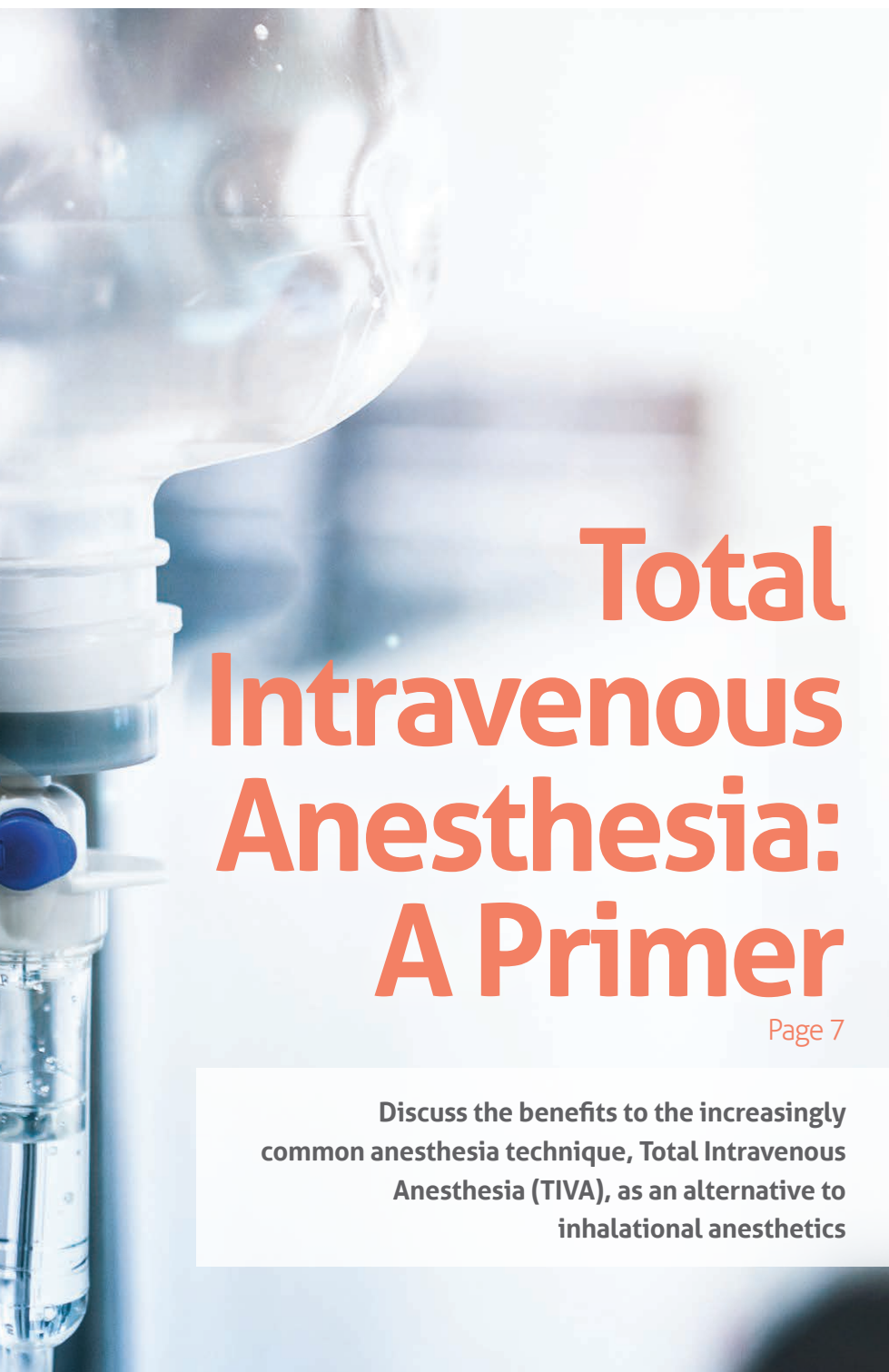




# The Sensor



## Total Intravenous Anesthesia: A Primer

Page 7

Discuss the benefits to the increasingly common anesthesia technique, Total Intravenous Anesthesia (TIVA), as an alternative to inhalational anesthetics

## IN THIS ISSUE:

### Cesarean Section and Hysterectomy for Placenta Accreta

A case study of how the anesthesia team addressed difficulties and potential risks.

### Member Highlights

Marc McGaffic, Cer.A.T.T. is the Director of Accreditation for ASATT to support and promote the anesthesia profession for years to follow.

Russell Morales, Cer.A.T. is a biomedical specialist, Anesthesia-Respiratory.

### Education Program Director Articles

Michael Phelps, MD, discusses the origin of the Johns Hopkins/CCBC Anesthesia Technology program.

Bryan Fulton, M.Ed., BAA, Cer.A.T.T., discusses the rise of Anesthesia Technology in Oklahoma.



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ANESTHESIA TECHNOLOGISTS  
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# Perspective


## PRESIDENT'S LETTER



### Greetings ASATT Members!

I recently had the honor and pleasure of meeting with Dennis McMahon, the inaugural President of ASATT in 1990, to discuss organizational operations related to historical, current, and future perspectives. The discussion shed light on the rich history of our profession and society, which as of this year, will mark 36 years dated by the original articles of incorporation filed in California. It also gave me a great deal of context in regard to the sheer amount of time and effort it takes for milestone events to occur at the national level for allied health organizations such as ours. As an example, our examination took seven years and hundreds of hours, from a plethora of contributing volunteers, to take the idea from concept to implementation. The first exam was hosted at multiple sites throughout the nation on May 18th, 1996 with a total of 316 technicians achieving certification on first attempt, representing an overall pass rate of 77%. One site in Cleveland, Ohio had 93 candidates that flew in from 16 different states! This, at a time when the internet was in its infancy and the primary mode of communication was still via direct phone calls and mailed newsletters, marking the event as one that was truly historical and a testimony to what can be accomplished by a collective, motivated body.

We are, yet again, preparing for another milestone in which a brand new offering to our profession, as an avenue of clinical engagement and employment, will be solidified by the end of the year and announced at this year's conference in Fort Worth, entitled "Evolution 2022", of which I am extremely excited to have planned and be hosting, in conjunction with the Board of Directors and staff from Headquarters. It will also be an inaugural event in that it will differ greatly from historic offerings, in that there will be multiple lectures occurring simultaneously between educational speakers and vendor representatives, in order for member attendees to appropriately choose what subject matter best fits both their interests and applicability to respective workplaces, with several continuing education credits being conferred for the two day event from a myriad of sources. For those who are unable to attend, we will also continue the virtual CE offering in September by popular demand, but I assure you the live offering will not want to be missed and I very much look forward to seeing you there.

**David Foster, Cer.A.T.T.**  
ASATT President 

# Highlights

## SOCIETY NEWS



### Quarterly Educational Webinars

We want to thank all the speakers for the last webinar in April and June for presenting great and insightful content! Check back on the ASATT website and social media pages for more information regarding quarterly educational webinars and other events to earn CEUs!



### In-Person Conference

Join ASATT this summer for Evolution 2022: The Anesthesia Technology Expo! This annual in-person conference will be held August 10-12 in Fort Worth, TX! This will be a great opportunity to meet other members of the society, and take advantage of unique, hands-on training sessions to earn CEUs! Stay up-to-date with more information about the conference by visiting the Expo Conference Page! More information listed there includes: hotel information, agenda information, and registration information!

Register TODAY to secure the Early Bird registration pricing! Save up to \$200 off the regular event fees before the discount ends on May 31!



### Board of Directors Nominations/Election

Nominations are now closed for the 2022 ASATT Board of Directors election! Thank you for the nominations you believe can help ASATT further grow as an organization. This year, nominations were being accepted for the position of: Region Director for Region 2, 4, and 6, Treasurer, and President-Elect. The term of office for Regional Directors and Treasurer are for two years. The term for President-Elect is for 3 years (one year each as President-Elect, President, and Past President). Elected Board members are required to sign Confidentiality, Conflict of Interest Disclosure, and Code of Ethics forms. 

# Spotlights

## LEADERSHIP HIGHLIGHT



### Marc McGaffic, CerATT DIRECTOR OF ACCREDITATION

Marc McGaffic, is a transplanted-native of Detroit Michigan and is an Associate Provost for Health Science Programs as well as the Programmatic Dean for Anesthesia Technology at Wayne County Community College District, Northwest Campus. Mr. McGaffic received his Bachelor's in Healthcare Administration Leadership degree from City College, Ft. Lauderdale, Florida (2015) and his Master's in Management with a focus in Leadership degree from Strayer University, Washington, D.C. (2017). Mr. McGaffic has over twenty-years of experience in education and leadership – which started in 2002 when he graduated from Western School of Health and Business Careers, Pittsburgh PA and began working at

the University of Pittsburgh, Presbyterian Hospital where he accepted a certified technician position. Beginning in 2005, Mr. McGaffic was offered the Program Director leadership position at Sanford Brown Institute (formally Western School), where he graciously accepted. In 2012, Mr. McGaffic relocated from Pittsburgh to Altamonte Springs, Florida where he began his position as the Regional Director for Anesthesia Technology managing three campus locations (Orlando, Ft. Lauderdale, and Miami) that offered the anesthesia program. Mid-2017, Mr. McGaffic, once again relocated – this time to Detroit, Michigan where he accepted his position of Health Science Campus Dean – for Anesthesia Technology – then later became the Associate Provost of Health Science Programs.

Among his professional career, Mr. McGaffic has provided his leadership direction while sitting on many volunteer educational accreditation societies. Most notably, Mr. McGaffic holds the position of Chair for the Commission on Accreditation for Anesthesia Technology Education (CoA-ATE). The CoA-ATE assists programmatic and educational institutions across the United States with developing, maintaining, and reviewing accreditation practices for our profession.

More recently, Mr. McGaffic has accepted the position of Director of Accreditation with ASATT to support and promote the anesthesia profession for years to follow. This position will provide direct oversight to the Board of Directors within ASATT regarding the Institute for Credentialing Excellence (ICE) Accreditation. This vital piece of accreditation is necessary to catapult our profession towards recognition at both State and Federal levels.

"Joining the Board of Directors with ASATT has been a dream come true. I am eager to start working with the Members of the Board and our Society Members so that we can develop a profession that will have lasting implications throughout our communities for years to come."

Thank you!

**Marc McGaffic, MS, BS, Cer.A.T.T.**

## MEMBER HIGHLIGHT



### Russell Morales, CerAT

**What is your current job title?**

Biomedical Specialist, Anesthesia – Respiratory

**How many years have you been in the Anesthesia Technology profession?**

I have been in the profession for a total of 31 years. I worked as lead AT for 27 years in three different hospital around the NYC area and the last four-years as a Biomed responsible for anesthesia equipment.

**What do you find most challenging about your job?**

Some challenges are constant like finding missing equipment, but today's challenges have changed. Today we have to deal with supply chain issues and the lack of qualified AT's in the workforce.

**How many years have you been an ASATT member?**

26 Years. I joined ASATT in 1996 and that is when I became certified.

**What is your fondest memory of ASATT?**

When I walked into my first annual conference (New Orleans 1996) and saw all the other AT's from all over the country.

When the conference was over, I made some friends and realized that I was not alone in the world of AT's and that many were experiencing the same issues I had been experiencing.

**What has been your proudest accomplishment? (Personal life, professional life, or both.)**

I have many things that I am proud of in my life. My Family, Military Service and ASATT Certification just to name a few.

**What is your favorite food?**

I love NYC Pizza!!

**People would be very surprised to know that...**

I love to dance.

**What do you enjoy doing in your spare time?**

Watching live music performances, no matter the genre.

**What is your favorite type of music?**

I love all types of music. My music choices change with different situations, but my favorite artist was Tom Petty.

**What is your favorite movie?**

I enjoy the *Jason Bourne* series.

**What would you like to get around to doing one of these days?**


Travel to all 50 states, I'm halfway there. 

# Happenings

## ASATT AND RELATED EVENTS



### 2022 Annual Educational Conference

ASATT is currently planning an on-site 2022 Annual Educational Conference with a theme of "Evolution 2022: The Anesthesia Technology Exposition!" Believing in the power of in-person networking and education, the ASATT Board will continue to monitor COVID-19 guidelines and adjust if necessary to ensure a safe and valuable experience. **SAVE THE DATE** and plan to join us August 10-12, 2022 in Fort Worth, Texas! Details, including registration information, will be coming soon! 

## SCIENCE AND TECHNOLOGY

# Total Intravenous Anesthesia: A Primer



**MICHAEL PHELPS, MD**  
ASSISTANT PROFESSOR OF  
ANESTHESIOLOGY AND  
CRITICAL CARE MEDICINE

### Background and Advantages

Total Intravenous Anesthesia (TIVA) is an increasingly common anesthesia technique. It is an alternative to the use of inhalational anesthetics, and has advantages that can be useful in certain situations. TIVA is portable, non-polluting, and does not require bulky gas delivery systems or waste anesthesia gas connections. It functions well even without an endotracheal tube or supraglottic airway in place. This can happen during a rigid bronchoscopy, for instance.

Additionally, some TIVA medication combinations are associated with high clarity on emergence and low incidence of postoperative nausea and vomiting (PONV), which is desirable for outpatient anesthetics. More than a century ago (1911) it was reported with intravenous administration of diethyl ether(!) that "the patient begins to come round

very soon after the anaesthetic is stopped and is able to converse rationally within a few minutes"<sup>1</sup>. Moreover, it was noted that "post-anaesthetic vomiting and pulmonary irritation are both of them extremely rare". Hence, the low PONV rate observed with modern TIVA medications is not a new finding.

Still more potential benefits of TIVA include reducing the recurrence rates of some types of malignancies (compared to volatile anesthetics), and general anti-inflammatory effects.

TIVA is usually done with a propofol infusion as a core component. Additional medications, such as opioids and/or ketamine, are often added to achieve a desired objective. Additionally, medications such as dexmedetomidine, ketamine (in lower doses), lidocaine, and magnesium are sometimes added as an adjunct.

### TIVA Pharmacokinetics and Pharmacodynamics

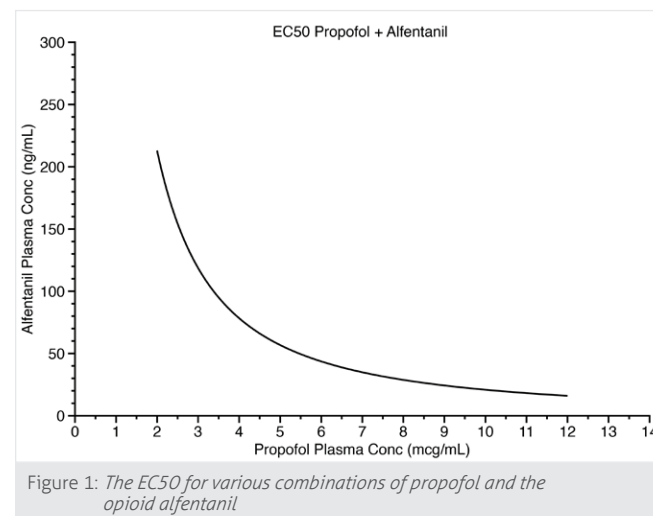
Volatile anesthetic concentrations are easily measured with a gas analyzer and displayed as an end-tidal anesthetic concentration that reflects the concentration in the lungs. The TIVA analogue is plasma concentrations of the various medications. Unlike a gas analyzer, there is no continuous monitor for TIVA medication concentrations, and any blood samples drawn would likely have a very long turnaround and thus not clinically useful. Exhaled propofol analysis is in the research stage and appears promising, but there are currently no commercial products available for monitoring propofol plasma concentrations in real-time. Instead, clinicians need to estimate plasma concentrations and make changes up or down without patient-specific data. Fortunately, the use of pharmacokinetic mathematical models allows reasonable accuracy. The United States is the only country without computer-controlled TIVA based on pharmacokinetic models; American clinicians must use heuristics instead.

Minimum Alveolar Concentration (MAC) is a statistic for inhalational anesthetics defined as the concentration at which 50% of patients don't respond to surgical stimulation. The equivalent for TIVA is called EC50. Like MAC, the probability of responding to surgical stimulation rapidly decreases with incremental increases in plasma concentration beyond the EC50.

The EC50 of propofol has been measured at over 8 mcg/mL<sup>2</sup>. This is a very high plasma concentration that would require a high-dose infusion to maintain, and would experience a prolonged emergence, since the time required for the plasma

concentration to become low enough to be awake would be significant. And keep in mind at this concentration 50% of patients will move to surgical stimulation, which necessitates an even higher plasma concentration if immobility is the objective.

Propofol's inefficiencies at inhibiting movement would be a significant problem for TIVA if it were not for the fact that additional medications interact favorably with propofol. Opioids, for instance, are synergistic with propofol. This means that the combination of propofol and an opioid allows a desired effect at lower plasma concentrations than either medication alone could achieve. Figure 1 shows the EC50 for various combinations of propofol and the opioid alfentanil; the concavity of the curve indicates that proportionately less propofol and alfentanil are required when used together (synergy). This property illustrates a secret to effective TIVA: **Well-selected medications should be co-administered with propofol**, and this synergy exploited for the entire case. At the end, when both medications are discontinued, the plasma concentrations of each medication eventually reach a point where the synergy collapses and is no longer able to maintain general anesthesia; this represents emergence from anesthesia.



Remifentanil is an ultra-short-acting opioid (typical half-life is under 5 minutes) that is frequently co-administered with propofol for TIVA. The combination inhibits movement and breathing and is associated with a rapid and clear emergence. The presence of remifentanil drastically decreases the EC50 of propofol to about 2.5 mcg/mL<sup>3</sup>, allowing for the fast emergence.

- Bolus: 1 mg/kg
- Infusion scheme:
  - 167 mcg/kg/min x 10 mins
  - 133 mcg/kg/min x 10 mins
  - 100 mcg/kg/min thereafter

Achieves plasma concentration ≈3-4 mcg/mL

"Bristol Technique" for Propofol Administration

American clinicians lack computer-controlled infusions and must consequently rely on pharmacokinetic heuristics to achieve the approximate plasma concentration. For the typical propofol plasma target when remifentanil is also used (2.5 - 4 mcg/mL), the heuristic known as the "Bristol Technique" or the "10-8-6 rule" can be employed. It consists of a loading dose of 1 mg/kg, followed by an infusion of 10 mg/kg/hr (167 mcg/kg/min) for 10 minutes, then 8 mg/kg/hr (133 mcg/kg/min) for another 10 mins, and then 6 mg/kg/hr (100 mcg/kg/min) thereafter.<sup>4</sup> This generally achieves plasma concentrations in the range of 3-4 mcg/mL. (Pediatric patients require higher dosing schemes to get to the same plasma concentrations. One such published scheme is the McFarlan dosing scheme.<sup>5</sup> This article, however, is targeted to adult patients.) The Bristol Technique illustrates an aspect of propofol pharmacokinetics: **Propofol needs to be loaded**, with initially higher, then somewhat lower infusion rates to first achieve and subsequently maintain a stable plasma concentration.

Remifentanil, with its very short duration of action, can be run at high doses and still emerge quickly, because it is rapidly metabolized. This enables the propofol to be run lower. Remifentanil achieves a new steady-state plasma concentration in approximately 20 minutes on an infusion, which is incredibly fast compared to most medications. Other medications, such as sufentanil or ketamine, can't be run as high and still wake up quickly. Thus, the optimal propofol plasma concentrations are higher when combined with these medications

See Table 1 for more information on TIVA mixtures and some infusion schemes based on population averages. There is a large inter-person variability in the response to each medication and the degree of synergy between the medications. Additionally, these population-average plasma targets from the literature are largely derived from Dutch gynecology patients, and might not translate perfectly to all

**"TIVA is increasingly becoming a routine part of an anesthesia clinician's toolkit, having several potential advantages that can be exploited if done properly."**

Mixture	Use	Plasma Targets	Recipe
Propofol + Remifentanil	Clarity on emergence, immobility, apnea	<b>Propofol:</b> 2.5-3.5 mcg/mL <b>Remifentanil:</b> 6-9 ng/mL	<b>Propofol:</b> <ul style="list-style-type: none"> <li>• 1 mg/kg bolus</li> <li>• 150-175 mcg/kg/min x 10mins</li> <li>• 120-140 mcg/kg/min x 10 mins</li> <li>• 100 mcg/kg/min for next 3+ hrs</li> </ul> <b>Remifentanil:</b> 1-3 mcg/kg bolus, then 0.05-0.25 mcg/kg/min (ideal body weight)
Propofol + Ketamine	Spontaneous breathing, hemodynamic stability	<b>Propofol:</b> 4-5 mcg/mL <b>Ketamine:</b> ≈300 ng/mL	<b>Propofol:</b> <ul style="list-style-type: none"> <li>• 2 mg/kg bolus</li> <li>• 175 mcg/kg/min x45 mins</li> <li>• 150 mcg/kg/min</li> </ul> <b>Ketamine:</b> <ul style="list-style-type: none"> <li>• 0.75 mg/kg bolus</li> <li>• 1 mg/kg/hr infusion</li> </ul>
Propofol + Sufentanil	TIVA with lingering opioid analgesia	<b>Propofol:</b> 4-4.5 mcg/mL <b>Sufentanil:</b> 0.2-0.3 ng/mL	<b>Propofol:</b> <ul style="list-style-type: none"> <li>• 2-2.5 mg/kg bolus</li> <li>• 200 mcg/kg/min x45 mins</li> <li>• 170 mcg/kg/min</li> <li>• May decrease to 140 mcg/kg/min at hour 3.</li> </ul> <b>Sufentanil:</b> <ul style="list-style-type: none"> <li>• 0.25 mcg/kg bolus</li> <li>• 0.2-0.3 mcg/kg/hr infusion</li> </ul>

Table 1: TIVA mixtures and some infusion schemes based on population averages

scenarios. Consequently, depth of anesthesia monitoring is recommended to titrate to each individual patient.

Elderly patients will obtain higher plasma concentrations for a given infusion scheme, and at the same time require lower concentrations to achieve the same effect. This implies that dosing may need to be dramatically lowered in the elderly. Again, depth of anesthesia monitoring can be beneficial here.

### TIVA Medication Combinations

In addition to propofol-remifentanil TIVA, there are other combinations that are sometimes employed. Propofol and sufentanil infusions are good for patients in whom some lingering opioid postoperatively is desired. Large spine surgeries, which are often done on patients with chronic pain who take high doses of opioids preoperatively, are good examples of cases appropriate for propofol and sufentanil.

Propofol and ketamine is another classic combination. Unlike the propofol-opioid combinations, this results in good spontaneous breathing and hemodynamic stability. It is also

helpful in opioid-tolerant patients, as ketamine produces analgesia through mechanisms besides opioid receptors. Unlike many medications often used with propofol, such as lidocaine and remifentanyl, ketamine is stable when physically mixed with propofol, and can be added to a bottle of propofol for a single-infusion solution.

Ketamine is also useful as an adjunct (in lower infusion rates) with a propofol-opioid anesthetic for patients with chronic pain or depression, or to blunt hyperalgesia that can develop from administration of opioids. Dexmedetomidine may share some of these benefits when used as an adjunct.

### Engineering for High Reliability Infusions

Unlike volatile anesthetics, which utilize the breathing circuit as a conduit for administration, intravenous infusions lack disconnect alarms and gas analyzers. It is, therefore, important to optimize the intravenous tubing to minimize the chance of accidental disconnection or retrograde flow up the IV fluid bag. This includes ensuring tight connections in the IV lines and confidence that the IV works well.


Well-designed infusion tubing has built-in one-way valves and low dead space. The valves prevent other medication and fluid boluses from backing up the infusion pumps. They also prevent the TIVA infusions from coming up into the IV fluid line. This helps to maximize the probability that the infusions will continuously flow into the vein. Additionally, the low dead space seen by the infusions makes them more responsive (changes in infusion rates more quickly get to the patient), as well as having less medication in the IV tubing that gets surged into the patient when administering another medication or increasing the IV fluid flow rate. International TIVA guidelines recommend the use of infusion tubing with these characteristics.

### Depth of Anesthesia Monitoring with TIVA

Depth of anesthesia monitoring, such as with BIS™ is recommended with TIVA. Multiple studies demonstrate reduced incidence of accidental awareness under anesthesia using depth of anesthesia monitoring with TIVA. Unlike inhalational anesthetics, which can confirm medication delivery with a breathing circuit gas analyzer, TIVA presently has no analogous monitor. Thus, depth of anesthesia monitoring is especially useful.

Perhaps even more important, however, is the use of depth of anesthesia monitor for avoiding the other end of the spectrum: excessively deep anesthesia. This can save anesthesia medication cost, reduce the time to emergence, and potentially modulate longer-term outcomes.

### Conclusion

TIVA is increasingly becoming a routine part of an anesthesia clinician's toolkit. It has several potential advantages that can be exploited if done properly. Availability of appropriately designed tubing and infusion pumps, as well as depth of anesthesia monitors, is important for the safe and efficient delivery of this very useful technique. 

## Take the QUIZ

[Click here](#) for a copy of the quiz.

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# Outlook

## PROGRAM DIRECTOR INSIGHTS

REPRINTED FROM OUR FALL 2021 ISSUE.



**MICHAEL PHELPS, MD**  
ASSISTANT PROFESSOR OF  
ANESTHESIOLOGY AND  
CRITICAL CARE MEDICINE

The pandemic cancelled the graduation ceremony for our 2020 class of anesthesia technologist students. This is one of my most significant COVID-19-related losses. (My wedding also got pushed back a year; I'd be remiss if I didn't at least mention this.) Therefore, it is appropriate to reflect on how a few individuals from Johns Hopkins built an educational program from scratch that would eventually become the most rewarding project I've been involved with.

The Johns Hopkins / Community College of Baltimore County (CCBC) Anesthesia Technology program owes its inception

to our program director, Kim Allen. Kim was an excellent anesthesia technician at Johns Hopkins who self-studied and passed the exam to become a Certified Anesthesia Technologist. Kim wanted to address the lack of formal education available at that time, as only two schools existed nationwide. She approached the administration in the Department of Anesthesiology with the idea and it was well-received.

We partnered with CCBC because it had an impressive track record with allied health education. The partnership proved to be a wonderful match, and to this day I look forward to our meetings with the CCBC staff. The CCBC staff attend to much of the administrative overhead, while Johns Hopkins supplies the educational faculty. We also received significant assistance

from the school affiliated with Kaiser in Pasadena, CA; staff there were very helpful in assisting us with navigating this new (to us) landscape.

Navigating the state and educational certification authority bureaucracies proved slower and more challenging than we had anticipated, but eventually everything was in place to start educating the next generation of anesthesia support staff. Early in the process I was appointed medical director of the school. It's not a position I asked for; I found out about it in a department-wide announcement. I was surprised to hear the announcement but had no problem with it. When I was an undergraduate student, I worked in the department as an anesthesia technician while studying engineering; therefore, my unique background was appropriate for this role. In hindsight, this was the best appointment I have ever been assigned to.

Initially, I anticipated my position to be one of high-level advising. "Seeing the big picture." Early on, however, I was asked to teach at the school. One of our CRNAs (Shannon Yorkman) and I were effectively teaching all of the didactic parts of the educational program. Because I teach the Monday classes, I spent many late Sunday nights working on course material for the next day. I was regularly teaching every week by the spring semester of our first class of five students.

*Continues on next page...*

# Learnings


## STUDENT CORNER



## Kiara Squalls

The Anesthesia Technology program at Wayne County Community College is 68 credits and a 2-year length program. You have the opportunity to work at amazing hospitals and the opportunities are endless. During this program you learn a lot from the basic of anatomy, the machine and medications of anesthesia. It takes commitment and time for this program. I learned that early. The program is really known from my experience in the field. Many people have gone far with this program, and I plan to be one of them. I didn't

know about this program until I wanted to change my environment. I'm glad I found it. I've been a nursing assistant for some time now and I wanted change in me and a new environment. I said to myself what career can I go into that will make me better than what I'm doing now. I knew I wanted to stay in the medical field and nursing wasn't for me, so my next option was Anesthesia. I noticed the field was growing and I wanted to be a part of it. I applied to the program, got in and began in January 2021 and knew a new

chapter was coming for me. As I began the program, I noticed this is going to be a challenge for me, but I was willing to take it. As I continued the program, I knew this was for me. My experiences in the field gave me life inside and something that I knew I didn't want to let go. Even though it was all new to me I felt like it was meant for me. Once you see everything you learned in person you begin to think that's how it all comes together. When I'm in the OR I love doing the job I was taught to do. I never thought I would enjoy making lines, drawing blood samples, setting up cases just to name a few. In my mind I'm helping a patient behind the scenes and that's always gives me joy. I'm so use to working with patients hands on I enjoy the behind the scenes in my mind. I'm thankful I applied to the program and for the experiences I'm experiencing so far. Many coworkers and friends ask me what schooling is a short amount of time but has purpose. I tell them about this program because I believe you can go far. The environment is more welcoming and how can you deny that. My experiences have been awesome and can't wait to have many more. It's just the beginning and it can only go up. 

The first couple of years represented an even steeper learning curve for the instructors than for the students. It was difficult to develop content and exam questions based on nothing more than a vague topic outline and our personal opinions of what a competent anesthesia technologist should know. Shannon and I had little to go on initially; neither of us had ever taken an anesthesia technologist exam. This was a time of rapid evolution for our teaching topics, exam questions, and teaching methods. We depended on our graduating students to provide feedback on which topics they felt well-prepared for and which topics they felt weaker in.

Course topics were re-ordered to optimize student understanding and to prepare them for various experiences during the year, such as the start of clinical rotations or Advanced Cardiac Life Support (ACLS) certification classes. Additionally, we modified the emphasis and time devoted to various course topics depending on how well our prior year students had absorbed the material.

Of course the didactic component of the program was only part of the picture. We initially used Johns Hopkins' simulation labs for some of the teaching. Subsequently we were able to build our own simulation lab at one of the CCBC campuses. Our approach continues to evolve as we endeavor to provide a more ideal balance between breadth and depth of experience.


Several years ago I never would have envisioned the time and effort it would take to develop educational content and exam questions. And, naturally, we continue to modify the content. So far I've personally written over a thousand exam questions for the courses I teach.

It remains one of the most difficult aspects of the job.

It is exciting to see how far we've come and project how this program may continue to evolve. I envision a future that includes enhanced hands-on training (more diverse clinical rotations and "lab sessions" than we currently have in place), as well as simulation and multidisciplinary training. Teamwork will be emphasized, and institutional cultures will adapt to accommodate this evolving paradigm in anesthesia care teams. Of course it's one thing to have a vision and quite another to achieve it. Many barriers must be overcome, and challenges are posed by the very nature of the anesthesia technologist certification.

For instance, the required prerequisite college courses are a challenge for recruiting good students to our program. Our prerequisites are nearly identical to those for nursing school. Many highly qualified individuals choose nursing instead of anesthesia technology, as it is a much better developed field with stronger salaries and more advancement potential. On the other hand, many exceptional and experienced anesthesia technicians who are trained on the job find taking multiple college classes just to satisfy the program's prerequisites to be a poor use of their time, money, and energy. Despite these challenges, the Johns Hopkins / CCBC Anesthesia Technology program just started its fifth year in June with its largest class yet.

It is energizing to be associated with such a terrific national community. The ASATT has been a good organization to work with, and I'm confident that together we will continue to improve the quality of anesthesia support staff. My goal is to contribute to

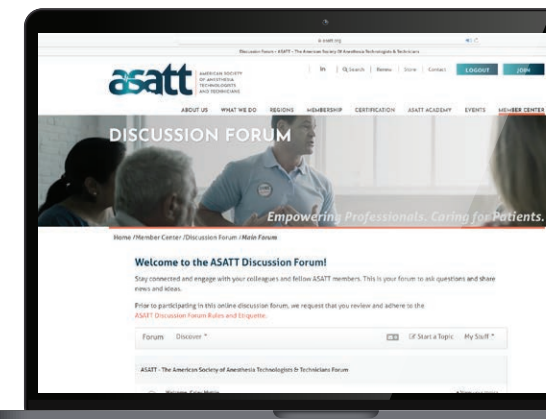
the continued development of the tightly knit national community for anesthesia technologist education. I also sincerely hope to be able to attend the graduation ceremony of our current class next year; it would bring me great satisfaction and confirmation of return to normalcy. 

# Share. Inquire. Learn.

**ASATT's online Discussion Forum is available for members to connect and share!**

ASATT has an online Discussion Forum that members can support each other through the sharing of vital resources, knowledge and experiences, and to seek answers to questions and concerns.

[Join the Conversation!](#)





# Cesarean Section and Hysterectomy FOR Placenta Accreta



**TIFFANY BRUNO**  
OKLAHOMA CITY COMMUNITY COLLEGE

## Cesarean Section and Hysterectomy

A 34-year-old female with a height of 65 inches and weighing 104.32 kg is in the 35th week of her fourth pregnancy presented to the OR with noticeable vaginal bleeding. Her previous pregnancies ended with cesarean sections, designating the fourth pregnancy as high risk. During her 20-week ultrasound, the patient was found to have placenta accreta, thought to have occurred due to the scar tissue from her previous cesarean sections. She does have diabetes myelitis type 2 and is obese, but there is no other significant medical history outside of her previous cesarean sections. Additionally, the preoperative assessment notes no known allergies. With the patient's predisposition for high blood pressure and glucose, her diabetes and blood pressure were closely monitored throughout the pregnancy. Based on the information presented previously and risk of hemorrhage the anesthesia care team designated her as an ASA III. ASA III designation is given to patients who present to the operating room with a "severe systemic disease" and more specifically to this particular patient, persons limited by diabetes myelitis, high insulin requirements, and obesity (BMI >40) (ASA, 2020).

## Placenta Accreta

Placenta Accreta is defined as a serious obstetrical complication; where the placenta will attach itself to the uterine wall, usually occurring in week 12 of the pregnancy. In placenta accreta cases, the implantation goes beyond the endometrium, the inner epithelial layer, and the mucous membrane in the uterus (Pardo and Miller 575). There are three stages to placenta accreta, each with varying severity and danger (Pardo and Miller 575). The first iteration of placenta accreta is vera, during which the placenta is implanted and adhered to the myometrium (Pardo and Miller 575). This is the least severe of the three, and though it should still be monitored, it is not as dangerous as the other two. However, it can still cause massive bleeding. The second presentation of accreta is referred to as placenta increta, during which the implantation begins to merge into the myometrium, resulting in the entwinement of the placental vasculature and uterine vasculature (Pardo and Miller 575). This makes detachment of the placenta even more dangerous, and monitoring throughout the pregnancy is vital. The last presentation, and most severe version of

## NORMAL PLACENTA VS. PLACENTA ACCRETA SPECTRUM (PAS)



### NORMAL PREGNANCY

The placenta attaches to a temporary layer in the uterus that's shed at delivery



### PLACENTA ACCRETA

When the placenta attaches too deeply into the uterine wall



### PLACENTA INCRETA

When the placenta attaches into the uterine muscle



### PLACENTA PERCRETA

When the placenta goes completely through the uterine wall, sometimes invading nearby organs like the bladder

placenta accreta, is placenta percreta, which is the placenta's penetration through the total thickness of the myometrium (Pardo and Miller 575). With placenta percreta, the patient is at severe risk of placental implantation on the bowel, bladder, ovaries, or other pelvic organs and vessels, which can propagate a life-threatening hemorrhage (Pardo and Miller 575-576).

The rate of placenta accreta occurs more frequently in association with placenta previa (the abnormal implantation of the placenta in front of the presenting fetus), occurring in 1 in 533 pregnancies (Pardo and Miller 574-576). Additionally, placenta accreta formation increases in those with previous cesarean sections. Pardo and Miller (2018) note 11% incidence rate after the first uterine incision, 40% rate after two uterine incisions, and 60% in those with three or more (Pardo and Miller 576). As this was the patient's fourth c-section, it was determined that the patient's previous surgical interventions were the underlying cause of the placenta accrete. Ahead of her fourth cesarean section, her care team determined she had placenta increta, which, as previously stated, indicated a moderate risk of hemorrhage.

Since it is attached to the previous scar tissue, the placenta was located in the lower section of the uterus, causing a possible placenta previa and making it impossible for the baby to pass through the vaginal canal. The placenta accreta makes the myometrium susceptible to tearing when attempts to remove the placenta are made. Placenta accreta does not

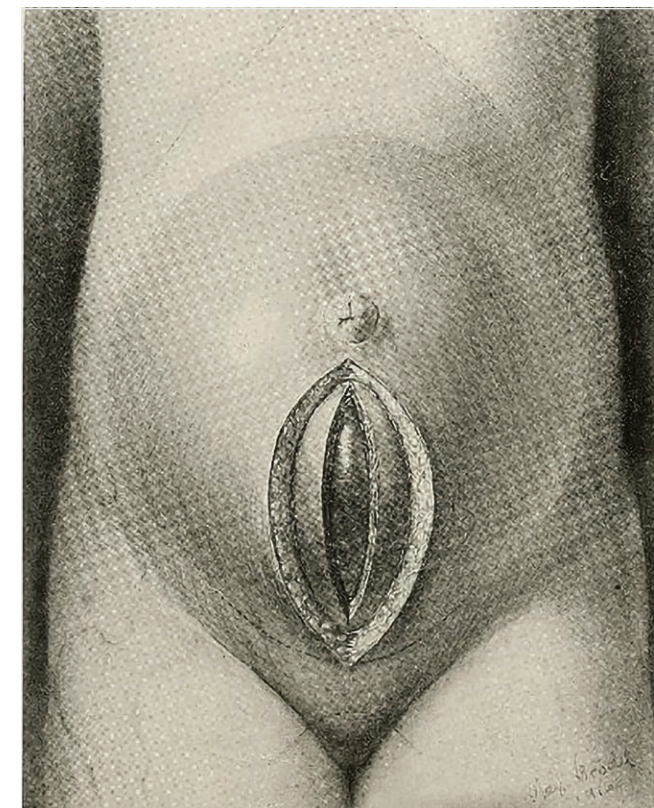
usually have any outlining indications and sometimes does not present more than bleeding during the last few weeks of pregnancy. Due to the risk of uncontrollable bleeding during natural labor, it is recommended that the mother go in for a cesarean section during the 34 to 38 weeks of pregnancy (Placental Accreta, Increta and Percreta 2022).

### Surgery

Cesarean sections are recommended for patients who fail to progress in labor, breech presentations, and specific medical indications, such as placenta previa, abruptio placenta, and uterine rupture (Jaffe et al. 927). There is an 12% increased risk of a uterine rupture with any vaginal delivery following a cesarean section, and due to her diagnosed placenta accreta, a cesarean section will be required for this patient (Jaffe et al. 926). If natural birth is attempted, the baby would possibly not be able to advance due to the suspected placenta previa. The patient may also risk bleeding if the placenta tries to detach, so a hysterectomy is highly recommended, especially if the placenta is thoroughly embedded. These combined complications could cause massive bleeding in the patient and risk the patient's life and that of her baby.

This surgery is broken into two phases, requiring different techniques and having separate risks. For the first portion of the surgery, the only goal is to extract the neonate out safely with as minor bleeding as possible during the cesarean section. It should be noted that the patient's partner is allowed to remain with her during this portion of the surgery.

Generally, during a cesarean section, a horizontal incision is made into the lower abdomen and the lower uterine segment (Jaffe et al. 926). However, due to the patient's obesity and scheduled hysterectomy, a vertical incision was made. The incision runs from the upper portion of the abdomen down to the lower part of the abdomen towards the lower uterine segment. It is important to note that the anesthetic delivery is done in two parts, with the first part being neuraxial anesthesia. During the cesarean section, the patient is kept awake to prevent the transmission of anesthetic agents to the fetus (Pardo and Miller 558-559). Once the incision is made through the abdominal muscles and the uterine wall is reached, a vertical incision is made into the uterus, exposing the amniotic sac (Cesarean section 2019). The amniotic sac is then opened, the baby is delivered, the umbilical cord is cut, and the amniotic sac and fluid are removed (Cesarean section 2019). Usually, the placenta is removed during cesarean sections; however, since a hysterectomy is required with the placenta accreta diagnosis, the placenta will remain attached to the uterus, which is then sewn shut to prepare for the second phase.



After removing the neonate, making sure they are healthy and closing the uterus, the surgeons prepare for phase two of the procedure. It is at this time, the husband is escorted from the OR, and the second mode of anesthesia

is delivered. The patient is put under general anesthesia, where removing the uterus and fallopian tubes begins. A self-retaining retractor is placed while the round, ovarian, and broad ligaments are clamped, cut, and tied (Jaffe et al. 910). The uterine vessels are then ligated, followed by the uterosacral and cardinal ligaments (Jaffe et al. 910). Finally, the vaginal cuff is closed to incorporate the uterosacral ligaments for pelvic support (Jaffe et al. 910). The abdomen is then searched for excessive bleeding or punctures to other organs; once cleared, the visceral peritoneum can be adjusted, and closure can begin (Jaffe et al. 910). The retractors are then removed, the layers of muscle are sewn back in place, the Tegaderm is firmly placed over the incision, and the patient is sent off to recovery.



### Equipment and Implications

As an anesthesia technologist, it is vital to understand the pathophysiology of obstetrical care. For these reasons, preparation of the room included setting up a Miller 2 blade, video laryngoscope, and having access to a fiberoptic bronchoscope. Pardo and Miller (2018) note that a Miller 2 blade should be set up in predicted difficult intubation of obese and pregnant patients as the resulting airway edema makes visualization of the airway difficult (Pardo and Miller

556). A Miller-2 blade is desirable for direct laryngoscopy during difficult intubation in obese and pregnant patients as it creates a better visualization of the vocal cords. It directly lifts the tongue and epiglottis out of the way and leaves a direct view of the vocal cords (Dorsch and Dorsch 314). During an assessment of the patient, the anesthesiologist could see that the patient had a Mallampati score of III, meaning that he could barely visualize the soft palate and just the top of the uvula. Prior to the transportation to the operating room, the preop nurse placed an 18 gauge IV in her left arm. Once in the operating room, the patient, under the direction of the operating room team, transferred herself to the operating table.



Airway pictures prelabor (Samssoon modification of Mallampati class 1 airway; A) and postlabor (Samssoon modification of Mallampati class 3 airway; B).

Once on the table, the patient was placed supine, and a nasal cannula was placed on her for the first phase of the procedure. A blood pressure cuff was placed on her left arm,

and the pulse oximeter was placed on her left middle finger while her right arm was prepared to put an arterial line. As her blood pressure and oxygen levels were being read, a 5-lead EKG was also placed to measure her heart's electrical signals, and a skin temperature probe was placed on her forehead.

After ensuring that all monitors were placed, the anesthesiologist numbed the area where they would put the arterial line. He then sterilely placed the catheter into the patient's right radial artery to get consistent blood pressure readings throughout the procedure (Pardo and Miller 352). This is especially important when you have a high risk of bleeding during the surgery. This can help detect a significant drop in blood pressure (Pardo and Miller 352). Having an arterial line placed makes it significantly easier to aspirate and draw blood directly from the line to run a blood-gas analysis (BGA) and glucometer (Guimaraes et al. 354). A BGA is a device that takes a sample of arterial blood and runs it through a machine that pulls measurements of the patient's different levels in their bodies, including oxygen saturation, pH, and electrolyte levels (Pardo and Miller 367). The glucometer is a device that can measure the patient's glucose levels throughout the procedure (Guimaraes et al. 354). Since the patient has diabetes, running a constant glucometer can help ensure that the anesthesiologist is always aware of the patient's sugar levels during surgery. Since blood loss is an exceptionally high risk due to the placenta increta, a Belmont and Cell Saver is put on standby if needed, and blood is kept in a cooler nearby (Guimaraes et al. 655).

After the arterial line is placed, the patient is sat up and prepared for a combined spinal and epidural. The anesthesia technologist sterilely placed the drape on her back and has her hunch her shoulders to make her spine more open for the procedure (Pardo and Miller 562). The epidural is the first one placed, during which a Tuohy needle is pushed through to the epidural space, going between the vertebral spinous processes in the back, leaving behind a catheter for the continuous medication (Pardo and Miller 562). A spinal is then placed to start the procedure more quickly and is placed similarly to the epidural; however, the spinal goes into the spinal column into the cerebral spinal fluid, letting it act quicker (Pardo and Miller 563). With the epidural and spinal placed, she is put back into the supine position with her husband at the head of the operating table, and the first phase of the surgery is started.

Once the baby was removed from the uterus and deemed

safe, the husband was then escorted out of the operating room with the baby. After anesthetizing the patient, the anesthesiologist grabs the video laryngoscope and quickly places the 7.0 mm ETT for the following hysterectomy. Once the ETT was placed at 23 cm, the temperature probe was changed to that of an esophageal probe to have a more accurate reading. Once they began the second phase of the surgery, the anesthesiologist prepared her upper right arm for a peripherally inserted central catheter (PICC). A PICC is a central line catheter placed through a vein in the upper arm, advancing to the heart (Peripherally inserted central catheter (PICC) line 2021). This makes it so that they can transfuse blood quickly if needed.


### Intraoperative Needs

Midazolam, a benzodiazepine, was given to the patient during preop to help her remain calm preoperatively prior to the OR and the cesarean section (Hitner et al. 233). Once in the OR, a 2% lidocaine was used to numb the right forearm for her arterial line placement. The 20-gauge catheter was then placed in the radial artery, and bupivacaine was used in the combined spinal and epidural anesthetic (Butterworth et al. 87). A scopolamine patch was seated behind her ears to help reduce nausea; however, they administered atropine, an anticholinergic, to stifle nausea because the patient was dealing with breakthrough nausea during the first phase of the surgery (Hitner et al. 535). Once all monitors were set, the patient had 1000 mL of 0.9% sodium chloride attached to her IV line, with rotating bags of packed red blood cells and fresh frozen plasma. In total, she was given four units of each blood product. The combined RBCs, FFP, and crystalloid units were satisfactory in controlling her bleeding. The patient was also given Pitocin, generally used after the delivery of the placenta, to help control the bleeding by causing uterine contractions (Hitner et al. 658).

Once the hysterectomy began, they administered the drugs to anesthetize the patient. First, 40 mg of lidocaine was issued so that it would blunt the burn from the 160 mg of propofol. Propofol is a milky-colored hypnotic used in most surgeries and follows with a burning sensation in

the IV (Hitner et al. 232-234). The nondepolarizing muscle relaxant Rocuronium was then used to paralyze the patient to make intubation easier, followed by fentanyl for pain relief throughout the surgery (Hitner et al. 110). The tidal volume was kept at 500 TV throughout the second phase of the procedure, with 1.7 mac for the sevoflurane to keep the patient anesthetized. Towards the end of the procedure, the patient was placed on Ancef, an antibiotic, to prevent possible postoperative infection (Hitner et al. 673). Finally, she was slowly weaned off the sevoflurane and ensured that she could breathe independently before being extubated and sent to intensive care for further monitoring.

### Conclusion

Despite the risk of significant complications, the surgery was successful, with no critical or abnormal intraoperative outcomes. Though they did puncture the bladder during the hysterectomy, the surgical team was able to quickly assess the damage and correct the puncture prior to closure. With her having placenta accreta, she was at high risk for bleeding; fortunately, the bleeding was controlled with 8 total units of blood products. Though she did suffer from nausea throughout the first phase, it was easily deterred with atropine and a scopolamine patch. The surgery went well for both the patient and her baby, and she was easily extubated and sent to the intensive care unit (ICU) for any possible complications post-procedure. 

**"With her having placenta accreta, she was at high risk for bleeding; fortunately, the bleeding was controlled with 8 total units of blood products."**

Take the  
**QUIZ**  
Click here for a copy of the quiz.

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# Outlook

## PROGRAM DIRECTOR INSIGHTS

REPRINTED FROM OUR SPRING 2022 ISSUE.

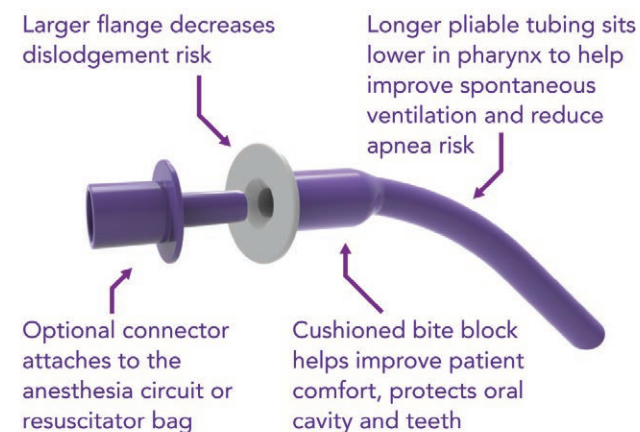


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## Growing the profession in 36-months: The rise of Anesthesia Technology in Oklahoma



**BRYAN FULTON,**  
M.ED., BAA, CER.A.T.T.  
ANESTHESIA TECHNOLOGY  
PROGRAM DIRECTOR  
OKLAHOMA CITY  
COMMUNITY COLLEGE

With every passing year, the field of Anesthesia Technology is growing – both in scope and recognition. Last year, I was provided the honor of sharing with you all the development of the profession related to the growth of the field in Oklahoma. Over the past 36-months, Anesthesia Technology has grown by leaps and bounds in the Sooner State. When I arrived to launch the Oklahoma City Community College Anesthesia Technology program average pay for anesthesia techs in Oklahoma was \$11.50 an hour. To date, Certified Anesthesia Technologists (Cer.A.T.T.) fresh out of school start at approximately \$21 an hour. What is the reason for




this significant salary increase? The implementation of a strategic partnership between Higher Education (OCCC) and the local industry, an association that focused on formalized training, reworking job descriptions, and evaluating the need for skilled personnel. The result has been the recognition of the Certified Anesthesia technologist (Cer.A.T.T.) credential and Cer.A.T.T.'s ability to perform in their scope of practice outlined by ASATT. As we continue to promote formalized Anesthesia Technology education in Oklahoma, we see our partnerships with the healthcare industry growing, increasing this profession's trajectory further.

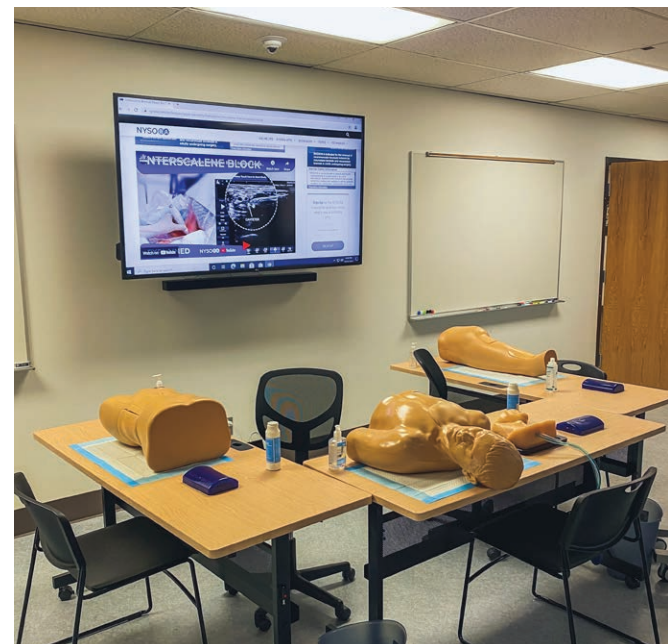


On October 27th, Oklahoma City Community College unveiled its new expanded Health Professions lab and simulation space. This expansion included a new state-of-the-art Anesthesia Technology Simulation Center. The space consists of two fully functioning operating rooms complete with two CAE high-fidelity simulators. The new area provides training for students in ultrasound, regional anesthesia, trauma anesthesia, and other modalities. The OCCC Anesthesia Technology program faculty welcomed Governor Kevin Stitt and Current ASATT President David Foster to the Ribbon Cutting ceremony. During the visit, the program highlighted the skill set Certified Anesthesia Technologists bring to the field with a simulation on central line placement. The impact has been resounding, with Governor Kevin Stitt citing the Anesthesia technology profession in his opening ceremony remarks.

the point that state officials recognize the impact Certified Anesthesia Technologists have on patient care. To those of you wondering how to grow this profession we love, the answer is evident; by leveraging the healthcare community's needs with higher educational facilities mission to serve the communities of interest, formalized education has been the catalyst to reshape this profession, enhance the scope, and improve the overall outlook.

***If you are someone interested in how to start an anesthesia technology program or are interested in formalized anesthesia technology training, you can contact Bryan at [bryan.p.fulton@occc.edu](mailto:bryan.p.fulton@occc.edu).*** 

To say the growth in this state has been dynamic is an understatement. In 36-months, the entire demographic of this profession in Oklahoma has completely changed, to



# TID BITS

## Sensor Quizzes

### Don't forget the Sensor Quizzes

In each issue of our Sensor magazines we offer two feature articles, with each article accompanied by a quiz. You have the option of completing the quiz online or printing it off and sending it in.

**Earning CEUs has never been so easy.**



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To support you, the Editorial Board will be available to answer questions and provide guidance: proofing grammar, reference documentation, etc.

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## DID YOU KNOW?


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Keep an eye out for an email with more information.

# Partners

## ASA

The ASA, through the Committee on Equipment and Facilities as well as the Anesthesia Patient Safety Foundation (APSF) are working with ASATT to update the anesthesia technologist and technician scope of practice. This update is important as the ASATT moves forward to have the education and scope of practice of the anesthesia techs solidified in regulation or law at the federal or state level. This is the next major step in having the anesthesia technologist and technician recognized as their own entities.

**Joseph F. Answine, MD, FASA**  
Liaison to ASATT 



# Notes

## REGIONAL UPDATE

### REGION 1



Happy July to you all.


Summer is here. Hard to believe that the Fourth of July are already come and gone.

We just hosted an Educational Webinar in June. These quarterly meetings are open to EVERYONE that need CEUs, and the price is right. If it is

your year to recertify, now is the time to start thinking about getting all your CEUs. Another way to earn CEUs is to write an article, being an active committee member, do *Sensor* Quizzes, ACLS and BLS courses.

The ASATT Educational Conference is on August 10th-12th, 2022 in Fort Worth, Texas. If you have not already planned on it, you may want to start planning. Can you please send me your response to the meeting in Fort Worth? I would like to get an idea as to how many Techs are going to be there for Region 1. There are so many fun things planned and we can all thank Greg Farmer and whoever else has been involved, for their dedication and hard work put into this meeting. I would almost be willing to bet that no one will regret going to this meeting.

ASATT now has an Instagram page, please make sure you visit [www.instagram.com/ASATT\\_OFFICIAL](https://www.instagram.com/ASATT_OFFICIAL), you can get updates and information on various topics, post pictures and even join in on some of the giveaways. Thank you, Lauren Luna (Region 6 Director), for getting it set up and is doing an outstanding job with it. ASATT is always looking for articles written by members. If this is something that interest you, please feel free to reach out to me or the [Editorial Board](#). We will point you in the correct direction.

Respectfully Submitted,  
**Jonnalee Geddis, Cer.A.T.** 

### REGION 2



Hello members,

I hope everyone is well and ready for some continued warm weather!

EXCITING NEWS! We have a new instagram page, make sure you go and check it out. You can post pictures and get updates/

information and enter in giveaways at [www.instagram.com/ASATT\\_Official](https://www.instagram.com/ASATT_Official).

Don't forget to check the quarterly *Sensor* publication, remember you can earn CEUs from the quizzes one of the perks for being a ASATT member.

Remember to visit our ASATT website. It has very useful information and articles on current Healthcare news. Please don't forget there is a discussion board where you can ask questions and share ideas.

**SAVE THE DATE:** Start thinking about our next **Annual Meeting in Fort Worth, Texas** on August 10 -12, 2022.

I look forward to seeing everyone in person in Fort Worth, TX!

As a reminder: Please everyone stay safe and be healthy!

**Karen Patrick, Cer.A.T.** 

### REGION 4



Hey region 4!


Hopefully you all enjoyed the quarterly education conference in April and June. If you have any topics you'd like to see, let me know for the next one. Are you Interested in attending the next one? Keep your eyes on the

ASATT web page and ASATT's social media for details.

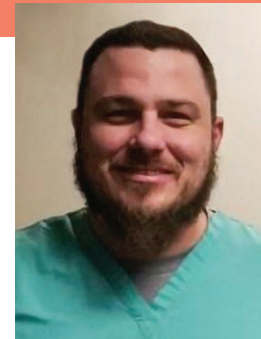
Registration is open for the in person meeting in Fort Worth, Texas - August 10th-12th. Looking forward to a new format. I think it will be a pleasant change of pace. I plan on doing some damage to the local barbecue establishments! We will then be having the virtual national education conference in September! There are a lot of CEUs being offered.

I don't know about you guys but I'm still dealing with supply issues daily. Hoping at some point I won't cringe every time I see an email from my logistics guys! I'm sure they feel the same way when I'm asking them about the status of items. Someday soon we will be back to normal!

Hope to see a lot of you in Fort Worth!

Respectfully yours,  
**Mike Kosanke, Cer.A.T.T.** 

### REGION 5




**Hello from Region 5.**

I hope this is finding everybody doing well. I certainly wish that everyone who wanted to, had the opportunity to attend the last virtual regional meeting. We are going to have more virtual educational webinars

every quarter, so keep an eye out. Our plan is that the CEUs that are available from the webinars are meeting your needs. Please remember that if you are an ASATT member, you also have access to the *Sensor* quizzes which can take because your membership. These units are automatically added to your profile.

I am excited that the time has come for another in-person ASATT conference. I invite everyone to make plans to come to the great state of Texas for the 2022 conference. The meeting will be held in Fort Worth from August 10 through the 12th.

Remember that if any of you have questions or concerns about the work being done in Region 5 please do not hesitate to email me through the ASATT website. I will respond as quick as possible to address your concerns.

Take care everyone,  
**Jason Menchey, Cer.A.T.** 

### REGION 6



**Hello Region 6!**

We had a great Region 6 virtual webinar turnout. I want to thank you for attending. Congrats, and great job getting some of those CEUs checked off! Please remember to reach out if you have any questions

or would like to get more involved! Don't forget to follow ASATT on Instagram [@asatt\\_official](https://www.instagram.com/asatt_official) to keep up with the latest information and giveaways.

I have joined the continuing education committee and we are working on getting more CEU opportunities. Remember, you can write a *Sensor* article for CEUs as well.

By the way, it is time to start planning for that trip to Texas for our in-person conference! I can't wait to meet many of you in person

Talk to you soon,  
**Lauren Luna, ASN, Cert. A.T.T.** 

*Continues on next page . . .*

## REGION 7

**Howzit Region 7!!!**

As we head through summer, I hope that many of you are doing well and are enjoying the change in seasons. I enjoy the summer months because of baseball. I LOVE baseball and I coached off and on for 40-years

and have been blessed during my coaching career.

We are starting to see our COVID cases slowly rising and other states are seeing their numbers moving upward. Everyone must take everything in stride and move forward. Please continue to stay vigilant; "Situational Awareness". Don't let your guard down and stay alert. In my opinion, continue to wear your mask, COVID is not over....

**"I think it's always important to be vigilant of what you're doing and aware of your surroundings."**

~ Unknown ~

There have been changes within the ASATT that were made to help us continue to offer educational opportunities and how business was conducted during the past couple of years because of the events of the world. We have not had a live/face-to-face meeting since I helped coordinate a Region 7 Educational Meeting in Salem, OR, on February 29, 2020. So, ASATT will be having its first live Annual Meeting in Fort Worth, TX, on August 10-12, 2022. It will be held at the Hilton. We are looking at it as an Education "Expo," bringing new and innovative ways to earn CEUs. But, it will be our first opportunity to meet and network with our peers. I look forward to seeing many of you, since I have attended many annual meetings and have made friends with peers from all over the country. Please make plans to attend the big event in Fort Worth.

**"Old friends pass away,  
new friends appear.**

**It is just like the days.  
An old day passes, a new day arrives.**

**The important thing is to make it  
meaningful: a meaningful friend  
- or a meaningful day."**

~ Dalai Lama ~

I still have plans to coordinate the 24th Annual Region 7 Hawaii meeting, but I will have to select another date. The Hawaii meeting has traditionally been held on the second Sunday of August, but the Annual meeting will be held the same week. Last year's virtual meeting was successful and we had over 200 attendees. I would like to hold a live meeting. Check the website for further details.

I'll say it again and again and again... ASATT is the society that will help our profession grow and move forward into the future. I know ASATT's plan WILL NOT make everyone happy, but you must look at the overall direction that our profession is headed. Many of you have not been around as long as I have... I remember the days before we even had the National Certification and we had nothing. This has been a long hard journey to get to where we are now, there's no shortcuts. Things haven't always been smooth sailing and we are still headed through rough seas ahead. There is no easy way to get to where we want to go. There will be some extremely hard decisions to be made and they are making these decisions with careful consideration to improve our profession. There's only a small percentage of our peers that have been in this profession over 30-years like I have. As I have said before... we are laying the foundation for future generations of Anesthesia Technicians & Technologist and we MUST build this **together**.

**"Alone we can do so little;  
Together we can do so much."**

~ Helen Keller ~

**PLEASE BE SAFE AND PROTECT YOURSELVES...**

Aloha,

**Delbert Macanas, Sr., Cer.A.T.T.** 

# Academy

## ASATT ACADEMY

### A Message From the Chair for the Committee on Accreditation for Anesthesia Technology Education (CoA-ATE),



**MARC MCGAFFIC, CER.A.T.T.**

ASATT DIRECTOR OF ACCREDITATION

Greeting Fellow Leaders of Healthcare!

I am pleased to provide our professional society and active members with an important update from the Committee on Accreditation for Anesthesia Technology Education, (CoA-ATE). Since being appointed Chair in September 2021 the CoA-ATE have been making large strides with communicating to our educational programs throughout the country – offering assistance and guidance when and if needed. Currently, there are six (6) accredited ANE programs with another seven (7) programs with potential of obtaining initial accreditation status this year. Although, thirteen schools offering anesthesia technology education is great – this simply is not enough to help battle the shortage of the need for qualified Certified Anesthesia Technologists throughout the country.

To help ease the pressure of educational institutions adopting the Anesthesia Technology Educational program the CoA-ATE has developed another pathway to increase the amount of competent and sustainable educational programs by implementing a Satellite Campus Policy.

The Satellite campus would allow initial and continuing accredited Anesthesia Technology programs the opportunity to provide education through a variety of methods using


virtual learning modules. The Satellite campus would offer the lab space and clinical site affiliations while the main campus (accredited program location) manages the students' educational progress while working closely with team members at the Satellite campus. Each lecture would be managed by the home / base campus.

Allowing Satellite campuses to offer Anesthesia Technology education is one method to increasing the educational opportunities for anesthesia students. Should you want more information pertaining to this policy and how your facility could possibly become a Satellite campus please feel free to email me at [coaatechair@gmail.com](mailto:coaatechair@gmail.com).

In closing – I have requested that each ASATT Regional Director have open communication with their respective colleges and programs located within their region. Students becoming more aware of their professional organization is the driving force to continuing the recognition our profession desperately needs. Please welcome your Regional Director into your classrooms (either in-person or virtually) so that each director can explain the importance of the ASATT and continuing membership. Let's leave the road paved for those that come after us.

Thank you for your time!

**Marc McGaffic, MS, BS, Cer ATT**

Chair, CoA-ATE 



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