

FALL 2026: Anesthesiology Along the Patient Pathway Volume 35, Number 4

Transport of Critically Ill Patients and the Role of Mobile ECMO: Anesthesiologists Bringing Critical Care to the Bedside

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Dr. Audrey E. Spelde

The care of critically ill patients rarely occurs in a single location. Patients move from the pre-hospital setting, to the emergency department, to the operating room, and to the intensive care unit (ICU). And when resources required exceed those available locally – patients move from one hospital to another.

For anesthesiologists, whose clinical practice routinely spans these transitions, transport represents an important but often underappreciated component of the pathway. Mobile extracorporeal membrane oxygenation (ECMO) extends this concept even further: rather than transporting an unstable patient to advanced support, a specialized team brings advanced support to the patient then safely transports to definitive care.

Transport as a Continuum of Critical Care

Transporting a critically ill patient is not simply a logistical exercise. Leaving the controlled environment of an ICU or operating room introduces predictable vulnerabilities: reduced monitoring capabilities, decreased equipment and medication



availability, and constrained access to the patient. Minor perturbances in physiology from movement, hypercarbia and acidosis, even body temperature can have profound effects on patients with small margins. In fact, transport is one of the most dangerous periods of a patient's journey.

The safest transport begins well before the patient moves. An astute team identifies potential vulnerabilities, anticipates deterioration, ensures appropriate monitoring and supplies, and develops contingency plans for problems that may arise. For most patients, the goal is to achieve reasonable stability before departure. For some patients, the intervention to achieve this stability may be ECMO itself. However, the traditional model – transfer first, initiate support after arrival – may expose the patient to the period of greatest risk before definitive support is

available.

Bringing ECMO to the Patient

A mobile ECMO program reverses the conventional transfer paradigm. A specialized team travels to the referring hospital, evaluates the patient and initiates ECMO, then transports to an ECMO center. In my experience with mobile ECMO, one of the most important determinants of a successful retrieval occurs before the team ever leaves the hospital: early communication. The ideal referral is not a patient in extremis with minutes remaining to intervene. It is a patient whose trajectory suggests conventional therapy is failing and may benefit from ECMO in the future. Early consultation creates time to review candidacy, optimize available

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UPDATE

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The **VSA Update** newsletter is the publication of the Virginia Society of Anesthesiologists, Inc. It is published quarterly. The VSA encourages physicians to submit announcements of changes in professional status including name changes, mergers, retirements, and additions to their groups, as well as notices of illness or death. Anecdotes of experiences with carriers, hospital administration, patient complaints, or risk management issues may be useful to share with your colleagues. Editorial comment in italics may, on occasion, accompany articles. Letters to the editor, news and comments are welcome and should be directed to: Iyabo Muse, MD • iyabo@vsahq.org.

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SAVE THE DATES



ANESTHESIOLOGY® 2026

October 16-20, 2026
San Diego, CA

VSA ANNUAL MEETING LUNCHEON

12:00 pm – 1:00 pm
Saturday, October 17, 2026
Marriott Marquis San Diego Marina
Rancho Santa Fe #2 Room

RSVP by October 7 to Angela Puryear
at angela@societyhq.com. Please note VSA
Annual Meeting Luncheon
in the subject line.

Annual Membership Business Meeting

January 25, 2027

White Coats on Call Lobby Day

January 26, 2027

For more information on VSA
events and others, capture the
code on your mobile device.



President's Message

Shaping the Future of Anesthesiology in Virginia

By Casey Dowling, DO, FASA
Winchester Anesthesiologists
VSA President



Dr. Casey Dowling

Every legislative session brings new challenges to the practice of medicine. Some proposals strengthen patient care. Others threaten the stability of our profession and the physician-led model that has long been the foundation of safe,

high-quality anesthesia care.

This year, because Virginia Society of Anesthesiologists (VSA) members showed up, spoke out, and stood together, our specialty didn't simply react to those challenges—we helped shape the outcome.

The results speak for themselves.

In 2026, the VSA successfully defeated legislation that would have eliminated Virginia's medical malpractice cap years ahead of schedule. Protecting this safeguard helps preserve a stable practice environment while supporting continued access to affordable, high-quality care for patients across the Commonwealth.

For the third consecutive year, VSA advocacy also defeated legislation (HB 2391) that would have allowed Certified Registered Nurse Anesthetists (CRNAs) to practice independently without physician oversight. By preserving the physician-led anesthesia care team, we reinforced our commitment to the collaborative model that patients depend on every day.

At the same time, we celebrated a major step forward for our specialty. Passage of SB 882 directs the Virginia Board of Medicine to establish regulations for licensing Certified Anesthesiologist Assistants (CAAs), expanding the anesthesia workforce and improving access to care throughout Virginia.

These are meaningful victories—but they didn't happen because they were inevitable.

They happened because anesthesiologists invested in their professional society. Members answered legislative alerts, met with lawmakers, supported advocacy efforts, and made sure the physician perspective was heard where it matters most.

Every member adds strength to that voice. When policymakers hear from hundreds of engaged physicians instead of dozens, it changes conversations. It changes votes. And ultimately, it changes the future of our specialty.

That is the value of VSA membership.

Membership is more than a subscription or an annual renewal. It is an investment in protecting physician-led care, advancing the profession, and ensuring that future legislative decisions are guided by those who understand anesthesia best: the physicians who practice it every day.

As new legislative challenges emerge, our work is far from finished. The next session will bring new opportunities to advocate for patients, protect our profession, and strengthen anesthesia care throughout Virginia. The more engaged our membership, the stronger our influence will be.

Join the Conversation. Help Shape What's Next.

Advocacy doesn't happen only during legislative session—it happens year-round through relationships, leadership, and community built within the VSA.

Members gather twice each year to discuss priorities, connect with colleagues, and help guide the direction of the Society.

Our January Business Meeting in Richmond coincides with the General Assembly session, giving members the opportunity to engage directly in state advocacy when it matters most.

This October, we'll gather again during the ASA ANESTHESIOLOGY® Annual Meeting in San Diego for our Annual Business Luncheon. As the premier meeting in our specialty, ANESTHESIOLOGY® offers exceptional education and networking, and this year's keynote address will feature internationally renowned physician, educator, and humorist Dr. Glaucomflecken (Dr. Will Flanary).

Whether you've been a member for decades or are considering joining for the first time, there is a place for you in the VSA.

Because the future of anesthesiology in Virginia isn't shaped by one voice—it is shaped by all of us.

Join us. Stay engaged. Help write the next chapter of Anesthesiology in Virginia

Learn More About This Edition's Theme

By Iyabo Muse, MD, FASA

Associate Professor;

University of Virginia Health System



Dr. Iyabo Muse

The theme of this edition of the VSA Update, "Anesthesiology Along the Patient Path-

way," is inspired by the World Federation of Societies of Anaesthesiologists (WFSA) 2026–2028 Presidential Theme, led by Dr. Vibhavari Naik. It highlights the vital role anesthesiologists play throughout the patient journey—from preoperative assessment and perioperative care to ICU, non-operating room anesthesia, pain management, and post-discharge care. Beyond

clinical practice, anesthesiologists also contribute to leadership, patient safety, workplace safety, and innovation across healthcare systems. I hope the articles in this issue broaden your appreciation of the specialty's impact across the continuum of care.

Learn more at: <https://wfsahq.org>



PRESIDENTIAL THEME 2026-2028:
ANAESTHESIOLOGY
ALONG THE PATIENT
PATHWAY
#BeyondAnaesthesia
WFSA
WORLD FEDERATION OF SOCIETIES OF ANAESTHESIOLOGISTS



The Arts

Anesthesia Along The Patient Pathway

Surgeon sets date of surgery with the OR crew
Sends patient to anesthesiologist for interview
In pre-op clinic, anesthesiologist will read the chart
Check patient airway, Mallampatti score at heart
Record vital signs & check tests done for a start

"What meds you take? Ailment any now or in past?"
Plan the anesthesia, explain risks tell patient to fast
After MN before day of surgery for safety to last
Tie the patient ID and the allergy wrist band fairly tight
Possible complications, patient questions answer complete

Coming to OR for surgery, checked by nurse, anesthesia team
And wheeled down to OR holding area like in a dream
Confirm patient is NPO, after the midnight's bell
"We'll keep you safe" — a promise we hold well

Patient is greeted warmly in the holding bay
Monitors on, chase all patients fears away
An IV placed, a quiet reassuring squeeze
"This medicine will put your mind at ease"
Patient wheeled in where bright OR lights glow
The teams will pause, Call checklist soft and slow

"Patient name, ID? Procedure? consent for anesthesia, surgery?"
Anesthesia-drugs puts patient to sleep with amnesia temporary
Propofol white, like winter's first soft snow
Fentanyl calms as the breathing begins to slow

We hold the patent airway, guard it with our art,
Mask, Tube or LMA — we play our steady part



Dr. Jaikumar Rangappa

As the Chest rises & falls with the ventilator's song
The surgeons work, precisely with care for long
Anesthesiologist records every sign, beat, breath on monitor
With patient skin color and SaO2 on the Pulse Oximeter

The pressure low? lift it up with a drug drip
BP high? Will soothe it with a very careful clip
Fluids warmed, blood loss must be measured
Each drop recorded, every choice declared
Patient feels no knife, hears no conversation or joke
Keep the patient safely asleep, calm the patient's folk

Then comes the end, the case is finally done
Doctor wakes patient gently, slow, with errors none
Suction, reversal, coaxing sleepy one to breathe
"Is operation over" a call from patient underneath
Patient frowns, coughs & tries to call doctors name
Surgery is over, please breathe dear all the same

In Recovery room, where soft alarms chime
Fight the nausea, pain, one step at a time
A block that lingers, keeping limbs serene
Give OR report to nurses crisp and clean
Monitor waking patient, with post op advice
For complete and comfortable recovery nice

An anesthesiologist like an airline pilot in midair
Has to watch the patient and the surgeon with a dare
With safety, safe arrival at the end with a sixth sense
For passengers and patient to be home with no grievance

therapies, determine the appropriate ECMO configuration, coordinate transportation, and prepare both institutions for potential cannulation.

ECMO retrieval is far more than cannulation at another hospital. The environment is unfamiliar. Available imaging, personnel, blood products, equipment, and procedural support vary between institutions. A successful program therefore relies heavily on standardization: predefined equipment, checklists, clear team roles, rehearsed workflows, and contingency plans.

Following cannulation, ECMO transforms the physiology of transport, providing respiratory and hemodynamic stability. The goal is not merely to move the patient, but to create sufficient reserve to make the next phase of the patient's journey safer.

The Anesthesiologist Along the Mobile ECMO Pathway

Mobile ECMO highlights many of the skills that make anesthesiologists uniquely suited to the care of critically ill patients across locations. We routinely care for unstable patients during transitions, bringing the foundational elements of anesthesia practice: airway management, mechanical ventilation, cardiovascular physiology, vascular access, ultrasound and echocardiography, procedural expertise and anticipating and responding to physiologic changes. Mobile ECMO applies these principles on a regional scale.

An anesthesiologist involved in mobile ECMO may participate in nearly every stage of the pathway—from initial consultation to cannulation and subsequent critical care at the receiving institution. Perhaps our most important contribution is not a single skill, but our ability to anticipate a patient's needs and facilitate their care.

Beyond Transport: Building Regional Systems of Care

For me, the most compelling aspect of

mobile ECMO is that it challenges the traditional definition of where specialized care begins. Advanced therapies are necessarily concentrated at experienced centers, while the patients who may benefit from them are geographically dispersed. A mobile program allows an ECMO center to extend its expertise beyond physical walls and creates a hub-and-spoke model in which community and regional hospitals can rapidly access specialized consultation and rescue capabilities.

Such a system requires more than a vehicle, an ECMO circuit, and a cannulation team. It requires relationships between institutions, streamlined transfer-center processes, agreed-upon referral criteria, reliable transport systems, ongoing education, quality review, and feedback with referring clinicians.

These systems can also improve care even when ECMO is ultimately not initiated. Early discussion with an experienced ECMO center may identify opportunities to optimize mechanical ventilation, prone positioning, hemodynamic management, or other therapies. Mobile ECMO should therefore be viewed not simply as a procedure performed at another hospital, but as one component of a regional system for caring for critically ill patients.

Lessons From Mobile ECMO

I was fortunate to train at a high volume ECMO center, to learn from both surgeons and fellow anesthesiologists, then to help lead those same systems as my career progressed. Several lessons have become particularly clear to me through participating in and leading a mobile ECMO program.

Call early. An early ECMO consultation does not obligate a patient to ECMO. It creates options. Waiting until conventional therapy has completely failed can transform a controlled retrieval into a rescue under profoundly unfavorable conditions or one that doesn't happen at all. Not every con-

sultation results in cannulation—and that is an important measure of a mature program rather than a failure of one.

Standardization matters. Mobile ECMO takes place in an inherently unpredictable environment. Standardized equipment, workflows, cannulation strategies, and communication create predictability where it is otherwise difficult to achieve.

The mission does not end with cannulation. Cannulation is only one step and 1% of the patient's overall journey. The goal is to stabilize the patient, safely transport them, and continue high quality care without losing continuity along the way.

Relationships are as important as technology. A successful mobile ECMO program is a team sport. It depends on trust between referring hospitals and the ECMO center, accessible consultation, efficient transfer-center processes, reliable transportation, multidisciplinary coordination, and feedback to referring clinicians after the patient leaves their institution.

Extending the Patient Pathway Beyond Our Walls

The theme "Anesthesiology Along the Patient Pathway" asks us to consider where our responsibility to patients begins and ends. Mobile ECMO provides a striking answer: sometimes the pathway extends beyond the walls of our own hospital.

For anesthesiologists, this model is a natural extension of our specialty's expertise: teamwork, facilitating patient needs, anticipating pitfalls, performing complex procedures, managing patients through high-risk transitions, and maintaining continuity of critical care regardless of location. As our healthcare systems continue to evolve, anesthesiologists have an opportunity to play a central role in ensuring that geography does not determine whether patients can access advanced support.

Become a Contributor to the *VSA Update*

Please send your story or feature ideas about your colleagues, your practices, or issues facing anesthesiologists to vsa@societyhq.org



ANESTHESIOLOGY 2026 in San Diego

By Linda Shore-Lesserson, MD, FAHA, FASE, FASA

Chair, ASA Committee on Annual Meeting Oversight



Dr. Linda Shore-Lesserson

If one ever wondered how the intricacies of the ASA Annual Meeting come together to form the single highest-attended anesthesiology event in our country, well it definitely takes a village! The Annual Meeting Oversight Committee

(AMOC) works to ensure that the Annual Meeting provides ASA members with the education, science, networking, advocacy, and industry exposure that they so look forward to all year long. Comprised of 11 clinical track committees creating 10 different session types, a Scientific Advisory Chair with 19 scientific committees, a PBLD chair, Scientific and Educational Exhibits chair, the AMOC Chair, immediate past-chair, and 3 vice chairs, we work with extensive guidance from the ASA Vice President of Scientific Affairs and ASA executive leadership. Yet the aforementioned are only the volunteers like you and me. In addition, there are outstanding staff members at ASA who are exquisitely skilled in meetings management, and their logistic assistance and institutional memory are invaluable. So that is how it all comes together to be the premier event in our specialty.

The upcoming 2026 meeting, an extensive educational program with nearly 400 unique sessions, 1000 speakers, 1500 scientific abstracts, and a record-breaking 4000 medically challenging case presentations, is presented in a brief 4-day period. However,

Anesthesiology 2026 in San Diego CA will be unique in a few noteworthy ways. This year the House of Delegates will meet on Tuesday morning rather than Wednesday, thus condensing and changing the timeline of the educational program. Please take note of some of the changes:

I hope that your plans include attending Anesthesiology 2026 in sunny San Diego, and if you do, I look forward to seeing you there.

1. Saturday morning October 17th, the meeting will open with two keynote lectures. The Emery A. Rovenstine Memorial Lecture will be delivered by Dr. James Rathmell, Editor-in-Chief of the journal Anesthesiology. In an exciting new perspective, Dr. Rathmell will offer his experience and data to support the notion that diverse career pathways are critical to building the future of anesthesiology. Following the Rovenstine will be our keynote speaker, Dr. Will Flanary, also known as Dr. Glaucomflecken, who is well-known to many of us. Dr. Glaucomflecken has background as a physician, cancer survivor, and victim of cardiac arrest, and with his talents as a humorist, he will share the important topic of Humanity in Medicine.
2. Monday morning (new day from previous years) will host the John W. Severinghaus Lecture, where Dr. Bruce Spiess will shed important light on his research studying tissue oxygenation, hemoglobin, and oxygen delivery to organs. Through his scientific discovery and the greater body of literature, Dr. Spiess will elaborate upon the anesthesiologist's critical role in transfusion decisions and Patient Blood Management.
3. Governance activities are more concentrated on Sunday October 18th.
4. Governance and educational programming continue into Tuesday October 20th.

Make your plans to stay for the entire meeting.

In addition to highlighted lectures and traditional education, ANESTHESIOLOGY 2026 will offer attendees personalized learning experiences in the form of

hands-on opportunities, workshops, panel discussions, and small group interactive sessions. Our new "fireside chat" and "Connect-Learn-Continue" sessions are intimate roundtable interactive experiences that discuss relevant timely topics in all areas of anesthesiology. They do not include slides which promotes direct and personalized interaction between faculty and attendees, and they offer insights for anesthesiologists at every career stage. The content incorporated into these interactive events often lends itself very well to this format and includes subjects of interest to anesthesiologists such as non-operating room anesthesia, patient blood management, physician well-being, workforce trends, and more.

I'd be remiss if I didn't remind you to spend some time in the Exhibit Hall, where you will view the latest innovations and technologies while connecting with friends and colleagues. It is here that we showcase our industry partners, our sister global anesthesiology societies, and where one can forge new connections, and even secure job opportunities. This is where Center Stage takes place to feature on-the-spot podcast recordings and medical/technical presentations. Be sure to stop by the booth where Sam Quinones, best-selling author of 2 books detailing the opioid epidemic, (Dreamland, The Least of Us) will be signing his new book, The Perfect Tuba! Don't miss out on the newest industry advances, science and educational exhibits, scientific abstracts, medically challenging cases, and perhaps even a Flash Mob scene! all in the San Diego Convention Center Exhibit Hall.

The Annual Meeting Oversight Committee (AMOC) works hard to ensure a phenomenal meeting for attendees in any career phase and seeking multiple activities. I hope that your plans include attending Anesthesiology 2026 in sunny San Diego, and if you do, I look forward to seeing you there. To quote the eloquent Dr. Ruth Waterman, Chair of Anesthesiology at the University of California San Diego: "San Diego's appeal goes well beyond the climate and coastline. It's a city shaped by research institutions, a major military and veterans' presence, and a strong biotech sector. In that respect, San Diego is a setting that mirrors the field of anesthesiology itself: technically sophisticated, quietly impactful, and grounded in teamwork."

Legislative Update

By Lauren Schmitt
Commonwealth Strategy Group

Medical Malpractice

Members of the VSA board recently met with the Medical Society of Virginia to discuss the current state of medical malpractice in Virginia.

The General Assembly came very close this past session to repealing the law and increase the cap to \$6 million. Thankfully, the House of Medicine and a coalition of providers were able to halt that legislation from passing. However, leadership in the House and Senate were very clear that something needs to happen on this issue and the current law/cap is insufficient.

Because of this, MSV has been conducting meetings with practices, specialty groups, and component societies to collect as much qualitative data as possible to help inform the strategy moving forward. Our lobbying team has accompanied MSV to meet with several legislators this summer on the topic. It's clear that we need to educate legislators on the real and quantifiable impact an increase in medical liability premiums will have on physicians and practices. The VSA will be reaching out to practices soon to help gather more information to share with MSV.



Certified Anesthesiologist Assistants

As you know, we had a huge win in 2025 with passing legislation to allow for licensure of Certified Anesthesiologist Assistants (CAA) in Virginia. Unfortunately, the regulatory process in Virginia is known for being slow and lengthy. At a minimum, it usually

takes at least 18 months. We are following the regulatory process and doing what we can to help move the proposed regulations through as quickly as possible. We know everyone is anxious for these providers to join the Virginia workforce and be part of the anesthesia care teams.



VIRGINIA SOCIETY OF ANESTHESIOLOGISTS

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Multimodal Analgesic Approach to Head and Neck Reconstruction Could Improve Pain and Reduce Opioid Consumption

By Angelette Pham and Praveen Prasanna, MD

Virginia Commonwealth University
Richmond, VA



Angelette Pham



Dr. Praveen Prasanna

Key points:

Opioid sparing multimodal analgesia (MMA) has become an integral component of patient care pathways including the Enhance Recovery After Surgery (ERAS) model. A retrospective cohort study published in *The Laryngoscope* (2020) from Virginia Commonwealth University (VCU) Health proposes an opioid sparing MMA approach in Head and Neck (H&N) free flap reconstruction, using intravenous ketamine infusion and gabapentin. The results showed significant reductions in opioid consumption in the first five days postoperatively, and lower average pain scores up to two months postoperatively compared to traditional opioid based analgesia. The study highlights one of the many different strategies for opioid sparing analgesia in H&N cancer surgeries. This article examines the study's key findings, clinical significance, and future implications for anesthesiologists.

Background:

H&N free flap reconstruction is a well-established procedure to ameliorate H&N tissue damage, notably due to advanced cancer. The procedure involves grafting healthy tissue with intact vasculature from a distant donor site to the damaged area and re-establishing vascularity. H&N free flap reconstruction is often necessary for



cancer resection and treatment of severe H&N trauma. Unfortunately, this procedure is associated with high incidence of acute and chronic postoperative pain in patients, adversely affecting the pathway of recovery.

Traditionally, opioids were the mainstay for providing perioperative analgesia for H&N surgeries. However, this approach presents specific complications in H&N patients such as, respiratory depression and hypotension. These side effects could increase the risk of flap hypoperfusion, thrombus formation and free flap graft failure. Additionally, the systemic side effects such as nausea and vomiting pose risks for wound infection and delay healing. Though the general awareness on opioid epidemic has grown over the last decade, a 2017 study from Brummett et al. (1) reported incidence of new persistent opioid use up to 180 days post-surgery at 5.9-6.5%. Luby et al. (2) in 2025 reported decreases in both prescription opioid doses and new persistent opioid use between 2013 and 2021, attributing the trends to the efforts to curb surgery-related opioid use.

Clearly, an opioid-sparing alternative is warranted for head and neck (H&N) free flap reconstruction. Efforts have been made to implement various opioid-sparing analgesic strategies, incorporating agents such as acetaminophen, NSAIDs, gabapentin, ketamine, lidocaine, and alpha-2 agonists, in isolation

or in various combinations. These strategies reflect the broader trend in perioperative care toward Enhanced Recovery After Surgery (ERAS) pathways aimed at improving patient outcomes, as opioid-sparing analgesia is an integral part of ERAS protocols.

Methods:

In 2016, the Departments of Otolaryngology–Head and Neck Surgery and Anesthesiology at VCU collaborated to implement an MMA regimen for H&N free flap reconstruction patients based on ketamine and gabapentin (Lee et al.). Ketamine, a non-competitive N-methyl-D-aspartate (NMDA) receptor antagonist, reduces pain centrally while also targeting inflammation and pain peripherally, without inducing the hypotension or respiratory depression associated with opioid analgesics. Gabapentin, a central voltage-gated calcium channel antagonist, provides pain management comparable to non-steroidal anti-inflammatory drugs (NSAIDs) but with a lower risk of bleeding. Notably, gabapentin reduces postoperative movement-related pain, which is important for functional restoration at donor sites in H&N free flap reconstruction. Both agents have been shown to reduce pain at various time points intra- and postoperatively, as well as to reduce long-term pain. In theory,

Continued on page 9

the combination of ketamine and gabapentin could serve as an alternative to opioid-based analgesia for H&N free flap reconstruction.

The MMA regime included 600 mg gabapentin preoperatively and was continued for five days postoperatively at a dose of 300mg twice daily. Ketamine intravenous bolus of 0.5mg/kg was administered for induction, followed by maintenance ketamine dose of 0.4-0.6 mg/kg/hour for the first six hours, and then reduced to 0.2-0.3 mg/kg/hour for the rest of the case. 1000 mg acetaminophen every six hours was also provided intra-operatively. Post-operative pain management included basal 5-20 mg/hour ketamine infusion, 300 mg gabapentin twice daily for five days, less than 3500 mg acetaminophen daily, and opioids only as needed.

Lee et al. (3) conducted a retrospective cohort study on post-operative pain following H&N free flap reconstruction using the opioid-sparing MMA compared to traditional opioid analgesia. The study population included a total of 86 adult patients who received H&N free flap reconstruction at VCU Health, with 43 patients in the control and treatment cohorts each. Most of the study participants in both cohorts were undergoing H&N free flap reconstruction due to advanced H&N cancer. Patients who had surgeries prior to the implementation of the new MMA regime served as the control cohort. Demographics and relevant past medical history between the cohorts were statistically insignificant.

Key Findings:

Compared to the control cohort, the authors found statistically significant reductions in opioid consumption in the treatment cohort on the first five post-operative days (PODs), with mean reductions ranging from 80-83% ($p=0.001$ on POD 1, $p<0.001$ on PODs 2-5). On the first 2 PODs, average pain scores were significantly lower ($p=0.028$ on POD 1, $p=0.045$ on POD 2) in the treatment cohort (2.86 on POD 1, 2.64 on POD 2) compared to the control cohort (3.55 on POD 1, 3.25 on POD 2). Significance, however, was lost on PODs 3-5. Additionally, the treatment group received the basal ketamine infusion for 4.53 ± 0.328 days on average. No severe adverse events warranted discontinuation of the protocol.

Post-operative pain was measured at one

and two months after surgery, which showed a significant reduction in average pain score in the treatment cohort (1.23) compared to the control cohort (3.46) at 2 months ($p=0.001$). Interestingly, average pain scores at one month were statistically insignificant. However, an important cofounder at two months after surgery for approximately half of each cohort is the onset of radiation therapy, which both induces pain and includes its own pain management protocol. This prevented the authors from analyzing data beyond two months post-operation. When the authors stratified the data based on adjuvant therapy, there was a significant reduction ($p=0.02$) in average pain scores at 2 months between patients in the treatment (0.750) and control cohorts (4.08) who underwent adjuvant therapy. However, among those who did not pursue adjuvant therapy, average pain scores were insignificantly different between the control and treatment cohorts.

Discussion:

These findings by Lee et al. support opioid-sparing MMA as a promising alternative to traditional opioid analgesia for postoperative pain control following H&N free flap reconstruction. Given the widespread use of ketamine and gabapentin in anesthesia, this opioid-sparing approach can be seamlessly integrated into various perioperative care pathways. At VCU Health, the standard protocol for H&N free flap reconstruction includes a minimum 7-day postoperative ICU stay to assess flap function and viability, during which postoperative ketamine infusions are managed by regional anesthesiologists on the inpatient acute pain service. Such postoperative management may not be feasible in other healthcare settings where these resources are not readily available. Institutions should therefore carefully assess their available resources before incorporating such MMA regimens into their patient care pathways.

Lee et al. acknowledged several limitations within their study parameters, including a small sample size, retrospective design, reliance on a single pain score at the one and two-month postoperative visits to represent longitudinal pain, optimal postoperative duration of MMA regime, and a concurrent change in state legislation affecting opioid prescribing. Notably, the authors measured

subacute/chronic postoperative pain rather than acute pain, which would have been a valuable endpoint to explore. Additionally, the study did not isolate the effects of ketamine alone, gabapentin alone, or the two in combination. This is a common challenge in multimodal analgesia trials, since each agent represents a distinct intervention. The authors call for future prospective randomized controlled trials with larger sample sizes to investigate these individual contributions. Nonetheless, this study offers valuable insight into alternatives to traditional opioid analgesia for H&N free flap reconstruction.

Future Directions:

The role of multimodal analgesia (MMA) in perioperative pain management has been solidified over the past decade. The opioid-sparing role of MMA agents has underscored their importance within ERAS pathways, including H&N free flap reconstruction. The positive opioid-sparing analgesic effects of ketamine and gabapentin, as demonstrated by Lee et al., open new avenues to explore other carefully chosen combinations of MMA agents for H&N free flap reconstructive procedures. Anesthesiologists have a unique opportunity to lead this effort. Future research should aim to establish the safety and efficacy of such MMA regimens on a larger scale and with greater precision, while also exploring broader outcomes such as functional recovery.

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Managing Acute Pain in Patients in the Intensive Care Unit

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Despite numerous improvements in treatment modalities, acute pain in the ICU setting continues to be a major problem for post operative and trauma patients. It has been shown that estimates of up to 70% of patients will experience moderate to severe postoperative pain during their ICU stay.¹ Adequate pain management is crucial for patients to be able to participate in effective physical therapy, improve functionality and to

be discharged from the ICU. Some studies have shown that management of acute pain can decrease the incidence of developing chronic pain.² Inadequate pain control can have many adverse effects such as decreased ability to cough and clear secretions, leading to atelectasis and pneumonia, prolonged mechanical ventilation, ileus, increased myocardial oxygen demand from tachycardia, and the development of delirium and post-traumatic stress.

The Pain, Agitation/Sedation, Delirium, Immobility, and Sleep (PADIS) guidelines put forth by the Society of Critical Care Medicine (SCCM) in 2018 reinforce the importance of recognizing pain in critically ill patients and having a consistent, and often multimodal approach, to treating pain in ICU



patients.³ It is important to use validated pain assessment tools to quantify pain. The Numeric Rating Scale (NRS) shown in the horizontal format is feasible for patients that can self-report pain. This scale, compared to others, has been shown to be the most accurate and most favored by patients.⁴ For patients unable to self-report, the Behavioral Pain Scale (BPS) has versions for both intubated and non-intubated patients and the Critical-Care Pain Observation Tool (CPOT) have demonstrated the greatest validity and reliability for monitoring pain in patients and are recommended by the PADIS guidelines.³

Pain at rest and during procedures are common in ICU patients. Procedures associated with the greatest increased pain intensity include arterial catheter insertion, chest tube removal, wound drain removal, turning, repositioning, and tracheal suctioning.³ While a multimodal approach is favored, for invasive and potentially painful procedures as those listed above, consensus guidelines recommend IV opioids be considered as first line agents. All available opioids, when titrated to similar pain intensity endpoints, are equally effective and the updated guidelines recommend using the lowest effective dose for procedural pain management to minimize deleterious side effects.^{3,5}

Opioids remain a mainstay for pain management in most ICU settings, but a multi-modal approach in the perioperative setting is frequently used. ICU and anesthesiology teams should consider using the

following adjuncts as part of their routine pain management plans for critically ill perioperative patients:

Acetaminophen: Acetaminophen has been shown to decrease pain intensity and opioid consumption. Specific patient populations that may benefit specifically from acetaminophen use are cardiac surgery patients⁶ and abdominal surgery patients⁷ where minimizing opioids to prevent postoperative ileus and nausea and vomiting may be beneficial.

Ketamine: Ketamine acts as an NMDA receptor antagonist and reduces the risk for opioid induced hyperalgesia (OIH). The PADIS guidelines recommend a low-dose ketamine infusion (1-2 mcg/kg/min) for postsurgical patients when seeking to reduce opioid use but note that positive studies have come from non-ICU studies.³ Ketamine infusions are becoming more commonplace outside of the ICU and have the potential to help achieve adequate pain control in patients that require continuous infusions for pain control but no longer require ICU level of care.⁸

Lidocaine: Intravenous lidocaine, although off label, is becoming increasingly popular in use with multi-modal analgesic protocols. It offers a lower side-effect profile than opioids for common post-operative complications like ileus and respiratory depression, however, given its potential for neuro- and cardio-toxic side effects, general

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use for all ICU patients is not commonly explored or recommended.^{3,9} As a voltage-gated sodium channel blocker, it offers a unique approach for pain management, and may specifically benefit abdominal, orthopedic, thoracic, and trauma surgery patients. A recent feasibility study that looked at low dose lidocaine infusion of 10-30 mcg/kg/min within one hour of ICU admission suggests the median morphine milligram equivalent (MME) and pain scores do decrease with use.⁹ Using lidocaine infusions as an adjunct therapy remains an option for specific patient populations that may not be eligible for neuraxial or regional techniques outlined below.

Neuropathic Pain Medications: The PADIS guidelines recommend using neuropathic pain medications (e.g., gabapentin, pregabalin, carbamazepine) in critically ill adult patients, noting that cardiac surgery patients were the only surgical patients represented in the pooled analysis. The pooled analysis demonstrated a significant decrease in opioid consumption when neuropathic adjuncts were used.³

A multimodal analgesia strategy is preferred by most intensivists to improve pain control, reduce opioid consumption, and improve patient-centered outcomes. Several nonpharmacological approaches to pain management, such as music, massage, and cold therapies have been shown to have some benefit in pain management for critically ill patients.³ While the SCCM guidelines explicitly recommend thoracic epidurals for patients with traumatic rib fractures and patients undergoing abdominal aortic aneurysm surgeries, they found insufficient data to recommend neuraxial/regional analgesic over systemic analgesia due to a lack of data when the original guidelines were updated/published.⁵

In ICU patients, neuraxial and regional anesthesia techniques can decrease the physiologic response to trauma or post-operative pain and minimize the use of opioids and other sedating medications. Experienced providers with these techniques are crucial to performing these procedures safely especially in patients who are heavily sedated and unable to communicate. Patient selection, procedure selection and proper timing all need to be carefully considered in these patients who can have hemody-

namic instability, infection, coagulopathy and other traumatic injuries. Due to these concerns, regional anesthesia continues to be an underutilized resource in ICU patients.¹⁰ It is strongly recommended to adhere to the American Society of Regional Anesthesia Pain Medicine consensus guidelines for infection control¹¹ and patients receiving antithrombotic or thrombolytic therapy.¹² Many patients with ICU need such a polytrauma with orthopedic injuries and rib fractures, post operative cardiac, thoracic, vascular, and abdominal surgeries can be good candidates for regional anesthesia procedures.

Trauma patients with rib fractures can have high morbidity due to pain limiting respiratory mechanics, decreased coughing, atelectasis, pneumonia and possible need for mechanical ventilation. It is especially important to effectively manage pain in older patients with three or more rib fractures to optimize their respiratory mechanics.¹³ Thoracic epidural analgesia (TEA) is the gold standard treatment for bilateral multiple rib fractures. It has been shown to reduce mortality and reduce ICU stays in patients with significant morbidity from traumatic rib fractures.¹⁴ However its use can be limited due to contradictions due to coagulopathy/anticoagulation medications, concomitant injuries to head/spine, positioning limitations and hemodynamic instability. A paravertebral (PVB) or Erector Spinae Plane Block (ESPB) +/- catheter are other options for unilateral rib fractures and has advantages over TEA due to less risk of hypotension from sympathectomy. However, the same limitations of coagulopathy/anticoagulation status and positioning concerns exist with PVB as they do for TEA. ESPB is performed in the fascial plane between the erector spinae muscles and transversus plane. The ESP block has less risk of hematoma due to being more superficial compared to PVB or TEA, making it an option for patients who are anticoagulated.¹⁵ The serratus anterior plane (SAP) block covers the lateral cutaneous branches of T2 to T9 intercostal nerves of the hemithorax. The SAP block is also superficial and can be an option for patients with unilateral anterolateral rib fractures who are anticoagulated. In addition, the SAP block can be performed in the supine position making it a viable option for

patients with positioning restrictions due to spine injuries.¹⁴

Parasternal blocks have become increasingly utilized in cardiac patients who underwent sternotomy especially with the implementation of fast-track protocols in cardiac surgery for early extubation. Two parasternal blocks are commonly used to treat pain from median sternotomy: the more superficial pecto-intercostal fascial plane (PIFP) block and deeper transversus thoracis plane (TTP) block. Both parasternal blocks cover the anterior cutaneous branches of the intercostal nerves that supply the median chest wall.¹⁶ Data has shown an opioid sparing effect of these blocks and shortened extubation times in cardiac surgery patients.¹⁷ Often performed as a single shot, a parasternal catheter is another option for patients with more complex pain needs such an opioid tolerance, opioid use disorder, or various chronic pain syndromes.

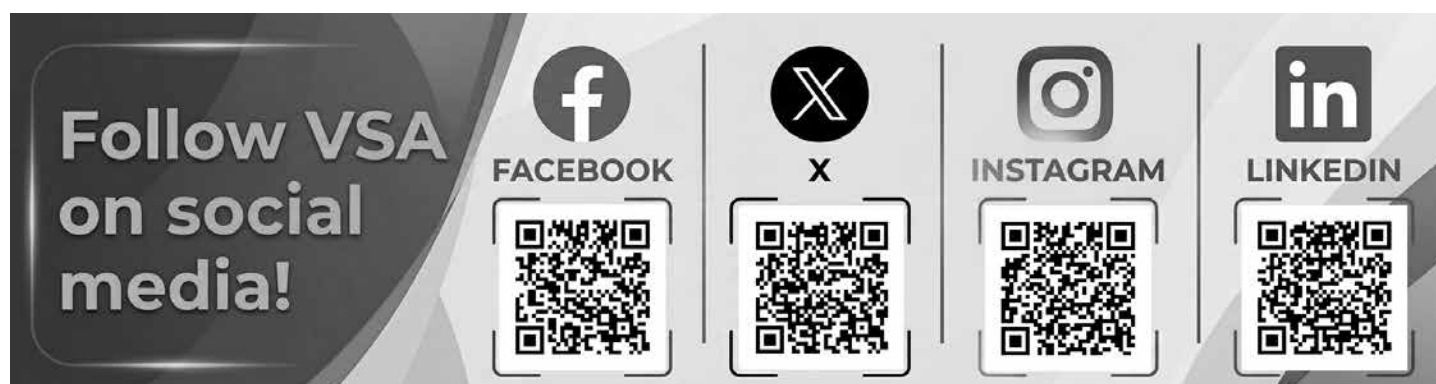
In summary, acute pain management in ICU patients requires multimodal analgesic strategies that includes nonopioid options such as anti-inflammatory, NMDA-antagonist, regional anesthesia with the addition of opioid medications to improve pain control and patient-centered outcomes.

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The NORA Pathway: An Off-Ramp into a Complex World

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Non-operating room anesthesia (NORA) increasingly serves older, higher-acuity patients in settings not originally designed for anesthesia care.¹ Even a brief diagnostic or procedural anesthetic can rapidly become high-risk if optimization is inadequate, important resources are unavailable or far away, or access to the patient's airway is limited.

For instance, Patient KM is a 50-year-old woman with a history of several cervical fusions, obstructive sleep apnea (OSA), documented malignant hyperthermia (MH), and severe claustrophobia and anxiety. She came to the emergency department (ED) following a loss of consciousness after a fall, which required an urgent head CT scan. The ED physician requested anesthesia support due to her severe claustrophobia, OSA with poor CPAP compliance, immobile neck, and potential pulmonary hypertension—all factors that increase the risk of airway complications during and after anesthesia. Her history of MH added further complexity, necessitating thorough communication among providers and careful planning by the anesthesia team. Additionally, the confined CT scanner space limited access to the patient should an emergency arise.

The central question in NORA is not simply whether a procedure can occur outside the operating room. It is whether each patient can safely undergo anesthesia from beginning to end: including appropriate air-

way management, monitoring, contingency planning, and recovery. Safe NORA begins with patient and site selection. Urgent cases may involve incomplete optimization of comorbidities and questionable NPO status.² The anesthesia team must carefully review these cases and determine whether the patient needs exceed the site capability. In those cases, the appropriate plan may include an alternate location (e.g. performing food disimpaction in the OR rather than in the endoscopy suite), PACU-level recovery, extended observation, and a carefully documented discussion with the patient and proceduralist.

NORA spaces are not necessarily built with anesthesia in mind. MRI, GI, radiology, cardiology, and electrophysiology suites may have small workspaces, restricted airway access, and limited resources in case of emergency.³ Moreover, the teams may not frequently interface with anesthesia the way the OR environment is used to, adding an extra layer of unfamiliarity and increased risk of near miss events. Near-miss events are frequently systemic in nature with significant environmental and teamwork factors.⁴ For example, literature illustrates an increased likelihood of near miss events while working in MRI due to MRI compatibility requirements limiting provider familiarity and comfort with equipment.⁴ As the name suggests, NORA sites are frequently detached and distant from the OR setting, limiting support from vital staff, like anesthesia technicians, and increasing response times in case of emergencies. These various factors elevate the stakes, and accordingly, should heighten our vigilance.

In addition, the recovery phase deserves equal attention. Designated post-anesthesia care units provide a wealth of benefits and structure including improved patient hand-offs, team dynamics, and efficient access to anesthesia resources. As the complexity and volume of specialized NORA procedures grow, so do the complexities of the patient's undergoing treatment. These patients in turn require closer monitoring and oversight than before. A dedicated PACU for NORA procedures or suitably training NORA nurses for Phase 1 recovery may provide more consistent and predictable care of patients than placing the burden on procedural staff already overextended with

multiple responsibilities outside of patient recovery. Opportunities to improve patient recovery include formal structured handoff training, cross training procedural nurses in traditional PACUs, grouping NORA areas together for shared recovery areas or greater utilization of traditional PACUs for NORA patients.

NORA will continue to present challenges for anesthesiologists and healthcare systems alike as demand for anesthetic services outside the operating room increases. Anesthesiologists must continue to be active leaders in NORA and act as educators to other stakeholders to emphasize that anesthesia is more than the anesthetic itself. Anesthesiologists' skill and vigilance must be ever present or even go beyond that of the delivery of operative anesthetics, with careful consideration beginning with pre-anesthetic planning through post anesthetic recovery. Understandably, the environments differ from the familiar OR, hence the name. The term 'non-operating room anesthesia' itself carries a degree of negative framing—'Non-OR' defines an increasingly complex anesthetic environment solely by its departure from the traditional operating room. We must look beyond this reductive description, embrace the challenges, and lean into our well-suited responsibility to become perioperative leaders.

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From Classifying Risk to Changing It: My Perspective on the Past, Present, and Future of Preoperative Medicine

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A Brief History

The beginnings of preoperative medicine were forged in risk assessment rather than intervention. In 1941, the American Society of Anesthetists (now the American Society of Anesthesiologists, or ASA) charged Drs. Saklad, Rovenstine, and Taylor with creating a system to categorize patients by functional status and medical comorbidities; the resulting Physical Status classification system was explicitly a statistical instrument not intended to prognosticate an individual patient's outcome¹. In 1961, Dripps revised the Physical Status classification system to produce the ASA-PS classification used today².

The pivot from categorizing patients to preparing individual patients for surgery is generally credited to the eminent British anesthetist Dr. J. Alfred Lee, who opened an anesthesiology outpatient department at Southend University Hospital in 1948, which he described in *Anaesthesia* in 1949. His argument was that patients should be seen as soon as the surgery is booked, not the night before (it was standard practice at that time to be admitted the night before surgery), so that patients are better optimized for surgery³. Dr. Elizabeth A. Frost (and others) revisited this idea in the United States in the 1970s, but the freestanding, anesthesiology-run preoperative clinic did not become more widespread until the 1990s/early 2000s, coinciding with the migration of more surgeries to the ambulatory setting⁴. Dr. Stephen P. Fischer's preoperative clinic at Stanford University demonstrated that a well-designed clinic reduced consultations and unnecessary testing, and this model



has since been embedded in ASA practice advisories on pre-anesthetic evaluation⁵.

The Anesthesiologist's Role and Importance

Preoperative clinic visits reduce day-of-surgery cancellations and delays⁶. In a large, single-institution cohort, an in-person visit to an anesthesiologist-led preoperative clinic was independently associated with lower in-hospital postoperative mortality⁷. The mechanism here is not a great mystery – the anesthesiologist is the only physician in the perioperative pathway whose training spans cardiopulmonary physiology under stress, pharmacology, airway management, and, of course, the actual conduct of the anesthetic and knowledge of what the surgery entails. This experience is invaluable when determining which tests will change management and which will not, reconciling medications and providing instructions on whether to hold or continue each, setting realistic expectations (I often find patients see anesthesia as a “menu” of choices, when in actuality one choice may be far superior for a particular patient or procedure than another), and helping determine whether the operation should proceed at all (or in what form). The preoperative clinic is also the only reliable point of leverage – by the time the patient reaches the preoperative holding area, the chance for further preoperative optimization is gone, and the decision simply becomes whether to proceed or not to proceed.

Where Sleep Medicine Intersects

As an anesthesiologist who is also board-certified in sleep medicine, one of my major interests involves the intersection of the two fields. Currently, sleep-disordered breathing (SDB) has the largest overlap. The overall prevalence of obstructive sleep apnea (OSA), the most common form of SDB, is generally cited to be anywhere from 9%–38% of the population (with a higher incidence in men); however, in surgical populations, the prevalence of OSA may be greater than 60% (even higher in certain subsets, such as bariatrics), with most being undiagnosed at the time of their surgeries (despite the development of tools such as the STOP-Bang questionnaire to identify patients at risk)^{8–10}. Furthermore, a subset of patients without SDB at baseline may develop clinically significant SDB postoperatively, due to a variety of factors including upper airway edema, fluid shifts, and the effects of medications such as opioids¹¹. Undiagnosed OSA is associated with higher risks of postoperative cardiopulmonary complications (twice the risk in some studies), an increase in unexpected ICU admissions, and increased length of stay^{12,13}. Thus, it is important to diagnose and treat the patients at highest risk of SDB whenever possible prior to surgery (though this is complicated by the amount of time testing and treatment may take, which may lead to

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an unacceptable delay in an urgent surgery).

Additionally, the more we learn about sleep medicine, the more we realize other sleep conditions beyond SDB may play a large role in postoperative outcomes. For example, studies have shown preoperative insomnia is associated with worse postoperative pain control as well as a higher incidence of postoperative delirium^{14,15}. As we understand more about sleep and are better able to individualize preoperative care to our patients, factors such as treating insomnia and other sleep disorders may play an important role in overall preoperative care.

The Future of Preoperative Medicine: Individualized Care

Despite the successes of generalized guidelines such as Enhanced Recovery After Surgery (ERAS) protocols, I believe the next decade belongs to individualization of care. We are already seeing evidence that broadly applied recommendations can harm subsets of patients. The FDA labeling change directing that SGLT2 inhibitors be held 72–96 hours prior to surgery, driven by concern for euglycemic DKA (and subsequently endorsed by other organizations such as the ACC, AHA, and ADA), is one example^{16–18}. Multiple recent studies have questioned whether this is necessary in patients without diabetes mellitus or for procedures without expected prolonged fasting times, and have raised the possibility that routine interruption is itself associated with adverse outcomes, including greater risk of AKI and increased 30-day mortality^{19,20}. This is precisely where individualized care has the opportunity to shine – weighing continuation against interruption in each patient, and educating patients and surgical colleagues about what postoperative monitoring the decision may require²¹. Countless other examples could be offered, but the unifying idea is that the future preoperative clinic stops being a gatekeeper (clearance for surgery) and instead becomes a site of intervention (optimization for surgery). Dr. Lee's 1948 insight still holds: the preoperative clinic is one of the major opportunities for an anesthesiologist to reduce perioperative risk and to provide value as a consultant physician.

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Maternal Venezuelan Ancestry and Anesthesia: Balancing Patient Safety, Genetics, and Equity

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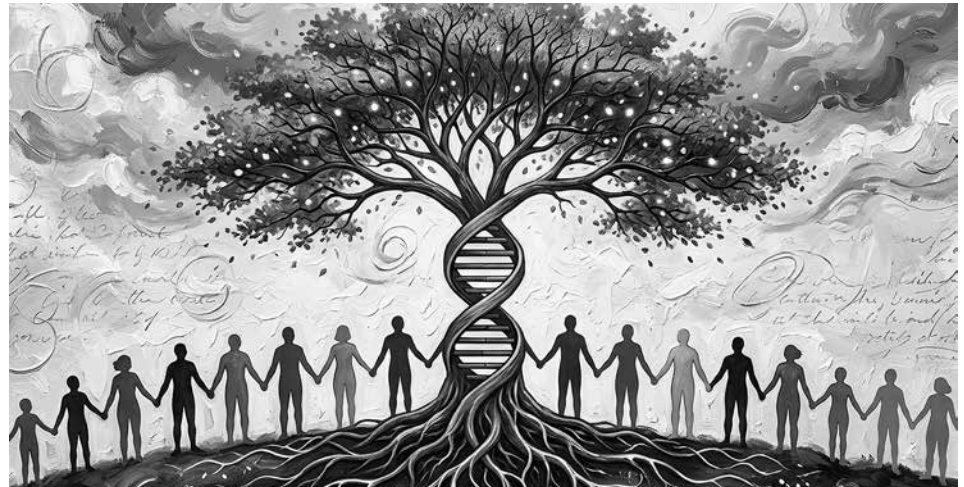


Andrew Kim

In July 2025, the Society of Anesthesiology of Chile reported five devastating neurologic outcomes following otherwise uncomplicated anesthetics in previously healthy children of Venezuelan ancestry. Investigation ultimately linked these cases to an ongoing international study that identified a maternally inherited mitochondrial DNA variant associated with marked susceptibility to volatile anesthetics.

This study, published in *Anesthesiology* in March 2026, detailed the suspected biomolecular mechanism of injury and offered tentative recommendations for anesthesia administration in this population. All patients shared the mitochondrial DNA variant m.11232T>C, which substitutes proline for leucine in the ND4 subunit of respiratory complex I of the electron transport chain. Functional fibroblast studies demonstrated profound suppression of mitochondrial oxygen consumption after exposure to sevoflurane. This finding combined with other experiments led the authors to conclude the variant increases susceptibility to sevoflurane-induced oxidative phosphorylation dysfunction and subsequent basal ganglia degeneration. Fibroblasts exposed to propofol, however, maintained mitochondrial function, leading the authors to suggest preferential use of TIVA in at-risk patients.

The ASA currently recommends asking patients about possible maternal Venezuelan ancestry during preanesthetic evaluation and treating any confirmed lineage as sufficient to consider the patient at risk. Where time permits, genetic testing for m.11232T>C should be pursued prior to preoperative



clearance. Regardless of testing status, guidelines advise avoiding all volatile anesthetics in favor of TIVA with propofol, paired with processed-EEG depth-of-anesthesia monitoring to help avoid burst suppression.

While prudent from a safety standpoint, these recommendations present substantial practical and ethical challenges in implementation. Logistically, screening is complicated by the absence of any point-of-care genetic test which renders current methods too slow for urgent or emergent cases. This leaves ancestry-based triage as the only practical first-line tool which is itself an imperfect proxy that can be unknown, undisclosed, or missed. Furthermore, incomplete penetrance means even a confirmed positive genetic test does not reliably predict who will actually react badly, undermining the value of testing as a clean screening step. Additionally, the cost of genetic testing combined with other associated operative costs may be prohibitive for certain patient populations. Finally, if ancestry-based flagging becomes routine, the number of patients identified will vastly outstrip actual variant carriers, strain genetic counseling capacity, and require careful EHR design so the flag does not become a permanent, over-applied chart label.

From an ethical perspective, the current recommendation of using self-identified ancestry for clinical screening revives the same tension seen in past ancestry-informed programs like sickle cell screening. The risk of both under- and over-capturing true genetic risk while potentially perpetuating stigmatization of an entire ethnicity based on a small number of confirmed cases is

heightened by the current political and healthcare landscape. Fear of immigration enforcement has significantly impacted healthcare seeking behavior in Latin American populations in recent times. By having an ethnicity-based screening question may make patients understandably wary of disclosing maternal lineage, limit truthfulness in responses, and raises real questions about how that information is documented and protected. Furthermore, because the variant is maternally inherited, a positive result has direct implications for the patient's mother and siblings. This subsequently raises the standard cascade-testing dilemmas (duty to warn, right not to know, testing minors) without the necessary infrastructure for adequate genetic counseling.

Despite these concerns, screening is clearly needed to prevent catastrophic outcomes. Drawing on prior ancestry-linked screening programs' shift away from race-targeted mandatory screening toward a universal model, we propose the following framework. At every preoperative evaluation, all patients should first be asked an open-ended, descriptive question about family history of anesthesia complications beyond a binary yes/no. This practice of eliciting a detailed account is more likely to surface a phenotype-consistent event like a stroke, unexplained neurologic deterioration, or unexplained death following anesthesia than a simple check box. Only after this history is taken should maternal Venezuelan ancestry be asked, framed explicitly around the novelty of the discovery and the catastrophic-but-rare nature of the reaction.

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Both qualifiers should be stated to justify the question clinically and to preempt the perception of ethnic profiling, echoing the lesson from HLA-B*1502 and Tay-Sachs screening that ancestry questions land better when paired with clear clinical rationale and reassurance around confidentiality.

Risk management should be stratified by strength of clinical signal rather than treating ancestry and family history as equivalent triggers. A family history consistent with the reported phenotype is the stronger indicator and should prompt automatic genetic testing. Ancestry alone, given unknown and likely incomplete penetrance, should not automatically trigger testing. Instead, it should lower the threshold for provider discretion, with the first-line response being an assessment of whether the case can be safely completed with TIVA. If TIVA is feasible, that resolves the immediate safety concern without the

cost, capacity strain, and stigma risk of reflexively testing a population where most members likely are not carriers. If TIVA is not feasible and the case can be safely delayed, genetic testing should be pursued before proceeding. For emergent cases, where time does not allow this discretion, the same two-question sequence should still be built into standard bedside consent, with any positive answer triggering automatic use of TIVA whenever clinically feasible. Given the limited number of reported cases and emerging mechanistic data, this framework should be viewed as an evolving model requiring refinement as further clinical and epidemiologic evidence accumulates.

The discovery of m.11232T>C represents an important advance in anesthesia safety, but implementation requires more than identifying genetic risk. Key priorities include clarifying penetrance and develop-

ing rapid perioperative genetic testing and international registries. In the meantime, screening strategies must be scientifically sound, ethically defensible, and acceptable to patients. Universal questioning about family history of anesthetic complications, followed by focused discussion of maternal Venezuelan ancestry when appropriate, may offer a balanced approach until rapid testing becomes widely available. More broadly, this case underscores the need for a general framework supporting anesthesia providers as genetic screening becomes increasingly accessible and previously unknown clinically relevant variants continue to be discovered. The challenge for anesthesiologists will be to translate genomic advances into safer care while maintaining scientific rigor, equity, and patient trust.

ASA August Board of Directors Recap

By Jeff Green, MD, MSHA, FASA

VSA - ASA Director

Academic Chair and Program Director

Mary Washington Healthcare



Dr. Jeffrey A. Green

The ASA Board of Directors met August 15-16 in Rosemont, Illinois for the second of three scheduled board meetings this year. On Friday, there are closed Section meetings for Finance, Administrative Affairs, Professional

Affairs and Scientific Affairs as well as a meeting of the resident component governing council, the ASAPAC executive board and Administrative Council. Starting on Saturday, the caucuses, including our own Mid-Atlantic caucus, meet before the first formal session of the board.

Dr. Dante Cerza, Delaware Director, has been elected to the vacant Vice Chair position of the Mid-Atlantic caucus. Dr. Jonathan Gal, New York Director, was elected Caucus Secretary. Dr. Erin Sullivan, Pennsylvania Director, continues to Chair the Caucus.

During the first session of the official meeting, there was an extensive 2027 proposed budget discussion lead by the budget committee, including president elect and

chair Dr. Jeff Mueller, ASA Treasurer and Asst Treasurer, Drs. Crystal Wright and Dr. Rob Thomsen and ASA CFO Mark Manka. Despite record high membership and increased revenues from both dues and non-dues sources, ASA is facing significant financial headwinds due to inflationary pressures, and a lively discussion was had regarding funding priorities and the requirement to produce a budget with a 1% positive margin. The House of Delegates will be faced with a difficult decision in October regarding a cost-of-living dues increase proposed for the 2028 dues cycle. Then the Board members presented testimony to the four review committees on the various reports submitted to each section.

The afternoon session started with a discussion regarding the ASA headquarters building in Schaumburg, IL. The current headquarters has incurred higher costs for property tax, utilities, and repairs and has lost market value. The continuing trend toward hybrid work has diminished the workspace needs such that money can be saved on an annual basis through rental of a smaller space. The ASA BOD has approved pursuit of a sale and selection of new headquarters space by the ASA Administrative Council and the Section on Fiscal Affairs, and a sale is currently pending. The discussion included significant BOD input into the location, design and function of a new headquarters space. The afternoon session also included a candidates' forum where the board heard from candidates for the contested elections

for asst treasurer and vice speaker. The afternoon concluded with a reception in honor of President Dr. Patrick Giam.

On Sunday, the Board again formally met to approve all the review committee reports after suggested modifications from the review committees and any respective budgetary adjustments. Tard heard from President Dr. Patrick Giam and ASA CEO Brian Riley for their annual report highlights. This was followed by advocacy, legislative and economic presentations from ASA's Manny Bonilla and Matt Popovitch.

ASA Board of Directors meetings are open to all members. Members are welcome to provide testimony and listen to Board deliberations. You are encouraged to attend if you ever want to get a close-up view of how the ASA governance functions and how each interested state delegation and others provide input into ASA policy, finance decisions and strategic direction.

Next up for the Virginia delegation is the ASA Annual Meeting in San Diego in October. We hope you will join us for our annual VSA luncheon and meeting. I continue to be honored to serve as your representative to the Board of Directors and lead the delegation to the House of Delegates in October. I remain always available to you regarding anything to do with the ASA and would be happy to have you reach out to me with any of your questions or concerns at dr.jeffrey.green@gmail.com

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UPDATE

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If you have an opinion about something you've read in the VSA Update, or about an issue in the field of anesthesiology or pain medicine, please consider writing a letter to the editor.

- + We prefer letters fewer than 200 words, and they must include the writer's full name, email address and telephone number.
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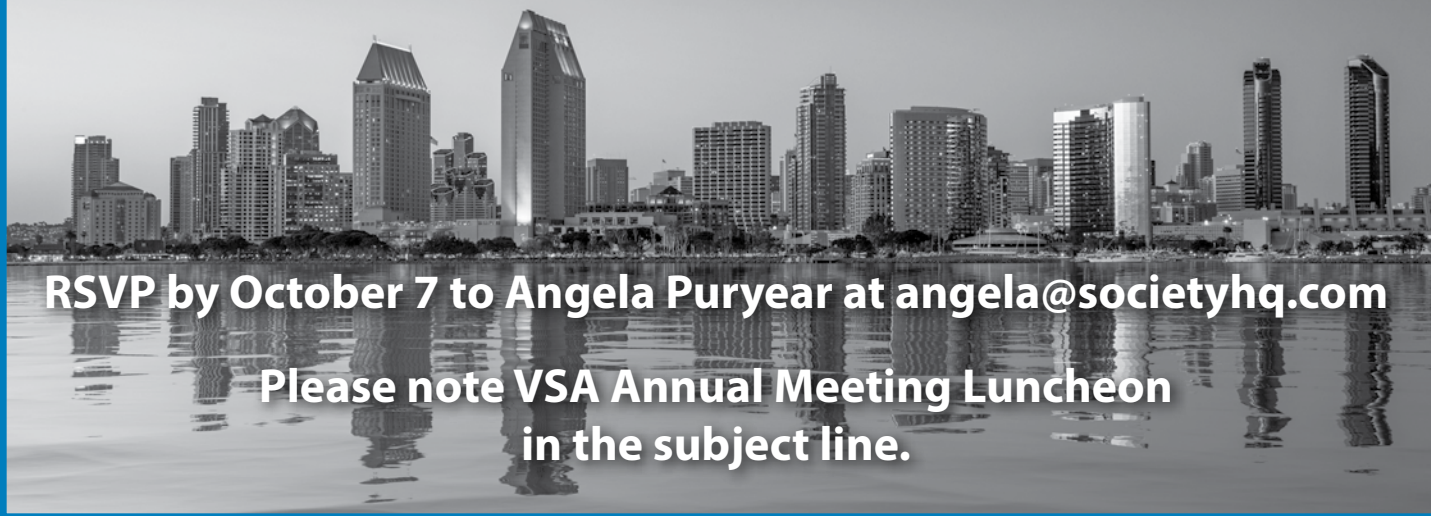
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VSA Annual Meeting Luncheon

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Marriott Marquis San Diego Marina | Rancho Santa Fe #2 Room



RSVP by October 7 to Angela Puryear at angela@societyhq.com

**Please note VSA Annual Meeting Luncheon
in the subject line.**