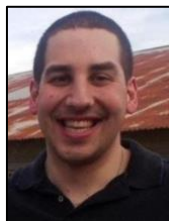


THE NEWSROOM

Sunday at the Conference: *My Interview with Justin*



Brian Johnides



Justin Sleasman

On the final day of the 61st AmSECT International Conference, I had the great pleasure to sit down with Justin Sleasman, lead perfusionist at the Lucile Packard Children's Hospital at Stanford, to discuss both his path to our profession and his volunteerism within AmSECT.

Justin is a 2005 graduate of Midwestern University's Cardiovascular Science program. In addition to being the lead at Stanford Children's, Justin is also a member of the AmSECT Board of Directors as the Zone 1 co-director. Previous positions held by Justin within AmSECT include the Conference Planning Committee as well as liaison to the Extracorporeal Life Support Organization (ELSO).

Brian: What was your journey to perfusion?

Justin: I was probably like a lot of us perfusionists: I was searching for what was the next step after undergrad. My father was a veterinarian, I was pre-veterinary medicine at Washington State University in Eastern Washington, and that was the goal. I had worked at his veterinary hospitals...from grade school on and off throughout high school. And so that was kind of ingrained in me, that I was going to be a veterinarian. My father never pushed anything on me to be that. I just really enjoyed what he was doing, and I thought it was a very fulfilling profession. And then I got to school and...I decided that wasn't the approach I wanted to take. Actually, my parents were happy that I wasn't going to [become a veterinarian] because I didn't really have, ultimately, the passion to want to pursue that for an entire career. And then I switched to pre-med and I worked in an anatomy lab in my senior year. And I carried that into the idea that I was now progressing more into, getting away from the animals more to human medicine, and thinking about the professions there. I graduated well, but I [started] thinking about...different healthcare positions that are non-MD or DO positions. I said, well...I've completed my degree, what are the next steps? Am I going to go into nursing or physician assistant, and I looked at all these different programs. And then actually someone in the Rotary [Club] with my father...knew a perfusionist. He said, "What's Justin going to do after undergrad?" and my dad is like, he doesn't really know yet, just figuring it out like a lot of us did, and my father's friend said,

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"Well, has he ever heard about perfusion?" And my dad was like, well, what is perfusion? And it so happens that, the [perfusionist] that the individual knew was Craig Vocelka, who is a massive figure in our professional society. He's been a past president, very involved, recently retired a few years ago. But he had a very big impression on me of becoming a perfusionist, because he allowed me to come to the University of Washington and observe some cases. I thought what they did was very interesting. They combined a lot of biomedical technology and engineering, at the same time you're applying that and helping patients. So, I went and observed a couple of cases there at the University of Washington.

And I said, well, that's one institution. But you know, are the perfusionists at the other places in Seattle...as energized and passionate about perfusion like Craig was? And so then I went to Swedish Medical Center, watched cases with Mike Johnson and that...sealed the deal for me [because] they seemed like a very good crew. I also went to Virginia Mason Hospital in the Seattle area as well and watched cases. This seemed like a great job, that I could be an active participant in the operating rooms. So, my primary focus of course is the operating room and cardiopulmonary bypass. But I think the evolution of perfusion has yet to come, and how much time you spend in the ICUs.

B: So, you saw perfusion in one place, really liked it and loved their passion, but you need three data points for a trend, right?

J: Absolutely. I think that, hopefully when you go into perfusion...you want to do this as a lifelong career. I think there's a lot of improvements that we can do as a profession and there's really no ceiling above us, which I think is refreshing. We can still carve our own path. But I did want to make sure that, before I made that leap into...a postgraduate program, that this was the right thing for me; if I was going to exert all the energy to get my master's degree.



B: Did you start in pediatric perfusion or did you start in adults and move to pediatrics?

J: That's a good question. Back when I was doing it, there was this unwritten rule and a feeling that, in order to be a pediatric perfusionist, you had to...be an adult perfusionist for five years before you could make the move into pediatrics. And so I...was the second class at Midwestern, [and] the two clinical rotations that we had really favored what I wanted to do. I stayed on the West Coast, and I was able to go to Stanford University, where I'm at now. And so, I did a lot of adult cases there and then I had my last rotation at Swedish in Seattle, so it was really helpful to...head back home after my clinical training. But while I was at Stanford, and this is still the case of course, with the [ABCP] that you need your 10 [pediatric] cases...whether it's observation or you're actually physically doing. And so...when I went to the pediatric side, at Lucile Packard, I was done I said this is what I'm going to do, I will work hard, I will do my five years, and then I will come into pediatrics at that time. But it was my goal and...it just took honestly a couple of cases, seeing a switch or Norwood. One case that really stood out to me is that we did the first implant west of the Mississippi of the Berlin heart, and I was really involved in the case report. And I thought that was very interesting to me, [that] a perfusion student can be involved in some of these newer technologies that are really helping kids in heart failure. [It was] something that I didn't even know about and before I was actually in the operating room setting and seeing how perfusionists can be involved in ventricular system devices and ECMO support. So, it was all intriguing to me and I was done at that time, I was like, I'm going to be doing peds.

B: It's like a switch went off, "Yup, this is the trajectory of my career."

J: Yes, yes! So, before peds I worked at a fantastic institution in Everett, WA. I just loved that job, [but] I knew I was gonna go back to peds. So, it was a bit unfair to say...I was going to be there forever, but it was just a great environment to be a new graduate. They made me feel very comfortable, the cases were interesting, they had just an amazing team dynamic at Everett. And so it was definitely a launching point. I was like, well, do I leave or do I stay? But I still had that passion where I knew where I was going and where I wanted to be. But I do credit them with continuing to make my mindset that this is just a fantastic profession. And then I went back to Stanford, and they said, "Well, if you come back and you do some [adult cases], we'll try and work you into the pediatric system inside and then you'll get your five years." So, I went back to Stanford after a few years at Everett. I worked on the adult side and slowly -- I don't think it even took five years -- I was starting to do maybe instead of five days a week on the adult side, I was doing four days a week, one day on pediatrics. And then three days on the adult side, two on the pediatrics...until I was eventually in the pediatric world. So that's where I am today. I was at Stanford Children's for a while and then I made a move to Seattle Children's Hospital [before returning to Stanford Children's]. Fantastic experience as well [at Seattle Children's], but ever since it's been all pediatrics.

B: That's fantastic. At the beginning you gave an overview of the leadership positions you have held and currently hold. What motivates you to accept leadership roles both within the hospital system where you work, but also within a professional society like AmSECT?

J: I think it's ingrained in us. I do think it can be a learned behavior over time, but for me, I've always had a passion to help beyond the confines of our job description. And you can say that's a good thing or a bad thing; my wife would say that "Justin, maybe don't say yes to too many things." (laughter) Because...

I think that perfusion should be involved with anything that's extracorporeal technology, blood management, Q&I. And whether it's AmSECT, ELISO, the Academy, or at your institution, that you should have a voice and be present in that conversation and help guide the guidelines that are set forth, whether it's your professional society or your hospital...I think it's a personal choice, and I find it very fulfilling. You can't say it's not a selfish thing that you really enjoy what you do and you want to provide better patient care for the patients and also pass on that energy to the next generation of perfusionists. So...I do enjoy saying yes, and the older I get sometimes I do say no, and I try to really dig into the things that I want to be part of now, and think I can make an impact on.

B: How has being a part of AmSECT shaped your perfusion practice?

J: You know, the common [phrase] that you'll hear today, whether it's work or friends or during COVID, is we're all living in silos. And I think that very much applies to pediatric perfusion and perfusion as a whole. Just because I'm doing it one way at my institution doesn't mean that there's not a better way to do it. And what AmSECT does is provide for you, on a clinical and professional level, the ability to take snapshots, or listen from other presenters...that are doing the same patients, the same congenital heart defects, but how are they approaching that and their conduct of perfusion? And I've always admired the people that come here and voluntarily provide their information to aid each other and support each other in trying to improve processes, [to contribute] to AmSECT standards guidelines. And AmSECT will say, "This is not 100% what you should be doing." It's just a great starting place, and if you need somewhere to start, this is a good place...get you thinking. It could be helpful for your institution, or maybe you could bring something to the standards and guidelines to improve these always-evolving booklet of information that exists for us.

"I THINK THAT PERFUSION SHOULD BE INVOLVED WITH ANYTHING THAT'S EXTRACORPOREAL TECHNOLOGY, BLOOD MANAGEMENT, Q&I. AND WHETHER IT'S AMSECT, ELISO, THE ACADEMY, OR AT YOUR INSTITUTION, THAT YOU SHOULD HAVE A VOICE AND BE PRESENT IN THAT CONVERSATION"

B: What advice do you have for new graduates wishing to continue to contribute and participate in AmSECT? But keeping in mind that you said earlier in your career you said yes a lot more than you said no. (laughter)

J: I would say to do so! It doesn't have to be AmSECT, there's plenty of opportunities outside of the operating room, the ICU, the classroom to contribute, and where those go, you never know. I think if you're doing it with the right intentions for the right reasons, that...wherever you choose to spend your time and volunteerism...is going to be beneficial to our perfusion community and career as a whole. I have no regrets in the fact that I said yes to everything in the beginning (laughter), I think you have to put yourself in some very uncomfortable situations, to feel uneasy at times, because I think that you really will find out a lot about yourself and also you're going to stretch your brain in your capacity to hopefully make some changes for the good. So I would say yes to everything. Within that though...if you have the focus and you already know where you want to go and you see a situation [that you think] could deserve more detail,

maybe you want to dive into that and maybe you want to find the right society, organization, or community that is already working on that [topic] and add to that. So, if you can selectively choose your passion within one of our society's organizations, that might be a good idea instead of just jumping in and being a yes person.

B: To dovetail with my previous question, we are seeing this amazing push and a huge body of primary literature articles contributing to evidence-based perfusion. With that in mind, for a new graduate entering the profession, is it wise to specialize in a certain perfusion topic or take a more broad-spectrum approach?

J: When you're starting out, I think it's important to be broad. I think there's a lot to learn. When you're coming from a program, you have had a wonderful background in didactics of course and getting ready for different clinical situations. And I think we all worry about emergencies and how you're going to approach those, and that's probably what you should be thinking about when you first start up -- just having an awareness, [because] you don't have those thousand cases under your belt and you're trying to navigate not only a new circuit and new institution, but a lot of different personalities. There's a lot of personalities in heart surgery. There's a lot of personalities in all workplaces, and I think that's a very challenging part...trying to gain the respect of your colleagues. But [gaining the respect of] the greater heart center team is something that you want to put your best foot forward. Your original question on this last one was what?

"DATA AND GOAL-DIRECTED PERFUSION IS GOING TO BE A MASSIVE PART OF OUR FUTURE OVER THE NEXT DECADE"

B: Making scientific contributions to evidence-based perfusion.

J: I think that we still have a long way to go. Even at our institution, I stand by our conduct of perfusion...But I do think that [with regards to] data, we don't have enough yet, but we're going to, as you see more systems that are collecting and streaming data. They're hopefully going directly into larger systems to create a bigger data store that can therefore guide our clinical practice. So, I think data and goal-directed perfusion is going to be a massive part of our future over the next decade. I would say that...the older perfusionists, maybe they're to say, "You know what? I'm about 5 years from retirement and you know, I know that it does apply to me, but I'm not going to spend the effort into going that route." I think you're right on in saying that...a new perfusionist probably has the desire and the passion and sees this as a trend where they could get in front of it, and really be part of goal-directed perfusion and data management for our profession. So, I would highly encourage anyone looking for projects that you might [become] the expert in because there isn't an expert at that institution yet and [as a new grad] you're probably well-suited to fill that role.

B: I think that pretty much wraps it up. I really appreciate the time!

J: You're welcome. Anytime, Brian.



AmSECT student council members at the 61st Annual AmSECT Conference in Orlando, FL Spring 2022

Save the date!



Additional resources:

The AmSECT website has a helpful page with information about different charitable organizations that provide cardiac care:

<https://www.amsect.org/About/Awards-Designations-Scholarships/Cardiac-Missions/Charitable-Organizations>

Practice Question: What is the most common type of Atrial Septal Defect (ASD)?
Answer on bottom of P.7

Pump Up the Volume

By Grayce Owens

In October 2021, I heard Bob Groom speak at the MUSC Annual Update on Perfusion conference. Bob shared about his work at Tenwek Hospital in Kenya, where he has established a perfusion training program—the only formal perfusion training program in sub-Saharan Africa. Although remote, Tenwek Hospital performs more cardiac surgeries per year than any other hospital in Kenya. There is a huge need for cardiac surgery in this part of the world, specifically for valve repairs and replacements due to prevalent rheumatic disease.

As someone who has been interested in medical missions for years, Bob's message struck a chord with me. I started wondering if it was possible for perfusion students to serve in medical mission trips, and whether that was something I could feasibly participate in. It wasn't until several months later that I finally reached out to Bob via email, and we started talking about ways to get involved. As it turned out, Bob had been looking for resources to kickstart the simulation portion of the training program at Tenwek. They had the same Calflia patient simulator that I was familiar with from the simulation lab at my program at MUSC. One thing led to another, and several months later I was flying out to Kenya to spend my winter break at Tenwek.

Soon after I arrived, we moved our equipment into the new simulation lab and set up a circuit on an S3 pump. On clinical days, I assisted in the OR. The perfusionists who have graduated the Tenwek program were so welcoming and excited to teach me their unique circuit setup. I learned so much from them and it was incredible to see how they've tailored their perfusion practice to the unique population of patients that they serve. While I was there, we did seven cases with patients aged 12 to 70. In simulation lab, we ran through multiple patient scenarios and practiced everything from crashing on bypass to failure to wean and protamine reactions. Because they perform modified ultrafiltration (MUF) on most of their cases, we also adapted the simulator circuit and successfully MUFed the simulator. We had so much fun troubleshooting these simulations and learning together. A new cohort of perfusion trainees began the program this January, and I am excited to share that the simulation lab at Tenwek is getting lots of use!



Photo taken by Grace Owens at Tenwek Hospital in Kenya



Grace Owens on her medial mission trip in Kenya

"IF YOU ARE CONSIDERING SERVING IN MEDICAL MISSIONS, MY ADVICE IS: TAKE THE LEAP!"

While it can be challenging to fit in a mission trip around school schedules, I found that my program instructors were incredible supportive and worked with me to make this trip possible. This trip also contributed significantly to my perfusion education: I learned new skills, strengthened my clinical versatility, and made valuable connections with other perfusionists and healthcare professionals.

It was a privilege and honor to spend time at Tenwek, and I am so thankful for the entire clinical team who welcomed me and taught me. This experience has left an indelible mark not only on my perfusion career but also my life. It was perspective-shifting to witness such high-level patient care in a developing country. The kindness and respect that permeated the operating room environment were incredibly special and moved me to prioritize these characteristics in my own professional life.

Additional resources:

AmSECT also provides the Perfusion Without Borders Student Scholarship, which is a fantastic resource for making more mission trips possible for students! <https://www.amsect.org/About/Awards-Designations-Scholarships/Cardiac-Missions/PWOB-Student-Scholarship>

Back to the Stacks

By Tullika Saraf

Hybrid Procedures for HLHS

In the world of congenital heart defects, Hypoplastic Left Heart Syndrome (HLHS) stands out as a particularly sinister cluster of malformations. Poor fetal development of the mitral valve, aortic valve, left ventricle, and aortic arch incapacitates the left side of the heart, impeding adequate systemic delivery of oxygenated blood. A triad of surgical palliations paves the standard pathway to ameliorate the terminal nature of this syndrome; the Norwood with mBTS or Sano, the Glenn, and the Fontan procedure. Unfortunately, particularly complex anatomy can be prohibitive to this palliative pathway and can leave the patient, their family, and their care team with little recourse. HLHS patients with coronary sinusoids, other fistulas that alter coronary artery blood flow, severe tricuspid valve insufficiency, or those already afflicted by heart failure and end-organ dysfunction may have to rely on heart transplantation as their only means for survival. The combination of prospective lengthy wait time and precarious physiology often results in patient demise. In effort to combat wait-list mortality, complex HLHS patients might be optimized with a hybrid stage 1 procedure in conjunction with pulsatile VAD implantation as a bridge to transplant (BTT). This approach has been described in two different publications by Mark Bleiweis et al and Samuel Weinstein et al.

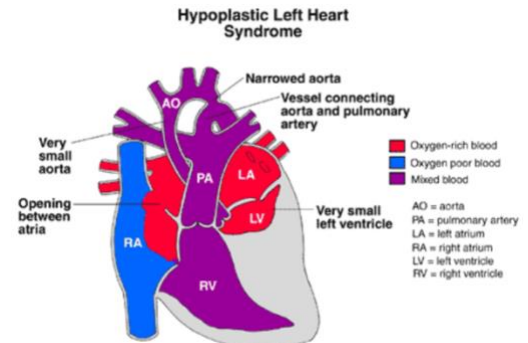
As a review, a typical HLHS pathway might look like this; at birth, the afflicted neonate is stabilized with IV prostaglandin therapy to maintain patency of the ductus arteriosus and, if necessary, a balloon septostomy to provide intra-atrial mixing. Once optimized, the patient undergoes a Norwood procedure (ideally within the first two weeks of life), where the surgical team constructs a neo-aorta using the pulmonary artery stump, ligates the PDA, and installs either a modified BT or Sano shunt to reestablish pulmonary blood flow. When the patient is 4-10 months old, a Glenn procedure reroutes SVC flow directly to the PAs. Finally, at 2-4 years of age, a Fontan procedure reroutes IVC flow to the PAs, thereby establishing discrete pathways of blood flow to the lungs and to the body.

In some cases, underdeveloped or complex HLHS patients can be served by a hybrid procedure that stents the PDA and protects the lungs from over-circulation by banding the PAs. This palliation can be done right away, avoids bypass, and can buy 5-6 months for pre-operative child development. However, the subsequent palliation becomes arduous—the surgeon must perform a comprehensive stage II palliation to reconstruct the aorta, remove the PDA stent and PA bands, and redirect the SVC directly to the PAs. Institutions that offer this therapy typically forgo this route unless the patient presents with heightened risk for a traditional Norwood.

In Combined Hybrid Procedure and VAD Insertion in 9 High-Risk Neonates and Infants With HLHS, Bleiweis et al report on nine tenuous HLHS patients at the University of Florida that underwent hybrid stage I palliation in conjunction with univentricular, pulsatile VAD implantation to provide a bridge to transplantation. In this approach, the innominate artery or PDA is cannulated, and venous return is achieved bicavally. The RPA and LPA are banded pre-bypass. Once on bypass, the PDA is snared, the RA is opened, and atrial septectomy is performed as needed. Then, the VAD inflow is inserted into the common atrium and the outflow is secured to the MPA via a Dacron graft. The VAD is then de-aired and

connected so that support can be transitioned from bypass to Berlin in a stepwise fashion. Heparin is reversed and bypass cannulas are removed. Finally, the surgeon performs fluoroscopy-guided insertion of a sheath and guidewire (using Seldinger technique) through the right ventricle and up its outflow tract to deploy a stent in the PDA. CI of 4 L/min/m² is targeted, the patient is extubated as soon as possible, and bivalirudin is started on postoperative day 1, with aspirin and dipyridamole incorporated to achieve optimal anticoagulation.

<https://childrenswi.org/medical-care/herma-heart>



In their study, Bleiweis et al bridged nine high risk HLHS patients on this combination of hybrid stage I procedure with VAD support. Of these nine, two patients experienced strokes after over 150 days of being bridged. Overall, six of these infants survived and three died. Five of the six were successfully transplanted, and the sixth, at the time of publication, was critically stable and actively listed for transplant. The deaths that occurred stemmed from issues such as gestational alloimmune liver disease, late-referral in a patient who ultimately succumbed to sepsis and MODS, and small intestine infarct. This study identifies pulsatile flow and early extubation as key components to optimizing these patients' development as they await transplant. Unsurprisingly with MCS support, thromboembolic complications and stroke are identified as major hurdles.

In a study from 2013, Weinstein et al retrospectively reviewed the Berlin EXOR Investigational Device Exemption study and identified 26 single ventricle (SV) physiology patients that were implanted per FDA Compassionate Use regulations. They compared these patients' outcomes to 281 other Berlin VAD patients from multiple centers between May 2007-December 2011. There were a variety of SV presentations and surgical approaches. While their findings indicate that BTT SV patients have lower success rates than biventricular patients, they still fare better than those who are bridged with ECMO. Weinstein et al's research adds substantial nuance to the picture by describing the alternatives.

"MORTALITY IN CHILDREN TREATED WITH ECMO AS A BRIDGE TO TRANSPLANTATION IS MORE THAN 50%, AND THE SUBSET OF PATIENTS WITH SINGLE VENTRICLE ANATOMY OR PHYSIOLOGY (SV) FARE THE WORST...CHILDREN WITH A DIAGNOSIS OF SV HAD THE POOREST RESULTS COMPARED WITH OTHER DIAGNOSES FOR DEATH ON THE WAITING LIST (48%), DEATH WHILE ON ECMO (45%), AND DEATH AFTER TRANSPLANT AND BEFORE DISCHARGE (69%)."

While ECMO management has made strides in the decade since this study, it's valuable to recognize that the hybrid VAD approach can offer circulatory support with less inherent risk than ECMO. I

Had the pleasure of doing my pediatric clinical rotation at UF Shands. Learning about complex HLHS management from this dedicated team and pumping one of these cases was a rewarding learning experience. If a child's postoperative course and transplant wait-time can become a smoother journey through utilization of this modality, then their families might be afforded more time to be together and to celebrate developmental milestones. Hybrid stage one palliation with VAD insertion as a BTT may offer stability and precious moments of reprieve in the midst of navigating a child's complex healthcare journey.

Bleiweis, M. S., Philip, J., Peek, G. J., Fudge, J. C., Sullivan, K. J., Co-Vu, J., Gupta, D., Fricker, F. J., Vyas, H. V., Ebraheem, M., Powers, E. R., Falasa, M., & Jacobs, J. P. (2022). Combined Hybrid Procedure and VAD Insertion in 9 High-Risk Neonates and Infants With HLHS. *The Annals of thoracic surgery*, 114(3), 809–816. <https://doi.org/10.1016/j.athoracsur.2021.05.073>

Weinstein, S., Bello, R., Pizarro, C., Fynn-Thompson, F., Kirklin, J., Guleserian, K., Woods, R., Tjossem, C., Kroschwitz, R., Friedmann, P., & Jaquiss, R. (2014). The use of the Berlin Heart EXCOR in patients with functional single ventricle. *The Journal of thoracic and cardiovascular surgery*, 147(2), 697–705. <https://doi.org/10.1016/j.jtcvs.2013.10.030>

THE VITALS

Pulmonary Thromboendarterectomy: By Sadie Coates

“FROM A PERFUSION PERSPECTIVE, THE SET UP WAS THE MOST INVOLVED PART OF THIS CASE.”

Chronic thromboembolic pulmonary hypertension (CTEPH) is caused by blood clots obstructing the pulmonary arteries. If left untreated, increased pulmonary vascular resistance and pulmonary artery pressure leads to pulmonary hypertension and eventual right heart failure. CTEPH is the only curable form of pulmonary hypertension. Early diagnosis and intervention are key to successful outcomes; however, CTEPH remains largely underdiagnosed as many patients present with non-specific symptoms easily mistaken for COPD or asthma.

Recently, a 61 year old female was brought to the OR for a bilateral pulmonary thromboendarterectomy (PTE). A pulmonary embolism (PE) was diagnosed in 2013 and attributed to polycythemia vera, a rare blood cancer that causes an excess of red blood cells, white blood cells, and platelets. Her condition was monitored, and surgical intervention recommended as CTEPH worsened. The surgical plan included a full sternotomy, CPB without cardioplegia, central aortic and bicaval venous cannulation, and deep hypothermic circulatory arrest with the possibility of retrograde cerebral perfusion (RCP).

From a perfusion perspective, the set up was the most involved part of this case. Several important pieces of equipment were used - near-infrared spectroscopy (NIRS) to monitor cerebral oximetry during DHCA, HepCon to assess heparin concentration as patients are often hypercoagulable and ACTs become progressively prolonged with increasing hypothermia, and RCP flows were set. Acute normovolemic hemodilution was done to help reach the patient's pre-CPB hematocrit target. Our institution protocol dictates that the pump prime should consist of albumin, heparin, mannitol, and methylprednisolone. During CPB, catecholamine induced vasoconstriction decreases tissue perfusion. Methylprednisolone is an anti-inflammatory agent shown to help reduce systemic vasoconstriction associated with low-flow states and improves pulmonary compliance post-CPB.

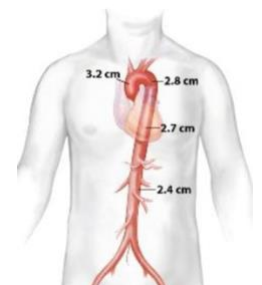
Upon initiation of CPB, atropine and lidocaine were administered per surgeon preference. Cooling began, and fosphenytoin was dripped in over approximately 10 minutes. Though classified as an anticonvulsant, fosphenytoin's mechanisms of action are thought to help decrease cerebral metabolic demand and therefore protect the brain during periods of reduced oxygen availability. Once the patient was cool and DHCA was imminent, anesthesia was notified to administer propofol, which increases the brain's tolerance to global hypoxic ischemia. DHCA was initiated, and the surgeon decided against initiation of RCP. The surgeon was notified every 5 minutes, and cerebral oximetry was monitored. The left pulmonary artery was investigated first, with a total circulatory arrest time of 17 minutes and a total of 5 grams of disease removed. The patient received a period of cold reperfusion while the surgeon transitioned to the right side. During this time, the NIRS quickly returned to baseline. DHCA was initiated again for 19 minutes, followed by reperfusion, another 10 minutes of DHCA, reperfusion, and a final 3 minutes of DHCA. A total of 8 grams of disease was removed from the right side. Full flow was resumed, and the tricuspid valve was repaired during rewarming. Once warm, the patient was weaned, and bypass was terminated after 3 hours and 15 minutes.

PERFUSION GOOFS & BLUNDERS

Collected and coordinated by Samantha Peacock

“Bursting at the Seams”

We had one of the surgeons come give us a lecture on the Aorta and problems associated with it. He went around our class and asked each of us what we thought the average diameter of a normal Aorta was. Let's just say that we had some wild guesses. I thought 10cm sounded like a reasonable answer... Little did I know that if your aorta had dilated to 10cm, it would no longer be intact... He poked some fun at me, and my cheeks got a bit flushed after that. All part of the learning experience! - ZG



<https://www.lematre.com/patients/conditions/aortic-aneurysms>

"I Can See Clearly Now"

I learned the hard way not to multitask while trying on a surgical mask. Especially if you have something tucked under your arm that could flip up and poke you in the eyeball. Protect your corneas, everyone!

- 2 days in an eyepatch

"Swimming in Knowledge"

On my first rotation, the site used slip-tip syringes on the manifold. I was accustomed to luer lock syringes and didn't realize they were slip-tip. Safe to say, I caused a scene while drawing a blood gas the first time. Thankfully my preceptor was understanding, and we had a laugh while cleaning.

- Double check your syringes and wear your PPE!

"Just Checking if You Were Paying Attention"

I was doing an OHTx and the surgeon wanted the recipient's native heart arrested, to facilitate a challenging dissection. Once the dose of del Nido cardioplegia was in, as a reflex I said, "Let you know in 60". Bemused, the surgeon replied, "No, no that's okay, you don't have to." Oops. -BJ

"Empty Inside"

I was coming off bypass and when I was told to come down and off, I inexplicably took my partial clamp off the venous line but did not clamp out the venous line. It was half-inch tubing, so a lot drained out of the patient in a short amount of time. I quickly clamped back out, cranked up the RPMs, and took the correct clamp off to fill the patient up with what they lost (plus the 100 the surgeon asked for as soon as I announced we were off bypass). It was a boneheaded move but it's not about the mistake you make, it's how you recover! -The Exsanguinator

"You Stay Classy CVOR"

I was recently pumping an aortic case with a lot of moving parts. Everything was going well, and my communication was just flowing. Perfusion controls the defibrillator at this clinical site. I hear the surgeon say, "charge the paddles" and quickly repeat it back. I quickly realize we are still under clamp and incredibly cold. I did not charge the paddles. I mistook what he was saying in a side conversation for "charge the paddles". The whole room got a good laugh out of it. I felt like Ron Burgundy who would read anything on the teleprompter without thinking about it. - Old Sparky

THE RESERVOIR



AmSECT Student Membership

Student membership is now
FREE! Register now and
become an official part of the
perfusion community.

<https://www.amsect.org/Members/Student-Corner>

Have a perfusion
blunder you want to
share?

Please email
owensgr@muscc.edu to have
your blunder included in the
next issue.

Before you go...

The AmSECT Student Council exists to promote student involvement within AmSECT. While our current members hail from half a dozen different programs, **our goal is to have every perfusion program in the country represented on the council**. Our major projects include an annual fundraising event and this very newsletter, with multiple opportunities for student leadership. Our current officer team consists of a president/chief student liaison, vice president, fundraising project lead, communications coordinator, and newsletter editor. The Student Council meets monthly via Zoom for one hour, so the time commitment designed to be manageable!

INTERESTED IN JOINING THE STUDENT COUNCIL?

PLEASE EMAIL AMSECTSTUDENTHQ@GMAIL.COM AND BE SURE TO INCLUDE YOUR CONTACT INFORMATION. SHARE YOUR VOICE, DEVELOP YOUR NETWORKING AND LEADERSHIP SKILLS, AND BECOME INVESTED IN THE PROFESSIONAL DEVELOPMENT OF OUR FIELD! WE LOOK FORWARD TO SEEING YOU JOIN THE TEAM.