SOCIETY OF CRITICAL CARE ANESTHESIOLOGISTS
SOCCA

INTERCHANGE

Society of Critical Care Anesthesiologists Newsletter Volume 36 | Issue 1 | March 2025

President's Message

Mark E. Nunnally, MD, FCCM
President, SOCCA
New York University Langone Medical Center
New York, NY

I hope everyone has had a decent and safe start to their year. SOCCA has continued to develop as a Society under our new administration team at ARC. We have been adding flesh to the strong bones of the organization. With three standing committees and a host of active committees and subgroups reporting to them, there is a lot of activity along multiple themes. There is something for everyone, including education, quality, research, clinical subspecialties and our incredibly productive Women in Critical Care (WICC) group. Each of these committees harness the amazing creative energies you bring to the organization. No doubt you saw the call for volunteers. I want to thank all of you for your service. It is through your efforts that SOCCA succeeds!

One big item we are proud to have accomplished is the update of our bylaws. We have successfully produced a document that covers our core operational considerations, that says enough for us to operate, but not so much as to bog us down in detail. Many thanks to Craig Jabaley for tirelessly championing the effort and keeping the details straight, and Jennifer Rzepka for helping us come up with a solid framework, a plan going forward for efficient governance, and an even keener eye for detail. While we become inclusive and engaging, we remain nimble and improve our efficiencies.

For many of you, the jewel of the Society is its Annual Meeting. SOCCA's educational offerings will be held in one room as a component of the IARS Annual Meeting. You won't have to constantly search for our members or our panels. As a hint: we will have SOCCA swag in Hawaiian theme. We are happy to once again offer multiple days of content and look forward to the presentations. Many thanks to Allison Dalton and Kunal Karamchandani for helping to put together such an exciting program! Through a generous donation, we are also excited to announce our first annual SOCCA/APSF Invited Lecture in Patient Safety, this year presented by Meghan Lane-Fall. We are also excited to announce the second recipient of the SOCCA Innovator Award, awarded to Ankur Srivastava for the development

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of a novel wearable device to detect the aortic mixing cloud in ECMO perfusion. I am proud to be a part of an organization that helps inspire new ideas and disseminate important information. Watch for "SOCCA Social" events - we are eager to get together at this meeting and others throughout the year.

It's a great time to be a member. Tell your friends. As always, listen to good music. If you want to get in the mood for the meeting, check out Israel "IZ" Kamakawiwo'ole's "Somewhere Over the Rainbow/What a Wonderful World" medley. No matter how bad a day you might have had, it will bring a little smile to your face.

Stay engaged, SOCCA, and see you in Hawai'i!

Updates from the SOCCA Secretary

The past year was a busy one for SOCCA, and 2024 culminated in the Active Members of SOCCA voting to approve a comprehensive slate of amendments to the Society's bylaws. The bylaws are an important document defining the operations and governance of the Society. As such, their periodic review and amendment is important to ensure the organization can continue to meet the needs of its membership. Several aspects of the amendments are worthy of emphasis.

Like many similarly sized professional organizations, SOCCA's Executive Committee is comprised of five officers: a president, president-elect, treasurer, secretary, and an immediate past president. SOCCA officers have been serving two-year terms in each of these roles, and the sole officer election is for the secretary position. As such, every two years the membership elects a secretary from a slate of candidates comprised of current directors, the elected individual serves a term of two years as secretary and then advances to treasurer, and so forth. SOCCA is extremely fortunate to have a very dedicated and engaged membership, and creating opportunities for leadership within the organization is an important priority for the membership and SOCCA alike. As such, effective at the 2026 SOCCA Business Meeting (typically held in conjunction with the Annual Meeting), SOCCA will transition to one-year officer terms. In electing a new secretary annually, corresponding with advancement of officers through Executive Committee positions also on an annual cadence, this will serve to substantially increase opportunities for service both on the Board of Directors and the Executive Committee.

Member service on one, or more, of SOCCA's numerous productive committees is another avenue for engagement within the Society. These committees provide important opportunities for members to collaborate, advance initiatives important to our subspeciality and our patients, and to network with colleagues. Historically the SOCCA bylaws have defined seven standing committees: Executive, Nominating, Communications, Membership, Education, Bylaws, and Research. Conversely, the bylaws previously allowed only for the creation of ad hoc committees reporting to a standing committee or to the SOCCA President, which facilitated the creation of additional groups over time as SOCCA's membership grew and sought additional avenues for engagement and impact. Indeed, several such groups have been formed over the past five years. However, this entailed unnecessary complexity when naming, establishing, organizing, and managing these groups. In order to ensure SOCCA can adapt as the needs of the Society and its membership change, the revised bylaws now allow for a more flexible and separately defined committee structure. The bylaws now only define the three committees that are absolutely necessary to the governance of the Society: Executive, Nominating, and Bylaws. All other governance concerning committees of any type will be defined in a forthcoming SOCCA Policy document. This living document can be revised as necessary and ratified with approval of the Board of Directors, placing the Society on more nimble footing to organize various types of committees to meet its needs and that of the membership.

Craig S. Jabaley, MD, FCCM
SOCCA Secretary
Emory University
Atlanta, GA

In addition to these major changes, myriad other bylaws amendments were ratified that serve to better align the bylaws with our current operations and priorities. In particular, member engagement remains of crucial importance to the Society, and with that in mind two other amendments were made to the bylaws to further this aim. First, term limits on committee service previously defined in the bylaws were removed to allow for greater flexibility, particularly considering that the optimal duration of service may vary between major committees, subcommittees, ad hoc committees, working groups, task forces, and so forth. Second, the bylaws now allow for elected committee leaders to serve as Ex-Officio (i.e., non-voting) Directors, which should serve to facilitate better bidirectional communication between the Board and SOCCA's expansive committee structure.

The bylaws require that the Bylaws Committee be formed and convene no less often than every five years, and so no later than 2029 we can expect to again revisit the bylaws. Member feedback concerning the Society's governance and operations is always welcome. Finally, I would like to extend a token of gratitude to Jennifer Rzepka, our Executive Director, and the recent members of the Bylaws Committee (Kunal Karamchandani, Mark Nunnally, Shahla Siddiqui, Mike Wall, and Liza Weavind) for their time and efforts.

Education Committee Update: IARS/SOCCA Annual Meeting Critcal Care Track

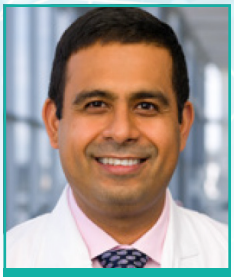
The 2025 IARS/SOCCA Annual Meeting is rapidly approaching, and we are excited about the three days of a specific critical care track of educational content. We hope that you are able to join us at the Hilton Hawaiian Village Waikiki Beach Resort in Honolulu, Hawaii from March 21-23.

The Annual Meeting opens on Friday with a panel discussing palliative and end of life care in the ICU. Moderator, Dr. Rebecca Aslakson, leads a panel discussing "DIY" palliative care by intensivists, triggers to consult palliative care specialists, and financial toxicity for patients and families in the ICU with panelists Dr. Rachel Hadler, Dr. Nita Khandelwal, and Dr. Allison Dalton. Next, Dr. Craig Jabaley moderates a panel on sustainable practice models in critical care. Speakers Dr. Albert Yen, Dr. Anahat Dhillon, and Dr. Todd Sarge discuss the evidence behind shiftwork, burnout, personal sustainability, and enabling satisfying careers. The final session on Friday presents the data behind sedation and analgesia in the ICU, a session moderated by Dr. Christina Boncyk. Dr. Alisha Sachdev will discuss historical and current sedation options available to intensivists. Dr. Jason Brainard will discuss the need for sedation while Dr. Brian O'Gara will investigate the potential utilization of inhaled sedation in the ICU.

Friday evening concludes with our SOCCA Social at 6:30pm HST at at the Barefoot Bar, located at the Hale Koa Hotel. This is event is open to all SOCCA members and is co-hosted by Women in Critical Care (WICC) and the SOCCA Early Career Intensivists.

Saturday's programming opens with a panel on biventricular mechanical support. Dr. Tao Shen, Dr. Krisztina Escallier, and Dr. Christina Creel-Bulos present on monitoring, optimization, and exit planning for BiVAD devices. Dr. Vadim Gudzenko moderates the discussion. Dr. Jai Madhok moderates the next panel as Dr. Nida Aftab, Dr. Nicole Arkin, and Dr. Alexander Nagrebetsky present data on wearable glucose monitoring devices, novel diabetes treatments, and glucose goals in the ICU. "Emergency airway management outside the OR" is the third educational offering on the critical care track and will be moderated by Dr. Elizabeth Cotter. Dr. Kunal Karamchandani, Dr. Nibras Bughrara, and Dr. Craig Jabaley discuss optimizing hemodynamics, the use of POCUS, choice of induction medications, and the future of ICU airway management.

The final educational session of Saturday is a new joint offering from the Anesthesia Patient Safety Foundation (APSF) and SOCCA open to all attendees of the IARS/SOCCA Annual meeting. Thanks to the generous donation of Dr. Joseph Meltzer and family, we are thrilled to present the first annual Alan G. Sieroty APSF/SOCCA Lecture. Dr. Meghan Lane-Fall will present a keynote lecture entitled "Integrating Human Factors Engineering & Implementation Science to Support Safety in Anesthesiology & Critical Care." Following the keynote, we encourage an interactive discussion regarding patient safety in anesthesia and critical care, which will be led by Dr. Steven Greenberg with additional panelists Dr. Christina Hayhurst, Dr. Craig Jabaley, Dr. Kunal Karamchandani, and Dr. Jamie Sparling. Immediately following the APSF/SOCCA lecture, we will meet for the SOCCA Business meeting.



Kunal Karamchandani, MD, FCCM
Vice-Chair, SOCCA Committee on Education
UT Southwestern Medical Center
Dallas, TX

Anna Budde MD
Vice Chair, Assistant Professor Department of Anesthesiology
University of Minnesota
Minneapolis, MN

The third and final day of the critical care track at the IARS/SOCCA Annual Meeting opens with a panel on clinical strategies to improve maternal mortality in our ICUs, moderated by Dr. Mohamed Tiourine. Dr. Ioannis Angelidis discusses the management of cardiac disease in the parturient, Dr. Emily Naoum presents on sepsis in pregnancy, and Dr. Kaitlyn Brennan reviews postpartum hemorrhage. We conclude the educational track with a panel on advances in sepsis management. Dr. Emily Vail, Dr. Romain Pirracchio and Dr. Matthieu Legrand will present on the heterogeneity of sepsis, individualization of steroid in sepsis and the dysregulation of the renin-angiotensin system.

We hope to see you all at the 2025 IARS/SOCCA Annual Meeting in Honolulu, Hawaii.

SOCIETY OF CRITICAL CARE ANESTHESIOLOGISTS

SOCCA SPONSORED SESSIONS on the CRITICAL CARE TRACK at 2025 Annual Meeting

Presented by IARS & SOCCA

Schedule subject to change. All times are HST.

All Critical Care Content located in the Coral 5 Meeting Room

CRITICAL CARE TRACK Friday, March 21, 2025

Take advantage of an extensive line up of sessions included in the critical care track throughout the 3-day meeting. This series of specialized sessions will cover various aspects of critical care medicine. Attendees will be able to focus on and explore various aspects of this specialized field, learn from experts, and stay current on the latest developments in anesthesia and critical care medicine.

WORK GROUP MEETINGS

Friday, March 21, 2025
- **9:00 am:** Membership (including Early-Career Intensivists & Physicians in Private Practice)
- **10:00 am:** CPC Quality & Safety
- **11:00 am:** CPC Global CCM
- **11:00 am:** CPC OB CCM

Saturday, March 22, 2025
- **9:00 am:** Communications
- **11:00 am:** Education

Sunday, March 23, 2025
- **9:00 am:** Program Directors Advisory Council (PDAC)
- **10:00 am:** PDAC Workgroups
- **11:00 am:** Research

Saturday, May 22, 2025
4:30 - 5:30 pm
Board of Directors Meeting

Friday, March 21, 2025
9:00 am – 10:00 am
"Is This Case a 'Do-It-Yourself' or a 'Phone-a-Friend'? What Is the Current Evidence? An Update and Discussion on Providing Practical, Evidence-Informed, and Compassionate Palliative and End-of-Life Care in the Intensive Care Unit
Moderator: Rebecca A. Aslakson, MD, PhD, FAAHPM, FCCM; University of Vermont Larner College of Medicine
- "Phone a friend" Palliative Care – when to involve subspecialist palliative care and palliative care teams
  Rachel Hadler, MD, Emory University
- Financial toxicity related to critical care for patients and their families – an innovative and important topic
  Nita Khandelwal, MD, MS, University of Washington
- *"DIY" Palliative Care - Palliative and end-of-life care for the general intensivist – practical tips and approaches*
  Allison Dalton, MD, University of Chicago

Friday, March 21, 2025
11:00 am – 12:00 pm
Striving for Sustainable Practice Models in Critical Care
Moderator: Craig S. Jabaley, MD, FCCM, Emory University
- Doomscrolling the Literature: The Science of Shiftwork, Burnout, and the Relational Impact of ICU Work
  Albert F. Yen, MD, University of California- San Francisco
- Personal Sustainability: Optimizing Practice Models for Life Beyond the ICU
  Anahat Dhillon, MD, University of Southern California
- In-House Happiness: Optimizing the Workplace to Enable Satisfying Careers
  Todd W. Sarge, MD, Beth Israel Deaconess Medical Center

Friday, March 21, 2025
2:15 pm – 3:15 pm
Analgesia and Sedation within the ICU: How Did We Get Here and Where Are We Going?
Moderator: Christina S. Boncyk, MD, Vanderbilt University Medical Center
- Brief Overview of Sedation and Analgesia in the ICU: How did we get here?
  Alisha Sachdev, MD, Rush Hospital
- To Sedate or Not to Sedate: What is the need?
  Jason Brainard, MD, FCCM, University of Colorado
- Inhaled Sedation: Coming to an ICU near you?
  Brian O'Gara, MD, BIDMC and Harvard Medical School

Friday, March 21, 2025
6:30 pm – 7:30 pm
SOCCA SOCIAL:
Friday, March 21, 2025, at 6:30 PM at the Barefoot Bar, located at the Hale Koa Hotel. Just a short walk along the beach, this scenic venue is the perfect place to connect with colleagues, relax, and enjoy the ocean breeze. Stay for the evening and take in the stunning beachside fireworks later in the night. We look forward to seeing you there!

SOCCA SOCIAL

SOCIETY OF CRITICAL CARE ANESTHESIOLOGISTS

SOCCA SPONSORED SESSIONS on the CRITICAL CARE TRACK at 2025 Annual Meeting

Presented by IARS & SOCCA

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All Critical Care Content located in the Coral 5 Meeting Room

CRITICAL CARE TRACK Saturday, March 22 - Sunday March 23, 2025

Saturday, May 22, 2025 | 9:00 am – 10:00 am

Double Trouble: A Totally Uncontroversial Guide to Biventricular Temporary Circulatory Support

Moderator: Vadim Gudzenko, MD, University of California- Los Angeles

- Exit Plan: Device Reconfiguration, Decannulation, and Optimizing For The Next Step in Care
  Tao Shen, MD, Cedar Sinai
- BiVADs at the Bedside: Using Clinical Assessment and Echo Guidance to Optimize Support and Mitigate Complications
  Krisztina Escallier, University of Southern California
- Hemodynamic Panic: What numbers to believe and what to question when monitoring patients on multiple devices
  Christina Creel-Bulos, MD, Emory University

Saturday, May 22, 2025 | 11:00 am – 12:00 pm

Sticky & Sweet: An Update on Glucose Management in the Perioperative Period

Moderators: Nida Aftab, MD, Baystate Health & Jai Madhok, MD, MSE, Stanford University

- Should I Stay or Should I Go: Wearable Devices for Glucose Management
  Nida Aftab, MD, MBBS, Baystate Health
- Tight versus Liberal Glucose Goals: A Review of the Recent Guidelines
  Nicole Arkin, MD, Stanford University
- Novel Diabetes Treatments: The Need for Pragmatic Risk Management.
  Alexander Nagrebetsky, MD, MSc, Harvard Medical School

Saturday, March 22, 2025 | 2:15 pm – 3:15 pm

Emergency Airway Management Outside the Operating Room: Not for the Faint at Heart!

Moderator: Elizabeth Cotter, MD, MPH, University of Kansas Medical Center

- Tracheal intubation in critically ill patients: Where we are and where we need to go?
  Kunal Karamchandani, MD, FCCP, FCCM, UT Southwestern Medical Center
- Optimizing patient hemodynamics: Is it all hocus POCUS?
  Nibras Bughrara, MD, FCCM, FASA, Albany Medical Center
- Tracheal intubation in the critically ill: Do the drugs matter?
  Craig Jabaley, MD, FCC Emory University

SOCCA's Spotlight is FREE for everyone!
NOTE *Separate advance registration required.*

Saturday, March 22, 2025 | 3:30 pm – 4:30 pm

SOCCA & ASPF Invited Lecture in Patient Safety

SOCCA is pleased to present a distinguished lecture on patient safety in the ICU. *This session is made possible by the funding from Dr. Joseph Meltzer and family through the Anesthesia Patient Safety Foundation (APSF)*

SOCCA's Spotlight is FREE for everyone!
NOTE *Separate advance registration required.*

Saturday, March 22, 2025 | 4:30 pm – 5:30 pm

SOCCA Business Meeting

Agenda:

- **Call to Order & Welcome**
  Mark E. Nunnally, MD, FCCM, President
- **Treasurer's Report** *Brigid C. Flynn, MD, Treasurer*
- **Advisory Council, Committee, and Working Group Chair Reports**
  - *Babar Fiza, MD Program Directors (PDAC)*
  - *Craig Jabaley, MD, FCCM, Service Chiefs' (SCAC)*
  - *Godze Demiralp, MD Clinical Practice*
  - *Madiha Syed, MD, Communications*
  - *Kunal Karamchandani, MD, FCCP, FCCM, Education*
  - *Alisha Sachdev, MD, Membership & Early Career Intensivists*
  - *Frank O'Connell, MD, Physicians in Private Practice*
  - *Shahzad Shaefi, MD, Research*
  - *Beth Teegarden, MD, FASA & Joy Chen, MD, FASA, FCCM, Women in Critical Care (WICC)*
- **Introduction of New Directors**
  Mark E. Nunnally, MD, FCCM
- **Annual Report of the President**
  Mark E. Nunnally, MD, FCCM
- **Adjournment**

Sunday, March 23, 2025 | 9:00 am – 10:00 am

Obstetric Critical Care, Clinical Strategies to Improve Maternal Mortality in our ICUs: Pearls for the Intensivist

Moderator: Mohamed Tiouririne, MD, University of Virginia

- Management of Cardiac Disease in Pregnancy in The Perioperative and ICU Setting
  Ioannis Angelidis, MD, MSPH, New York University Langone Medical Center
- ICU Management of Severe Sepsis in Pregnant Women
  Emily Naoum, MD, MGH
- Postpartum Hemorrhage
  Kaitlyn Brennan, DO, MPH, Vanderbilt University, School of Medicine

Sunday, March 23, 2025 | 11:00 am – 12:00 pm

Advances in Sepsis Management: Innovations and Future Directions

Moderators: Allison Dalton, MD, University of Chicago and Matthieu Legrand, MD, PhD, University of California

- Not all sepsis is created equal: Understanding drivers of outcome heterogeneity
  Emily Vail, MD, MSc, University of Pennsylvania
- What's new with steroids and septic shock? From guidelines to individualized prescription rules
  Romain Pirracchio, MD, MPH, PHD, University of California, San Francisco
- Dysregulation of the Renin-angiotensin system and its implication in sepsis
  Ashish Khanna, MD, MS, FCCP, FCCM, FASA, Wake Forest University School of Medicine

Service Chiefs' Advisory Council: Planning for 2025 and Beyond

The Service Chiefs' Advisory Council (SCAC) was born from a desire to unite individuals around the country with the broadest purview over their local anesthesiology critical care practice. In bringing together those one or two individuals from each organization, SCAC facilitates communication, collaboration, networking, and broader insights into the national anesthesiology critical care practice landscape. For SOCCA as a professional organization, it is critically important to have both line of sight into the forces influencing trainees when considering a career in critical care and the downstream issues impacting both individual clinicians in practice and the broader issues impacting our subspeciality. The Program Directors' Advisory Council is intended to address the former and SCAC the latter.

Myriad factors have served to influence the anesthesiology labor market over the past five years. In short, increasing demand and lingering impacts from disruptions in the 1990s served to limit, or at least maldistribute, the anesthesiology workforce. This has led to a highly competitive anesthesiology job market. Through this lens, many anesthesiology critical care practices are seeking to critically evaluate the clinical responsibilities and compensation of their physicians. In contrast to the broader specialty of anesthesiology, our subspecialty is notably lacking market data to inform these decisions. On a broader scale beyond only our subspeciality, national standards concerning how to define full-time equivalency in critical care remain unanswered. Exploring these important questions is further frustrated by substantial inter-specialty and inter-institutional variability in how these questions and models are conceptualized and discussed.

Moving from the abstract to the concrete, the SCAC will soon undertake a nationwide survey of critical care anesthesiology compensation and full-time equivalent models. The aims are to provide accurate market data for our subspeciality, work toward a data-driven consensus as to optimal practice organization in current state, help to inform ideal future state, and to offer summary findings as a SOCCA membership benefit. Previous survey efforts have been targeted at individual respondents, which introduces challenges associated with both the accuracy and representativeness of responses and, ergo, the survey results. As such, the SCAC survey will be conducted on a institutional level and aim to create a generalizable framework to report full time equivalency and compensation models that should yield both accurate and granular insights.

At the 2025 SOCCA Business Meeting, the leadership of SCAC will transition to Dr. Anne Drewry serving as Chair and Dr. Sheida Tabaie serving as Vice Chair with an anticipated term of two years. SCAC will need to identify a new Secretary from among its ranks soon thereafter. Dr. Craig Jabaley will continue to support the group in an Immediate Past Chair capacity, to include managing, updating, and streamlining the contact directory. If your organization recently underwent a change in leadership, please don't hesitate to reach out to ensure that we have updated contact details.

Craig S. Jabaley, MD, FCCM
SOCCA Service Directors' Advisory Council
Outgoing Chair
Emory University
Atlanta, GA

Anne Drewry, MD
SOCCA Directors' Advisory Council
Incoming Chair
Washington University
St. Louis, MO

Sheida Tabaie, MD
SOCCA Directors' Advisory Council
Incoming Vice Chair
Weill Cornell Medicine
New York, NY

Membership Committee Update

2025 is off to a busy start for the SOCCA membership committee!

Committee members have been hard at work, planning events to accent the standing SOCCA webinars. The first WICC event of the year was held on February 13th, a webinar on Imposter Syndrome, featuring Crystal Manohar. The event was well attended and the first of many that WICC has planned for the year. The first ever SOCCA Journal Club was on held on February 18th and was also well received. This event was coordinated in conjunction with the Education committee and will occur again throughout the year. The first Private Practice meet up will be held March 13th, and the first Early Career Intensivists meet up will be held on April 3rd featuring board member Craig Jabaley. The remainder of the 2025 Calendar of events is being created so stay tuned for more contents and opportunities to connect with your peers.

We will also be hosting SOCCA Socials at anesthesia conferences throughout the year. We hope that you were able to connect with other SOCCA members at SCCM, and we are currently coordinating another meet up for the Society of Cardiovascular Anesthesiologists this Spring. We will of course be hosting a Social in Hawaii as well!

Alisha Sachdev, MD
Chair, SOCCA Membership Committee
Rush University
Chicago, IL

We are currently in the planning stages of revamping the mentorship program. Please be on the look out for emails recruiting mentors and mentees soon! Your participation is what will make this program a success!

Thank you for renewing you membership and being a part of our growing SOCCA community! Please don't hesitate to reach out to info@socca.org with any additional ideas that you would like to see us pursue.

SOCCA MENTORING PROGRAM

SOCCA's mission is to support the development of anesthesiologists who care for critically ill patients. Recognizing the key role of mentorship in development, SOCCA is thrilled to offer mentorship resources to its membership.

Members at all levels of experience can now connect with individuals who have elected to volunteer their time and expertise to help others learn and grow in their knowledge about clinical practice, administration, leadership, research, organizational volunteerism, and other domains. These bidirectional relationships are not only mutually beneficial but foster a robust spirit of community within the organization.

Members seeking to identify a SOCCA mentor may navigate directly to SOCCA's Mentor Directory (member login required) where mentors are organized by their primary area of interest. Upon reviewing the directory, mentees are encouraged to identify their preferred mentor via the brief Mentee Submission Form.

You may also navigate to the Mentor Directory from SOCCA's public Mentoring Program page.

Thank you for your interest in becoming a SOCCA Mentee—and thank you to the many SOCCA members who have graciously offered to serve as Mentors.

Visit SOCCA's Mentor Directory today!

SOCCA MENTORING

The 2025 Anesthesiology Critical Care Medicine Fellowship Match for 2026 Positions

As we advance through the current fellowship match cycle, we are reminded that the match process extends beyond simply filling positions; it is about identifying candidates who will uphold and advance our specialty's enduring legacy of excellence in patient care, research, and education.

The Role of Critical Care Community in the Recruitment Process

Recruitment and education thrive on collective efforts. Every critical care anesthesiology community member plays a vital role in the fellowship recruitment process and in shaping the training environment. A few ways where faculty can continue to contribute include:

- **Participation in Fellowship Interviews:** Faculty participation in the interview and selection process is invaluable in selecting candidates who align with our specialty's mission and vision. Furthermore, insights shared by the faculty with interviewees during this process can provide prospective trainees a reaffirmation of their choice to join the critical care anesthesiology community.
- **Mentorship:** Prospective trainees seek programs that foster professional and personal growth. By nurturing a culture of guidance and support, we reinforce the appeal of our programs and strengthen our specialty's future.
- **Involvement in Education:** Faculty engagement in education is central to the development of our trainees, whether through structured didactics, hands-on bedside teaching, or immersive workshops.
- **Highlighting Our Strengths:** Sharing our specialty's unique features, innovations, and successes is a powerful recruitment tool. By underscoring what sets us apart, we can inspire and attract the brightest minds to our field.

Looking Ahead

As we navigate this year's fellowship match, we urge every critical care anesthesiology community member to take an active role in recruitment, mentorship, and education. Your involvement—whether through interviews, teaching, or professional guidance—has a lasting impact on our trainees and the future of our profession. By promoting an inclusive environment that attracts and supports the budding intensivists of the future, we ensure the continued advancement of our specialty.

Below are the key dates for the 2025 match cycle:

February 4, 2025 – CAS Target Date

- This is the target date SF Match Central Application Service sets for applicants to complete their application requirements for distribution. Although this is not a strict deadline, some programs accept applications on a rolling basis, while others have established firm deadlines.

April 1, 2025 – Match Exception Agreement Process Opens

- Beginning April 1, program directors may contact eligible applicants to offer a match exception under the Match Exception Agreement Process.

May 13, 2025 @ 12:00 PM (Noon) PT – Rank List Deadline

- All rank lists must be finalized and submitted by this deadline.

May 27, 2025 @ 9:00 AM PT – Match Results Released

- Match results are available to both applicants and programs.

July 2026 – Fellowship Training Begins.

Babar Fiza, MD
Associate Professor
Program Director, Anesthesiology Critical Care Medicine Fellowship
Emory School of Medicine
Atlanta, GA

Nazish Hashmi, MBBS
Program Director, Anesthesiology Critical Care Medicine Fellowship
Duke University School of Medicine
Durham NC

SOCCA's Clinical Practice Committee (CPC): Driving Collaboration in Critical Care Medicine

As the SOCCA Clinical Practice Committee (CPC) concludes its second year, we take a moment to reflect on the incredible progress we have made. The CPC has fostered collaboration across multiple subspecialties of critical care medicine, an area where we, anesthesia intensivists excel.

The CPC is composed of multiple workgroups, each dedicated to advancing best practices, education, and innovation in critical care. Whether it's the ECMO Workgroup, Obstetrical Critical Care Workgroup, Global Critical Care Workgroup, or Transplant Critical Care Workgroup, we are seeing compelling projects emerge. From quality improvement initiatives to curriculum development for ECMO and transplant critical care, each workgroup is getting ready to make an impact on the field.

One area where we seek greater engagement is Neuro Critical Care. We currently lack leadership representation in this domain and are eager to identify experts and passionate contributors to help develop this crucial subspecialty. If you are interested in shaping the future of Neuro Critical Care within SOCCA, we invite you to reach out and join our efforts.

The CPC remains committed to advancing the specialty, fostering collaboration, and driving innovation in perioperative and ICU care. We look forward to another year of growth, discovery, and impactful contributions.

For those interested in contributing, please contact us—we welcome your expertise and enthusiasm! Please join one of our workgroup meetings during the SOCCA (IARS) Annual Meeting in Hawaii (see below).

Gozde Demiralp, MD, FCCM
Chair, SOCCA Clinical Practice Committee
UW-Madison
Madison, WI

R. Alok Gupta, MD
Vice-Chair, SOCCA Clinical Practice Committee
Northwestern University
Chicago, IL

Friday, March 21st, 2025
Kahili Meeting Room

- **10:00 am - 11:00 am:** ***CPC QI Workgroup (with Dr. Somnath Bose)***
- **11:00 am - 12:00 pm:** ***CPC Global CCM Workgroup (with Dr. Vanessa Moll) & CPC-OB CCM Workgroup (with Dr. Ioannis Angelidis)*** *(both are meeting at the same time in the same room)*

Saturday, March 22nd, 2025
Coral 5 Meeting Room

- **4:30pm - 5:30pm:** ***SOCCA Business Meeting***

SOCCA Clinical Practice Committee: Advancing Quality and Patient Safety in Critical Care

The SOCCA Clinical Practice Committee's Workgroup on Quality and Patient Safety is committed to fostering initiatives that drive meaningful improvements in patient care. This year, our workgroup is embarking on two major projects aimed at supporting SOCCA members in their quality improvement (QI) efforts and enhancing surgical ICU quality metric reporting.

Building a Quality Improvement Project Repository

One of our key initiatives for the year is the creation of an online QI project repository housed on the SOCCA website. This repository will serve as a resource for SOCCA members, providing access to previously developed and successfully implemented QI projects. Our goal is to streamline the process of implementing QI initiatives by allowing members to leverage existing projects rather than starting from scratch.

This repository will include a variety of resources, including project summaries, implementation guides, and outcome measures. Additionally, we plan to incorporate QI-related abstracts presented at the SOCCA Annual Meeting, further enriching the repository with innovative ideas and evidence-based practices. By consolidating these resources in one accessible location, we aim to facilitate collaboration and knowledge-sharing among members, ultimately driving improvements in critical care delivery.

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Several SOCCA members have already expressed interest in contributing to this initiative, and we welcome further participation from those with experience in QI implementation or repository development. We will discuss the logistics and framework of the repository at the upcoming Clinical Practice Committee Quality and Patient Safety Workgroup meeting during the SOCCA Annual Meeting in Hawaii this March.

Establishing Guidelines for Surgical ICU Quality Metric Reporting

In addition to the QI project repository, our second major initiative focuses on establishing standardized guidelines for surgical ICU quality metric reporting. Quality metrics are essential for benchmarking performance, identifying areas for improvement, and ensuring high standards of patient care. However, there is currently a lack of consensus on which metrics should be prioritized and how they should be reported across institutions.

To address this gap, we are exploring the use of a Delphi process to develop these guidelines. The Delphi method, a structured communication technique that gathers expert consensus through iterative rounds of surveys, has been successfully employed in various fields to establish best practices. We are currently in preliminary discussions with SOCCA members who have experience with the Delphi process to determine the most effective approach for our initiative.

By creating standardized guidelines, we aim to enhance the consistency and reliability of quality metric reporting in surgical ICUs. This effort will not only benefit SOCCA members but also contribute to broader improvements in surgical critical care quality and patient outcomes. As this project progresses, we will seek input from members with expertise in quality measurement, data analytics, and critical care outcomes research.

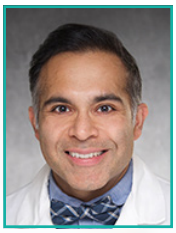
Looking Ahead

Dr. Somnath Bose, Chair of the Quality and Patient Safety Workgroup, and Dr. Joy Lo Chen, Vice-Chair, are eager to collaborate with our workgroup members on these important initiatives. We look forward to discussing these projects in greater detail during our upcoming meeting at the SOCCA Annual Meeting in Hawaii and encourage all interested members to participate.

By working together, we can create impactful resources and guidelines that will support our collective mission of advancing quality and patient safety in critical care. We welcome feedback, ideas, and contributions from all SOCCA members as we move forward with these projects. Here's to a productive and successful year ahead!

SOCCA Clinical Practice Committee: Workgroup Questionares

Mechanical Circulatory Support/ECMO/CT ICU (SCA & STS) Workgroup



Chair: Lovkesh Arora, MD, MBBS
Clinical Associate Professor, ECMO Medical Director
University of Iowa Physicians

What inspired you to join and lead the Mechanical Circulatory Support/ECMO/CT ICU (SCA & STS) workgroup of the CPC?

I am honored to lead the Mechanical circulatory support group as it gives me a chance to work with the best of the best people in this field, learn and collaborate with them and work towards the common goal of improving patient care by bringing evidence-based management guidelines and standardization to this evolving field.

What do you love about Anesthesiology Critical Care? What excites you the most right now?

The most exciting aspect for me is that anesthesiologists and intensivists are the best perioperative physicians. With a strong foundation in medical education, procedural skills, and administrative expertise, we have the ideal platform to lead critical care initiatives. Our role extends far beyond the operating room, enabling us to help institutions achieve larger goals in patient care and healthcare management.

Vice Chair: Lauren Sutherland, MD
Assistant Professor of Anesthesiology
Columbia University Irving Medical Center

What specific areas of critical care medicine are you most passionate

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about? (What can people talk to you about)

I love cardiothoracic critical care. I split my time between the cardiothoracic operating rooms and cardiothoracic ICU, so I spend most of my day managing patients during and after open heart and lung surgery. I especially love managing (and trying to wrap my mind around) all different configurations of mechanical circulatory support. I am passionate about quality improvement initiatives in the CTICU such as improving mechanical ventilation times, organizing interdisciplinary simulations on cardiac arrest after cardiac surgery, and teaching transesophageal echocardiography to critical care fellows.

What's something most people don't know about you?

I have 3 little kids at home, 5- and 3-year-old boys and a 10-month-old girl, so life can be pretty chaotic! Our family was on a home renovation TV show before moving into our house in Westchester 3 years ago. It was a really fun and interesting experience, but it's also super embarrassing to watch (so I won't reveal the name of the show)!

Transplant Critical Care (SATA) Workgroup

Chair: Ranjit Deshpande, MD, MBA, FCCM
Associate Professor of Anesthesiology
Vice Chair, Finance & Strategy, Department of Anesthesiology
Director, Transplant Anesthesiology
Yale University I Yale New Haven Hospital

What is a Critical Area Facing Our Specialty?

One of the most pressing challenges in anesthesiology critical care is how we define and assert our leadership in perioperative and critical care medicine within an evolving healthcare system. Our role should not be confined to traditional ICU settings; rather, we must champion anesthesiology-led perioperative care as a seamlessly integrated, patient-centered continuum—spanning preoperative optimization, intraoperative management, and postoperative critical care.

Who better than us—experts in resuscitation, physiology, hemodynamic management, and perioperative medicine—to lead this transformation? Anesthesiologists and anesthesiology intensivists bring unparalleled expertise in managing high-acuity patients, optimizing surgical readiness, preventing complications, and ensuring smooth transitions across the perioperative pathway. Our ability to enhance surgical outcomes, reduce complications, and drive efficiency makes us indispensable to modern healthcare.

However, to solidify our position as leaders in perioperative care, we must move beyond clinical excellence alone. We need to:

- Proactively shape institutional policies to align perioperative pathways with evidence-based best practices.
- Advocate for the recognition of anesthesiologists as essential decision-makers in perioperative and critical care management.
- Leverage data-driven strategies to optimize resource utilization, enhance surgical workflows, and improve patient safety.

If we do not step forward and define this role ourselves, others will—and in doing so, may limit our ability to influence the very areas in which we excel.

Through stronger collaboration with surgical teams, research-driven innovation, and national society leadership, we must drive the future of anesthesiology-led perioperative care. Our ability to lead not just inside the operating room but across the entire perioperative and critical care spectrum will determine the sustainability, visibility, and long-term success of our specialty. The healthcare landscape is shifting toward value-based care models, interdisciplinary collaboration, and efficiency-driven systems—and anesthesiology must position itself at the forefront of these changes to demonstrate its full value and secure its future role in healthcare leadership.

Who/What Inspires You?

I am deeply inspired by my family—starting with my parents, who have instilled in me the values of grit, perseverance, and lifelong learning. Their unwavering support and belief in me have shaped my journey, pushing me to grow both personally and professionally.

My wife is a huge inspiration, and along with my parents, she is my strongest supporter, always encouraging me to take on new challenges while keeping me grounded. She inspires me with her resilience, determination, and ability to navigate life with both strength and grace. Her unwavering belief in my potential fuels my drive to continuously evolve and contribute meaningfully to my field.

Beyond my family, I am guided by a commitment to

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continuous evolution and discovery—the belief that learning never stops, innovation is essential, and every challenge presents an opportunity for advancement. I find inspiration in mentors, colleagues, and trainees who challenge conventional thinking and push the boundaries of what's possible in anesthesiology. Seeing how collaboration and strategic innovation can improve patient outcomes, optimize workflows, and advance our specialty keeps me motivated every day.

Vice Chair: Megan Rashid, MD
Assistant Professor, Medical Director of Transplant ICU
Virginia Commonwealth University

What do you love about Anesthesiology Critical Care? What excites you the most right now?

My favorite thing about Anesthesiology Critical Care is how adaptable the training makes us. We learn how to interface with surgeons, consultants, and other intensivists, and have an almost daily opportunity to learn about other aspects of medicine. I feel like my critical care training has made me a better anesthesiologist, improving not only my knowledge base but also my relationship with our surgical colleagues. I think one of the next frontiers that we'll be exploring as a group will include addressing the significant physical, emotional, and psychological toll that a stay in the ICU has on patients and their families.

What specific areas of critical care medicine are you most passionate about?

I've spent a lot of time on resident education and point-of-care ultrasound. Our residents are vital to our ICUs, and investing in their education is paramount to our ongoing success as a specialty. We developed a longitudinal POCUS program for our residents so they can develop their skills and build up a log of ultrasound studies throughout their four years here, with the goal of leaving residency with the ability to easily obtain the ASA Diagnostic POCUS Certificate. Teaching them these skills allows us to have high-level discussions about decompensating patients and facilitates early intervention with serial follow-up.

Quality & Safety Workgroup

Chair: Somnath Bose, MD, MPH, MBBS
Assistant Professor, Anesthesiology, Harvard Medical School
Beth Israel Deaconess Medical Center

What do you love about Anesthesiology Critical Care? What excites you the most right now?

Being an anesthesiologist and intensivist allows me the unique opportunity to be at the patient's side through their entire recovery process. The presence of critical care anesthesiologists is ubiquitous across hospital systems and their impact on elevating the quality of care is well acknowledged at all levels. With the average acuity of illness presenting to hospitals on the rise there has never been a better time to be an intensivist. Wearing the dual hats allows us to bring a unique value proposition to health systems and make meaningful impact in the lives of our patients. So for trainees considering critical care this is the time to dive in.

What specific areas of critical care medicine are you most passionate about?

I am most passionate about recovery from critical illness. With ICU care becoming better, more and more people survive critical illness. While this is extremely encouraging, health systems remain ill equipped to support the survivors. This is an area that I am most interested in: how we can improve survivorship. I am happy to discuss ideas with those who share similar interests.

Vice Chair: Joy Chen, MD
Associate Professor
UT Southwestern Medical Center
Department of Anesthesiology and Pain Management
Medical Director, Dallas VA Surgical ICU
Co-Medical Director, Dallas VA Thoracic ICU

What inspired you to join and lead the Quality and Patient Safety workgroup of the CPC?

I was inspired to join and lead the Quality and Patient Safety Workgroup of the CPC when a colleague recommended that I get more involved in SOCCA. I serve as the medical director of the Dallas Veterans Affairs Hospital Surgical ICU, and I thought it would be a great opportunity to learn what others are doing in terms of QI at their institutions and bring new ideas to the space as well.

What are you hoping to achieve this year in the CPC?

I am hoping to set up a QI project repository on our SOCCA website that members can access to bring QI projects to their institutions. Why re-invent the wheel, you know? Also,

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Somnath and I would love for our committee to compile quality metrics that ICUs throughout the country measure as well as metrics that our members recommend measuring and create QI reporting recommendations based on this data.

Neuro Critical Care (SNACC) Workgroup

Chair: Ozan Akca, MD, FCCM

Vice Chair: Elizabeth Mahanna, MD

OB-CCM (SOAP) Workgroup

Chair: Ioannis Angelidis, MD, MSPH
Assistant Professor of Cardiac and Obstetric Anestesia and Critical Care Medicine, University of Pittsburgh Medical Center

What inspired you to join and lead the OB-CCM workgroup of the CPC?

Obstetric Critical Care fascinates me! Cardiac disease in pregnancy is rare but it is the number one cause of death in patrurients in the United States. I feel that OB-Critical Care issues have been underrepresented in annual meetings and my vision consists of building an educational curriculum through panels, lectures from experienced OB intensivists and problem-based learning discussions. Although they are not common, when they are encountered, rapid, multidisciplinary involvement is crucial. This year we have created a combined SOCCA-SOAP panel for SOAP 2025. Our next step is to create a combined SOCCA-SOAP panel for SOCCA 2026 and work on educational webinars for OB Critical Care issues.

OB Critical Care is growing, and I hope we will have the opportunity as a group to promote its growth and inspire new health care professionals to follow that avenue of OB Critical Care.

How do you define success?

Success for me is when you follow your passion; When you do not let adversities and toxic working environments blur the big picture of how your life should be. When you work hard, and set your boundaries so people know there are limitations to their actions. Sometimes people are hesitant to understand you and your vision, but that is OK. You must know why you are pursuing something and the outcome you want to achieve. Be honest, own your mistakes, learn from your failures, treat everyone with respect, and move forward. Your personal and professional growth is more like a marathon than a sprint and should have a cadence to its development. Most importantly, do not get absorbed in your career, and always keep a balance between your personal and professional life. Do not take anything for granted, and don't forget to show appreciation to your colleagues, team members, staff, friends, and beloved ones.

Vice Chair: Emily Naoum, MD
Associate Program Director of the Obstetric Anesthesia Fellowship Massachusetts General Hospital in Boston

Who/What Inspires you?

Engaging and connecting with patients inspires me to be the best clinician that I can to provide the highest level of care. I also am incredibly inspired by the trainees at my institution who challenge our faculty to provide evidence for our medical decision making and ask very challenging questions that keep me on my toes to continue my own self-education.

What inspired you to join and lead the OB-CCM workgroup of the CPC?

Nearly watching my laboring patient die from a fetal demise complicated by hemorrhage and profound coagulopathy inspired me to seek out ways to prevent maternal morbidity in whatever way that I can. My incredible colleagues in the OB ICU world inspire me regularly to advocate for improved awareness and delivery of maternal critical care.

Global Critical Care Medicine Workgroup

Chair: Vanessa Moll, MD, PhD

Vice Chair: Ana Crawfordd, MD

Women in Critical Care Feature: Understanding and Overcoming Imposter Phenomenon

Imposter phenomenon (IP) was first described by Drs. Clance and Imes in 1978 in highly successful women who have an "inability to internalize [their] accomplishments" despite evidence to the contrary. Instead, they hold tight to the notion their "successes are fraudulent" and "are convinced that they have fooled anyone who thinks otherwise." (1) Imposter phenomenon (also known as imposter syndrome) is an established entity seen in both men and women and is not uncommon in medicine. In fact, IP is more prevalent among physicians than the general population with a prevalence of 22-60% in medical students and 33-44% in residents. (2) Further, A European survey from 2024 explored IP in Anesthesiology and found high rates of IP in physicians identifying as female and physicians with fewer years of practice. (2)

IP may be attributed to many factors including outward recognition creating fear that an individual cannot live up to future expectations. Additionally, in medicine in particular, physicians are surrounded by many other high achieving individuals which leads to peer comparison and loss of appreciation of one's own successes. (3) Drs. Clance and Imes also explored behaviors that maintain IP such as intellectual flattery (favoring other's opinions instead of asserting one's own beliefs/ideas which reinforces IP) and utilizing charm and perceptiveness to win over superior's approval (thereby minimizing the development of internal confidence). Finally, a fear of negative consequences may contribute to continued IP experiences. For example, female critical care physicians may serve as team leaders and display confidence in their abilities during crisis situations (such as cardiac arrest in the ICU). This behavior may not be accepted as "expected of a woman" and is instead interpreted as hostile, assertive or aggressive. This perceived "negative behavior" then reinforces IP and results in individuals avoiding such behaviors in the future.

Crystal Manohar, MD, MBA, FASA
Associate Professor of Anesthesiology
UT Health
San Antonio, TX

The consequences of IP are numerous and widespread and can include low self-esteem, confidence and insecurity. Fear of failure is also common as individuals wait to be discovered "as an imposter." IP can lead to a self-perpetuating cycle which limits an individual's willingness to seize opportunities and thus, imposes possible barriers to career development, leadership roles, promotion and even salary raises. IP has also been correlated to increased burnout and decreased job retention. (4)

Given its prevalence and problematic nature, it is imperative we find and implement solutions to treat IP. A first step to recognize and quantify an individual's imposter phenomenon experience is by using the Clance Imposter Phenomenon Scale (CIPS). (5) The CIPS is a validated tool to assess imposter syndrome and investigates feelings of competency, praise and success. (2) It is also worthwhile to explore the five types of IP described by

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Type of IP	Definition/Description	Potential Solutions
The Perfectionist	• Focus on "how" work is done and turns out • "Micromanager"	• Delegate tasks • Celebrate achievements (RBSE) • Take mistakes in stride & learn for the future
The Expert	• Focus on "what" & how much you know • "Must know-it-all"	• Just in time learning (eliminate the idea you have all the answers) • Mentor to share knowledge, experiences, validate self-worth
The Soloist	• Focus on "who" completes the task • Asking for help is seen as weakness	• Work on appropriate tasks to delegate • Seek support/advice from friends, supervisor, coach or mentor
The Natural Genius	• Competence is measured in terms of speed & ease • "Smart without effort"	• Grace- recognize you are a work in progress • Identify specific changeable behaviors • Recognize learning & skill building are lifelong endeavors
The Superhuman	• Focus on how many roles you can juggle and excel in ("do-it-all") • Falling short in any one area leads to shame & IP	• Nurture self-confidence & internal validation • Focus on wellness • Recognize multitasking is a myth!

Table 1: *Types of Imposter Phenomenon & Potential Solutions. RBSE- Reflected Best Self Exercise*

Imposter Phenomenon *continued from page 15*

Dr. Valerie Young in her book "The Secret Thoughts of Successful Women," which is based on research from ample people in a variety of occupations at all phases in their careers (6). Understanding the various types of IP and which one(s) may be pertinent to an individual will aid in determining viable solutions (table 1).

Ultimately, a multipronged approach is best employed to address IP. Key solutions include celebrating achievements, having grace for oneself, and nurturing self-confidence and internal validation. A mentor will be valuable to share knowledge, experiences and to validate self-worth. The Reflected Best Self Exercise (RBSE) utilizes a "personal highlight reel or living eulogy" to help combat IP and has been used with benefit in resident training. (7). Role playing may provide an opportunity to discuss perception versus reality and help normalize failures while encouraging individuals to pursue new opportunities. Systemic contributions such as increasing diversity and promoting gender equality in the workplace are also essential to help address IP. Finally, though we remain susceptible to IP throughout our career(s), by continually monitoring for IP and practicing the solutions above, we protect ourselves and our colleagues when IP strikes.

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SOCIETY OF CRITICAL CARE ANESTHESIOLOGISTS SOCCA

WOMEN IN CRITICAL CARE CORNER

- **A huge thank you to Dr. Crystal Manohar** for delivering an outstanding presentation on *Overcoming Imposter Syndrome* during our first WICC Fireside Chat of the year! Her insights sparked meaningful discussion and provided valuable strategies for tackling self-doubt in medicine.
- **Stay tuned for details on our WICC meetup in Hawaii!** Whether virtual or in person, we're planning a fantastic opportunity to connect at the SOCCA/IARS Annual Meeting—more information coming soon.
- **Mark your calendars for April!** We're excited to welcome Ms. Velia Cardenas of Frost Bank for a special WICC Fireside Chat on *Financial Wellness*, tailored for women in critical care. Don't miss this important conversation!

Critical Care Anesthesiologists as Leaders in Cardiovascular and Cardiothoracic Critical Care Medicine

The evolving landscape of cardiovascular critical care necessitates a multidisciplinary approach to effectively manage the increasing complexity of patient cases. In the June issue of the *SOCCA Interchange*, Karamchandani and Dave highlighted the expanding roles of Critical Care Anesthesiologists (CCAs) beyond traditional ICU settings[1]. This discussion underscores the potential contributions of CCAs in optimizing patient outcomes, enhancing team dynamics, and advancing cardiovascular medicine, especially as the distinction between surgical and medical cardiovascular intensive care units (CVICUs) patients becomes less pronounced.

In cardiology, the growing demand for proficiency in cardiovascular critical care has led to the development of an ACGME-accredited fellowship recognized by the American Board of Internal Medicine, several non-accredited pathways to achieving competency in the field, as well as the establishment of the Society of Critical Care Cardiology with the membership opening for enrollment in April 2025. The cardiovascular critical care medicine fellowship builds on the skillset attained during three years of cardiovascular medicine fellowship. However, due to workforce shortages, the practical expansion of this staffing model has remained limited[2]. Similarly, the role of the dual-trained critical care and cardiac anesthesiologist has been described as an ideal training platform for intensivists in the post-surgical cardiothoracic intensive care unit largely due to the clinical experience obtained in managing patients in the perioperative period and attainment of advanced transesophageal echocardiography (TEE) certification. Additionally, anesthesiologist's involvement in cardiovascular ICUs has withstood the test of time, with nearly 70% of critical care anesthesiologists (CCAs) being the backbone of cardiothoracic/cardiovascular unit staffing[3].

However, given ongoing staffing challenges in "ideal" pathways, it is not unusual to operate these ICUs with intensivists from diverse training backgrounds, reflecting the multiple pathways to attaining certification in Critical Care Medicine (e.g., anesthesiology, emergency medicine, internal medicine, general surgery).

In today's healthcare environment where the value of specialized roles is under constant scrutiny, CCAs must proactively address emerging challenges. Reevaluating and redefining our contributions in cardiovascular critical care is essential to meet the evolving needs of patients and healthcare systems. This discussion will explore the unique skill sets that CCAs bring to the cardiovascular critical care medicine, underscoring their distinctive perspective in patient care.

Expertise in Cardiovascular Physiology

As CCAs, our extensive training during anesthesiology residency and critical care medicine fellowship provides us with a deep understanding of cardiovascular physiology, pathophysiology, and pharmacology. This expertise enables us to manage complex hemodynamic challenges with efficiency and precision. In CVICUs, where patients often experience postoperative instability and severe cardiac dysfunction due to conditions like cardiogenic shock and acute coronary syndrome, our skills are essential for rapid intervention and stabilization. Additionally, the prevention of downstream effects on other organ systems such as central-line associated bloodstream infections, catheter-associated urinary tract infections, ventilator-associated pneumonia, acute kidney injury contribute considerable morbidity and requires a "traditional" critical care medicine lens to be applied along with understanding of the complexities in cardiovascular critical care[4].

S. Veena Satyapriya, MD
SOCCA Education Committee, Board Review Co-Chair, CME Co-Chair
Associate Professor- Department of Anesthesiology, Division of Critical Care Anesthesiology
The Ohio State University Wexner Medical Center
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Rafal Kopanczyk, DO
SOCCA Education Committee
Assistant Professor – Department of Anesthesiology, Division of Critical Care Anesthesiology
The Ohio State University Wexner Medical Center
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This expertise also makes CCA's uniquely positioned to manage critically ill patients requiring temporary mechanical circulatory support, and in some centers, initiate the support. Gutsche and Vernick discuss the role that anesthesiologists can play in mobile Extracorporeal Membrane Oxygenation (ECMO) teams. Our expertise in managing complex cardiovascular and respiratory conditions, along with proficiency in procedures such as cannulation, positions critical care anesthesiologists as valuable contributors to ECMO teams[5].

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PDA Task Force *continued from page 17*

Management of Cardiovascular Emergencies

In the CVICUs, emergencies such as cardiac arrest, massive pulmonary embolism or acute decompensation of cardiac or respiratory function despite maximal medical therapies are relatively common. Both anesthesiology and CCA training teach a hands-on approach to swift and decisive response in high-pressure situations. Further drawing on our clinical experience and advanced training, we are able to manage advanced life support techniques such as extracorporeal cardiopulmonary resuscitation (ECPR) and Cardiac Surgical Unit Advanced Life Support (CSU-ALS), which requires bedside chest opening within minutes of arrest[6]. Finally, our expertise in intraoperative crisis management also includes heightened communication skills, ensuring cohesive ICU team function in stressful situations.

Advanced Procedural Skill

CCAs' procedural expertise includes, but is not limited to, the placement of central venous catheters, arterial lines, pulmonary artery catheters, temporary pacemakers, and at some centers, ECMO cannulations.

Leadership in Perioperative Medicine

The perioperative period for cardiovascular surgery patients is a high-risk and requires seamless coordination between surgical, anesthetic, and critical care teams. CCAs excel in postoperative management precisely because of our role in perioperative medicine. From preoperative optimization of patients with severe cardiac disease to advanced anesthetic management in patients with high risk of adverse cardiac events, to immediate postoperative stabilization, CCA's ensure continuity of care through a tailored, individualized approach that minimizes complications and promotes recovery when transitioning from the operative room to the intensive care unit[7].

Collaboration and Interdisciplinary Teamwork

Best patient-centered outcomes in cardiovascular critical care medicine occurs in a collaborative environment that depends effective teamwork among physicians, nurses, respiratory therapists, pharmacists, dieticians, physical and occupational therapists and case management/ social work among other healthcare team members[8]. CCAs are experts in communicating under high-pressure perioperative environments and our ability to translate this skillset across traditional specialty boundaries is an asset that should be leveraged when searching for the ideal staffing model in CVICUs. This expertise should also be considered in discussions regarding the ideal leaders for lung rescue or cardiogenic shock teams[4].

Contributions to Education, Research and Innovation

Anesthesiology as a specialty has responded to the increasing needs of critical care by innovating and organizing efforts. In response to the predicted shortage of critical care physicians, anesthesiologist increased the number of fellowship programs and positions, as well as educational paths a trainee can take to become an intensivist. One such path is offering residency spot that guarantee automatic CCM fellowship position. Similarly, societal organizing efforts have also been underway, such as SOCCA's workgroups including MCS/ECMO/CTICU workgroup. Finally, there are also grassroots efforts lead by anesthesiologists designed to elevate CVICU medicine by organizing educational and research activities, such as the Cardiothoracic Surgical Critical Care Consortium (C4).

Role in Quality Improvement and Patient Outcomes

Critical care anesthesiologists (CCAs) are champions of quality, patient safety, and patient experience throughout the perioperative period. Given our pivotal role in managing hemodynamic stability, pain control, and ventilator support, we have a direct impact on patient outcomes, recovery times, and satisfaction. Our training and expertise uniquely position us to identify gaps in care and develop targeted enhanced recovery protocols for cardiovascular patients, aligning with hospital quality goals such as reducing length of stay and readmissions.

For instance, in lung transplant patients, the integration of critical care and anesthesiology has facilitated the use of thoracic epidurals, paravertebral blocks, and other regional techniques in post-surgical cardiothoracic ICUs. These approaches are based on the premise that they enhance respiratory mechanics while minimizing the risks of respiratory depression and delirium associated with excessive postoperative opioid use in this vulnerable population[9]. By combining technical expertise with a focus on patient safety and quality of life, CCAs ensure that patients receive the highest standard of care.

The unique skillset of critical care anesthesiologists (CCAs)—encompassing advanced knowledge of cardiac and respiratory physiology, perioperative care, procedural expertise, and leadership in crisis—positions us as ideal leaders in cardiovascular critical care medicine. These skills are more critical now than ever. As the demand for high-quality care in cardiovascular critical care continues to grow, our role is becoming increasingly apparent. Our

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PDA Task Force *continued from page 18*

ability to adapt to the evolving needs of this complex field, combined with our specialized training, ensures that our expertise will remain invaluable in shaping the future of cardiovascular critical care.

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SOCCA drip

SOCCA Drip is a new online platform that offers member-generated content, spotlights member achievements, and delivers relevant news and updates from the broader critical care community—more frequently than ever before.

- **Our newsletter, SOCCA *Interchange*, will continue to highlight features from our members and news from within the organization.**
- **To reflect these changes, SOCCA's Main Menu has changed to include "Drip" under "News" on the main menu.**
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Invasive Fungal Infections and Immune-Mediated Hemolysis in Liver Transplantation: Two Complex Cases

Liver transplantation is a life-saving procedure but comes with significant post-operative risks, including opportunistic infections and immune-mediated complications. In this report, we present two unique cases that highlight the challenges faced in liver transplant recipients. The first case involves a rare and life-threatening gastrointestinal mucormycosis infection, emphasizing the importance of early detection and aggressive management in fungal infections. The second case explores Passenger Lymphocyte Syndrome, an often-overlooked immune complication leading to hemolysis due to minor ABO mismatch. These cases underscore the need for heightened awareness and timely intervention in transplant medicine to improve patient outcomes.

Case 1 - Invasive Fungal Infections in Liver Transplant Patients: Lessons from a Rare Case of Gastrointestinal Mucormycosis

INTRODUCTION

Gastrointestinal mucormycosis is a rare and potentially fatal manifestation of invasive fungal infection caused by organisms of the order Mucorales. It accounts for only about 7% of all mucormycosis cases yet carries mortality as high as 85%[1]. The stomach is the most frequently affected site, followed by the colon and small intestine. This condition primarily affects immunocompromised individuals, including those with uncontrolled diabetes, hematologic malignancies, or organ transplants. Due to its nonspecific symptoms and rapid progression, diagnosis is often delayed, with only 25% of cases identified antemortem[2]. We present a case of intraabdominal mucormycosis due to a perforated gastric ulcer in a liver transplant patient.

DESCRIPTION

A 59-year-old female with a history of GERD and alcohol use presented with abdominal pain and was diagnosed with perforated gastric ulcer. During surgical repair, the portal triad was inadvertently transected, leading to fulminant liver failure. She was admitted to our ICU and supportive care was continued. She required continuous hemodialysis for acute renal failure and large volume plasmapheresis as a bridge to liver transplantation. She was urgently listed for liver transplantation, which was successfully performed.

Following surgery, the patient's post-operative course was complicated by the development of an invasive fungal infection caused by *Mucorales Circinelloides*. This infection was identified by intraoperative ascitic fluid cultures. Gastric ulcer biopsy at the time of transplantation demonstrated chronic gastritis. The source of the infection remained unknown. However, Infectious Disease (ID) hypothesized that *Mucorales Circinelloides* was present as an environmental contaminant in her GI tract, with her gastric perforation and subsequent immunocompromise from her liver injury resulting in dissemination. On post-transplant day 6, she underwent exploratory laparotomy, which found multiple areas of fungal deposits over the stomach and transverse colon, with a frozen biopsy positive for hyphae (**Figure 1**). Intra-abdominal drains were placed for amphotericin irrigation. Continuous intraabdominal amphotericin irrigation and serial surgical washouts every third day were employed to control the infection. She was treated with intravenous liposomal amphotericin B and posaconazole per ID recommendations. Eventually, the patient demonstrated clinical improvement, with the resolution of fungal growth and negative ascitic cultures. Early recognition and aggressive treatment were crucial for a successful outcome for our patient.

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CONCLUSION

Invasive fungal infections pose a significant threat to liver transplant recipients, with Candida spp., Cryptococcus, and Aspergillus species being the most prevalent pathogens. While the incidence of these infections is relatively low at 1-4%, their associated mortality rates are alarmingly high, ranging from 54.5% to 77%[3]. Gastrointestinal mucormycosis is a rare but lethal form of infection, with reported mortality rates reaching 85%. Its nonspecific clinical presentation complicates timely diagnosis, often resulting in identification only during surgery or postmortem. Treatment strategies primarily involve the use of liposomal amphotericin B, but its toxicity necessitates careful monitoring due to potential renal impairment and adverse drug interactions.

In our case, intraoperative culture led to the early identification of mucormycosis, enabling prompt initiation

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of treatment with both liposomal amphotericin B and posaconazole, along with surgical intervention and continuous irrigation. This proactive approach underscores the importance of early recognition and aggressive management in improving outcomes for patients with this formidable infection. Our experience not only adds to the limited literature on intraabdominal mucormycosis but also highlights the critical need for heightened awareness and vigilance in the management of opportunistic infections in liver transplant patients.

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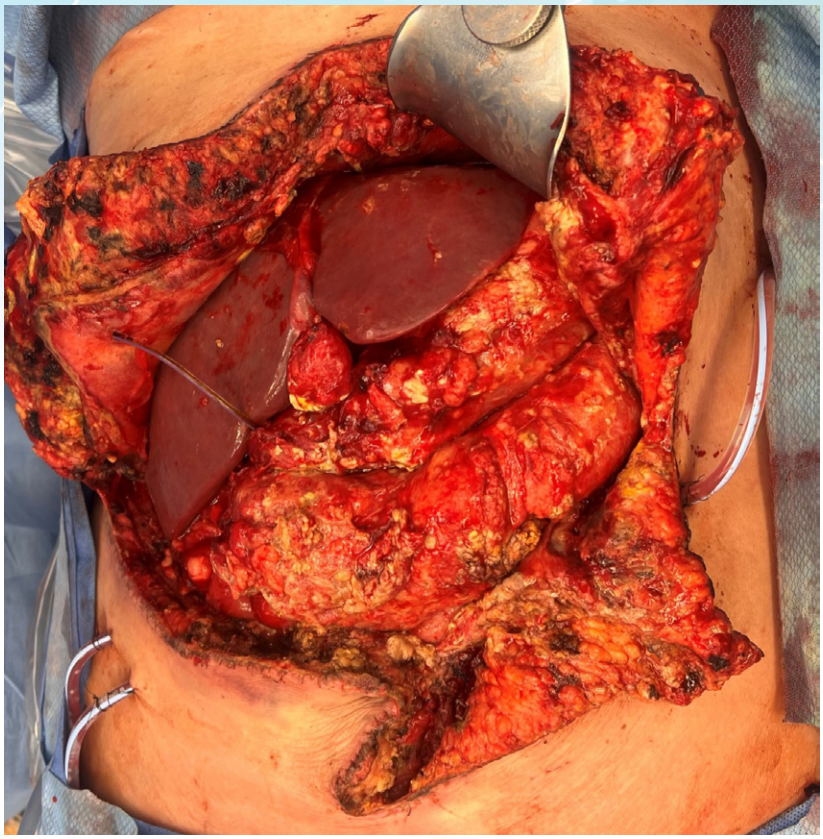

***Figure 1**: Intraabdominal fungal growths from post-transplant day 5 washout*

Case 2 - Passenger Lymphocyte Syndrome: A Critical Complication Post-Liver-Transplant

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INTRODUCTION

Passenger Lymphocyte Syndrome (PLS) is a limited form of graft-versus-host disease in which donor B lymphocytes are passively transferred to the recipient within the donor allograft and forms antibodies that result in complement-mediated red blood cell destruction[1]. It is most often seen in solid organ transplantation with minor ABO mismatch, such as an O donor with an A recipient, leading to production of anti-A antibodies. Here, we present a unique case of PLS post-emergent liver transplant in our patient.

DESCRIPTION

A 59-year-old AB+ female with past medical history significant for gastric reflux and alcohol use presented to an outside hospital with a perforated gastric ulcer. She underwent exploratory laparotomy, with accidental transection of her portal triad, leading to fulminant liver failure. She was transferred to our institution for expedited liver transplantation evaluation. Five days following her initial surgical insult, she underwent emergent liver transplantation with an A+ donor liver.

Her post-operative course was complicated by intraabdominal infection, leading to multiple washouts, necessitating repeated large volume transfusions. Post-transplant day 7, her hemoglobin dropped from 10.4 mg/dL to 6.5

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mg/dL. Diagnosing the cause of anemia in our patient was quite challenging due to multiple potential underlying factors. She had not been initiated on new antibiotic therapy or started on other medications. The physical exam did not demonstrate signs of bleeding, including clean dressings, soft abdomen, and mild drain output. Though she went for surgical washout two days prior, it was uneventful, with minimal bleeding. She received 3u packed red blood cells, with rise to 9.6 mg/dL, which fell shortly to 7.7 mg/dL. It was noted that bilirubin rose from 3.0 mg/dL to 6.8 mg/dL, suggesting a hemolytic process. Overnight, her type and screen returned as "Indeterminant ABO," which prompted us to pursue additional testing as recommended by Transfusion Medicine. Subsequent tests demonstrated a positive direct antiglobulin test (DAGT Polyspecific AHG and anti-IgG) and eluted anti-A antibody. However, as the patient had previously been AB+, the presence of an anti-A antibody was cause for concern.

Upon review of the donor's medical record, it was found that the donor was an A2 blood type while the recipient was A1B, leading to an atypical minor ABO mismatch. She was subsequently transfused with O-negative blood, with an appropriate transfusion response. Following a discussion with Transfusion Medicine, she was determined to have Passenger Lymphocyte Syndrome. Management included administering blood transfusions using antigen-negative or donor-type blood. This helped mitigate the effects of hemolysis by providing compatible red blood cells while minimizing the risk of further immune reactions, stabilizing the patient's condition.

CONCLUSION

Passenger Lymphocyte Syndrome (PLS) is a rare yet significant complication that intensivists need to be aware of in patients who have undergone solid organ transplantation. It involves immune-mediated hemolysis caused by donor B-lymphocytes producing antibodies against the recipient's red blood cells (**Figure 2**). Risk factors include minor ABO mismatches, specific organ transplants (liver, kidney, heart-lung), immunosuppression choice, and post-transplant infections or transfusions. PLS typically manifests 1-3 weeks post-transplant with sudden hemolysis, anemia, jaundice, and a positive direct antiglobulin test. Severity ranges from mild to life-threatening, potentially causing graft failure or disseminated intravascular coagulation.

While rare, PLS should be considered in cases of acute-on-chronic anemia post-transplant, especially with minor ABO incompatibility. Liver transplant recipients often have anemia due to chronic liver disease, surgical losses, and perioperative fluid shifts. Our case represents a unique case of PLS due to A1 and A2 subtypes of blood group A. About 80% of individuals with A antigen are A1, while 20% are A2 or rarer subtypes. Of A2 individuals, only 0.4 % have anti-A1[2]. Treatment is mainly supportive, including compatible blood transfusions, increased immunosuppression, corticosteroids, and possible rituximab or plasmapheresis in severe cases. As an intensivist, maintaining a high index of suspicion for PLS in post-transplant patients presenting with unexplained anemia or hemolysis is crucial for timely diagnosis and management.

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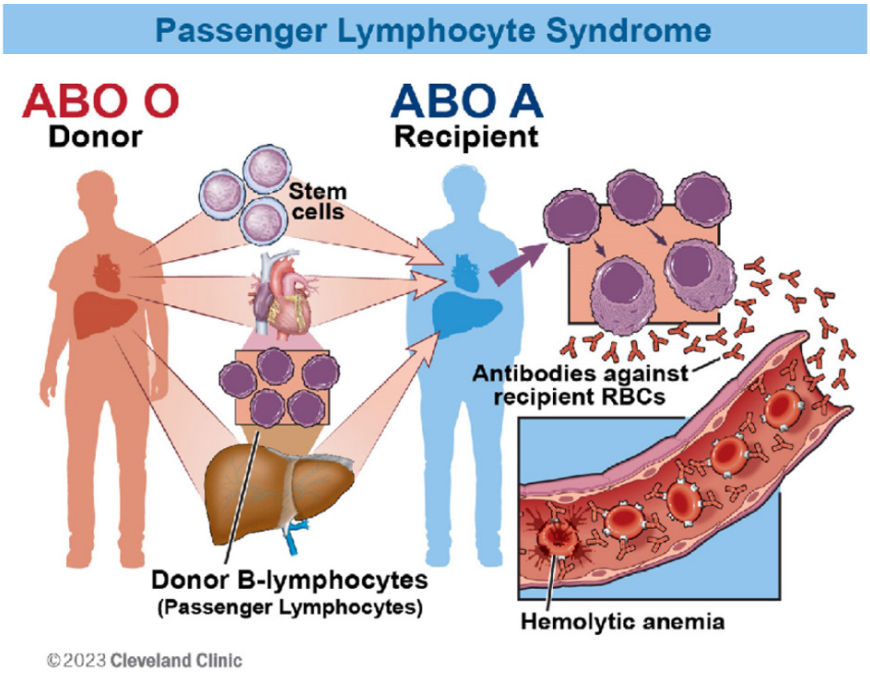

Figure 2: *Proposed Pathophysiology of Passenger Lymphocyte Syndrome. Image taken from Barouga et al[3]*

Adaptive Trial Design: An Overview

In our recent inaugural SOCCA journal club, we discussed the RENOVATE trial. High-flow nasal oxygen was found to be non-inferior to non-invasive ventilation in 4 out of the 5 patient groups with acute respiratory failure (nonimmunocompromised with hypoxemia, acute cardiogenic pulmonary edema, hypoxemic COVID-19, COPD exacerbation with respiratory acidosis) (1). However, there were several concerns raised with the trial design, so we decided to use this opportunity to introduce the concept of adaptive trial design.

Clinical trials frequently require time, large sample size and financial resources; yet, they often lack the power to evaluate efficacy overall or in individual subgroups, leading to further ineffective subgroup analyses (3). Traditional trials are also inflexible - as all the learning takes place at the end of enrollment. Adaptive trials, in contrast, through continual modifications while data collection is ongoing, increase the efficiency of randomized clinical trials. Importantly, one must be careful that error rates (particularly type 1) do not significantly change during this process. Therefore, statistics play an integral role. The planning phase involves multiple simulations to understand the benefits and consequences of all potential adaptations, as well as of the specified "decision rules." The most common decision rules are formulaic with endpoints that result in allocation ratio changes between groups or termination of an individual treatment arm vs the whole trial (2). These simulations should be transparent and conducted with input from the clinical team. It is also critical that the agreed upon statistical analysis plan covers future interim analyses as well as the final analysis. In the RENOVATE trial, Bayesian adaptive simulation was utilized as the primary statistical analysis; with this method, posterior probabilities determine non-inferiority, futility or superiority.

Adaptive trials can be broadly divided into exploratory and confirmatory types. Exploratory trials typically deal with effective/safe dosing questions or dose-dependent modeling (3); these trials are less relevant for the broader clinical community. Confirmatory trials, as mentioned above, make planned changes to the future course of a trial based on data analysis from the trial itself; this takes place after at least 20-30 patients in each arm - otherwise known as the "burn-in period (2)." Types of common modifications include but are not limited to: changing the sample size, ending treatment arms or doses, changing allocation ratios, identifying treatment arms most likely to benefit (and directing recruitment to those groups) and ending the trial early (for success or futility) (5). In the RENOVATE trial, several of these modifications were implemented. It incorporated a group-sequential design, which allowed the trial to terminate the immunocompromised arm early for futility after only 98 patients. It also utilized dynamic borrowing, which allowed for smaller sample sizes in certain treatment arms while maintaining statistical rigor. Most apparent, the creation of a hypoxemic COVID-19 treatment arm reflects its multi-arm/multi-stage design.

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Trial modifications inherently increase the overall trial complexity. To ensure the validity of adaptive trials, careful oversight is needed from all parties. For example, if decision rules are designed inappropriately, bias enters the interim analyses. Or, if any adaptations are not predetermined, the validity of the trial suffers. Unfortunately, a recent survey found that at least one-fourth of adaptive trials did not provide details on interim analyses and about one-fifth of adaptive trials made unplanned adaptations (4). The Food and Drug Administration recently issued guidance on adaptive trial designs; however, no concrete recommendations were given. Therefore, establishing independent data-monitoring committees is critical while the adoption of adaptive clinical trials continues to grow. In the same vein, the RENOVATE trial should be commended for using a blinded steering committee; the update in statistical analysis plan was also published in a widely-read journal in a transparent manner (6).

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