NEWSLETTER - WINTER 2025

SATA Council Updates - March 2025

1. The 2025 Symposium of the Society for Advancement of Transplant Anesthesia will be hosted at Hilton Hawaiian Village Waikiki Beach Resort, Honolulu, HI 98101. Registration (with CME credit): https://sata2022.wufoo.com/forms/r1n184420f1w9d7/
   $50 for SATA, SOCCA and SCA members, $150 for non-members, free for trainees

2. **SATA becomes an official ASA affiliated subspecialty Society!** Please use this new logo.

3. **The 2025 SATA Seed Grant winner is Ryan Nazemian, MD, PhD from Lahey Hospital & Medical Center, Beth Israel Lahey Health.**

4. **Michael D. Kaufman MD became the FIRST Fellow of the Society for the Advancement of Transplant Anesthesia (FSATA).**

This designation indicates the SATA member has demonstrated, “Leadership in Transplant Anesthesia”. The SATA Council said “By offering this designation, anesthesiologists will have another tool to display to their colleagues and the medical community the high-quality proficiency of skills that are required in today’s anesthesiology world.” The SATA thoughtfully developed the criteria for this designation, emphasizing the experience and education of the applicant and peer recommendations. With this designation we hope to recognize those individuals around the globe who have excelled in various aspects of periprocedural and/or perioperative management.

Eligibility criteria for FSATA include current active physician membership in SATA, a letter of support from a senior level clinician or administrator, a minimum of 5 years of leadership or management experience, a personal statement describing prior experience and qualifications, having attended at least 1 of the last 3 Annual SATA National Meeting Meetings.

For more information on the eligibility criteria and application process, please go to the SATA website (http://www.transplantanesthesia.org) or email us at sata@pacainc.com.

5. **SATA clinical resources are moving to C8 Heath**

What is C8 Health?
C8 Health is a knowledge management platform for healthcare. It was founded by providers for providers to make best practices accessible to everyone, anywhere, at any time. Knowledge on the platform is always up to date, relevant and easy to access on any device.

How will C8 Health benefit me as a clinician?

- C8 Health allows you to easily access SATA-provided clinical resources. It offers the tools to get the answers you need, when and where you need them:
- Powerful search capabilities and natural language questions allows you to get immediate answers to questions, using SATA-provided knowledge
- Content is easy to read and navigate on any device, mobile, web or hospital workstations
- What problem does C8 Health solve?
  -Realtime easy access to clinical resources (protocols and guidelines), in one place.
  -Effective dissemination of new content and content updates to clinicians

How do I access the C8 Health platform?

- Login to access via the C8Health app (App Store or Google Play) or on the webApp. Follow the steps here to login. **Your login is your email you used for SATA application.**

I already have access to C8 from my institution, and I am a SATA member. How do I switch from my organization's instance to SATA's?

- You can easily switch between organizations. Follow the steps here

Can I share content?

- You can easily share content with any other C8 user of SATA. On our WebApp, simply copy the resource's URL and send it to the person. On mobile, it's just a few taps as well.

For any questions - **contact support@C8Health.com**

UNOS News

By Flora Simmons, MD

Record-breaking 48,000 Transplants Performed in 2024

According to data from the Organ Procurement and Transplantation Network (OPTN), the US has performed over 48,000 organ transplants in one year. UNOS continues to engage with Congress and other stakeholders to advocate for pragmatic policy changes that can benefit the transplant community. Link here

Six-minute Walk Test Now Standardized

A new policy has been implemented that requires lung transplant programs to perform an oxygen titration test ahead of the six-minute walk test for lung candidates 12 years or older. This policy change aims to standardize the six-minute walk test and subsequently promote equity. Link here

UNOS CEO Urges Congressional Action on Lifesaving Reforms

The CEO of the United Network for Organ Sharing (UNOS) is requesting federal action by Congress on numerous reforms to the organ donation and transplantation system. These reforms aim to remove barriers, increase efficiency, and reduce organ non-use. Four key proposals outlined:

- Mandate automated donor referrals to optimize the donor referral process
- Mandate in-cabin airline transportation for organs
- Mandate organ tracking for unaccompanied organs
- Incentivize transplant hospitals to accept hard-to-place organs and reduce organ non-use. Link here

SATA Member Corner: 5 minutes with Dr. Kyota Fukazawa from University of Washington

By Alex Ruan, MD

Can you share a little bit about your background and your journey to a career in medicine?

After graduating from medical school, I worked as a faculty member for about five years in Japan. I developed a strong interest in liver transplantation and decided to come to the United States for advanced anesthesiology training. I visited the liver transplant program at Baylor University Medical Center, where Dr. Michael Ramsay taught me the fundamentals of liver transplant anesthesiology and shared his philosophy on managing liver cases. He also created opportunities for me to join rounds with the transplant surgical team and participate in organ harvesting, which was an exciting experience for me. Following this, I pursued a fellowship in transplant anesthesiology and later became a faculty member at the University of Miami. Under the guidance of Dr. Ernesto Pretto, I learned many tips and techniques for managing transplant anesthesiology and participated in various research projects, including both basic and clinical science. I left the University of Miami in 2014 and moved to the University of Washington.

Why transplant anesthesiology? Do you have a role in your group?

I enjoy analyzing hemodynamic data to make treatment decisions during transplants. Additionally, most transplant recipients are thrilled to enter the operating room after months of waiting, and I find it rewarding to help these happy patients. I currently serve

as the Chief of Transplant Anesthesiology and the Director of the Transplant Anesthesiology Fellowship at the University of Washington.

Why did you join SATA? How long have you been a member of SATA and what is your current involvement with the organization?

I am a founding member of SATA and have been involved since its inception. Currently, I serve as the Senior Chair of the Meeting Committee for the SATA West Coast Annual Regional Seminar, and I am a member of the Fellowship Committee, the Federation (International Relations) Committee, the Abdominal Transplant Task Force Committee, and the Practice Management Committee.

What are your research interests, and do you currently have any research/ clinical projects going on?

My research focuses on finding ways to improve outcomes and the quality of care in liver transplant using both national databases and institutional data. My current projects include: pain management in liver transplant, TEG and liver transplant outcomes, anesthesia quality measures in liver transplant, size mismatch in liver transplant, outcomes of various cardiac diseases in liver transplants, machine preservation and its associated outcomes in liver transplant, risk factors for post-reperfusion syndrome, practice management for liver transplant, and transplant education for anesthesia residents.

What is your favorite piece of anesthesia equipment?

The anesthesia machine is my favorite piece of equipment; it brings me a sense of relaxation when I see it in the procedure room.

What do you enjoy doing outside of work?

I enjoy spending time with my family. In my free time, I like exercising, hiking, running, and skiing.

What advice would you give to a medical student or resident who is interested in liver transplant?

Transplant anesthesiology is one of the most exciting fields within anesthesia. We use many monitors, similar to commercial airline pilots, to make the safest management decisions. During anesthesia residency, it would be beneficial to master the following two key areas. First, become familiar with transplant procedures, as anesthesia management requires planning that incorporates expected hemodynamic changes associated with the surgical procedure. Second, gain a solid understanding of

anesthesia management for various comorbid conditions and intraoperative events. While anesthesia management can be challenging, you will feel a significant sense of accomplishment once you transfer the patient to the SICU after a transplant.

How can we reach you?

e-mail: fukazawa@uw.edu or via SATA Instagram via @transplant.anesthesia

If you or someone you know is interested in being featured in the SATA newsletter, please reach out to Dr. Alexandra Ruan aruan@stanford.edu

The Research Corner

By Michael Trostler, MD and Alex Stoker, MD

"2024 Clinical Update in Liver Transplantation"

This well done review of 2024 highlights key areas of development and areas in need of development. Regional anesthesia in liver transplant focusing on subcostal TAP block, but may include the Intercostal External Oblique Block in the coming year as presented as ASRA. Intraoperative clotting during transplant focusing on intracardiac thrombus and its management with heparin, tPA, and ECMO. Dynamic outflow obstruction, and a section on combined Heart-Liver transplantation.

"Beating Heart Transplant Procedures Using Organs From Donors With Circulatory Death | Surgery | JAMA Network Open"

In this case series of 10 patients undergoing orthotopic heart transplantation, a team utilized cardiac allografts from DCD donors and eliminated the need for a second warm ischemic time by transitioning the allografts from transportable normothermic machine perfusion to perfusion by the recipient cardiopulmonary bypass circuit while still beating. By eliminating the need for a second cardioplegic arrest and ischemia reperfusion injury, this could potentially improve organ function. The authors describe that none of these patients required post op mechanical circulatory support and all survived.

"Impact of differential glycemic management goals in pre-anhepatic and anhepatic phase on early grafted liver function after liver transplantation: An open-label, randomized, controlled study"

Less restrictive glucose control leads to less early allograft dysfunction. 188 Liver transplant recipients were targeted to either Glucose of 80-120 mg/dL or 140-180 mg/dL in a 1:1 ratio with less restrictive glucose control during pre-anhepatic and anhepatic phases with a RR 0.32 of early allograft dysfunction with glucose 140-180 (10.1% vs 31.2% for each group respectively)

"Simultaneous liver transplant and sleeve gastrectomy provides durable weight loss, improves metabolic syndrome and reduces allograft steatosis"

Liver transplant and sleeve gastrectomy confers metabolic benefit with decreased prevalence of diabetes, hypertension, weight loss. There was a trend towards decreased fibrosis but this did not reach statistical significance (RR 0.46, p=0.09).
"To Err Is Robot – an analysis of complications following robotic donor hepatectomy"

348 Living donor liver transplants were performed at the Amrita Institute of Medical Sciences and Research Center in Kochi, Kerala, India. Robotic donor hepatectomy had a low conversion to open rate (3.4%) and overall complication rate of 9.9% compared with open donor hepatectomy with 21.7% overall complication rate. There were significantly less complications in the second half of their recruitment period showing a collective learning curve.

Special Topics

By Alex Stoker, MD

Estimation of Right Ventricular Systolic Pressure (RVSP) using TEE

An alternative approach to monitoring pulmonary artery pressure with a pulmonary artery catheter is to estimate RVSP using TEE which should approximate systolic pulmonary artery pressure in the absence of right ventricular outflow tract obstruction. RVSP is commonly estimated using the simplified Bernoulli's equation (RVSP = 4* (max tricuspid regurgitation velocity)^2 + CVP). Continuous wave Doppler is used to measure peak tricuspid regurgitation velocity and frequently performed in the mid esophageal (ME) 4 chamber, ME RV inflow-outflow, or ME modified bicaval view. A good Doppler signal is important for estimation. A recent prospective study found poor agreement between RVSP and direct PA catheter measurements, particularly if the Doppler signal is poor. These authors found the best correlation in patients with severe TR who had a full jet envelope. Below is an example of a continuous wave spectral doppler profile obtained in the ME modified bicaval view to estimate peak tricuspid regurgitation velocity. RVSP estimation using TEE is a powerful tool, however it is important to recognize limitations, particularly if a poor Doppler profile is obtained.

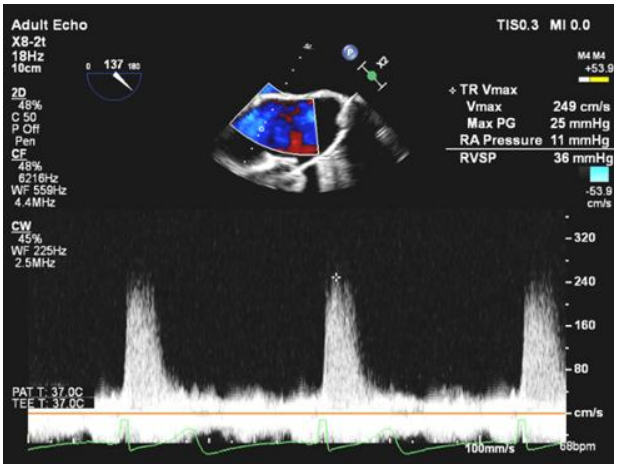

Fig. 1: Continuous wave Doppler measuring tricuspid regurgitation velocity, obtained in the mid esophageal modified bicaval view.

Reference: https://pmc.ncbi.nlm.nih.gov/articles/PMC8376331/

In the Spotlight: Emory University Hospital

By David Rosenfeld, MD, FASA

In this Winter 2025 Newsletter we highlight Emory University Hospital Transplant Program. We would like to thank liver anesthesiologist Dr. Flora Simmons for providing details about their abdominal program, and Cardiac Division Chair Dr. Ellen Richter, and CT Anesthesia Operations Chief, Andrea Corujo-Rodriguez for details on the Cardiothoracic program.

Emory performed the first liver transplant in the state of Georgia back in 1987. Since then, they have cared for some of the most complex liver transplant patients in the Southeast. They are one of the few programs that utilize the Molecular Adsorbent Recirculating System (MARS) for management of fulminant hepatic failure. MARS is a liver support system that uses an albumin-enriched dialysate to facilitate the removal of albumin-bound toxins. 161 cadaveric liver transplants were performed at Emory per year from SRTR 12-month data. They are also a busy renal center with 251 cadaveric, 97 living related, and 12 kidney-pancreas in that interval ending June 2024. They have a dedicated team of transplant anesthesiologists who cover the liver transplants 1:1 with residents and anesthetists involved. Residents are introduced to liver transplants early in their training starting as CA1s. A non-ACGME liver transplant anesthesia fellowship was started in 2016. Along with intraoperative management, fellows participate in

supervision of residents, postoperative visits, weekly selection conference, and M&M conference. Liver transplants are commonly performed via piggyback technique, with caval exclusion cases being performed without veno-veno bypass when needed. Within the last year, they have increasingly employed the TransMedics Normothermic Perfusion System, for organ resuscitation. TEE is not universal but often utilized in more complex cases. ROTEM point of care testing is run in room, with TXA utilized only in cases of severe hyperfibrinolysis. About 60% of liver transplants are extubated in the OR before transfer to the ICU.

Emory has a busy cardiothoracic transplant program with 71 heart transplants performed in 12 months, 26 lungs, and 14 combined heart/lung. They have a large group of CT anesthesiologists with 18 dedicated cardiac, and another 7 who split time with the general team. They have a large CT anesthesia fellowship with six fellows led by Program Director Dr. Ratna Vadlamudi. Their care ratio is 1:2 direction with fellows, residents, or anesthetists. Fellows will gain more autonomy and assume a junior attending role in the later stages of the experience supervising 1–2 rooms, including transplant rooms, under the guidance of the attending. Emory has advanced the use of DCD donors with 19 hearts and 7 lungs transplanted last year. They are helping to pioneer beating heart DCD with two performed to date. VA ECMO is utilized for double lungs, with the goal to avoid ECMO in single organs. Dr. Corujo-Rodriguez serves as the liaison to the heart transplant service and has been part of a multidisciplinary effort (involving the cardiac ICU and surgical colleagues) to ensure standardization of heart transplant care while continuing to advance practice and transplant techniques. Dr. Ragini Gupta joined the faculty last year from Temple University, a high-volume lung transplant center, and is the group's liaison for lung transplantation working alongside surgical colleagues.

If interested in having your program highlighted in the future, please contact David Rosenfeld, Mayo Clinic Arizona at Rosenfeld.david@mayo.edu

SATA Committee and Leadership Updates

Pediatric Committee Update - Marina Moguilevitch, MD

The pediatric committee successfully completed and published a comparison of pediatric anesthesia practices with new organ procurement and transplant network pediatric policy requirements. The group took on to follow up on that and now plans to look at specific practices/trends of pre, intr, and postoperative pediatric liver transplant case

management. They are in the final stages of preparing a national survey examining these practices with the hope to identify trends and offer specific recommendations.

Vanguard and Fellowship Committees - Ryan Chadha, MD

1. We are starting a journal club to be done on a roughly quarterly basis with a fellow led by a senior mentor on a recent transplant-related journal publication. The first one is May 5, led by Christy He, a transplant fellow from Columbia-NYPH.
2. In C8, there is a new fellow's corner being developed to house links to all relevant online transplant resources

Upcoming Events and Meetings

SATA Meetings:

The 2025 Symposium for the Society for the Advancement of Transplant Anesthesia
SATA Annual Meeting, Honolulu, HI
Monday March 23, 2024

Other Meetings:

The International Society for Heart and Lung Transplantation (ISHLT) Annual Meeting
Boston, MA, April 27-30

UNOS Transplant Management Forum
San Antonia, TX, May 5-7, 2025

The International Liver Transplant Society (ILTS) Annual Congress
Singapore, May 28-31, 2025

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