracic surgeons. We have a committed cardiac critical care team, congenital cardiac unit and a growing pediatric transport program. There is growth potential with the building of a new Women's and Children's Hospital scheduled to open 2023. Cardiology faculty appointments are engaged in the training of medical students, 35 pediatric residents and fellows from five pediatric fellowships including neonatology and critical care.

### Qualifications for this position include:

- Candidates should be Board Certified or Board Eligible in Pediatric Cardiology
- Meet the requirement for medical licensure to practice in the State of Texas

UT Health San Antonio offers a competitive salary, comprehensive insurance package, and generous retirement plan. Academic appointment and salary will be commensurate with experience.

Interested individuals should apply online at <https://uthscsa.edu/hr/employment.asp> Requisition ID: 22000645

*UT Health San Antonio is an Equal Employment Opportunity/Affirmative Action Employer including protected veterans and persons with disabilities.  
All faculty appointments are designated as security sensitive positions.*

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## Pediatric Heart Transplant and Heart Failure Cardiologist / Open Rank

The Pediatric Heart Center of UT Health San Antonio, Joe R. and Teresa Lozano Long School of Medicine, is seeking a full-time medical director of pediatric heart failure, transplant and mechanical circulatory support to develop a pediatric heart failure and heart transplant program.

The Pediatric Heart Center has been providing care to the children and adults in San Antonio and South Texas for over 30 years and is the only academic Heart Center in San Antonio serving Bexar County as well as South and West Texas with a catchment area of over 6 million people. San Antonio is one of the fastest growing cities in the US and is a family friendly city with picturesque neighborhoods, affordable housing and local attractions including the Alamo, River Walk, Sea World and a vibrant food scene.

The pediatric cardiology division is growing and has a strong and collegial relationship with our cardiothoracic surgeons. We have a committed cardiac critical care team, congenital cardiac unit and a growing pediatric transport program. There is growth potential with the building of a new Women's and Children's Hospital scheduled to open 2023. Cardiology faculty appointments will be engaged in the training of medical students, 35 pediatric residents and fellows from five pediatric fellowships including neonatology and critical care.

The ideal candidate would have experience in pediatric heart failure and transplant and the desire to build and grow a heart failure program. The position encompasses responsibilities in patient care including heart failure, pre- and post-transplant and VAD patients, all forms of mechanical circulatory support and ECMO and will work closely with the University Health Transplant Institute. Education and research are strongly encouraged and supported with access to a dedicated statistician and research team.

### Qualifications for this position include:

- Successful completion of training in an accredited pediatric cardiology fellowship and pediatric heart failure fellowship or equivalent pediatric heart failure experience.
- Preference will be given applicants qualified to serve as an Organ Procurement and Transplant Network Primary Pediatric Heart Transplant Physician.
- Candidates should be Board Certified or Board Eligible in Pediatric Cardiology
- Meet the requirement for medical licensure to practice in the State of Texas

UT Health San Antonio offers a competitive salary, comprehensive insurance package, and generous retirement plan. Academic appointment and salary will be commensurate with experience.

Interested individuals should apply online at <https://uthscsa.edu/hr/employment.asp> Requisition ID: 22000298

*UT Health San Antonio is an Equal Employment Opportunity/Affirmative Action Employer including protected veterans and persons with disabilities.  
All faculty appointments are designated as security sensitive positions.*

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Please send curriculum vitae and letters of recommendation to:

Ginnie Abarbanell, MD  
Professor of Pediatrics; Chief, Division of Pediatric Cardiology  
University of Texas Health - San Antonio  
[abarbanell@uthscsa.edu](mailto:abarbanell@uthscsa.edu)



## Non-Invasive Pediatric Cardiologist

The division of Pediatric Cardiology, Boston Children's Health Physicians (BCHP), affiliated with New York Medical College and Maria Fareri Children's Hospital, is seeking a board eligible / board certified pediatric cardiologist with expertise in non-invasive imaging (echocardiography: TTE, TEE and Fetal) for **Director of Non-Invasive Imaging**. In addition to imaging, the candidate will also be able to see general cardiology out-patients. A faculty appointment and rank with NYMC will be determined by previous experience.

## Pediatric Electrophysiologist

The division of Pediatric Cardiology, Boston Children's Health Physicians (BCHP), affiliated with New York Medical College and Maria Fareri Children's Hospital, is seeking a board eligible/board certified pediatric cardiologist as **Director of Pediatric Electrophysiology**. This person should have experience in arrhythmia management and invasive EP including catheter ablations, device placement and interrogations. In addition to electrophysiology patients, the candidate will also be able to see general cardiology out-patients. A faculty appointment and rank with NYMC will be determined by previous experience.

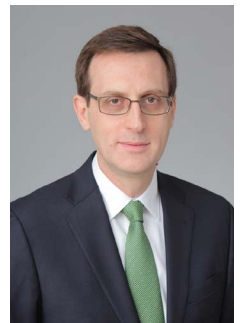
### To apply, please contact:

**Robert Vincent, MD, CM**  
Chief, Pediatric Cardiology  
Maria Fareri Children's Hospital &  
Boston Children's Health Physicians  
Professor of Pediatrics NYMC  
[Robert\\_Vincent@bchphysicians.org](mailto:Robert_Vincent@bchphysicians.org)

# George Dangas, MD, PhD, Named President of Society for Cardiovascular Angiography & Interventions

## *First Mount Sinai Cardiologist to Hold this Prestigious Position*

The Society for Cardiovascular Angiography & Interventions (SCAI) has named George Dangas, MD, PhD, Professor of Medicine (Cardiology), and Surgery, at the Icahn School of Medicine at Mount Sinai as its new President. He was appointed on Saturday, May 20th, during the closing ceremonies at the SCAI 2023 Scientific Sessions in Phoenix. He is the first Mount Sinai cardiologist to hold this position and will serve as the 46<sup>th</sup> President of SCAI.



Dr. Dangas, also the Director of Cardiovascular Innovation at the Zena and Michael A. Wiener Cardiovascular Institute at Icahn Mount Sinai and Chief of Cardiology at Mount Sinai Queens, is an authoritative voice on the performance of nonsurgical cardiovascular and valve interventions using both established and novel techniques, and on preventing and dissolving endovascular thrombosis. In his work with SCAI, he has served as a key faculty and program committee member for various meetings and events and is a former SCAI Trustee.



"I am deeply honored to serve as SCAI president this year," said Dr. Dangas. "Our society is moving the interventional cardiology specialty forward in such impactful ways that are reflective of our current times and speak to the innovation required to advance patient care. I am excited to collaborate with our physician and associate members to address the needs of our profession and make an imprint on global health."

In this new role, Dr. Dangas will fulfill a number of important responsibilities including acting as the spokesperson for SCAI, supporting its development efforts, and helping manage its operations.

Dr. Dangas completed medical and postgraduate studies at the National and Capodistrian University of Athens, Greece, followed by his internship and residency in internal medicine at The Miriam Hospital and Brown University in Providence, Rhode Island. He completed his cardiovascular disease and interventional cardiology fellowships at The Mount Sinai Hospital in New York City and has been certified by the American Board of Internal Medicine in Cardiovascular Disease and Interventional Cardiology, and also elected Master of the American College of Cardiology.

Dr. Dangas began his one-year term on May 20<sup>th</sup>, 2023.





# Vivalink's Biometrics Data Platform Supports UCSF Clinical Trial for Hypertrophic Cardiomyopathy (HCM)

The six-month EXCITE-HCM study of 70 patients will study the effects of exercise on electrical activity and blood flow using Vivalink's medical wearable ECG sensor and cloud data services.

UC San Francisco (UCSF) is conducting a six-month clinical trial on hypertrophic cardiomyopathy (HCM) using Vivalink's Biometrics Data Platform. The study, consisting of 70 patients, will evaluate if regimented moderate intensity exercise improves overall exercise capacity and cardiac blood flow.

HCM is thought to be the most common inherited heart condition, estimated to affect about 1 in 500 people. HCM can lead to heart failure and atrial fibrillation, and is cited as the most common cause of sudden death in young athletes, accounting for 35 to 50% of cases. The UCSF study, EXCITE-HCM, is funded by the National Heart Lung and Blood Institute of the National Institutes of Health, and led by Theodore Abraham, MD, FACC, FASE.

"In this study, we hope to identify ways to prevent adverse health events for these patients," said Theodore Abraham, MD, FACC, FASE, co-director of UCSF HCM Center of Excellence, and Director of the UCSF Adult Cardiac Echocardiography Laboratory. "Vivalink's medical-grade sensors and data services will help us find accurate endpoints during the trial."

Subjects in the research trial will be monitored using the Vivalink wearable ECG sensor and cloud data platform to track electrical activity throughout the study. The reusable sensor will continually capture ECG and heart rate data 24 hours a day which will be processed through Vivalink's Biometrics Data Platform. The platform ensures data is delivered successfully from any location for centralized analysis and processing in order to extract clinically relevant insights in real-time or retrospectively.

"We are thrilled to support UCSF in this clinical trial for HCM," said Jiang Li, CEO of Vivalink. "Our Biometrics Data Platform is a reliable and accurate way to study key cardiovascular and health conditions. We are excited to see the results from the study and continue to support UCSF throughout the trial."

In addition to capturing ECG rhythm and heart rate, the multi-function sensor can also monitor Heart rate variability, respiratory rate and offer accelerometer data. The sensor is used in other applications and studies, such as in-hospital patient monitoring, atrial fibrillation, remote patient monitoring, and chemo treatment event detection.

For more information, visit [www.vivalink.com](http://www.vivalink.com).



**Children's Mercy**  
KANSAS CITY

## 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/22690/physician/job>

**For more information:**

Aliessa Barnes MD  
Co-Director, Ward Family Heart Center; Chief, Section of Cardiology  
816.983.6225, [apbarnes@cmh.edu](mailto:apbarnes@cmh.edu)

For more information about Children's Mercy Kansas City and about Kansas City itself, visit [cmkc.link/TakeYourPlace](http://cmkc.link/TakeYourPlace).



MaineHealth  
**Physician  
Recruitment Center**

## **Pediatric Cardiologist with Subspecialty Focus in Imaging**

Maine Medical Partners and Maine Medical Center are seeking a board eligible/board certified pediatric cardiologist with a subspecialty focus in imaging to join their group. The ideal candidate should have additional subspecialty training or significant experience in cross-sectional imaging. Responsibilities would include both inpatient and outpatient pediatric cardiology attending services along with overseeing the Congenital and Pediatric Cardiac MRI/CT program. The current pediatric and congenital volume is ~200 studies annually with a rapidly growing adult congenital population. Different amounts of research, administrative, and educational time may be available depending on the candidate, their experience, and their career goals.

The Congenital Heart Program at Maine Medical Center provides comprehensive services including congenital heart surgery, interventional cardiology and invasive electrophysiology. Maine Medical Center has provided surgical care in the state for over 25 years and congenital interventional services for over 20 years. The Congenital Heart Program currently participates in STS, PC4, PAC3, CNOC, VPS, and IMPACT registries. Integrated across both the Pediatric and Cardiovascular Services Lines at the Barbara Bush Children's Hospital and Maine Medical Center, the Congenital Heart Program provides cohesive care across disciplines and collaborates closely with both pediatric and adult subspecialists.

Maine Medical Partners is Maine's largest multi-specialty medical group serving the healthcare needs of patients locally and throughout northern New England. This high quality team of 600+ physicians and 350+ advanced practice professionals provides a wide range of hospital based, primary, specialty, and sub-specialty adult and pediatric care delivered throughout a network of 54 locations across the State and acts as a regional referral network. Maine Medical Center has 700 licensed beds and is the state's leading tertiary care hospital and Level One Trauma Center, with a full complement of Residencies and Fellowships and an integral part of Tufts University Medical School.

Situated on the Maine coast, Portland offers the best of urban sophistication combined with small-town friendliness. The Old Port area receives tourists from around the world with nationally recognized restaurants, breweries, and hotels. The area provides four-season recreational opportunities, such as skiing, hiking, sailing, and miles of beautiful beaches. Just two hours north of Boston, this is an exceptionally diverse and vibrant community.

**Interested candidates may submit a CV and cover letter to:**  
**Gina Mallozzi, Physician Recruiter**  
[gina.mallozzi@mainehealth.org](mailto:gina.mallozzi@mainehealth.org)



## Congenital Cardiac Intensivist

The Heart Center at Nationwide Children's Hospital (NCH) seeks a Congenital Cardiac Intensivist, at any academic rank, to join its growing and dynamic program.

Candidates must have completed fellowship training in pediatric cardiology and/or critical care that included advanced cardiac intensive care training. Preference will be given to those who are boarded in pediatric cardiology and interested in an academic center with research and leadership opportunities for the candidate's professional growth.

The successful applicant will join a group of nine multi-background academic cardiac intensivists and twelve dedicated nurse practitioners devoted to the CTICU, providing 24/7 in house coverage. Our free-standing CTICU is a 20 bed unit with 600 admissions per year (medical and surgical); an average daily census of 13. The Heart Center's comprehensive services include hybrid palliation, comprehensive single ventricle program, thoracic organ transplantation, blood conservation strategies, and cardiac mechanical support. Current annual clinical metrics include: over 400 cardiothoracic surgeries, over 700 cardiac catheterizations and EP procedures, and over 13,000 cardiology outpatient visits. We have a pediatric and pediatric/adult combined cardiology fellowship programs.

The Heart Center embraces a culture of patient safety and quality, transparency, value-based care, public health awareness, excellence in education and engagement in translational/outcomes research. Our program is closely partnered with the Center for Cardiovascular Research at the NCH-Research Institute which provides infrastructure to support the clinical research enterprise. Research opportunities include engaging in basic science research, clinical research, translational research, population based studies, and research-based education or quality improvement initiatives.

The Heart Center is also part of the Congenital Heart Collaborative between the University Rainbow Babies & Children's Hospital (Cleveland, OH) and Nationwide Children's Hospital heart programs which provides additional opportunity for collaborative research.

Named to the Top 10 Honor Roll on U.S. News & World Report's 2022-23 list of "Best Children's Hospitals," Nationwide Children's Hospital is one of America's largest not-for-profit free-standing pediatric health care systems providing unique expertise in pediatric population health, behavioral health, genomics, and health equity as the next frontiers in pediatric medicine, leading to best outcomes for the health of the whole child. Integrated clinical and research programs, as well as prioritizing quality and safety, are part of what allows Nationwide Children's to advance its unique model of care. Nationwide Children's has a staff of more than 14,000 that provides state-of-the-art wellness, preventive and rehabilitative care and diagnostic treatment during more than 1.6 million patient visits annually. As home to the Department of Pediatrics of The Ohio State University College of Medicine, Nationwide Children's physicians train the next generation of pediatricians and pediatric specialists. The Abigail Wexner Research Institute at Nationwide Children's Hospital is one of the Top 10 National Institutes of Health-funded free-standing pediatric research facilities. More information is available at [NationwideChildrens.org](https://www.nationwidechildrens.org).

To learn more about Nationwide Children's or apply for this position visit us at: [NationwideChildrens.org/physician-careers](https://www.nationwidechildrens.org/physician-careers)

Candidates may submit their curriculum vitae by email to:

**Janet Simsic, MD**

Director, Cardiothoracic Intensive Care Unit

[Janet.Simsic@nationwidechildrens.org](mailto:Janet.Simsic@nationwidechildrens.org) or

**Robert Gajarski, MD, MHSA**

Section Chief, Pediatric Cardiology

The Heart Center at Nationwide Children's Hospital

[Robert.Gajarski@NationwideChildrens.org](mailto:Robert.Gajarski@NationwideChildrens.org)





# U.S. News & World Report's Best Children's Hospitals for Cardiology & Heart Surgery 2023-2024

To create the pediatric rankings, U.S. News & World Report gather key clinical data from nearly 200 medical centers through a detailed survey that looks at measures such as patient safety, infection prevention and adequacy of nurse staffing. In addition, part of each hospital's score is derived from surveys of more than 15,000 pediatric specialists who are asked where they would send the sickest children in their specialty. In 2023, only 89 children's hospitals were ranked in at least one of the 10 pediatric specialties evaluated. Ten hospitals ranked at the top of their class and were named to the 2023-2024 Honor Roll, <https://health.usnews.com/health-news/best-childrens-hospitals/slideshows/best-childrens-hospitals-honor-roll>.



Fifty centers were ranked in pediatric cardiology care. Survival after complex heart surgery, such as heart transplants and corrective surgery for congenital heart defects, specialized staff, services and technologies, commitment to best practices and ability to prevent infections accounted for most of each hospital's score.

## Top 50 Children's Hospitals for Cardiology & Heart Surgery

1. Texas Children's Hospital
2. Duke Children's Hospital and Health Center
3. Rady Children's Hospital
4. MUSC Children's Heart Network of South Carolina
5. Nationwide Children's Hospital
6. Boston Children's Hospital
7. Cincinnati Children's and Kentucky Children's Hospital Joint Heart Program
8. Levine Children's Hospital
9. UPMC Children's Hospital of Pittsburgh
10. Cleveland Clinic Children's Hospital
11. University of Michigan Health C.S. Mott Children's Hospital
12. Children's Healthcare of Atlanta
13. Children's Hospital Los Angeles
14. Hassenfeld Children's Hospital at NYU Langone

15. Children's Hospital of Alabama at UAB
16. Children's Hospital Colorado
17. Children's Hospital of Philadelphia
18. Riley Hospital for Children at IU Health
19. Seattle Children's Hospital
20. New York-Presbyterian Children's Hospital-Columbia and Cornell
21. UCLA Mattel Children's Hospital
22. Loma Linda University Children's Hospital
23. Ann and Robert H. Lurie Children's Hospital of Chicago
24. Johns Hopkins Children's Center
25. Mayo Clinic-Children's Minnesota Cardiovascular Collaborative
26. UF Health Shands Children's Hospital
27. Intermountain Primary Children's Hospital-University of Utah
28. Rainbow Babies and Children's Hospital
29. Le Bonheur Children's Hospital
30. Children's Memorial Hermann Hospital
31. Monroe Carell Jr. Children's Hospital at Vanderbilt
32. Advocate Children's Heart Institute
33. Nemours Children's Hospital-Delaware
34. Ochsner Hospital for Children
35. Children's Medical Center Dallas
36. Virginia Congenital Cardiac Collaborative
37. Nicklaus Children's Hospital
38. Oklahoma Children's Hospital OU Health
39. SSM Health Cardinal Glennon Children's Hospital-St. Louis University
40. UCSF Benioff Children's Hospitals, San Francisco and Oakland
41. Norton Children's Hospital
42. Lucile Packard Children's Hospital Stanford
43. Children's Mercy Kansas City Hospital
44. Phoenix Children's Hospital
45. Arkansas Children's Hospital
46. Children's National Hospital
47. American Family Children's Hospital
48. Dell Children's Medical Center
49. CHOC Children's Hospital
50. Yale New Haven Children's Hospital

To see the entire list, visit: <https://health.usnews.com/best-hospitals/pediatric-rankings/cardiology-and-heart-surgery>





# Assistant/Associate/Full Professor, Interventional Cardiology

## Division of Pediatric Cardiology

The University of Alberta, Faculty of Medicine & Dentistry, in partnership with Alberta Health Services (AHS), invites applications for an academic position within the Division of Pediatric Cardiology in the Department of Pediatrics, supporting the Interventional Cardiology Service at the Stollery Children's Hospital.

The University of Alberta is one of the preeminent teaching and research universities in Canada, serving over 39,000 students with more than 15,000 faculty and staff. The Faculty of Medicine and Dentistry has 21 Departments, active undergraduate, graduate, and postgraduate programs with over 500 graduates annually. The Department of Pediatrics is one of Canada's leading academic health centres for pediatric specialty and subspecialty education and research.

Alberta Health Services (AHS) is Canada's first and largest province-wide, fully integrated health system, responsible for delivering health services to over 4.3 million people living in Alberta, as well as to some residents of Saskatchewan, British Columbia, and the Northwest Territories. The Stollery Children's Hospital in Edmonton is part of AHS and is a full-service pediatric hospital and centre for complex pediatric care. It is the only specialized healthcare facility for infants, children, and youth in central and northern Alberta and services cardiac patients in the Northwest Territories. It has among the highest inpatient volumes of any children's hospital in Canada and serves a geographical area of over 500,000 sq km. The Stollery Children's Hospital Cardiac Sciences Program is the 9th largest in North America by surgical volume and second largest in Canada, a quaternary center providing pediatric cardiac surgical services for Western Canada.

### Responsibilities

The successful applicant will join eighteen academic pediatric cardiologists providing a full spectrum of clinical pediatric cardiology services with expertise in multi-modal diagnostic imaging, interventional cardiology, electrophysiology, fetal cardiology, heart failure, cardiac transplantation, and preventive cardiology. New subspecialty programs are under development.

The successful applicant will join 2 interventional cardiologists (1 full time and 1 part time) who provide continuous service and support the Stollery Cardiac Sciences Program. In a year, there are more than 400 cardiac catheterization procedures performed with approximately 2/3 of those being transcatheter interventions. The interventional cardiology service supports the Western Canadian Children's Heart Network (WCCHN) and accepts referrals from all three prairie provinces for diagnostic and interventional cardiac procedures. Interventional pediatric cardiologists at our institution work in close collaboration with the adult congenital cardiac interventional program at the University of Alberta Hospital and the Mazankowski Heart Institute which also support all three Canadian prairie provinces. The Division of Cardiology has an active basic and clinical science program, collaborating locally, nationally, and internationally.

In addition to clinical care and research, the division is active in teaching at the undergraduate, graduate, and postgraduate levels. The Division is the home for a fully accredited Pediatric Cardiology subspecialty-training program through the Royal College of Physicians and Surgeons of Canada. There are numerous trainees (undergraduate, graduate, and postgraduate students; residents, and clinical/research fellows) at the Division each academic year.

This is a full time 1.0 FTE position. The position profile will require 60% clinical service and 40% academic pursuits: the distribution of responsibilities is negotiable. Contributions to education and research are expected from all University faculty.

**Depending on the seniority and experience of the applicant, this position may include opportunities for clinical leadership within interventional cardiology (i.e. Director of Cardiac Catheterization Laboratory).**

### Qualifications interested applicants must have:

- MD degree (or equivalent)
- Completed subspecialty training in Pediatrics with subspecialty training in pediatric cardiology
- 1+ years of dedicated training in pediatric interventional cardiology
- 3+ years of recent experience with high volumes of advanced catheter interventions

### Considered an asset:

- Clinical experience in lymphatic interventions
- Advanced training or experience in clinical or translational research
- Leadership experience supporting a busy congenital cardiac catheterization program

The applicant must be certified or eligible to become a fellow of the Royal College of Physicians and Surgeons of Canada. See the Royal College of Physicians and Surgeons of Canada for more information on various routes of credentialing (<https://www.royalcollege.ca/public/credentials/routes>). Successful candidates must be eligible for licensure with the College of Physicians and Surgeons of Alberta (CPSA).

The successful candidate will be offered a contingent tenured or tenure-track appointment in the Department of Pediatrics, which is in accordance with the University of Alberta Faculty Agreement and offers a comprehensive benefits package.

Remuneration for this position will be commensurate with qualifications and experience and will be based on the income scale of a competitive and highly successful academic alternate funding plan.

Interested applicants should apply below with their curriculum vitae and letter of application. If you have any questions about the posting, please reach out to Sarah Forgie, [sforgie@ualberta.ca](mailto:sforgie@ualberta.ca), or Lisa Hornberger mailto:[Lisa.Hornberger@albertahealthservices.ca](mailto:Lisa.Hornberger@albertahealthservices.ca).

**Apply Online: <https://www.careers.ualberta.ca/Competition/A100151040/Apply/>**

*Note: Online applications are accepted until midnight Mountain Standard Time of the closing date.*

*All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority. If suitable Canadian citizens or permanent residents cannot be found, other individuals will be considered. The University of Alberta is committed to an equitable, diverse, and inclusive workforce. We welcome applications from all qualified persons. We encourage women; First Nations, Metis and Inuit persons; members of visible minority groups; persons with disabilities; persons of any sexual orientation or gender identity and expression; and all those who may contribute to the further diversification of ideas and the University to apply. The University of Alberta is committed to an equitable, diverse, and inclusive workforce. We welcome applications from all qualified persons. We encourage women; First Nations, Metis and Inuit persons; members of visible minority groups; persons with disabilities; persons of any sexual orientation or gender identity and expression; and all those who may contribute to the further diversification of ideas and the University to apply.*



## AUGUST

25<sup>TH</sup> - 27<sup>TH</sup>

3<sup>rd</sup> Annual PICS Fellows & Early Career Course

Washington, DC, USA

[kimberly\\_ray@chdinterventions.org](mailto:kimberly_ray@chdinterventions.org)

27<sup>TH</sup> - SEPT 01<sup>ST</sup>

8<sup>th</sup> World Congress of Pediatric Cardiology and Cardiac Surgery

Washington, DC, USA

<http://wcpccs2023.org/>

## SEPTEMBER

08<sup>TH</sup> - 09<sup>TH</sup>

2023WPC – 2023 World Pediatric Conference

Singapore

<https://pediatrics.episirus.org/>

25<sup>TH</sup> - 26<sup>TH</sup>

CME HeartCare and Cardiovascular Medicine Cardiac Surgery

Paris, France

<https://heart.plenareno.com/>

## OCTOBER

06<sup>TH</sup> - 08<sup>TH</sup>

CSI Asia-Pacific 2023

Bangkok, Thailand

<https://www.csi-congress.org/asia-pacific>

28<sup>TH</sup>

13<sup>th</sup> Annual UCA Fetal Echocardiography Symposium

Westwood, California, USA

<https://events.medschool.ucla.edu/event/fetalcardiac23>



**Children's Mercy**  
KANSAS CITY

## Pediatric General Cardiologist

The Ward Family Heart Center at Children's Mercy Hospital, Kansas City, is seeking a general pediatric cardiologist to cover clinics in the Kansas City Metroplex, regional clinics, and some inpatient service. The successful candidate would join an existing group of 30 cardiologists (28 in Kansas City, 1 in Wichita, KS and 1 in Topeka, KS), 4 CV surgeons, and over 30 APNs.

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 regularly used to provide care to our families in the region.

Our Kansas City-based 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 in Kansas City), Interstage Monitoring (CHAMP), Preventive Cardiology, Cardiac Genetics, Cardio-oncology, Single Ventricle Survivorship, Pulmonary Hypertension, a dedicated POTS clinic and Cardiac Neurodevelopmental Services. In 2022, the Ward Family Heart Center program was ranked # 19 nationally by USNWR.

Board eligibility in Pediatric Cardiology is required. Flexibility, strong communication and collaborative skills are key. There are opportunities for clinical research and teaching medical students, residents and fellows. Salary and academic rank are commensurate with experience.

Please submit CV and cover letter to:

<https://faculty-childrensmercykc.icims.com/jobs/22725/physician/job>

For more information:

Aliessa Barnes MD

Co-Director, Ward Family Heart Center; Chief, Section of Cardiology

816.983.6225, [apbarnes@cmh.edu](mailto:apbarnes@cmh.edu)

For more information about Children's Mercy Kansas City and about Kansas City itself, visit [cmkc.link/TakeYourPlace](https://cmkc.link/TakeYourPlace).

Kansas City is a thriving cultural and economic city with more than 2 million residents. Our city's long list of attractions includes world class museums, a vibrant arts scene, professional sports, superb shopping, great jazz clubs, and the best places to enjoy barbeque! For more information about activities in Kansas City go to [www.visitkc.com](http://www.visitkc.com)



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