Pediatric Heart Transplant Society

PEDIATRIC HEART TRANSPLANTATION TODAY

PHTS NEWSLETTER

January 2023

Dr. Juan "Chuck" Alejos, Senior Editor
Dr. Neha Bansal, Junior Editor

PHTS GROWTH*

11,517	patients enrolled
11,995	total listings/ relistings entered
8,804	transplants/ retransplants entered
415	listings for 2022
341	transplants for 2022
0	listings for 2023
0	transplant for 2023

*as of January 1, 2023

A MESSAGE FROM THE PHTS VICE PRESIDENT

Happy New Year to All!

As we start the new year, we look forward to what it will bring and where it will take us!
Over the last couple of years, the PHTS community has grown, grown closer and more involved than ever before. I wanted to take the opportunity to thank everyone for finding ways to contribute with a sense of belonging. Thank you!

Here are some things we should be immensely proud of for 2022.

One of the foremost efforts over the last two years has been the creation of various sub-committees within PHTS to move forward the strategic plan laid out. These sub-committees have taken off and the year 2022 was a significant year for them. Special mention of a few of the noteworthy achievement as a personal opinion. The Equity and Diversity Committee has led very important initiatives around care delivery and outcome differences by race and by social disparity. These will inform our work for coming years to over come major gaps in knowledge and in improving outcomes for ALL of our patients. The publications from these initiatives that are already out and are forthcoming in near future will lay out the pathway for us.

The second committee that is taking PHTS back to the foundational aspirations of QI is responsible for using these methodologies for systematic improvement in care delivery. Multiple projects at center level as well as a wider multicenter initiative to start off the QI subcommittee work is quite an achievement within a short span of time.

Finally, the year 2022 to me marked the increasing active participation from all our Allied Health team members. There is huge enthusiasm to make that a permanent feature of PHTS as a society. We as a Society should look like the multidisciplinary teams we work with. The initiative will begin work on the Transitions Program as one of the first initiatives. In 2023 we look forward to seeing the amazing work move forward.

These are just a few examples of the hard work that everyone is putting in and the year 2022 was a testament to it. Additionally, the initiative to create 'PHTS resource documents' has led to publication of various important papers in Pediatric Transplantation. I am sure these will serve as a go-to guide for a lot of us. There are more efforts underway to expand the areas that are being covered by these resource documents.

What's coming up ? The year 2023 will be a celebration of the 30th Anniversary in the form of the Gala this April in Denver. We look forward to connecting in person as a community and celebrate the Society and our work.

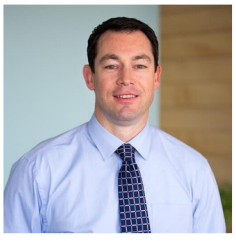
My one ask for the year - look around and see who you think we are not bringing along? Everyone of our team members should be an active part of the Society and the Society in turn should reflect our team. That includes the patients and the families. Encourage them to learn about, participate and guide us so we can serve them better.

Look forward to a Happy New Year!

Cheers,

Shri

Shriprasad Deshpande, MD
PHTS Vice President



PHTS President
Scott Auerbach, MD
Children's Hospital Colorado
Denver, Colorado



PHTS Vice President
Shriprasad Deshpande, MD
Children's National Health System

Visit our website to learn more:
www.PHTSociety.org

Decisions, Decisions, Decisions...The Challenges Between Two Different Organ Allocation Systems"

Aamir Jeewa, MB B.Ch., FAAP, FRCPC

It's 3 o'clock in the morning and the pager has begun to scream with a very familiar number. I wipe the sleep from my eyes, trying hard not wake up anyone else, and I'm finally able to log into Donornet (after only the 3rd attempt). Another sad story, school aged child versus gun shot wound. The offer is for a potential recipient who is 5th on the list. It's far away so the ischemic time will be long. The down time was long before the child was resuscitated. The sodium is elevated. The taking care of the donor haven't started vasopressin yet. The troponin is rising. The ejection fraction was low at the start and has gotten better but still not normal on two inotropes. It will be big for the recipient but probably (maybe) will fit. Wait, everyone has turned it down and your recipient is up next! It's easy to turn this down and wait for a better one. Or do you roll up your sleeves and make the call to the surgeon knowing that it will require some conversation and convincing? Your recipient is in hospital on milrinone stable but not perfect either. It is not perfect. Donor organs are never perfect.

The above is a common scenario many have faced before. These are challenging decisions. Having had the opportunity to work as a transplant cardiologist in both Canada and the United States (US) has provided some interesting perspectives on decision making. Justin Godown and colleagues published a multi-centre survey looking at donor acceptance practices across sites from 17 countries. We learned that there is little uniformity in practices with regards to donor to recipient weight ratio (DRWR), the acceptable donor age, and cardiac function. Centers outside of the US tend to be more willing to take hearts from donors who are older, a higher threshold for DRWR, and lower ejection fraction.[1] The driving factor for most of these decisions is organ availability. The more offers you get for your potential recipient allows the program to be more selective. Donor organs come very infrequently in Canada. It's a big country with a population the size of California. So when an offer comes, the knee jerk reaction is to accept it and then deal with the flaws afterwards. Function is depressed? Rossano et al showed that, although infrequent (<15%), donor hearts with depressed ventricular function had no difference in graft survival.[2] But how low is too low? Though data supports the decision to accept it, are decision makers for accepting donor organs comfortable with that decision? Perhaps there are subsets in such a group that would do worse than other. We just do not know who those may be. What about the organ that is far away? We tend to set limits on how far we will travel to retrieve an organ aiming for that ideal ischemic time. Is an ischemic time greater than 4 hours acceptable? Many parts of the USA are very close to high density populous regions and derive a geographical benefit from donor offers such that ischemic times over 4 hours are rare occurrences. But anything can happen (If you haven't seen "Planes, Trains & Automobiles", you should). However, there are parts of the world where a longer ischemic time is unavoidable. Dani and colleagues showed that in donor hearts with an ejection fraction greater than 65% and an ischemic time between 4 to 6 hours had similar outcomes to those < 4 hours. However the data has been mixed on this topic with some reports showing poorer post-transplant hemodynamics with prolonged ischemic times.[3] But perhaps prolonged ischemic time will be a problem of the past. Multiple centers are exploring the use of ex vivo perfusion for pediatric heart transplants and already there is a growing experience for ex vivo in adult sized adolescents using the commercially available systems.[4]

The conundrum of deciding if a heart will fit in a recipient is ongoing. Traditional measures of using donor to recipient weight ratios are, for a lack of better way of saying it, "old school". Yet, it is still the most widely employed method and quickest way to determine fit. Where the threshold of comfort exits will vary i.e. to accept an organ that is double the size or not. What about two and a half times? three times larger? these thresholds are arbitrary and with limited data on outcomes. Perhaps graft function won't be impaired but the associated complications of donor to recipient vessel mismatch may result in additional procedures and comorbidities that are still understudied in pediatric heart transplantation. More novel ways to determine the best "fit" involve both echocardiography and computed tomography (CT) virtual fit testing. Szugye and colleagues published the experience of using total cardiac volumes instead of weight for donor selection which allowed for increasing the potential size of the donor organ that could be transplanted without associated complications.[5] Adding this approach to the toolbox for decision making may broaden the donor pool available for centers that have long waitlist times and limited donor organ availability.

Decisions, Decisions, Decisions...The Challenges Between Two Different Organ Allocation Systems"

Aamir Jeewa, MB B.Ch., FAAP, FRCPC

Back to the 3 am donor offer. I will try to be self-reflective on this aspect and thus impart my personal opinion. Others may manage these scenarios differently. With depressed ventricular function and multiple inotropes, rising troponin, and a long ischemic time it would be more than likely that I would turn this offer down in Donornet and try to go back to sleep. Unless the potential recipient was on ECMO or actively deteriorating, it would pose more than the usual amount of risk for a relatively stable recipient who has the hope to wait a little longer for a more appropriate donor organ. However, having now moved to the other side of the 49th Parallel, it would be unclear as to how many more weeks, or possibly even months, before another suitable donor offer would present itself. This would require a phone call to the organ procurement organization (OPO) and discuss the need to contact the donor institution and the team taking care of the patient. A more active hand may be needed in donor management to adjust the fluid management and inotrope strategy, repeat an echocardiogram with the changes, and perhaps waiting an additional 24-48 hours to allow for further improvement and a down trend in the troponin. Additional conversations may also be had with other team members about the suitable "fit" with respect to the size and additional images that are needed. This will often take up hours of work. However, if successful, it can result in turning a marginal organ into a better one. Truth be told, it doesn't always turn out successful and there will be some near misses and "dry runs" from this approach too.

The general problems of donor availability are the same pretty much around the world. It often is a matter of how many standard deviations from the mean that impact access to suitable donor hearts. Some institutions will routinely have to transplant with patients supported with longer wait times, have longer ischemic times, and greater thresholds for donor sizes. This is where innovation in pediatric heart transplantation helps everyone - such as improvement in VAD support, ex vivo perfusion, and novel imaging that can provide further accuracy for donor suitability. These advances help all of us across the board no matter where we practice and should drive better outcomes for all. Now I will try to go back to sleep.

1. Godown, J., et al., Variability in donor selection among pediatric heart transplant providers: Results from an international survey. Pediatr Transplant, 2019. 23(5): p. e13417.

2. Rossano, J.W., et al., Pediatric heart transplantation from donors with depressed ventricular function: an analysis of the United Network of Organ Sharing Database. Circ Heart Fail, 2013. 6(6): p. 1223-9.

3. Dani, A., et al., Effect of ischemic time on pediatric heart transplantation outcomes: is it the same for all allografts? Pediatr Transplant, 2022. 26(4): p. e14259.

4. Andersen, N.D., et al., A report of the first pediatric heart transplant following donation after circulatory death in the United States using ex-vivo perfusion. The Journal of Heart and Lung Transplantation, 2022.

5. Szugye, N.A., et al., Evidence supporting total cardiac volumes instead of weight for transplant size-matching. J Heart Lung Transplant, 2021. 40(12): p. 1495-1497.

Published Abstract



PHTS at ISHLT 2023





Vanguard Award Winners

The PHTS VANGUARD Award was established to recognize the dedication and commitment of the all the team members at a participating PHTS Center that ultimately contribute to a Center's success. This award will recognize individual Centers for their outstanding contribution to the Pediatric Heart Transplant Society Registry.

Center Qualification Guidelines

- Annual Regulatory Compliance = 100%
- Participated in PHTS for a minimum of 2 years
- Minimum enrollment of 20 patients (overall)
- Data Compliance = 95%
- Annual Dues Paid

Pediatric Heart Transplant Society

2022 Vanguard Center of Excellence Award Recipients

- Primary Children's Hospital (PMC)
- Children's Mercy Hospital and Clinics (CMK)
- Le Bonheur Children's Hospital (LBC)
- Freeman Hospital, Newcastle upon Tyne (FRH)
- Cleveland Clinic Children's (CCF)
- The Children's Hospital of Philadelphia (CPH)
- University of Alberta (UOA)
- Children's Hospital Colorado (UCM)
- University of Texas, Children's Medical Center (CMD)
- Texas Children's Hospital (TCB)
- Cincinnati Children's Hospital Medical Center (CCH)
- Children's Hospital of Los Angeles (CHL)
- Children's Hospital of Wisconsin (CHW)
- Columbia University – Morgan Stanley Children's Hospital of New York Presbyterian (CPM)
- Children's Healthcare of Atlanta (ECH)
- University of Florida, Shands Hospital (GNV)
- Hospital for Sick Children (HSC)
- Riley Hospital for Children (IUI)
- Joe Dimaggio Children's Hospital (JDC)
- Levine Children's Hospital- Atrium Health (LCH)
- Loma Linda University Children's Hospital (LLU)
- University of Minnesota Masonic Children's Hospital (MIN)
- Monroe Carell Jr. Children's Hospital at Vanderbilt (VCH)
- Children's Hospital at Montefiore (MMC)
- Mount Sinai Medical Center (MSH)
- Children's Hospital and Medical Center (OCH)
- Phoenix Children's Hospital (PCH)
- UC San Diego, Rady Children's Hospital (RCH)
- Seattle Children's Hospital (SCH)
- St. Louis Children's Hospital (SLC)
- Dell Children's Medical Center of Central Texas (TXD)
- Children's of Alabama (UAB)
- UNC Children's Hospital (UNC)
- Johns Hopkins All Children's Hospital (USF)



Coming up in PHTS

PHTS 30th Anniversary Gala

Please join us in celebrating 30 years of the Pediatric Heart Transplant Society on Thursday, April 20, 2023 at the Denver Art Museum in Denver, Colorado. The celebration will include a reception, silent auction, hors d'oeuvres, and entertainment.

All proceeds from the Gala will be used to support the mission of the Pediatric Heart Transplant Society. The PHTS Foundation is a 501 c.3 non-profit organization whose mission is to raise and administer funds to support the advancement of the science and treatment of children through the journey of heart transplantation.

If you are interested in becoming a sponsor, visit www.PHTSociety.org



Information Corner

Job Postings

Transplant Nurse Practitioner Position

Alberta Health Services (AHS) has an exciting opportunity to join the Stollery Children's Hospital as a Nurse Practitioner – Pediatric Cardiology – Heart Transplant Focus; based in Edmonton, Alberta. The Stollery Children's Hospital is the primary acute care center for children in the Edmonton Area and Western Canada's referral center for pediatric cardiac surgery as well as being a national leader in organ transplantation.

Contact: Jannette Hurshowy - Jannette.Hurshowy@albertahealthservices.ca.org
or Simon Urschel - urschel@ualberta.ca

Pediatric Heart Failure/Transplant Cardiologist Position at the Cincinnati Children's Hospital

The Cincinnati Children's Hospital Medical Center (CCHMC) seeks a Board Eligible/Board Certified Pediatric Cardiologist to join the Advanced Cardiomyopathy Program. Currently we have 5 physicians, 4 NPs, 5 nurse coordinators, 2 social workers, and a dedicated transplant pharmacist. Applicants should have current or formal training and/or experience in Pediatric Cardiomyopathy, Mechanical Circulatory Support, and Cardiac Transplantation.

Interested candidates should submit a CV addressed to Clifford Chin, MD at clifford.chin@cchmc.org.

HF/Transplant NP Position in NY

The Division of Pediatric Cardiology at Columbia University Medical Center (CUMC)/Morgan Stanley Children's Hospital of NewYork Presbyterian is seeking a Nurse Practitioner to join our team in a full-time position to work within the Program for Pediatric Cardiomyopathy, Heart Failure and Transplantation. Begun in 1984, our transplant program has transplanted over 600 patients and currently averages approximately 25-30 transplants annually. In addition, we have an established MCS program offering the full complement of temporary and durable devices to approximately 15 patients per year, including bridge-to-transplant in complex CHD patients and destination VAD therapy.

Questions regarding this position can be addressed to Dr. Marc Richmond (Director, Program for Pediatric Cardiomyopathy, Heart Failure and Transplantation) mr2306@cumc.columbia.edu or Ms. Jessica Roberts-Campbell (Division Administrator, Pediatric Cardiology) jr4278@cumc.columbia.edu

Stanford- Manager-Transplant Programs

At Stanford Children's Health, we know world-renowned care begins with world-class caring. That's why we combine advanced technologies and breakthrough discoveries with family-centered care. It's why we provide our caregivers with continuing education and state-of-the-art facilities, like the newly remodeled Lucile Packard Children's Hospital Stanford. And it's why we need caring, committed people on our team - like you. Join us on our mission to heal humanity, one child and family at a time.

Contact: Email: Joshua E. Gossett - jgossett@stanfordchildrens.org Website: transplant.stanfordchildrens.org

Information Corner

Job Postings

Pediatric Heart Failure and Transplant Cardiologist Position at the The Congenital Heart Center Levine Children's Hospital (LCH) in Charlotte NC

The Congenital Heart Center at Levine Children's Hospital (LCH) seeks to recruit a Pediatric Heart Failure and Transplant Cardiologist to join their existing faculty.

Transplant candidates will have completed an ACGME-accredited fellowship in pediatric cardiology and be BC/BE by the American Board of Pediatrics. A fourth year of additional training in pediatric heart failure and transplant. The candidate will rotate equally on Heart Transplant/Heart Failure Inpatient and Outpatient Services, as well as general cardiology inpatient and outpatient care with shared night/weekend call. Clinical expertise with mechanical circulatory support devices is required as this candidate will be considered to become the director of mechanical support, with responsibilities in patient care, administration, program development, safety and quality. The right candidate will have an opportunity to advance the strategic vision of the program as a whole, in addition to participating in clinical research and national committees. The Congenital Heart Center is an active participant in PHTS and ACTION. The candidate will join one heart failure cardiologist, three cardiac surgeons, three Advanced Practice Providers (APP), three transplant nurse coordinators, and a comprehensive allied healthcare provider team, to serve our cardiomyopathy, heart failure, and transplant population.

To learn more or to submit a CV for confidential consideration, please contact: Lisa Webster, Sourcing Specialist, Physician Recruitment - Lisa.Webster@atriumhealth.org

More information about each job posting can be found on PHTS Basecamp under Resources for Job Opportunities.

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