virginia society of anesthesiologists

UPDATE

www.vsahq.org

SUMMER 2025: **OR SAFETY**

Volume 34, Number 3 • SUMMER 2025

Feature Article

Operating Room Safety: The Role of a Certified Anesthesiologist Assistant

By Akash Sinha, CAA
Virginia Academy of Anesthesiologist Assistants (VAAA) - Immediate Past President
Arlington, VA

Akash Sinha, CAA

In the high-stakes environment of the operating room (OR), safety is paramount. As a Certified Anesthesiologist Assistant (CAA), I play a crucial role in ensuring that patients receive the highest standard of care during surgical procedures. Operating room safety is a collaborative effort shared by the entire anesthesia care team, including anesthesiologists and support staff. In this article, I will discuss the importance of teamwork, the significance of vigilance in patient care, and how we form tailored anesthesia plans based on patient complexity.

A Team-Based Approach to Safety

The Anesthesia Care Team (ACT) model is designed to enhance patient safety and optimize outcomes in the OR. In this model, the CAA works under the direction of an anesthesiologist, supporting both an-

Continued on page 9

Trial by Fire: Simulation of a "Never-Event" to Mitigate Risk and Improve Response in Surgical Fires

Grace Carroll, OMS-IV
Edward Via College of Osteopathic Medicine - Virginia
Virginia Student Anesthesiology Group

Joshua Sison OMS-IV, MS
Edward Via College of Osteopathic Medicine - Virginia
Virginia Student Anesthesiology Group

Mike Saccocci, DO, MPH, FASA
VSA Secretary
Member, ASA Committee on Trauma and Emergency Preparedness (COTEP)
Anesthesiology Consultants of Virginia, Carilion Clinic Department of Anesthesia

Grace Carroll, OMS-IV

A 52-year-old male is on the OR table for an excisional biopsy of a cervical lymph node under monitored anesthesia care sedation and oxygen via nasal cannula at 2L/min. Shortly into the procedure, thick smoke is noted under the drapes–what would you do next?

Fire occurring during a surgical procedure is an unthinkable yet very possible event that can and does occur, even in the modern era. While surgical fire is regarded as a "never-event", closed claim data demonstrates this is not the case.[1] The most recent closed claim data shows that surgical fires represented almost 2% of the events, accounting for 109 claims.[2] While the frequency of this event is indeed very rare (estimates range from 90-565 events per year), and have apparently decreased 71% since 2004, one half of these events have gone on to cause serious harm to the patient![3,4] Furthermore, there have been thermal injuries that

Joshua Sison OMS-IV, MS

Dr. Mike Saccocci

Continued on page 6

Inside This Edition:

OR Safety

vsa virginia society of anesthesiologists UPDATE

Administrative Office

VSA
2209 Dickens Road
Richmond, VA 23230-2005
Phone: (804) 565-6356
Fax: (804) 282-0090
vsa@societyhq.com • www.vsahq.org

Stewart Hinckley
Executive Director
stewart@societyhq.com

Andrew Mann
Association Executive
andrew@societyhq.com

Angela Puryear
Association Coordinator
angela@societyhq.com

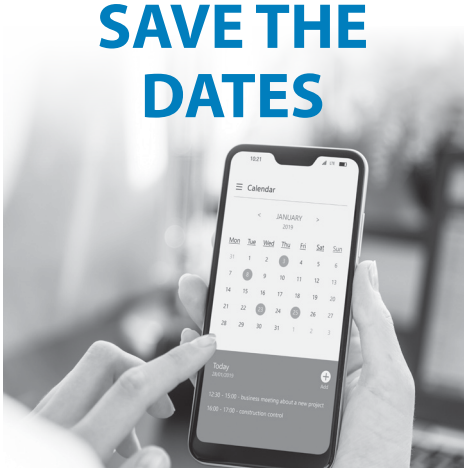
Newsletter Editors

Editor
Brooke Trainer, MD, FASA
brooke@vsahq.org

Associate Editor
Yena Son, MD, MPP

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: Brooke Trainer, MD • brooke@vsahq.org.

SAVE THE DATES



REGISTRATION IS OPEN!

VSA POCUS WORKSHOP

September 13-14, 2025
Delta Hotel
Richmond, VA 23219

Discounted Rate available through
August 29, 2025

ASA ANESTHESIOLOGY 2025

October 10 - 14, 2025
Henry B. Gonzalez
Convention Center
San Antonio, TX

VSA LUNCHEON
Saturday, October 11

President's Message

Safety in the OR — and for the Environment

By Casey Dowling, DO, FASA
VSA President
Winchester Anesthesiologists
Winchester, VA

Dr. Casey Dowling

As we focus this summer on safety in the operating room, it's important to widen our view. Safety doesn't stop at the operating room doors—it extends to the environment we all share. That's why I want to highlight not only traditional patient safety, but also environmental safety.

Recently, two of our VSA members reached out to me about the ASA's important work for the environment, specifically mentioning the deactivation of nitrous oxide pipelines in operating room facilities.

This initiative, spearheaded by the ASA's Committee on Environmental Sustainability of which both physicians are members, addresses a critical but often overlooked issue: the invisible waste from nitrous oxide pipeline systems.

To be clear, this isn't about eliminating nitrous oxide altogether—tanks can still be used effectively in the OR. However, many institutions have discovered that significant volumes of nitrous oxide are leaking from old or underutilized pipeline systems, never reaching the patient and unnecessarily polluting the environment.

Why does this matter? Inhalational agents—and nitrous oxide in particular—are potent greenhouse gases. Their impact on global warming is substantial, and reducing unnecessary emissions is a straightforward step toward greener healthcare.

Deactivating these pipelines reduces waste, limits pollution, and preserves the quality of patient care. It's a practical, sustainable solution—and one that aligns safety in the OR with safety for the planet.

Advocating for Access: Certified Anesthesiologist Assistants in Virginia

While we're talking about progress, we're also proud to share a significant legislative victory for our state. Virginia has officially authorized Certified Anesthesiologist Assistants (CAAs) to practice in the Commonwealth. This is a major step forward for patient access, workforce support, and high-quality anesthesia care.

CAAs are highly trained medical professionals who work under the direction of anesthesiologists as integral members of the Anesthesia Care Team. Many of them already live in Virginia but, until now, had to commute to neighboring states like North Carolina or DC to practice. Thanks to new legislation—championed with the guidance of the VSA advocacy team—they can now contribute their expertise right here at home.

This isn't just a win for CAAs, it's a win for patients, hospitals, and the entire anesthesia community. With CAAs now recognized by Medicare, TRICARE, Medicaid, and major insurers, Virginia joins 22 other states in expanding access to safe, effective anesthesia care.

This progress didn't happen overnight. It took vision, collaboration, and advocacy rooted in maintaining the high standards of the Anesthesia Care Team model. And it's another example of how we can improve care through thoughtful policy and teamwork.

Be Part of the Change

Whether it's greening the OR or expanding the anesthesia workforce, one thing is clear: together, we can drive meaningful change. Join the Virginia Society of Anesthesiologists and be part of the solution—for our patients, for our teams, and for our environment.

Infrastructure System Failures Expose Operating Room Vulnerabilities

By Brooke Trainer, MD, FASA
Anesthesiologist and Critical Care Physician
VCU Health System;
Central VA Health Care System
Richmond, VA

Dr. Brooke Albright-Trainer

On May 27, 2025, Richmond, Virginia, endured its second major infrastructure failure of the year - a widespread water treatment plant malfunction that resulted in a citywide boil water advisory and triggered another shutdown of operating rooms at Virginia Commonwealth University (VCU) Medical Center. Just months earlier, in January, a power outage at the same treatment facility had already forced the cancellation of surgeries and left 230,000 residents without potable water.

For the general public, these may seem like rare, isolated inconveniences. For those of us in anesthesiology, these events underscore a truth we cannot afford to ignore; modern operating rooms are only as safe as the most basic utilities supporting them. Without clean water and reliable electricity, sterile technique is impossible. Without sterile technique, safe surgery is impossible.

The Invisible Pillars of OR Safety

When people think of anesthesia or surgical safety, they picture ventilators, airway management, medication vigilance, or emergent resuscitation. But beneath those visible skills lie the unseen, non-negotiable pillars that are taken for granted: electricity and water.

Water? Yes—an unsung hero in preventing surgical infections. ORs depend on clean, pressurized water for:

- sterilizing surgical instruments
- hand scrubbing and aseptic preparation
- wound irrigation
- environmental cleaning
- autoclave and HVAC system function

> *Richmond's experience should shake us—not because it happened in the U.S., but because we now know how little it takes for our system to begin resembling the world's poorest nations.*

When water pressure drops, contamination is possible and sterile processing stops. And so does surgery. That is exactly what happened – twice - at VCU Medical Center in 2025.

This wasn't a failure of people. It was a failure of infrastructure. But the result was the same; patients delayed, procedures canceled, and safety compromised.

A Tale of Two Systems

The irony isn't lost on those of us who've practiced in austere conditions, such as in the military, or certain countries around the world. What Richmond experienced for 48 hours is daily reality in low-resource countries. In large portions of Africa, Southeast Asia, and Central America, water shortages are constant, electricity is sporadic, and sterilization capacity is limited or nonexistent.

According to the World Health Organization, nearly 50% of health facilities in the world's poorest nations lack access to basic water services. In these settings, anesthesia providers deliver care without suction, without sterile gloves, without clean linens. The rate of surgical site infections is several-fold higher than in high-income countries. The impact on morbidity and mortality is staggering.

Richmond's experience should shake us—not because it happened in the U.S., but because we now know how little it takes for our system to begin resembling theirs.

Resilience and Readiness: A Professional Imperative

As anesthesiologists, we pride ourselves on anticipating the worst: difficult airways, malignant hyperthermia, hemorrhage, cardiac arrest. But how often do we apply that same mindset to the infrastructure of our practice environment?

- Do we know our hospital's emergency water and power protocols?
- Do we have input on how OR safety is prioritized in disaster planning?

Continued on page 5

OR Safety

OR surgery in medicine plays major role
In emergency and trauma a critical tool
An epicenter of critical interventions
Safety measures prevent errors before admissions

OR procedures demand absolute safety calls
In care given to patients elective or emergency
Need to follow guidelines and all protocols
Rigorously mitigate risks and get them healthy

Dr. Jaikumar Rangappa

OR is highly controlled in a special area
In the hospital, isolated apart other terraria
Aseptic conditions & equipment sterilization
In OR - greatest responsibility with innovation

"Hand hygiene " with stringent infection control
Equipment sterilization with many a protocol
"OR air quality"-prevent post op complications a goal
High safety standards set with no actions foul

Effective communication of OR surgical team
Is absolute to return patient to a happy dream
Implement 'Checklist' to prevent any stupid error
Close loop communication to avoid lawyers terror

Proper functioning of surgical equipment
From simple blade to Robotic equipment
With real time monitoring system indigent
Clear communication-surgeon and assistant
Anesthesiologist, surgeon, nurse in every event

Surgical excellence in OR is a team effort
With constant learning to hold the fort
CME with a simulation and a 'fire drill'
To keep calm environment is essential

Patient positioning & periodic monitoring under anesthesia
Are crucial, to prevent injury to body or brain with aphasia
Safe anesthetic administration needs OR teams cooperation
No incision be made by surgeon without anesthesia's permission
To prevent an error of omission

Clear surgeon & anesthesia communication
With multiple IVs and constant medication
Management of any emergent situation
See happy patient somnolence
OR veneration

Efficient workflow, turnover reduce surgery duration
With pre-op care prevents harm with early detection
And prevent errors of omissionor commission
Face any expected or treatable complication

Continuous quality improvement in care
Lessens egotistic attitude of 'do and dare'
Morbidly - morality conference will air
Strength & weakness, improve OR fare

Patient education, signed informed consent to surgery
With the team on same page prevents all quackery
Transparent exchanges with safe recovery
"Root cause analysis" will become history

Surgical specialists have unique safety considerations
From cardiac neuro to OB to orthopedic operation
AI will lead to changes in many OR applications
To minimize problems & faster safety restoration

Excellent OR safety, an interplay of measures
From prevention to treatment for all to treasure
From pre-op to post-op after surgical procedure

Infrastructure, *from page 4*

- Do we advocate for investment in critical systems, even when they're invisible—until they're not?

These are not administrative questions. They are clinical ones. Because when utilities fail, the OR becomes unsafe—no matter how skilled the staff.

Let Richmond Be the Warning

Twice this year, a flagship academic hospital system in a major U.S. city had to cancel surgeries due to water and power failures. That alone should jolt our community. But the real tragedy would be if we treat these events as anomalies.

Instead, let them be our warning. Let Richmond remind us that OR safety does not begin at incision—it begins at the infrastructure level. Let it remind us that what we take for granted—clean water, steady power—is a fragile privilege, not to be taken for granted.

And finally, let it renew our resolve not just to safeguard our own systems, but to stand in solidarity with colleagues around the world for whom these challenges are not exceptional, but expected.

Because the next time the lights go out—or the water shuts off—it might not just be a delay. It might be a disaster. And patient safety will depend not just on how we respond, but how prepared we were in the first place.

Fire in the OR, *from page 1*

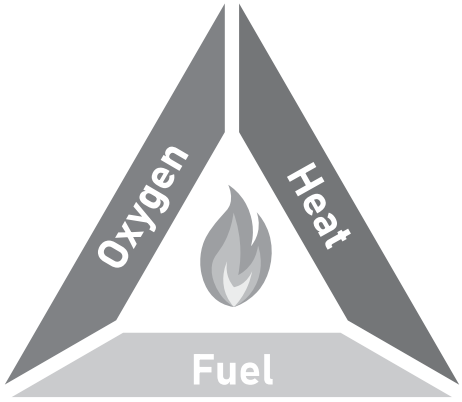
have occurred which led to catastrophic outcomes, such as those which can occur following an airway fire.[5,6]

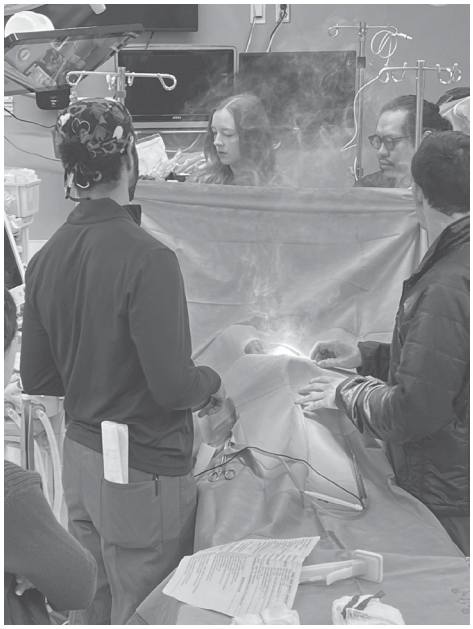
Several elements are needed to cause a fire, and these are commonly referred to as the "fire triad", which consists of an oxidizing gas, heat, and a fuel source. Two common oxidizing gases in the operating room environment include both supplemental oxygen and nitrous oxide. These gases are not necessarily flammable by themselves but can increase the fire risk when in contact with flammable substances. The next element is heat, which involves several possible sources in the OR including cable connections, fiber optic lights, electrocautery, electrosurgery, and lasers. The final piece to the fire triad is fuel. The source of fuel will also vary by type of procedure and could include linens, supplies, surgical drapes, alcohol preps, and even the patient!

Now that we know what is required to start a fire, we must consider the individual risk factors that could contribute to an OR fire event and an increased likelihood of patient harm. Factors we must consider include surgical sites, ignition sources, flammable materials, as well as oxygen concentration and delivery method.

Let's look at our initial patient scenario. Ignition of fire at the surgical site involving a cervical lymph node could pose a significant threat to this patient's airway. The surgeon is utilizing an electrocautery device, which could serve as an ignition source, and is working close to surgical drapes, a known flammable material. In addition, an alcohol-based preparation was used. Once smoke is identified by a member of the team, it is crucial to act quickly to eliminate these sources and therefore reduce harm to our patient. We must identify and remove all aspects to the fire triad starting with our oxygen source. The flow of supplemental oxygen should be terminated immediately. All possible heat and fuel sources should be removed from the surgical site quickly and discarded.

Simultaneously, we must evaluate urgent potential risks to the patient, starting with the airway. In our example, given the proximity of the surgical site to the airway, it is important for the anesthesiologist to be communicating with the rest of the surgical team if there is concern for airway burns and the need for intubation to secure the airway from potential edema and facilitate bronchoscopy if needed. The patient should be removed from the OR as quickly and safely as possible.





Note: Simulated smoke was theatrically generated water vapor and posed no risk to anyone present.

To demonstrate this scenario, a team of surgical residents and medical students participated in a simulated OR fire at the Carilion Clinic Center for Simulation, Research and Patient Safety. The participants entered the simulation OR and took on roles of a typical OR team: anesthesiologist, attending surgeon, surgery resident, surgical technician, and circulating nurse. The team was assigned to a scenario involving lymph node surgery on the patient's neck.

As the simulation started, there was swift recognition of a developing fire. There was some delay in removing the drapes and confusion about where they should be discarded. It was ultimately decided to place the drapes in the OR trash bin. The participants communicated promptly about discontinuing any source of oxygen from the anesthesia machine and evaluating the patient's airway. The participants proceeded to send the circulating nurse to call for help but an unforeseen result of discarding the drapes was reigniting the inadequately extinguished fire when combined with disposed alcohol preps in the OR trash bin. The simulated fire was now larger and uncontained. Another delay occurred as the participants had some difficulty in finding the fire extinguisher as this was not an OR that was familiar to them.

After some troubleshooting, the participants used the fire extinguisher but could not completely extinguish the simulated flames in the OR trash bin, resulting in the need of a second pass. The fire safety officer overseeing the event quickly pointed out improper technique in holding and using the equipment. He said most people underestimate the weight of a typical OR water/mist fire extinguisher (22 pounds)! In addition, while many have heard of the mnemonic "P-A-S-S" related to operating a fire extinguisher (Pull pin, Aim hose, Sweep Side-to-side), not readily apparent is that the metal safety pin can be hard to remove under duress, as the operator may be inadvertently firmly squeezing the handle simultaneously. Instead, placing the fire extinguisher on the ground first, breaking off the plastic zip-tie, pulling the metal pin, then carefully picking up the 22-pound extinguisher and taking aim low at the base of the fire can facilitate a smoother response to fire suppression.

As attendees began debriefing, there was active discussion on how the scenario could have gone more efficiently. It did not occur to the team that the simulated patient was still present in the room and should have been removed and taken elsewhere to be managed while staff dealt with the continuing fire. Clearly, improved familiarity with the location and operation of fire suppression equipment can vastly improve team effec-

Continued on page 7

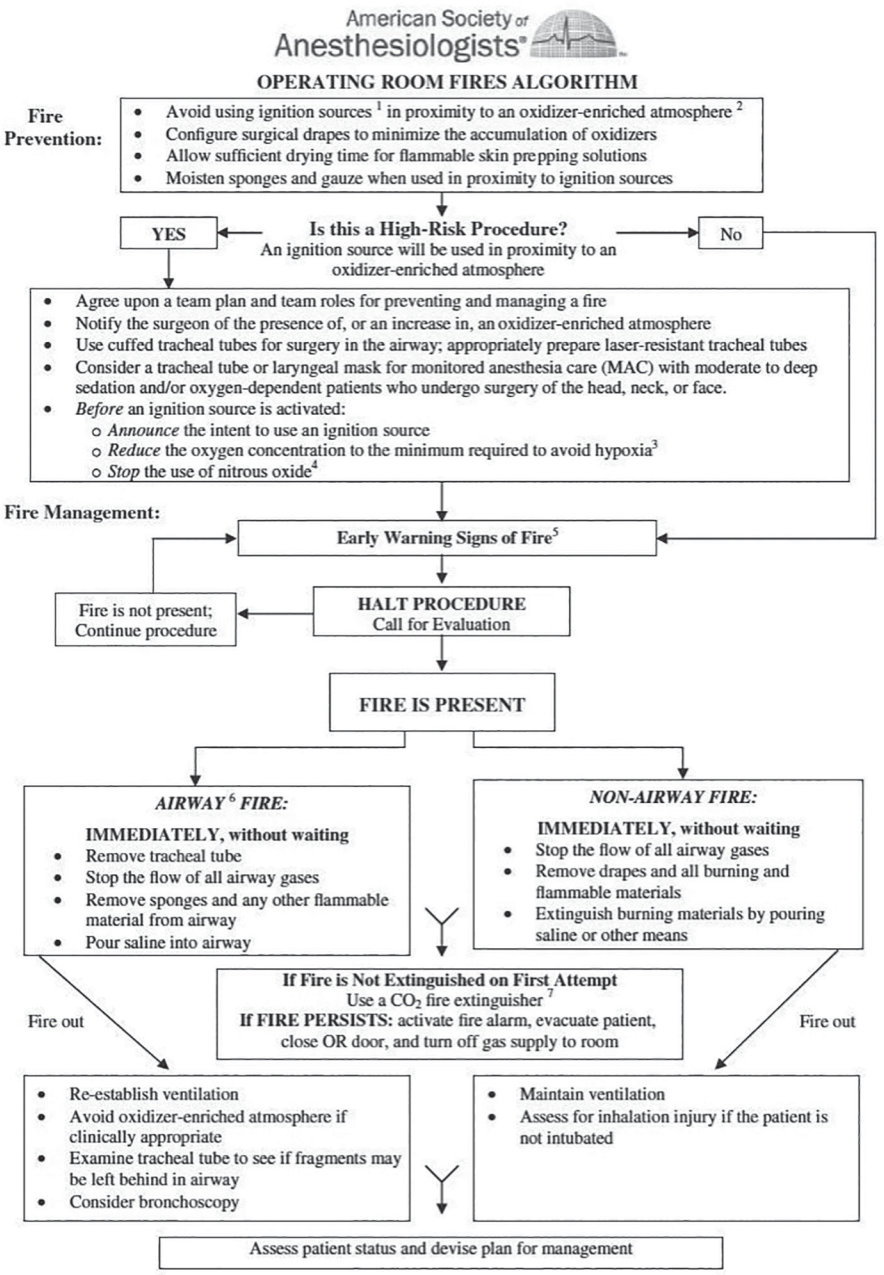
Fire in the OR, *from page 6*

tiveness if such an event occurs.

One concept the team learned after debriefing was how to apply the R-A-C-E mnemonic to OR fires. R stands for 'Rescue' – rescue and remove patients in immediate danger. A is 'Alarm' – call for help and alert the facility (or 911) of the emergency situation. This is critical so that staff from adjacent operating rooms are alerted to take actions needed to protect their own patients/staff. C is 'Confine' – contain the fire as safely as practical. E is 'Extinguish and Evacuate'' – Depending on the situation and size or scope of the material on fire, this could include immediate application of irrigation from the surgical field onto fires involving the patient, prep, or field, and discharge of the fire extinguisher on combusting materials removed from the surgical field. Many institutions include a bucket of saline or sterile water and bulb syringes in their sterile field protocol for all cases involving an ignition source. In addition, while initial attempts are made to extinguish the fire, always consider evacuating the patient and staff from danger. If fire persists, evacuate, activate the fire alarm, close the OR door, and turn off gas supply to the room.

There are many ways we can prevent OR fires from occurring and precautions we can take to ensure all OR personnel are prepared in the event of a fire. It should become a practice standard to know where the shut off valves and fire extinguishers are before practicing in a new environment. Before every procedure, fire risks specific to the procedure should be identified and communicated during a standardized time-out. OR team members should verbalize understanding of these risks and address any questions or concerns.

All OR team members should also be aware of hospital-specific safety protocols including identifying the location of the closest OR fire extinguisher, knowing who to contact in the event of an emergency, and remaining up to date with any safety training. During the procedure, it is important to keep the surgical field clean and dry. Adhere to dry-time recommendations when using alcohol-based antiseptic preps and avoid any pooling in the patient's body hair. Overall, we should minimize the use of flammable materials whenever possible. Electrosurgical devices and other heat-generating equipment should be inspected and maintained regularly according to manufacturer guidelines. Tips of equipment which generate heat (e.g., Bovie tip, laparoscopic cameras, etc.) should



[1] Ignition sources include but are not limited to electrosurgery or electrocautery units and lasers.
[2] An oxidizer-enriched atmosphere occurs when there is any increase in oxygen concentration above room air level, and/or the presence of any concentration of nitrous oxide.
[3] After minimizing delivered oxygen, wait a period of time (*e.g.,* 1-3 min) before using an ignition source. For oxygen dependent patients, *reduce* supplemental oxygen delivery to the minimum required to avoid hypoxia. Monitor oxygenation with pulse oximetry, and if feasible, inspired, exhaled, and/or delivered oxygen concentration.
[4] After stopping the delivery of nitrous oxide, wait a period of time (*e.g.,* 1-3 min) before using an ignition source.
[5] Unexpected flash, flame, smoke or heat, unusual sounds (*e.g.,* a "pop," snap or "foomp") or odors, unexpected movement of drapes, discoloration of drapes or breathing circuit, unexpected patient movement or complaint.
[6] In this algorithm, airway fire refers to a fire in the airway or breathing circuit.
[7] A CO_2 fire extinguisher may be used on the patient if necessary.

Fig. 1. Operating room fires algorithm.

Continued on page 9

Anesthesiologist Head Injuries in the OR

By Jason Roop
SpringStory

Dr. Yena Son

When the ASA recently shed light on anesthesiologist head injuries in the operating room, it didn't come as a surprise for Yena Son, an anesthesiology resident at VCU Health System in Richmond.

"I think I've seen at least one or two of us hitting our head on something in the OR weekly — if not more frequently," Son says.

The bonks from equipment happen to attending anesthesiologists, resident physicians, CRNAs, staff members and surgeons alike, she says.

What Son didn't realize was that it was an issue being addressed by ASA's Committee on Occupational Health. "It's just something we just sort of know happens," Son says. "I don't think it's something that's talked about very much."

ASA recently drew a connection between such collisions with ceiling-mounted systems and the safety of anesthesiologists and their patients.

Such systems can include movable and fixed monitors, surgical equipment, lights, and their supporting booms, as well as ceiling mounted access to anesthesia gases and electric outlets.

Anesthesia teams are arguably the most vulnerable to these head injuries, ASA reported, because of the limited and often shared space in anesthetizing locations, and their frequent need to make sudden and abrupt movements to deliver urgent patient-focused actions.

Making matters more challenging, ambient lighting is typically lowered during endoscopic, laparoscopic, robotic and radiologic procedures. That can increase the likelihood of collisions with low-hanging objects.

"The OR is a constantly evolving environment." says Son, who earned her undergraduate and graduate degrees at the University of Virginia, attended medical school at Virginia Commonwealth University, and soon heads to a fellowship in the critical care subspecialty at George Washington University.

> *During a more extreme collision with equipment, an anesthesiologist could become incapacitated or impaired, the ASA committee reports, potentially leading to a medical emergency.*

Son, who stands 5-feet-2, says she's hit her head on a handle during a procedure.

Another complication is that the anesthesia team may need to move — if an arm has fallen, or to replace an IV, for example. "While we're moving around," she says, "they may have changed the environment around us while we're focused on our own tasks."

It's more prevalent toward the end of the case, she's observed, when people are stepping away or things have changed.

During a more extreme collision with equipment, an anesthesiologist could become incapacitated or impaired, the ASA committee reports, potentially leading to a medical emergency: "This is especially concerning when it occurs at a procedure site physically separated or distant from hospital operating rooms or during off hours when relief by another anesthesiologist is not readily available," the report says. "Even momentary pain, bleeding, or visual disturbance can distract an anesthesiologist and pose a safety risk to patients."

To address the issue, the ASA recommends increasing awareness through safety meetings with all operating room staff, generating proposed solutions. It also recommends that safety teams evaluate reports of boom strikes, identify high-risk circumstances, and correct conditions that are likely to produce head injuries.

In addition, ASA says, anesthesia department staff should participate in planning or design of rooms or procedural suites to provide input to protect anesthesiologists who will be working in those areas.

Strong communication should be encouraged to make sure everyone knows when equipment is moved, the committee recommends. And departments should have contingency plans in place for an injured or suddenly disabled anesthesiologist, consistent with accreditation standards.

Role of a CAA, *from page 1*

esthesia delivery and patient monitoring to enhance safety. While the anesthesiologist is responsible for the overall anesthesia plan and critical decision-making, the CAA assists with the administration of anesthesia, real-time patient monitoring, and adjustment of anesthetic agents. This close collaboration allows for a more thorough and responsive approach to each patient's needs.

Personalized Care Planning

When we evaluate a patient for surgery, we consider a range of factors—medical history, current medications, allergies, and any previous anesthetic experiences. Together, the anesthesiologist and I devise a customized anesthesia plan aligned with the patient's specific risks and the complexity of the procedure. For a straightforward surgery, this might involve standard monitoring and routine anesthetic techniques. In contrast, for complex procedures or patients with significant comorbidities, we implement advanced monitoring and tailor our techniques to minimize potential complications.

Vigilance in Every Moment

One of the cornerstones of operating room safety is constant vigilance. Anesthesia is a dynamic process, and even subtle changes in a patient's vital signs can signal the onset of complications. Before each surgery, I conduct a thorough preoperative equipment check, ensuring that the anesthesia machine, monitors, and emergency systems are all ready and functioning properly. During the procedure, I continuously monitor vital signs - heart rate, blood pressure, oxygen saturation, and end-tidal CO_2 - and make real-time adjustments as needed. Any deviation from a patient's baseline requires swift evaluation and, often, immediate intervention.

Communication Is Critical

Effective communication with the anesthesiologist is essential to safe, efficient care. I maintain a constant dialogue with my supervising anesthesiologist, providing updates and coordinating responses to any clinical changes. This seamless communication ensures we are unified in our decision-making and proactive in addressing patient needs as they arise.

Centering the Patient

At the heart of everything we do in the OR is the patient. Each individual brings unique complexities, and it's our duty to ensure their comfort, safety, and well-being throughout the surgical experience. Preoperative consultations give us the opportunity to listen to concerns, ease anxiety, and build trust. When patients feel seen and understood, it fosters a collaborative atmosphere that supports better outcomes and a more positive surgical journey.

Conclusion: A Commitment to Excellence

Operating room safety is a multifaceted endeavor requiring constant communication, vigilance, and teamwork. As a Certified Anesthesiologist Assistant, I am proud to contribute to this effort by working closely with anesthesiologists and the wider perioperative team. Through personalized care planning, technical expertise, and a shared commitment to patient-centered care, we uphold the highest standards of safety and support successful surgical outcomes for every patient.

Fire in the OR, *from page 7*

also be secured in their proper receptacle according to manufacturer recommendations. From an anesthesia standpoint, always use the lowest possible oxygen concentration and avoid any pooling of oxygen under the drapes. This is particularly important with sedation cases involving open gas delivery systems, such as the nasal cannula or face mask.

In summary, OR fires can be catastrophic, and we must take the necessary precautions for every procedure to reduce the risk of occurrence and mitigate patient harm. Holding regular simulations can improve communication and teamwork amongst the OR staff, therefore improving patient outcomes.

Risk factors and possible elements that could contribute to the fire triad should be identified and minimized before every procedure. In 2013, the American Society of Anesthesiologists (ASA) published their most updated guidelines on preventing and managing OR fires. We recommend reviewing these guidelines at asahq.org for more detailed information on steps we can take to avoid a fire event and reviewing the published ASA algorithm for managing operating room fires, below.[7]

Grace Carroll, Joshua Sison and Dr. Mike Saccocci

References

1. Teresa S. Jones, Ian H. Black, Thomas N. Robinson, Edward L. Jones; Operating Room Fires. *Anesthesiology* 2019; 130:492–501 doi: https://doi.org/10.1097/ALN.0000000000002598
2. Sonya P. Mehta, Sanjay M. Bhananker, Karen L. Posner, Karen B. Domino; Operating Room Fires: A Closed Claims Analysis. Anesthesiology 2013; 118:1133–1139 doi: https://doi.org/10.1097/ALN.0b013e31828afa7b
3. Clarke, J.R. & Bruley, Mark. (2012). Surgical fires: trends associated with prevention efforts. Pa Patient Saf Advis. 9. 130-135.
4. Bruley ME, Arnold TV, Finley E, Deutsch ES, Treadwell JR. *PA-PSRS Pa Patient Saf Advis*. June 2018;15.
5. Barker, S. J., & Polson, J. S. (2001). Fire in the operating room: a case report and laboratory study. *Anesthesia & Analgesia*, 93(4), 960-965.
6. Bhananker, S. M., Posner, K. L., Cheney, F. W., Caplan, R. A., Lee, L. A., & Domino, K. B. (2006). Injury and liability associated with monitored anesthesia care: a closed claims analysis. *The Journal of the American Society of Anesthesiologists*, 104(2), 228-234.
7. Apfelbaum JL, Caplan RA, Barker SJ, et al (2013). Practice Advisory for the Prevention and Management of Operating Room Fires. *Anesthesiology*, 118(2):271-290.

Standardizing Safety: Why Virginia Needs a Statewide Mandate for OR Crisis Checklists

By Kean Farhani and Rueshil Fadia
Medical Students
Virginia Commonwealth University School of Medicine
Richmond, VA

Kean Farhani

Rueshil Fadia

Imagine you are the Resident Physician for a routine abdominal case. The attending is scrubbed into another room. The induction went smoothly; the patient is intubated and stable. Suddenly, their blood pressure plummets. Their heart rate spikes. ETCO2 falls. Ventilator pressures climb. SpO_2 dips.

You try a bolus of phenylephrine. There's no response. You try ephedrine. Nothing. The pressure is rising, and the circulating nurse asks you, "What do you need?" Your focus narrows, and things seem to be moving faster than ever before.

On the wall there is a checklist: Intraoperative Hypotension. You ask the nurse to read it aloud while you continue to reassess. The tube is in the correct place and there's no wheezing. You notice decreased breath sounds on the left. You remember that a subclavian line was placed pre-op: a case of tension pneumothorax. A stat chest tube is placed. Finally, their blood pressure rises and SpO_2 recovers.

In the OR, even experienced providers can feel overwhelmed. Crisis checklists are a resource to slow down the moment and introduce structure in a stressful situation. These checklists aren't meant to replace training; they are meant to reinforce it.

The idea of checklists was first implemented by the aircraft industry. The aircrew could reference this checklist in stressful situations to ensure no vital components were overlooked. This strategy has now been implemented in various ORs across the country.[1]

> *Half of the operating room teams had a checklist available to reference, while the other half relied on their instincts. He found that only 6% of teams omitted a step when a checklist was available while 23% omitted a step without a checklist for reference.*

Dr. Arriaga, an anesthesiologist for Brigham and Women's Hospital, was interested in the efficacy of these checklists for surgical safety. Due to the infrequency of these crises, a clinical trial was impractical. He instead performed a simulation study with 106 crisis scenarios. Half of the operating room teams had a checklist available to reference, while the other half relied on their instincts. He found that only 6% of teams omitted a step when a checklist was available while 23% omitted a step without a checklist for reference.[2]

Many ORs now utilize anesthesia-specific checklists to help providers navigate anesthesia-related crises. A 2019 literature review found that 23 out of the 25 reviewed studies concluded that anesthesia-specific checklists can "decrease human error, improve patient safety and teamwork, and increase quality of care."[3]

Despite this literature consensus, there have been no legislative measures that reflect this.

In the Regulations for Licensure in the Hospitals of Virginia, chapter 410, it states, "The anesthesia department/service shall be organized under written policies and procedures regarding staff privileges, the administration of anesthetics, the maintenance of safety controls and qualifications, and supervision of anesthetists and trainees. Policies shall include provisions in addition to the above, for at least:

(i) Pre-anesthesia evaluation by a medical staff member;
(ii) Safety of the patient during the anesthesia period;
(iii) Review of patient's condition prior to induction of anesthesia and post anesthetic evaluation; and
(iv) Recording of all events related to each phase of anesthesia care."[4]

This legislature does not specifically mandate a checklist. Thus, its implementation is left to the discretion of each hospital. This may lead to variability in patient care.

Crisis situations in the OR do not come with warnings. Crises unfold rapidly and demand immediate and accurate decision-making. In those moments, a resource that helps you re-focus is crucial.

This is exactly what a crisis checklist does.

Crisis checklists are proven tools that aid surgical teams during rare but high-stakes emergencies. While there are many hospitals that have adopted them voluntarily, implementation is inconsistent across Virginia. A statewide mandate would ensure every

Continued on page 11

Checklists, *from page 10*

operating room, whether in a large academic facility or a rural hospital, is equipped with the same safeguards.

If your OR doesn't have crisis checklists easily accessible, consider discussing their implementation with your department. Integrate them into simulations and team briefings to familiarize team members with their use. It is important to recognize that checklists are not meant to replace clinical judgement; they will affirm it. Talk to your hospital leadership, engage with organizations like the Virginia Society of Anesthesiologists, and reach out to your local legislators. By pushing for a mandate, you're not just improving outcomes—you're helping create a more reliable, equitable standard of care for every patient in Virginia.

References

1. Knoche, B. B., Busche, C., Grodd, M., Busch, H.-J., & Lienkamp, S. S. (2021). A simulation-based pilot study of crisis checklists in the emergency department. *Internal and Emergency Medicine*, 16(8), 2269–2276. https://doi.org/10.1007/s11739-021-02670-7
2. Arriaga, A. F., Bader, A. M., Wong, J. M., Lipsitz, S. R., Berry, W. R., Ziewacz, J. E., Hepner, D. L., Boorman, D. J., Pozner, C. N., Smink, D. S., & Gawande, A. A. (2013). Simulation-Based Trial of Surgical-Crisis Checklists. *New England Journal of Medicine*, 368(3), 246–253. https://doi.org/10.1056/NEJMsa1204720
3. Saxena, S., Krombach, J. W., Nahrwold, D. A., & Pirracchio, R. (2020). Anaesthesia-specific checklists: A systematic review of impact. *Anaesthesia Critical Care & Pain Medicine*, 39(1), 65–73. https://doi.org/10.1016/j.accpm.2019.07.011
4. Virginia Department of Health Administrative Code Chapter 410, Regulations for the Licensure of Hospitals in Virginia. (n.d.). https://law.lis.virginia.gov/admincodefull/title12/agency5/chapter410/
5. Beth Israel Deaconess Medical Center. (2020). Emergency manual: Cognitive aids for perioperative critical events (Version 1.0). (n.d.). https://anesthesia.bidmc.harvard.edu/AnesPortal/Documents/EmergencyManual-PRINT.pdf
6. Goldhaber-Fiebert, S. N., Bereknyei Merrell, S., Agarwala, A. V., De La Cruz, M. M., Cooper, J. B., Howard, S. K., Asch, S. M., & Gaba, D. M. (2020). Clinical Uses and Impacts of Emergency Manuals During Perioperative Crises. *Anesthesia & Analgesia*, 131(6), 1815–1826. https://doi.org/10.1213/ANE.0000000000005012
7. Krombach, J. W., Edwards, W. A., Marks, J. D., & Radke, O. C. (2015). Checklists and Other Cognitive Aids For Emergency And Routine Anesthesia Care-A Survey on the Perception of Anesthesia Providers From a Large Academic US Institution. *Anesthesiology and Pain Medicine*, 5(4). https://doi.org/10.5812/aamp.26300v2

Dr. Trainer Featured in Virginia Department of Veterans Services (DVS) Spring 2025 eNews

Virginia Veteran Profile: Dr. Brooke E. Albright-Trainer, MD, FASA Richmond, Virginia

Dr. Brooke Albright-Trainer

Please give an overview of your military service and the branch in which you served

I served as an Anesthesiologist and Critical Care Air Transport Team Physician in the United States Air Force. My assignments included working at Landstuhl Regional Medical Center in Germany and serving as Medical Director of the anesthesia department at Langley Air Force Base, Virginia. I deployed three times to Afghanistan, where I played a vital role in flying wounded soldiers out of combat zones for medical care in Germany and ultimately the U.S. For my service, I was recognized as the top-level physician of the European Medical Command and received the U.S. Air Force European Clinical Excellence Award in 2012.

What was or were your most rewarding assignments while serving?

One of my most rewarding assignments was serving as a Critical Care Air Transport Team (CCATT) Physician during my deployments to Afghanistan. Ensuring the safe transport of severely injured soldiers from the battlefield to advanced medical care was a profound and fulfilling responsibility. Additionally, my leadership as the Medical Director of the anesthesia department at Langley Air Force Base allowed me to directly impact patient care and medical readiness.

What are you doing now?

I currently hold a part-time position at both the Veterans Affairs and Virginia Commonwealth University in Richmond, Virginia. I serve as an Assistant Professor of Anesthesiology specializing in Anesthesiology, Acute Pain Medicine, and Critical Care Medicine. My work includes managing complex ICU cases, such as liver transplants, surgical trauma burns, and major vascular surgeries. In addition to clinical practice, I am actively involved in medical education, research, and advocacy. I also serve as President-Elect of the Virginia Society of Anesthesiologists and previously led the Association of VA Anesthesiologists.

What advice would you give to a transitioning service member?

I would advise transitioning service members to seek mentorship and professional networks early to help navigate career changes. The transition from military to civilian life can be challenging, but leveraging your military experiences, leadership skills, and adaptability can set you apart in any field. Additionally, continue to pursue education and professional development, and don't hesitate to advocate for yourself and your career aspirations. Lastly, remember the value of service to others—whether in medicine, business, or another industry—your background in teamwork and mission-oriented work is an asset that will continue to serve you well.

The Power of Preparation

M3 Luke Johnson is Researching Best Practices to Improve Training for Aspiring Anesthesiologists — Including Himself

By Grace McOmber
VCU School of Medicine

Hope for the best; prepare for the worst. Medical student Luke Johnson is learning this principle firsthand as he explores his interest in anesthesiology and caring for patients in low-resource settings.

Now an M3, Johnson sought research opportunities early in medical school, and he co-authored a recently published study that tackles one of the most precarious situations for an anesthesiologist -- an operating room blackout. The goal, he said, is to make residency training more comprehensive, ensuring that trainees have prepared for and practiced worst-case scenarios.

"Research is a structured, evidence-driven way to find better ways to do things." Johnson said. "I want my research to have a positive impact on the field and larger society."

Expecting the unexpected

As a specialty, anesthesiology has long utilized simulation training for unexpected adverse reactions to anesthetic drugs. Operating room blackouts, however, are rare in the U.S., and Johnson said it's equally as rare to find an anesthesiology residency curriculum that covers what to do in the situation. He, however, is interested in working in international and low-resource areas, where blackouts are more common.

"I have a friend, Dr. Bokolo, who's a surgeon in West Africa, and he said that blackouts happen nearly every day in his ORs," Johnson said. "If I want to be an anesthesiologist that works in low-access areas, this is training that I'll need to have."

With his interest in global medicine in mind, Johnson reached out to Michael Kazior, M.D., an assistant professor in the Department of Anesthesiology, who has published multiple simulation studies with the goal of advancing anesthesiology training. Kazior, who described Johnson as a "real go-getter," introduced him to the power outage simulation study he had recently conducted in VCU's Human Simulation and Patient Safety Center.

In the simulation, two third- and fourth-year anesthesiology residents and an instructor were brought into a simulated routine hernia surgery, while two other residents watched via livestream in an observation room.

M3 Luke Johnson recently published an anesthesiology simulation study in the Association of American Medical Colleges' Journal of Teaching and Learning Resources (Photo by Arda Athman, VCU School of Medicine)

Sometime during the simulated surgery, facilitators in an observation room cut the electricity. They shut off all the participants' electronic equipment, including the anesthesia machine, which comprised a mechanical ventilator and inhalation anesthesia, lights and a patient-monitoring device that displayed the patient's vital signs.

The residents were then instructed on protocols to ensure the patient was as safe as possible, like converting to a total intravenous anesthetic, a bag valve mask in place of a mechanical ventilator and their own cellphone flashlights to illuminate the room.

Following the scenario, residents were debriefed by investigators and asked to reflect on their actions. They were also surveyed on their confidence levels before and after the simulation.

Johnson's main responsibility was to bring the study to the next phase by analyzing data from the simulation, running tests and creating tables, drafting the report manuscript and responding to editors' critiques — all of which earned him first authorship when the report was published in early May.

The data, Johnson said, showed that prior to the scenario, the participants felt unprepared for an operating room power outage. After going through the simulated scenario and debrief, the participants had an improved confidence in their abilities, signaling that simulation training for disaster situations can enhance anesthesiology training.

"Simulation research is extremely hard to publish, and Luke has already achieved a goal that most attendings are not able to attain," Kazior said. "He always wants to learn more, take the next step and progress in his academic goals."

Exploring opportunities

This was the first time Johnson had ever written a scientific report, an experience he described as "stressful, but rewarding."

Johnson credits his success to Kazior's guidance when it came to writing and editing the manuscript, along with his willingness to take Johnson under his wing. For Kazior, it was an opportunity to pay forward the mentorship he said he received throughout his medical education and residency training.

"The only reason I have the knowledge and ability to design and carry out these projects is because I had great mentors who taught me along the way," Kazior said. "I hope one day when Luke is an attending somewhere that he invites me to participate in a study that he has designed."

As he continues his clinical education over the next couple of years, Johnson said he is excited to explore anesthesiology and other specialties and use research as a means of combining his interests.

"Something I've seen in medical school is that my cohort has so many different interests and passions," Johnson said. "I think research is a way to explore how those interests intersect with what we're learning right now, and mentors really appreciate when you come to them with your own ideas and interests."

This article appeared in the VCU School of Medicine News. It is reprinted with permission.

Legislative Update

By Lauren Schmitt
Commonwealth Strategy Group

Our bill from this past General Assembly Session, SB 882, was signed by Governor Youngkin and will become law on July 1. SB 882 will allow for Certified Anesthesiologist Assistants to be licensed in Virginia. This is a huge win for anesthesia providers and our patients.

After July 1, the Board of Medicine at the Virginia Department of Health Professions, can begin promulgating regulations to license CAAs. The regulatory process can be slow and typically takes around 18 months. While this is now the law, there is still a lot of work to be done through the regulatory process. The Board of Medicine will determine the scope of practice, supervision requirements, licensure criteria, etc. VSA and the Virginia Academy of Anesthesiologist Assistants will engage in this process and monitor it closely.

All eyes are on Virginia as we approach the November elections. For Governor, the Democratic nominee is former U.S. Representative Abigail Spanberger and the Republican nominee is Virginia's current Lt. Governor, Winsome Sears.

There are still several candidates for the positions of Lt. Governor and Attorney General. The Democratic and Republican nominees will be determined after the primary election on June 17th.

For Attorney General's race, Virginia's current Attorney General Jason Miyares (Republican), will run against either former Delegate Jay Jones or Shannon Taylor, the Commonwealth Attorney for Henrico County.

For Lt. Governor, the Republican nominee, John Reid (public radio host), will run against one of the several Democratic candidates running in the primary, Senator Ghazala Hashmi, Senator Aaron Rouse, former Mayor of Richmond Levar Stoney, and the Chair of the Prince William County Board of Supervisors, Dr. Babur Lateef.

In addition to the statewide races, all 100 seats in the House of Delegates are up for election. This is a critical election for Virginia and it's imperative that anesthesiologists are engaged in the process.

Now more than ever, we need to have a strong VSA PAC. Please donate to our PAC today so we can continue the momentum in Virginia.

Give $882 To Celebrate SB 882!

Big news: SB 882 is landmark legislation that will allow for the licensure of Certified Anesthesiologist Assistants in Virginia. Simultaneously, legislation to give CRNAs independent practice in Virginia was successfully defeated.

To honor these victories and fuel the next phase of our fight, we're asking our members to contribute $882—one dollar for every step it took to get SB 882 across the finish line.

Your $882 will help:

- Elect legislators who champion the physician-led anesthesia care team
- Mobilize grassroots efforts in key districts
- Fund strategic advocacy to ensure SB 882 is fully & fairly implemented

Donate $882 today to celebrate this historic win and power the movement forward.

Thank you to those who contributed to the VaSAPAC January 1 – June 4, 2025

Andrew Sekhon
Brian McConnell
Daniel Taraskiewicz
Elsaadat, Amr
Erin Hennessey
Jeffrey Green
Heidi Henson
Iyabo Muse
Lynda Wells
Joseph Walch
Julie Joseph
Maxine Lee
Christopher Rigsby
Robert Ricketts
Garth Skoropowski
Tanuja Avinash Mainkar
Theodore Pearson
Brooke Albright Trainer
William Manson

Senator Mamie Locke Receives Prestigious National Award

On May 6th, at the American Society of Anesthesiologist's annual legislative conference in Washington, D.C., Senator Mamie Locke received ASA's "Excellence in Government Award." This award is given to elected leaders for their exemplary contributions to the medical specialty of anesthesiology, its practitioners and patients.

VSA member Dr. Alice Coombs, who is the Chair of Anesthesiology at VCU and served as President of the Medical Society of Virginia, had the honor of presenting Sen. Locke with this prestigious award and thanking her publicly for all her work.

Senator Locke carried the legislation this session, SB 882, that creates licensure for Certified Anesthesiologist Assistants in Virginia. She was instrumental in passing this bill and protecting the physician-led anesthesia care team. Virginia anesthesiologists and our patients are grateful to have leaders like Senator Locke in the General Assembly.

ASA LEGCON 2025

VSA had a great turn out at LegCon 2025. Congratulations to our Resident Section representatives President Dr. Henry Wilson and Vice-President, Dr. Gavin Brion. VSA presented them with awards at the VSA dinner in appreciation of their dedication and service. Dr. Wilson graduated in June and will continue with VCU. Dr. Brion now becomes President of the Resident Section and we welcome Dr. Ricardo Moscoso as Vice-President.

Top Row: Brandon Raquet VCOM OMS III, Kelly Gordon VTC MSIII, Wayne Tate VCOM OMS III, Christopher Sharrow MD UVA, Grace Carroll VCOM OMS III, Ron Bank MD Inova, Josh Sison VCOM OMS III, Tanner Lydic VCOM OMS II
Middle Row: Justin Howe VTC MS II, Robert Rickets III MD UVA, Brooke Trainer MD VCU, Jeffrey Greene MD MW, Martha Kelley, MS, CMPE, Joe Ponce LUCOM OMS II, Richard Moscoso MD VCU CA1
Bottom Row: Gavin Brion MD UVA CA2, Karen Frieswyk LUCOM OMS II, Michelle Adema LUCOM OMS II, Casey Dowling DO, Winchester Anesthesia

LegCon 2025: A Resident's Perspective

By Gavin Brion, MD
VSA Resident Section VP
UVA Health System
Charlottesville, VA

Dr. Gavin Brion

This spring, I had the incredible opportunity to travel to Washington, D.C. with the Virginia Society of Anesthesiologists (VSA) to meet with members of Congress and advocate for the future of our specialty. Alongside fellow anesthesiologists from across the country, we met directly with our elected officials and their staff to discuss legislative issues critical to both our profession and our patients.

Among the key topics we addressed was the urgent need to preserve physician-led anesthesia care within the Department of Veterans Affairs. The proposed move toward a CRNA-only model threatens to lower the standard of care for our nation's veterans. We strongly urged legislators to support maintaining the physician-led, team-based model that has been proven to deliver the safest and most effective outcomes.

We also advocated for stronger accountability measures for large insurance companies, particularly in the wake of ongoing abuses that prioritize profit over patient care. From delayed payments under the No Surprises Act to the siphoning of funds away from direct care in Medicare Advantage plans, we emphasized the importance of congressional oversight and fair enforcement. In addition, we pushed for a long-overdue permanent fix to the Medicare Physician Fee Schedule—an essential step in ensuring the financial sustainability of physician practices, especially for anesthesiologists whose reimbursements continue to lag behind inflation and rising operational costs.

One of the most inspiring aspects of the trip was meeting anesthesiologists who now serve in different legislative offices. Hearing about their journey from the operating room to the halls of Capitol Hill was both motivating and humbling. Their stories underscored the importance of having physician voices at the table when health policy is being shaped and reminded us that advocacy is not limited to one moment—it's a lifelong responsibility.

This experience solidified my belief that residents can and should play an active role in advocacy. It was an honor to be part of these important conversations and to receive the VSA Resident Section Vice President Award. I'm grateful to the VSA for their support and for making resident involvement a priority.

Looking ahead, I'm excited about the upcoming VSA regional event at King Family Vineyards this September. It will be a great opportunity to connect with other residents and attendings across the state in a more relaxed setting while continuing to build a strong, engaged anesthesiology community.

From Classroom to Capitol Hill

Medical Students' Voices at LEGCON 2025

By Justin Howe and Kelly Gordon
MD Candidates, Class of 2026
Virginia Tech Carilion School of Medicine
Roanoke, VA

Justin Howe

Kelly Gordon

At 6:45 in the morning, the conference ballroom was chilly. The welcome reprieve from D.C. humidity would not last long, however, as hundreds of anesthesiology attendings, residents, and students from across the country filed into the space. As first-time attendees of LEGCON, we did not know exactly what to expect of the days before us. We knew, of course, that we had the opportunity to speak directly with members of Congress and their staff to advocate for healthcare reform alongside passionate physician leaders in the Virginia Society of Anesthesiologists (VSA). What that meant for us, as third-year Virginia medical students in our blazers that rarely saw the light of day, was yet to be seen. Warm introductions and speakers filled the morning while we anxiously awaited our Congressional appointments.

As students, we spend four years immersed in the complexities of the human body, learning the vast medical and surgical knowledge required to diagnose and treat patients. However, the unspoken truth not taught in the classroom is the immense amount of politics involved in everyday healthcare. From access to care and insurance coverage to hospital funding, there is so much more to being a physician than simply the knowledge to treat–our ability to care for patients is shaped by policies often beyond our control.

Unlike specialties that focus on long-term cures, anesthesiologists are dedicated to keeping patients safe and comfortable often during incredibly vulnerable moments. But our specialty faces serious challenges and struggles: a shift away from physician-led models, policies that risk compromising patient safety, and decreasing Medicare reimbursements.

At LEGCON, we had the chance to share these concerns in Washington, D.C. We spoke with lawmakers about how policy decisions directly impact our ability to deliver safe, high-quality anesthesia care. We were welcomed into offices like that of U.S. Representative Morgan Griffith of Virginia's Ninth Congressional District, whose staff listened attentively to our concerns and asked questions about how to aid in our efforts for change. It was empowering to realize that our voices, especially as future physicians in Virginia, can shape the future of medicine.

Throughout our third year, we've seen firsthand how systemic issues hurt patients. Delays in care, unaffordable medications, and confusing insurance hurdles are routine. This has been disheartening and left us wondering what we can do, as future physicians, to drive change. LEGCON offers a way for us to fight for better healthcare. The experience reinforced our commitment to advocacy and provided a platform that we will continue to utilize as we become resident and attending physicians. Over the course of two days, we walked back and forth between the conference ballroom and Capitol Hill multiple times. Through the literal blood from the blisters in our shoes, sweat from the D.C. heat, and tears from the allergens in the freshly cut Capitol grass, we can say it was well worth it.

virginiasociety of anesthesiologists

2209 Dickens Road • Richmond, VA 23230-2005

Pre-Sort Standard
U.S. Postage
PAID
Permit No. 2929
Richmond, VA