

# The Sensor

**Diabetes: Important Considerations for Anesthesia Technologists/Technicians**

**The Effects of Diabetes ON YOUR BODY**

When you hear the word "diabetes," your first thought is likely about high blood sugar. Blood sugar is often an underestimated component of health. When it whacks over a long period of time you could develop diabetes. This condition impairs your body's ability to produce or use insulin, a hormone that allows your body to turn glucose (sugar) into energy. Learn about the symptoms of diabetes.

- stroke
- loss of consciousness
- visual disturbances
- cataracts and glaucoma
- risk of infections
- high blood pressure
- gastroparesis
- damaged blood vessels
- nerve damage
- protein in the urine

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**HOW DOES IT WORK?**

Insulin is the key that unlocks the glucose channel

Glucose channel (closed)



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# Perspective

## PRESIDENT'S LETTER



**Dear ASATT Members,**

I hope this letter finds you in good spirits as we move deeper into 2024. Last year was a pivotal year for the profession. We launched the PEP, conducted the largest and most comprehensive survey on the profession, saw the growth of multiple PEP programs, and

offered more than 60 CEUs.

Regarding our professional practice survey, we received over 800 respondents! This is the highest number of participants in the society's illustrious history. We have you to thank for spreading the word, taking the survey, and providing invaluable feedback.

The Pasadena, CA conference was also a welcome follow-up to the successes we had in Ft. Worth. We want to express our gratitude for the support you've given ASATT as we embrace in-person events. Your feedback has been crucial as we continue to improve the experience for our valued members and colleagues. We're excited to implement more changes as we prepare for our next National conference at the OMNI hotel in beautiful Oklahoma City, from September 26-28, 2024.

With the excitement of what we have accomplished and what is being planned for the organization and profession, I want to provide some insight into our big goals:

- Complete analysis of the survey.
- Make informed, data-driven decisions to further enhance our Scope of Practice.

- Develop our new five-year Strategic plan and vision for the profession.
- Assess our offerings and operations for tomorrow.
- Improve access and participation in the profession.
- Grow our partnerships to further our identity and impact in healthcare.

We sincerely look forward to working with you and serving you this year.

**Bryan Fulton, M.Ed., Cer.A.T.T.**

*ASATT President*

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# From the Executive Director



JENNIFER RZEPKA, CAE

## — THE “WHY” IS STILL IMPORTANT!

Three years ago the popular TED talk from Simon Sinek “*Start With Why*”, caught the world by storm. While it was targeted towards how to influence customers by first conveying value, the message hit a lot deeper for me, as I believe it did for many others.

Asking “why” caused many of us to slow down and consider the reason behind the actions we took. It helped a lot of people identify the value of what they chose to do in life, not just in the purchases we made. It gave pause for us to reflect on how our actions impacted ourselves and others. The social conversations about this topic among strangers were some of the healthiest adult conversations I have ever heard.

All people have different value structures, things that are important to them at varying levels, and every person conducts themselves in accordance with their own value structures. Considering what’s going on below the surface of what’s observed in others often leads to an evolved level of conversation and deeper understanding and compassion for them:


*This person is doing X...yes...but **why** are they doing X.*

In the corporate world, many companies capitalized on this and stress the social impact of their products and how they contribute back to communities, which resonates strongly in the marketing and advertising messages today. With so many options on the market for products and services, these days

buyers take their feelings about the product and company into consideration when making purchases. The “*why*” matters!

The same mindset is true in the non-profit world too! Members don’t just assess the return on investment (ROI) of their dues dollars to make sure they’re receiving the “value” the association says they’re getting – they want to *feel* about the contribution they’re making too. Involvement in an association is less transactional than it was in the past. It’s less about the percentage discount on a registration fee, free quizzes and quantity of newsletters, many people are coming to associations specifically to find a community, somewhere they can discuss the matters keeping them up at night openly among peers, somewhere they feel they really belong, and can find camaraderie on their career paths.

This is the time that all associations should be looking deeply into their mission statements and making sure that they frame the wants and needs of the professionals, and that all the activities of the association are pointed at fulfilling those desires. If you want to get involved in helping shape the future of ASATT, reach out to the Board and Region Leaders to find out how you can get started.

**Jennifer Rzepka, CAE**  
ASATT Executive Director  
[j.rzepka@asatt.org](mailto:j.rzepka@asatt.org) 

## REVISION OF THE BYLAWS

The Bylaws Committee will perform an annual review of the ASATT Bylaws. The deadline to submit Bylaw updates is July 30, 2024. Any active member of the Society may propose an amendment to these Bylaws, which must be submitted in writing to the Board of Directors no later than sixty (60) days prior to the ASATT Annual Meeting, where it will be considered. Proposed amendments will be reviewed by the Board of Directors and then presented to the membership at the annual meeting for discussion. Within sixty (60) days of the meeting, an online ballot containing the amendments and the ability to cast a vote on the proposed changes will be made available to all active members via a link on the ASATT website. A two-thirds (2/3) affirmative response of the active members voting validates a Bylaw change. The Chairperson of the Bylaws Committee will compile a report of the vote results. When the President, the Bylaws Committee, or the Board of Directors collectively deem it necessary, a revision of the Bylaws will be initiated. The President will appoint a task force to review and revise the Bylaws as needed, ensuring compliance with amended bylaws at least once every ten (10) years. If revision is indicated, it will be submitted to the ASATT Board of Directors, and the results will be reported and published in the ASATT Sensor. Amendments approved by the membership will take effect upon approval.

# A New Horizon for Anesthesia Technology Program Accreditation:

## A REPORT FROM THE COA-ATE CHAIR



### Greetings ASATT,

On behalf of the Committee on Accreditation for Anesthesia Technology Education Programs (CoA-ATE), we would like to express our gratitude to the Board and all those who participated in the 2023 Professional Practice Survey.

The data collected is not only

essential for understanding the current and future state of the profession, but also crucial for the work of accrediting anesthesia technology programs. We would also like to thank ASATT for giving us the opportunity to host a workshop on accreditation at the 2023 ASATT *Re:Evolution* conference in Pasadena, CA. We appreciate the participation of all the attendees in that workshop and for allowing us to share our passion for accreditation with you.

The CoA-ATE has been diligently working on several projects to better support and guide programs through the accreditation process. Firstly, we have been systematically reviewing our Policies and Procedures, identifying any gaps and opportunities for improvement. As a result, we have developed a policy on selecting committee members for the CoA-ATE, among other revisions to our policies.

Secondly, and most importantly, the CoA-ATE has completed the revision of the accreditation process. In the past, the accreditation of anesthesia technology programs relied on a

Letter of Review (LoR) that preceded the initial accreditation process. However, as the LoR process was not recognized as an accrediting designation, the CoA-ATE invested time in redeveloping this process to align with other CAAHEP professions. This shift has streamlined the accreditation process, which we believe will promote the growth of degree programs by eliminating unnecessary steps, while maintaining the necessary rigor for program accreditation. The new initial accreditation process and accompanying self-study document were launched in March 2024.

Lastly, the CoA-ATE is currently in the process of reviewing and revising the Standards and Guidelines for accredited programs. We have already completed major revisions and, with the data from the ASATT survey, we will review and revise Appendix B of the Standards, which outlines the curriculum requirements for academic programs. Our goal is to complete this process and undergo review and public notices this year, with final approval from CAAHEP expected in December.

Thank you, ASATT, for your advocacy, and a special thank you to all the dedicated professionals who serve patients daily and contribute to the growth of the anesthesia technology profession. Your commitment and support are greatly appreciated.

**Bryan Fulton, M.Ed., Cer.A.T.T.**

*Chair, CoA-ATE*

[president@asatt.org](mailto:president@asatt.org) 



# Spotlights

## STUDENT SPOTLIGHT

### Jonathan Sims


The Kaiser Permanente Anesthesia Technology program has been more than just school or a degree for me. The program has truly been just like a family, from the guidance from our teachers and preceptors to the support from our fellow classmates, I have felt a real sense of community.

I had originally applied to the program because a close friend and colleague mentioned to me what a great program KPAT is. I have been working in the operating room at UCLA Medical Center for the past 16 years as an OR assistant and I've always loved the work I do but I wanted to try a new challenge. In my current OR assistant position, I can witness several different roles within the OR. The Anesthesia Technologist role was the one that interested me most out of all the different positions. There are several things that interested me about the role, but I love their collaboration with the physicians and the teamwork with each other.



I noticed the multitasking aspect of the AT role, and I cannot sit in one spot, so I found this role to be a perfect fit for me. Since becoming part of the KPAT program I found the AT role to be a more comprehensive and important role in the anesthesia care than I had envisioned. I've learned so much, from getting ABG's, running a cell saver, intubations, anesthesia medications to all the many surgeries that can be done. I really have gained a respect and love for the profession.



I grew up playing baseball and was on the path to becoming a professional baseball player. I have always been an advocate for lifelong fitness, I consider it my lifestyle and not just a hobby. I believe there are so many benefits to eating healthy and consistent exercise that include improved mental health, physical endurance, and overall wellbeing. I think my fitness background of bodybuilding has also helped me overcome difficult life challenges. I had major life changes right before being accepted into the program. I had just gotten married, my father passed away from COVID one month later, I lost my best friend to chronic disease 3 months later and my first son was born 7 months later. I got accepted into the program the next year and I am so thankful for the challenge and comradery that I found in this program. The KPAT program has helped me find a focus after so many life events. I've gained valuable friendships, a wealth of knowledge and skills, and learned a lot about myself. I hope to continue to grow my knowledge as a future anesthesia technologist and continue to promote a healthy lifestyle. 

# Spotlights

## MEMBER SPOTLIGHT

### Katherine West-Arron

Katherine West-Arron has been a Certified Anesthesia Technician for nine years. She began her career after graduating from the Sanford and Brown Anesthesia Technology program in 2015. During her time in school, Katherine completed an externship at New York Presbyterian (NYP). She continued her career at NYP, where she advanced to the position of senior tech within two years. When the pandemic struck, Katherine assumed the role of interim supervisor, providing coaching and guidance to her team to effectively meet the needs of their patients during this critical time. It was during this period that clinicians truly recognized the knowledge and value anesthesia techs bring to the team.

In February 2023, Katherine officially accepted the position of Supervisor of Anesthesia Support Services. Currently, Katherine and her team are focused on ensuring that techs are well-rounded in all specialties. She is a staunch advocate for her team's professional development and encourages them to advance and enhance their proficiency in their roles. Katherine has fostered trust between the techs and anesthesia providers, effectively bridging any gaps. She actively encourages her team to pursue certification through the practical pathway program offered by ASATT. Collaborating with her leadership team, Katherine is advocating for techs to operate more within their scope, receive increased salaries, and more.

We extend our sincere appreciation to Katherine for her dedication, hard work, and advocacy for our profession! 



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# 2024 ASATT CALENDAR

## 2024 ANNUAL CONFERENCE

2024 Annual Conference & Anesthesia Tech Expo

Wednesday, September 25 - Saturday, September 28, 2024

Omni Oklahoma City Hotel  
Oklahoma City, OK



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## 2024 WEBINARS

Quarter 2

June 22, 2024

Quarter 3

August 10, 2024

Quarter 4

December 14, 2024

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## 2024 SENSOR

Quarter 2

June 15, 2024 – Content Due

July 6, 2024 – Distribution Date

Quarter 3

September 21, 2024 – Content Due

September 28, 2024 – Distribution Date

Quarter 4

November 30, 2024 – Content Due

December 21, 2024 – Distribution Date

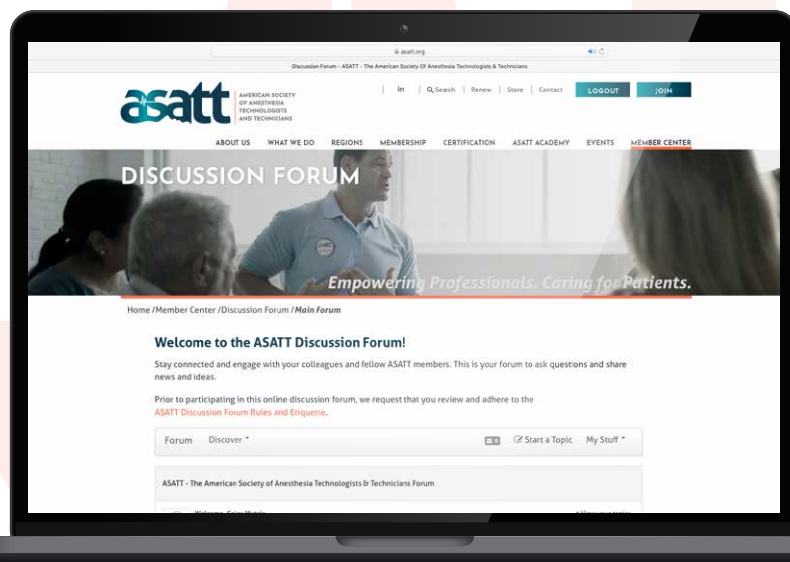
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# Diabetes: Important Considerations for Anesthesia Technologists/Technicians



**OTONIEL CASTILLO, BA, CER.A.T.T.**  
KAISER PERMANENTE / PASADENA CITY COLLEGE ANESTHESIA TECHNOLOGY PROGRAM  
PASADENA, CA

## ABSTRACT

In this article we will discuss some implications that present themselves when patients with certain types of diabetes need anesthesia care. We will mention several types of diabetes, i.e.: mellitus, insipidus, and gestational. However, our focus will dwell on type 2; but we will briefly discuss other types<sup>1</sup> We will briefly speak about how they are different or the same. Certainly, we will dwell and discuss the need for POC testing, drug considerations and other concerns may indicate the involvement of an anesthesia

technologist or technician. We will also examine some indications and contraindications that anesthesia care providers consider during the perioperative period for these patients with surgical needs and the coexisting diabetes in certain surgical procedures and events. Finally, we will speak about how the anesthesia care team would benefit from the involvement of the anesthesia technologist/ technician in these cases within the scope of the anesthesia technologists/ technicians.

*Keywords:* Diabetes, anesthesia, anesthesia technologist, anesthesia technician.

## DIABETES: IMPORTANT CONSIDERATIONS

Diabetes is a medical condition that was first described in medical texts in 1500 B.C., by Egyptian physicians (McCoy, 2009) Since that time, the Greeks, Indic peoples, Chinese, and other have all identified aspects of the disease. Many of these descriptions coincide with the major observed effects of specifically diabetes mellitus which include



increased thirst (polydipsia), dry mouth, frequent urination (polyuria), fatigue, blurred vision, weight loss, slow-healing sores or cuts, and numbness or tingling in the hands or feet (Lakhtakia, 2013). Indeed, there are metabolic issues which we will discuss later that are relevant to diabetes and anesthesia. Suffice it to say for now that diabetes is a problematic issue for the anesthesia care team.

Over the last one hundred years, we have seen an incredible jump in our understanding of the endocrine system, the effects of diabetes on the body, and the implications of anesthesia care for these patients. We can begin with having a basic understanding of what occurs in a couple of types of diabetes physiologically. There is more than one type of diabetes. The most common is Type 2; however, we will briefly mention Prediabetes, Type 1, Gestational, and Type 3c.

## DIABETES MELLITUS

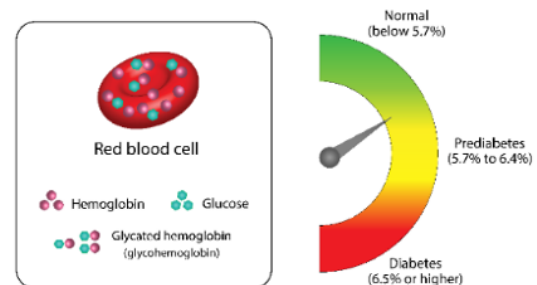
Again, the most common is Type 2 Diabetes with 90% of all diabetic patients affected being of this type (Hines, 2017, p. 450). With Type 2, the body does not make enough insulin and/or the patient's cells do not respond as usual to insulin produced in the pancreas. This diminished action of insulin is frequently referred to as insulin resistance. It primarily affects people older than 35 years of age who are overweight<sup>2</sup>. Notwithstanding, over the last ten to fifteen years more young adults and children have been diagnosed with Type 2 in the United States (Hines, 2017).

Indeed, diabetes types are not a progressive nomenclature of the disease process. It is not like you move from one to the next, as if graduating from one "level" then to the next. Indeed, the only type which has a direct correlation to any another type is Prediabetes. It is a direct forerunner of Type 2. Blood glucose levels in prediabetic patients are higher than normal but are often not high enough to be officially diagnosed with Type 2 diabetes. Often, this fact gives way to complacency in patients, and unfortunately allows for Type 2 diabetes to fully germinate. Once a patient exceeds the upper fasting glucose limit of 100mg/dL further testing is advised (Hines, 2017, p. 451). Often the measured lab value of choice is HbA1c (most often referred to as A1C). The HbA1c test offers an effective tool to measure long-term blood sugar level and whether adequate control exists. The percentage value is a derived value from laboratory testing and indicates how much hemoglobin is interacting in glucose as a percentage. Certainly, the values reflect the proportional interactions of hemoglobin as it relates to the average plasma glucose concentration during the preceding 60–90

days in that patient's blood.

Hemoglobin is glycosylated by glucose and other sugars in blood. We will not delve into that aspect of diabetes as it is not within the scope of this article. However, glycation plays an important part in diabetes, aging, and other chronic diseases as demonstrated in research literature (Lima, 2013 and Scheper, 2023). Suffice it to say that there is a correlation to inflammatory response which we will discuss later.

### Hemoglobin A1C (HbA1c) Test Results



**Figure 1 - Glycation and normal HbA1c values.**

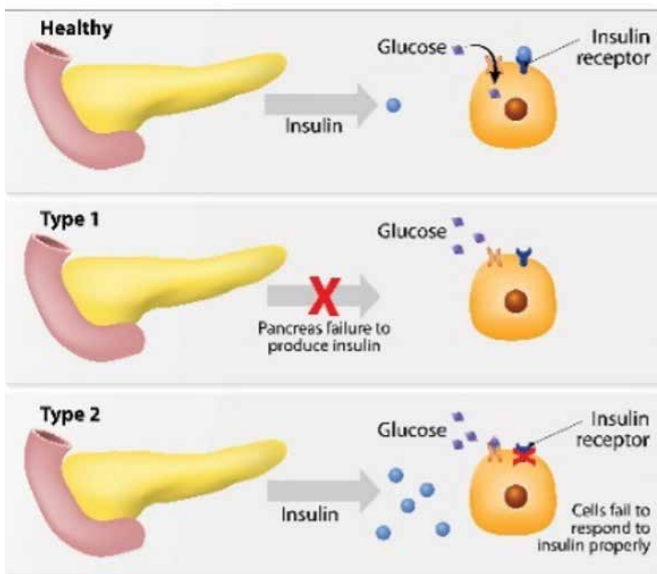
Nevertheless, for clinical decisions the anesthesia care providers use general guidelines that indicate what the normal ranges are for A1C levels. In general, a level of 5.7% or less is desirable and is considered normal. Levels between 5.7% and 6.4% are considered Prediabetic, and all levels greater than 6.5% are clinical diabetes. With the higher values, "an increased risk of microvascular and macrovascular disease begins when the HbA1c proportion is 6.5% or higher" (Hines, 2017, p. 451). Monitoring of HbA1c is recommended at least twice a year for prediabetics or with greater frequency (every 3 months) if control of blood sugar levels is ineffective or if therapy has been altered. For anesthesia care providers, this concept of testing becomes important at the bedside as the values obtained at the bedside will guide the providers in clinical judgements, decisions, and care strategies.

Briefly, we will mention that Type 1 diabetes is rarer with only 5% to 10% of the population affected. It is an autoimmune disorder. It usually affects infants or young children. In fact, it is a common childhood disease. It usually will affect patients before the age of forty (40) but could develop at any time during early life. The usual course of Type 1 is different than what we have discussed above. The patient's immune system attacks and destroys insulin-producing cells in the pancreas for unknown or poorly understood reasons (Hines, 2017). It is theorized that environmental triggers such as enteroviruses, dietary proteins, drugs/chemicals may trigger the body's

aggressive autoimmune response in genetically susceptible individuals. Often, Type 1 patients may present with partial or full-on ketoacidosis which indicates severe insulin deficiency and unrestricted lipolysis.

The CDC defines ketoacidosis as a serious complication for both Type 1 and Type 2 diabetes. (CDC, 2022). The body does not have enough insulin. In turn, this low insulin level limits absorption of blood sugar into cells for use as energy. Rather, the liver begins to break down fat for energy (lipolysis). It is during this phase of the process that acids (also called ketones) are produced. As rapid ketones production ramps up in the liver, it begins to accumulate in blood. This is a serious threat to the patient's life because it changes the pH balance in blood which will cause metabolic acidosis. If this metabolic problem is not addressed and treated it will inevitably lead to serious morbidity (complications) and mortality (death) for the patient.

## DIABETES MELLITUS



**Figure 2 - Diabetes Mellitus**

I will only glancingly mention Gestational diabetes here. This type of diabetes develops during pregnancy in some patients. The positive aspect (if any) of Gestational diabetes is that it usually goes away after pregnancy. Yet, if a patient is diagnosed with gestational diabetes, they are at a higher risk of developing Type 2 diabetes later in life.

Briefly, Type 3c diabetes happens when your pancreas experiences some type of physical or chemical trauma which affects the production of insulin. Also, diseases or conditions like pancreatitis, pancreatic cancer, hemochromatosis, and cystic fibrosis may damage the pancreas and its ability to

produce insulin. Furthermore, procedures where the pancreas is partially removed (Whipple or Frey procedures) or a total pancreatectomy will result in Type 3c diabetes (McCoy, 2009).

Common to all these types is the function of insulin as it relates to cells in the human body or too much within blood. All these various medications can help reduce complications and will aid a return to a semblance of homeostasis. From insulin, to glipizide, metformin, pioglitazone, and acarbose; all of which are used to maintain glucose levels between 90-130 mg/dL, and an A1C below 7% (Hines, 2017). However, most if not all these drugs are not effective forever. As with any medication, these drugs all come with positive and negative side effects which sometimes need to be dealt with intraoperatively by the anesthesia care team.

## CONCOMITANT DIFFICULTIES

Above, I have already mentioned diabetes-related ketoacidosis (DKA). To reiterate, in DKA the body does not have enough insulin by which the body can gather energy and because it cannot draw it from blood glucose it will alternatively to lipolysis. This is not ideal as the body begins to store ketones in the blood which produces a metabolic acidosis which can lead to other imbalances and death. Hines describes it as a common occurrence with diabetic patients:

in patients with type 1 diabetes and are precipitated by infection or acute illness. High glucose levels exceed the threshold for renal tubular absorption, which creates a significant osmotic diuresis with marked hypovolemia... [producing s]ubstantial deficits of water, potassium, and phosphorus (p. 455)

However, despite laboratory values of electrolytes presenting as normal or increased the likelihood of hyponatremia is high. It usually results from the effect of hyperglycemia and hyperosmolarity on water distribution in the body. The deficit of potassium is important as it can directly affect myocardial function. Also, HHS can create a deficit of phosphorus which can lead to diaphragmatic and skeletal muscle dysfunction and impaired myocardial contractility. During DKA, blood gases are a useful tool. Additionally, electrolyte panels and blood glucose testing would be of significance as diabetics are often dealing with electrolyte imbalances due to potential dehydration. One more important value is sodium levels. Hyponatremia, as mentioned above, is related to high blood sugar levels. High sugar levels without correcting low sodium levels can lead to cerebral edema. A significant



infusion of normal saline and insulin must be conducted as soon as possible. Of note, DKA is more strongly associated with Type 1, but it is very probable with unmanaged or poorly managed Type 2 diabetics.

Interestingly, this leads to another problem which is more often associated with Type 2 referred to as Hyperglycemic Hyperosmolar Syndrome (HHS). It is most often associated with patients older than 60 years of age who have other significant co-existing diseases, i.e., infections, MI, pneumonia, etc. (Hines, 2017, p. 455). Treatment involves fluids resuscitation with normal saline, electrolyte replacement, and glycemic control. Although similar, DKA and HHS affect the body in separate ways. Importantly, DKA is much more acute and problematic than HHS. Nonetheless, HHS may take several days or weeks to develop, but if untreated will result in death. The main difference between DKA and HHS is that DKA involves ketones and blood acidity; HHS does not. The two complications have similar symptoms, including intense thirst, frequent urination, and mental status changes.

There are more concerns with Type 2 diabetics which should be mentioned here. Macro and microvascular dysfunction, nephropathy, neuropathy, and retinopathy are all major considerations during anesthesia care. Aggressive glycemic control is important perioperatively. However, especial emphasis is made on the intraoperative period according to Wall (Hines, 2017, p. 457). Indeed, the literature reveals a significant correlation between perioperative hyperglycemia and negative clinical consequences.

## INTRAOPERATIVE MANAGEMENT

It comes to what can our role do to help eliminate or reduce part of the risks, from an anesthesia perspective. The anesthesia technologist or technician can and should assist the care providers in the delivery of the chosen care plan. Among the actions of the anesthesia technologist or technician, is to conduct testing of serum glucose levels. Often, the patient requires frequent point of care (POC) tests. Most guidelines recommend that glucose should be monitored at least every hour and even every 30 minutes in patients undergoing coronary artery bypass surgery or patients with high insulin requirements (Hines, 2017, pg. 457). During initial testing for diabetes urine glucose is often used. Nevertheless, it is an unreliable test which could easily be replaced with a venous blood test. In fact, the literature recommends that glucose labs are collected from a venous plasma or serum sample. Albeit the widespread

practice is that blood samples are gathered from an arterial line, especially if a patient is going to have multiple tests. However, Dr. Russell Wall III relays that “arterial and capillary blood yields glucose values approximately 7% higher than those for venous blood, and whole-blood determinations are usually 15% lower than plasma or serum values” (Hines, 2017). The anesthesia care teams should aim to avoid both hyperglycemia and hypoglycemia. Yet, it is especially important to avoid hypoglycemia because recognition of hypoglycemia is sometimes delayed in anesthetized, sedated, or patients on pain control medications. Furthermore, patients with autonomic neuropathy caused by diabetes, or who have been prescribed  $\beta$ -blockers (i.e., atenolol, labetalol), or sympatholytics (i.e., moxonidine, clonidine) may also have delayed recognition of symptoms. Therefore, it is imperative that POC testing be done on a regular basis. Hypoglycemia in surgical patients is often addressed with an injection of 50 mL of 50% dextrose in water, which will raise the glucose level to an acceptable level.

Similarly, hyperglycemia may also need to be dealt with swiftly. Surely, the choice is to quickly being an infusion of insulin. If it is a scheduled case, then therapy should begin prior to surgical incision by at least 2 hours and with the guidance of a glucometer levels should be maintained between 120 and 180 mg/dL intraoperatively. Indeed, if the glucose level rises above 200 mg/dL it is likely to cause glucose excretion in urine and dehydration. Additionally, high glucose levels will impair wound healing. Normally, one (1) unit of insulin will lower glucose levels by 25-30 mg/dL. Yet, insulin needs are greater for patients undergoing coronary artery bypass graft surgery, patients on steroids, patients with severe infections, and patients receiving hyperalimentation or vasopressor infusions (Hines, 2017 p.457). However, the difficulty does not stay with complicated cardiac cases or with the critically ill. Many patients with diabetes have complications related to hyperglycemia even though their surgery was less complicated and uneventful (Frisch, 2010). Indeed, danger exists as blood glucose levels become too low, and insulin infusions could significantly intensify hypoglycemia. Best practice guidelines indicate that insulin therapy in the intraoperative period should include an “infusion of 5% dextrose in half-normal saline with 20 mEq of potassium chloride at 100–150 mL/h to provide enough carbohydrate” to reduce hepatic glucose production and lipolysis.

Importantly, another potential path for abnormally high glucose levels is surgical stress and anesthesia itself


(Duggan, 2017). Inflammatory response is correlated with hyperglycemia per Duggan et al., the literature suggests that this inflammatory response increases the morbidity and mortality for diabetic patients (Scheper, 2023). In fact, elevated blood glucose levels impair white blood cell function and cause an “overproduction of reactive oxygen species, free fatty acids (FFA), and inflammatory mediators”<sup>3</sup> (Duggan, 2017). Pathophysiologic changes like these contribute to direct cellular damage, vascular injury, and immune dysfunctions. This is significant because perioperative hyperglycemia is present in 20 to 40% of patients that go through a surgical event. According to Duggan et al., this hyperglycemic stress response correlates with significant perioperative complications. Much of the research encompasses cardiac and neurosurgery; however, most other specialty surgical interventions seem not to fare any better. Indeed, a change of “20mg/dL (1.1mM) above 100 mg/dL (5.5mM), there was a 30% increase” in complications including renal, pulmonary, and death in one study. In another study, a powerful correlation was found among hyperglycemic patients. The risk of infection, atrial fibrillation, heart failure, myocardial infarction, pericarditis, neurologic complications, and pulmonary complications were all greater if hyperglycemia was present intraoperatively (Duggan, 2017 p.549). Consequently, Duggan et al., advocate for the use of point-of-care testing (POC). Although the main laboratory tests will provide the most accurate blood glucose measurements, the turnaround times are problematic for the pace of surgical events and the decisions anesthesia care providers must make. The rapid results provided by POC glucometer devices enable the anesthesia care providers to proceed with deliberate decision making to treat labile glucose levels. Notwithstanding, anesthesiologists must recognize the limitations of glucometer POC testing. A decade ago, the Food and Drug Administration issued guidance outlining that most all POC readings greater than 70 mg/dL be within 10% of what the main laboratory reference values are and that all BG readings less than 70 mg/dL be within 7 mg/dL (0.39 mM). Sadly, glucometers in an unclear number of hospitals “do not meet these recommended metrics and may be less accurate than providers recognize” (Duggan, 2017, p. 557). It is within the scope of practice of anesthesia technologists and technicians to maintain these devices, perform Q&A tests, and to report discrepancies or errors to the main lab. As it stands, these POC devices are being highly scrutinized for their accuracy.

It behooves our providers and our patients to maintain these devices in optimal readiness as these machines are continually evaluated for their accuracy. Indeed, the anesthesia care team is dependent on these machines’ ability to render accurate results that will guide critical clinical decisions for diabetic patients.

## POSTOPERATIVE CARE

In the postoperative period, management of diabetic patients requires further effort in accurate monitoring of insulin requirements. As discussed, POC testing is key. The anesthesia technologist or technician often is not involved in the discharge and postoperative care of patients. Although hyperglycemic and hypoglycemic events are possible in the post anesthesia care unit, there are no optimal blood glucose level targets which have been established or adopted universally for the perioperative period (Duggan, 2017). Yet, the currently the American Diabetes Association (ADA) recommends a target blood glucose range of 80 to 180 mg/dL in the perioperative period and 140 to 180 mg/dL for critically ill patients. On the other hand, the American Association of Clinical Endocrinology has a consensus statement about diabetes management in general which can be useful (Samson, 2023). Yet, this topic expands to postoperative infections associated with hyperglycemia and is discussed by various researchers (Frisch, 2010). Indeed, practitioners encounter and render care for these diabetic patients during postoperative care within the hospital. It is crucial that the anesthesia technologist or technician participate in increasing the accuracy of testing, help minimize errors, aid in enhancing monitoring, and help improve treatment for this vulnerable population of patients.

## CONCLUSION

Please note that the goal of the anesthesia care team is to enhance the outcome for the patient. The anesthesia technologist is responsible for proving the appropriate POC testing, which includes operation of the POC testing equipment, i.e., glucometer, arterial blood gases, providing proper intravenous fluids, and stocking the correct medications for administration (American Society of Anesthesia Technologists and Technicians, Scope of Practice, 2023)<sup>4</sup>. The goal for anesthesia technologists and technicians is to aid in the delivery of safe and meticulous care. 

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## Footnotes

- Note about the Cleveland Clinic website. <https://my.clevelandclinic.org/health/diseases/7104-diabetes> is a treasure trove of information. I highly recommend that you visit it. It has nicely broken-down explanations of various important concepts as it relates to diabetes.
- Some key factors that go beyond age and weight are genetic in nature. Often diabetes affects specific ethnicities with varying degrees of intensity and associated co-morbidities like heart disease, obesity, obstructive sleep apnea, kidney failure, etc. Indeed, genetic predispositions affect many patients beyond diabetes. Thus, it is an important consideration for anesthesia care providers, and by extension for the anesthesia care team.
- Reactive oxygen species are a type of unstable reactive molecule that contains oxygen. It will easily react with other molecules in a cell's biological process. Buildup of reactive oxygen species in cells can cause damage to DNA, RNA, and proteins, and eventually cellular death. These reactive oxygen species are often referred to as free radicals. Read more here: <https://www.cancer.gov/publications/dictionaries/cancer-terms/def/reactive-oxygen-species>
- It is important to point to the 2023 revised ASATT Scope of Practice, because as the society moves forward its inclusion and its application to various situations will become an invaluable tool in advocating for the technologists' and technicians' practice.

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# ANESTHESIA TECH WEEK

MARCH 31ST - APRIL 6TH

**asatt**  
AMERICAN SOCIETY OF  
ANESTHESIA TECHNOLOGISTS  
AND TECHNICIANS



# Improving Neuromuscular Monitoring: Key Role of Anesthesiology Technologists



**THOMAS J. EBERT,  
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MEDICAL COLLEGE  
OF WISCONSIN,  
ZABLOCKI VA  
MEDICAL CENTER  
MILWAUKEE, WI

### KEYWORDS:

Anesthesia monitoring, Electromyography, EMG, Mechanomyography, MMG, Neuromuscular monitoring, Post tetanic count, Quantitative electromyography, Train of Four

### KEY POINTS SUMMARY

Quantitative EMG technology provides real-time information on key clinical indicators of neuromuscular function. It is highly accurate when key steps are taken during the

initiation of monitoring, particularly the positioning of stimulating electrodes. EMG should be considered the clinical standard for informing the anesthetist of the appropriate time for tracheal intubation, the depth of neuromuscular block to facilitate drug dosing and the desired return of neuromuscular function (TOF ratio >0.90) for tracheal extubation.

### INTRODUCTION

Anesthesia technicians provide an invaluable role in the anesthesia care team model (ACT) in the operating room (OR). Maintaining anesthesia machines and vaporizers in optimal function, assuring anesthesia equipment and pharmaceutical agents are readily available and in compliance with their date of use, assisting with patient transport and positioning in the OR, applying monitoring devices to patients, and often establishing arterial and venous access are integral roles that promote safe patient anesthesia care. The ACT model of care is an emphasis of the American Society of Anesthesiology (<https://www.asahq.org/standards-and-practice-parameters/statement-on-the-anesthesia-care->

team). In this brief update, I wish to share evolving information on the critical nature of monitoring the neuromuscular function in anesthetic cases requiring the use of neuromuscular blockade.

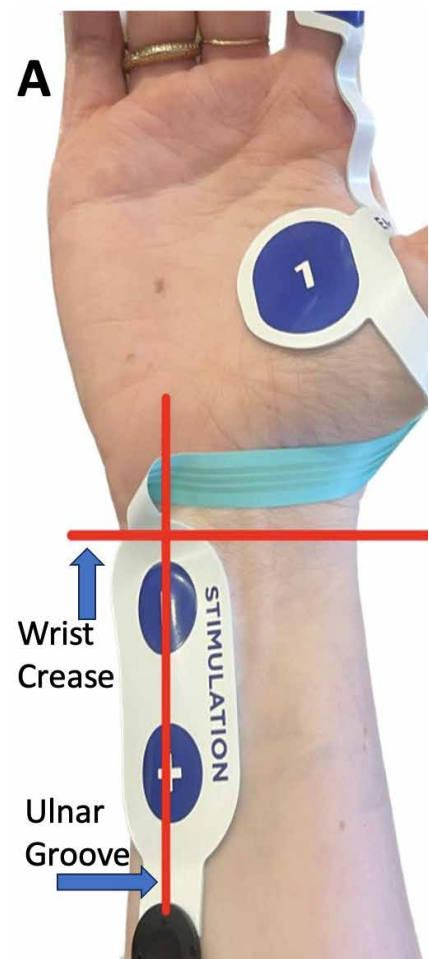
## QUANTITATIVE NEUROMUSCULAR MONITORING

Both the American Society of Anesthesiologists (ASA) and the European Society of Anaesthesiology and Intensive Care (ESAIC).<sup>1,2</sup> recommend “quantitative” neuromuscular monitoring for patients receiving a paralytic drug during patient care under general anesthesia. “Quantitative” is a key adjective used to define monitoring. Qualitative monitoring is not encouraged and has been shown to put patients at risk from either the incorrect dosing of an additional paralytic drug or reversal drug or from postoperative residual muscle weakness.<sup>3-7</sup> What do we mean by the unwanted practice of qualitative monitoring? This would be visually observing or using tactile sensing of thumb motion/strength from a stimulus to the ulnar nerve (or other less ideal recording sites such as the facial nerve) or, even worse, not monitoring at all and trusting that neuromuscular strength has returned spontaneously or returned from a reversal drug such as sugammadex.

Quantitative monitoring means an accurate and meaningful output from ulnar nerve stimulation, either recorded from thumb movement detected by motion (such as acceleration from a sensor taped to the thumb, acceleromyography (AMG)) or recording the muscle action potential at the adductor pollicis muscle of the thumb from sensing electrodes placed at the base of the thumb (electromyography (EMG)). While AMG monitoring requires the thumb to be free from obstruction, EMG devices work independently of thumb movement so that even with the arms tucked or wrapped, EMG signals are detected and reported on the monitoring device. EMG monitors are compact, have a user-friendly interface, and are programmed to report clinically significant EMG data in real time. They provide key measures of neuromuscular function, including train of four (TOF) ratio and TOF count, and will automatically, or by prompt, seek post-tetanic counts (PTC) during deep block to allow a complete understanding of the functionality of neuromuscular transmission.


Quantitative EMG monitors are now proving to be the most accurate devices for use in the operating room. They are essential for dosing neuromuscular blocking agents and reversal drugs and assuring sufficient return of patients’ neuromuscular function at emergence from anesthesia. Challenges still exist with adopting routine neuromuscular monitoring in clinical practice.<sup>8,9,10</sup> More importantly to the anesthesia technician community is the proper application of stimulating electrodes and initial activation of the EMG device before neuromuscular blocking drugs produce partial or full paralysis.

We are currently evaluating the relationship between the proper placement of the stimulating electrode array by anesthesia technologists that is required in EMG devices such as the TwitchView® monitor, Blink Device Co, Seattle, WA, and the TetraGraph® Senszime, Uppsala Sweden, and the end user (anesthesiologist) trust and satisfaction with the data on neuromuscular function. We have found that skin preparation and electrode placement are essential to reliable function. In this quality improvement project, the anesthesiology technologists initiated cleansing of the skin around the ulnar nerve area and with an education initiative, consistently placed the stimulating electrodes in the ulnar groove on the lateral side of the wrist and near the wrist crease (Figure 1), The end-user (anesthesiologists) trust in the data from the EMG devices used in each anesthetic case in the OR went from the 60% range to 90% with proper electrode positioning. Improper electrode



**Figure 1.** Correct placement of the electrode array associated with the Blink, TwitchView system. It is essential to place the electrodes over and in alignment with the ulnar groove on the lateral part of the inner forearm. Placement near the wrist crease provides optimal signal transduction. Similar placement should be honored with the Senszime TetraGraph recording system.

placement did not completely fail, but having EMG data that made sense to the anesthesiologist related to their dosing of paralytics and reversal of paralytics was best when the skin prep and the stimulating electrodes were placed properly. We assume that improving trust in the EMG systems promotes using quantitative EMG monitors and improves patient safety by avoiding the now well-described adverse effects associated with incomplete reversal of NM blockade, including postop respiratory challenges and increased hospital length of stay.<sup>3-7</sup> Train of four ratios of 90% or greater is now the accepted value for the return of muscle strength such that patients can breathe well, cough, clear secretions, and avoid regional lung collapse (atelectasis) and postoperative pneumonia.

Guidelines on placement include removing skin oils, abrading the stimulation site, and allowing some curing time for the electrode-to-skin interface to become established. This is not always possible, and my sense is that proper anatomical placement is more important than the skin site preparation. The devices automatically determine the optimal stimulation intensity via their first activation sequence. I recommend that the guidelines that come with each device be reviewed, preferably in a group setting and possibly with the sales representative involved, to fully understand how the devices work in their optimal environment. It is also important to understand how the devices function when they are placed after the onset of paralysis when a baseline is not obtained. Most default to a common stimulus intensity as the maximum, but I do not want to mislead the reader in this regard. I have found nonsensical data often is displayed when our anesthesia care team has not placed the electrode array ahead of induction of anesthesia and has not performed the baseline calibration after the loss of consciousness and before the onset of paralysis. This might require communication with the anesthesia provider. If a rapid sequence induction is being performed, baseline data might not be possible. However, in a routine induction, you can ask the anesthesiologist to let you know if getting a baseline prior to or simultaneous to the administration of a paralytic is possible, thereby alerting the team to your role in activating the monitor for optimal measurements throughout the case. Recall that after IV bolus administration, rocuronium and vecuronium have an onset time of roughly 30 seconds, meaning a baseline can still be obtained when activating the NM monitor simultaneous to the administration of these paralytic drugs. 

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# Nominations

## CALL FOR BOARD NOMINATIONS DUE JUNE 10TH, 2024



**BETH  
MCVEIGH**

Nominations are NOW OPEN for the 2024 ASATT Election! This is your opportunity to play a vital role in shaping the future of ASATT. We encourage all members to nominate individuals whom they believe can contribute to the growth and development of our organization. Take a moment to consider your fellow ASATT members. Are they passionate about advancing our profession? Have they demonstrated active engagement with ASATT? Do they embody qualities such as motivation, collaboration, and dedication to furthering education for anesthesia technologists and technicians? If so, they could be the perfect candidate!

Interested in joining the Board of Directors of ASATT? Qualifications include being a certified member of ASATT in good standing and willing to make a difference. Positions open for election in 2024 include even-numbered Regions (2, 4, 6); Secretary; Treasurer; and President-Elect. If you or someone you know is eager to make a positive impact and contribute to the advancement of our industry, we invite you to submit a nomination form. The ideal candidate will possess the following qualities:

- Highly motivated
- Committed to shaping the future of our profession
- A team player who thrives in collaborative environments
- Dedicated to advancing the society for the benefit of its members

### **Nominate Today!**

Completed nomination forms must be received by the ASATT management company no later than June 10th,

2024. Nominees will be notified by the chairperson of the nomination committee and are required to submit a letter of acceptance and professional resume by June 25th, 2024 (fax copies accepted).

A member shall be eligible to hold office if they have been an active member at least one (1) year prior to their nomination and if they are a Certified Anesthesia Technician (Cer.A.T.) or Technologist (Cer.A.T.T.). Upload your professional résumé to be included in the election process. These must be received by June 10th, 2024. If you would like to nominate someone else, you must obtain their approval before submitting their name. Candidates who have been nominated by someone other than themselves will be contacted by the chairperson of the Nomination Committee. If the candidate accepts the nomination, the nominee is required to submit a letter of acceptance. A professional résumé must be submitted before June 25th, 2024, in order for a name to appear on the ballot.

Any active member who seeks the office of an ASATT Regional Director must reside in the respective region. If you have served on the Board of Directors in the past, you can nominate yourself for President-Elect, which is a three-year term. ASATT official election ballots will be available through the ASATT "MEMBER ONLY" link. Posting of the election ballots will begin at the beginning of the business day on the 1st Monday of July, running through the end of the business day on the 2nd Friday of August. Newly elected officers and directors will assume their office at the close of the Annual Business Meeting.

**Beth McVeigh**  
*ASATT Coordinator*  
[asatt@asatt.org](mailto:asatt@asatt.org) 

## OPEN BOARD POSITION DESCRIPTIONS ON NEXT PAGE!

# Open Board Positions

**HAVE YOU EVER WONDERED** exactly what the responsibilities are of the individual Board members? Here is a simple overview of the "position descriptions" of the Board of Directors.

## ▶ **SECRETARY**

Two-year term

- Responsible for taking minutes at all Board meetings and business meetings and submitting the minutes to the Board of Directors.
- Responsible for co-signing all contracts negotiated.

## ▶ **TREASURER**

Two-year term

- Responsible for supervising the handling of ASATT funds.
- Responsible for the accounting of ASATT funds to the membership.
- Responsible for assisting ASATT management in the planning of the annual budget.
- Monitoring the profit and loss on a monthly basis.

## ▶ **REGIONAL DIRECTORS**

Two-year term


- Responsible for organizing at least one yearly meeting and in some situations, two. This includes obtaining speakers, selecting locations, and obtaining sponsors. The Regional Director is financially accountable for operating within the budgeted funds for the regional meeting. They are also responsible for providing an outline of the meeting to ASATT for distribution and sending ASATT a final list of attendees to facilitate awarding of CES.
- Responsible for promoting the Annual Educational Meeting within the Region with both vendors and members.

## **REGIONAL DIRECTORS (continued)**

- Responsible for attending the Annual Educational Meeting. Assisting with registration, sales, etc., during the Annual Meeting.
- Assist with the ASA booth, if needed.
- Responsible for participating in all Board activities, to include:
  - » Attending all Board meetings.
  - » Participating in all Board conference calls. (Usually, every other month on a Saturday morning).
  - » Responding to all e-mails when questions/opinions are solicited.
  - » Submitting monthly, quarterly, and yearly reports for your Region and/or committees to the President.
  - » Submitting Sensor and Website updates by the date requested.
  - » Participate in the yearly budget process for the Region's activities.

## ▶ **PRESIDENT-ELECT**

Three-year term

- Communicating directly with the ASATT President.
- Assuming the responsibilities of the President when necessary.
- Being familiar with the Bylaws, Policy & Procedure manual, and the working of all committees.
- Succeeding the President at the end of his/her term.
- Co-chairing the Annual Educational Meeting, to include taking care of the ASA booth (set-up, staffing and break-down).
- Chairing the Communications Committee. 

# Notes

## REGIONAL UPDATE

### REGION 1



Spring is just around the corner; we can enjoy the fresh smell of flowers blooming and watching the little ones playing on the swing sets and the list goes on and on, many of the joys of springtime in New England. Now onto reality, it is still winter here, but we are going to be having cookouts real soon.

A couple of items I want to mention, the most important: I hope each and every one of you celebrated Anesthesia Tech week in a big way. It is a day that we all should embrace, even if no one at work celebrates it for you. Pat yourself on the back, as we all know that you all deserve a huge **THANK YOU!!** We have put ourselves at risk to help the Anesthesia providers in some way or another. It may have been a simple turn the room over or running cell saver in the middle of the night. No matter what the task was, you did it and you take great pride in your work and helping the most important people (our patients). You are the **Anesthesia Tech**, and we all appreciate YOU!!

If you did attend the Webinar on Saturday, March 23rd, I want to thank you all for attending. It was a great meeting as always. Karen Patrick, Region 2 Director, and I were the hostesses for this webinar. I want to thank all the speakers for volunteering their valuable time and especially on

a weekend. They were amazing as always and greatly appreciated by all. Please mark your calendars for the next meeting, which is June 7th and 8th partnered with MD Anderson Cancer Center. More details to come soon to the website. In addition, there will be a Q2 Webinar on Saturday June 22nd from 12- 4pm CST. This webinar will be hosted by Region 3 and Region 4 Regional directors. You can be guaranteed that you will get your money's worth with all ASATT's meetings and Webinars. Just a reminder that if you are an ASATT Member that you will receive one free webinar per membership year. When you decide that you want to use it, please email ASATT or call 1-414-295-9220.

Now on to some more excitement, The Practical Experience Pathway. It is an alternate way for Anesthesia Technicians to get certified. Check out the website under Cert. A.T. / Cert. A. T.T. Tab, it says specifically "The Practical Experience Pathway". It will let you download the brochure, and it is very informative. Check it out and let me know what your thoughts are. The second item is, if you want to become more involved, please feel free to volunteer to be on a committee, if the committee you prefer is full, we can always find another committee. It allows you to see how the BOD runs and if you want to become more involved then we will always welcome new participants.

Respectfully Submitted and Happy Holidays to you all,

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

[region1director@asatt.org](mailto:region1director@asatt.org) 



## REGION 2



Hello Region 2,

With the winter months over I'm looking forward to spring and having some warmer weather! Hopefully everyone will stop and smell the flowers and start planning family vacations with making more wonderful memories.

We are celebrating **Anesthesia Tech Week!** We have worked hard to get where we are today and I hope every facility that we support will help us celebrate our week!!

Be on the lookout for our upcoming **Quarterly Educational Webinars!** The attentive schedule for these webinars is **June 22nd, August 10th, and December 14th.** Make sure you check the ASATT website for updates and registration information. Remember you can earn up to 4CE's for attending. *If you have any questions or concerns please feel free to reach out to me at [region2director@asatt.org](mailto:region2director@asatt.org).*

Remember being an ASATT member has many benefits and discounts. You can get access to the sensor, ASATT updates and discounts to Educational and Regional Conferences, and many more valuable benefits. So, make sure you check out the membership page at ASATT to see the different tiers that are offered we even have a student membership. The website also has very useful information and updates about our webinars, conferences, and Sensor publications with great articles on healthcare news.

**Save the Date!** The **2024 National Conference** will be held in **Oklahoma City, Oklahoma at the Omni Hotel.** The conference dates are **September 25 -28, 2024.** I hope you can join us, and I look forward to seeing everyone in person!

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

[region2director@asatt.org](mailto:region2director@asatt.org) 

## REGION 4



Hi All,

I don't know about you, but I am enjoying this early spring and the warmer temps. I'm already getting excited about gardening.

There are a lot of exciting things happening at ASATT!

Between all the educational opportunities this year and streamlining our practical pathway to certification, there are so many plans in the works to really help bump this profession up a notch!

I'm always open to emails from any of you with questions, comments, or concerns. My hope is to offer support to those in or interested in this profession while growing recognition of our certification from health systems and other anesthesia professional organizing bodies. I also hope to connect and

help compile data regarding what being an anesthesia technologist is like for you! I'd like to help make sure your voice is heard.

Wishing you a very happy Anesthesia Tech Week! I hope your employers spoiled you a bit and if not, there are certainly several organizations and vendors that will be singing our praises year-round!

I'm looking forward to hearing from you! Let's work together to be the best we can be! Region 4 is co-hosting a webinar in June. Let me know if there are any topics of interest to you. These webinars are a very cost effective and a fun way to learn something new and come away with 4 CEUs. Check them out!

Sincerely,

**Samantha Groshek, Cer. A.T.T.**

[region4director@asatt.org](mailto:region4director@asatt.org) 



I hope everyone had a wonderful Anesthesia Tech Week! As we concluded Anesthesia Tech Week on April 1st, I wanted to take a moment to express my gratitude and appreciation for the vital role that each of you plays in patient care. Your dedication and hard work are truly commendable.

In the past quarter, I had the privilege of engaging in productive meetings with several anesthesia tech leaders, exploring the practical experience pathway offered by ASATT and discussing ways to support your professional journey. I look forward to connecting with even more Region 5 ASATT members and exploring how we can best support you.

Upcoming CEU Opportunities:

- June 7-8, 2024: Annual Anesthesiology Technicians and Technologists Conference at MD Anderson Cancer Center (9 CEUs)
- June 22, 2024: ASATT Q2 Webinar (4 CEUs)
- August 10, 2024: ASATT Q3 Webinar (4 CEUs)
- September 2024: National ASATT Conference in Oklahoma (details forthcoming)

Beyond our regular ASATT quarterly webinars, I'm thrilled to announce that ASATT is co-sponsoring the Annual Anesthesiology Technicians and Technologists Conference at MD Anderson Cancer Center. This conference is a Region 5 Conference and will take place in Houston on June 7th and 8th, 2024. It's an excellent chance to earn 9 CEUs while immersing yourself in the latest advancements and networking with fellow professionals. Email [sdsoto@mdanderson.org](mailto:sdsoto@mdanderson.org) to register.

Looking ahead, the national ASATT conference is scheduled to be held in Oklahoma this year. I encourage each one of you to join us in September. Let's learn, share, and grow together!

Please mark your calendars and make the most of these opportunities! For those due for renewal this year, I urge you to plan head and acquire the necessary CEUs throughout the year.

Let's celebrate your commitment to our profession and continue to elevate the anesthesia tech profession in Region 5. Reach out to your colleagues, share your experiences, and advocate for our profession. Your voice matters, and your impact is immeasurable.

Wishing you all an inspiring and fulfilling journey ahead!

Sincerely,

**Ahmed Hamdan, Cer.A.T.T.**

[region5director@asatt.org](mailto:region5director@asatt.org) 

AMERICAN SOCIETY  
OF ANESTHESIA  
TECHNOLOGISTS  
AND TECHNICIANS

## REGION 5 EVENT

### ASATT IS HOLDING A REGION 5 EVENT, PARTNERED WITH MD ANDERSON

We are thrilled to collaborate with MD Anderson Cancer Center for the Region 5 event! Join us on June 7th & 8th, 2024 for the MD Anderson Cancer Center 10th Annual Tech Conference and earn up to 9 CEUs! The event kicks off with a dinner on Friday, June 7th, from 6:00 pm to 8:00 pm at the Rotary House. The conference itself will take place on Saturday, June 8th, from 8:00 am to 5:00 pm in the Onstead Auditorium in the Mitchell Building (BSRB), located at 6767 Bertner Avenue, Houston, TX 77030. To register and receive an invoice for payment via a secure link, please email [SDSoto@mdanderson.org](mailto:SDSoto@mdanderson.org). Don't miss out on this invaluable opportunity to enhance your professional development and network with industry experts!

**CLICK  
HERE TO  
LEARN  
MORE!**

## REGION 6



Region 6,

It is already March, and a quarter of the year has gone by. I am sure most of us want to spring forward to this new season of 2024. As we do, let us think about preparing ourselves for webinars and conferences.

Remember, this year the conference will be in Oklahoma. Registration will be up soon. The first 2024 quarterly Regional Educational Webinar was held on Saturday March 23rd, please note future webinars on the ASATT Calendar.

Congrats to all Certified Anesthesia Technologist and Technicians as we close March with Anesthesia Tech Week (March 26th thru April 1st). If you are interested in traveling

to a live conference, MD Anderson Cancer Center has partnered with ASATT for their conference again this year. Email [sdsoto@mdanderson.org](mailto:sdsoto@mdanderson.org) to register.

I wanted to encourage all of you to think about talking with colleagues whom you know are working as uncertified techs. Our Practical Pathway is being offered by various institutions or will be launched soon. We need to close our ranks; some professions are nibbling at our job duties and scope of practice. There is nothing more empowering than self-advocacy.

I hope your Spring is blooming with excitement.

Regards,

**Otoniel Castillo, Cer.A.T.T.**

[region6director@asatt.org](mailto:region6director@asatt.org) 

## REGION 7



Howzit Everyone!!!

We are starting my favorite season of the year... Spring Baseball has been a big part of my family's life for a long time so with the start of the MLB spring training, the cycle begins. I coached baseball for around

40 years and my son who coaches high school baseball in Seattle experienced something I have never encountered. It snowed on his team during their practice a week ago.

Spring is the rainy season here in Hawaii, but for some of you across the country it starts your time to thaw out from the cold winter. I hope that you had a great holiday season with your family and friends making memories. But, most of all I hope that you're all starting the new year with a positive outlook to have a successful year. That should be the beauty of a new year... building on the success of the previous year.

**"I hope you realize that every day is a fresh start for you. That every sunrise is a new chapter in your life waiting to be written."**

*~ Juansen Dizon ~*

Don't forget to start making plans to attend the 2024 ASATT Annual Educational Meeting in Oklahoma City, OK. The meeting will be held September 25-28, 2024 at the Omni Oklahoma City Hotel. President Bryan Fulton and his committee are working effortlessly to ensure that all will have an enjoyable experience while earning CE's. The Annual meeting has been evolving with the efforts of Bryan and it will continue to change for the better. Please make an effort to join us in Oklahoma City.

As for myself... I especially enjoy meeting new people while reconnecting with veteran meeting attendees. Some of the attendees that I have met, I have known for 20 plus years while developing friendships. Unfortunately, with that amount of time, we have lost some of our friends and peers. I was just notified by someone that we lost Jeff Delaney AT from Boston. He was a regular attendee and friend to ASATT.

**"A good friend is a connection to life a tie to the past, a road to the future, the key to sanity in a totally insane world."**

*~ Lois Wyse ~*

The first meeting I attended was in October 1994, it was held in South San Francisco at a Travelodge if I remember the venue correctly. Wow!!! That was 30 years ago... My how time has flown by. Thinking about all the people that I



have met, the cities that I have visited it has been quite the journey. That doesn't even include the good & cold drinks that I have consumed.

The ASATT BOD is also evolving... It's good to see younger fresh faces taking over rolls as our leaders. They are bringing fresh new ideas and looking at things from a different prospective. Always remember, we are laying the foundation for future generations of Anesthesia Technologists. The future is bright, help keep our profession moving forward.

**"The past is your lesson.  
The present is your gift.  
The future is you motivation."**

~ Unknown ~

Don't forget to check the ASATT website for the Quarterly Webinars.

The following is repeated...ASATT is the only established society that has been recognized by other professional organizations and continues to help our profession grow

and move forward into the future. I know ASATT's plan DOES 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. This has been a long hard journey to get to where we are now, there were no short cuts and there have been many setbacks. There is no easy way to get to where we want to go. There will many more 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 >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 continue to grow and build this **together**.

PLEASE BE SAFE, PROTECT YOURSELVES, and TAKE CARE.

Aloha,

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

[region7director@asatt.org](mailto:region7director@asatt.org) 

## REGISTER FOR ASATT'S Q2 EDUCATIONAL WEBINAR, JOINTLY PRESENTED BY REGIONS 3 & 4

Join us on Saturday, June 22, 2024, from 12:00 PM to 4:00 PM CST to expand your knowledge in anesthesia technology and enhance your professional development. Held via Zoom, this opportunity is your chance to earn up to 4 CEUs while learning from a panel of engaging speakers. Register for ASATT's Q2 Webinar by [clicking here](#).



**asatt** AMERICAN SOCIETY OF ANESTHESIA TECHNOLOGISTS AND TECHNICIANS

# Q2 WEBINAR

**SATURDAY • 4 CE**

June 22, 2024  
12:00 pm - 4:00 pm CT

*Q2 Educational Webinar  
Presented jointly by Regions 3 & 4*

*\$40 for ASATT Members  
\$80 for non-members*

Registration is priced at \$40 for ASATT members and \$80 for non-members.

Did you know that as a valued ASATT member, you have access to exclusive benefits, including a complimentary annual webinar credit? Email [asatt@asatt.org](mailto:asatt@asatt.org) to redeem your credit and confirm your attendance for this event. Please note that members are eligible to redeem only one webinar credit within a 12-month membership period, and membership benefits do not carry over. [Click here](#) to learn more about the benefits of membership. Join or renew today!

# Important Updates

## ACLS CERTIFICATION REQUIREMENT FOR CERTIFIED ANESTHESIA TECHNOLOGISTS



**BETH  
MCVEIGH**

Hello ASATT,

We understand the importance of maintaining regulatory compliance and ensuring the highest standards of patient care. Since 2015, holding ACLS (Advanced Cardiovascular Life Support) certification has been a requirement outlined in the Scope of Practice (SOP) for Certified Technologists. As a part of our ongoing commitment to professional development and adherence to industry standards, ASATT has streamlined the recertification process and updated the ACLS certification requirement for Certified Anesthesia Technologists Cer.A.T.T.

In alignment with the SOP guidelines, all Cer.A.T.T. holders are required to have their ACLS certification documented on file by December 31, 2024, effective immediately. This certification is a fundamental requirement to ensure the safe and effective delivery of anesthesia care. Please review the previously sent memo about ACLS changes [here](#).

It's crucial for Certified Anesthesia Technologists to ensure their credentials are up to date well before the deadline. To facilitate this process, ASATT will be launching an intuitive online submission form. This form will allow individuals

to upload their current ACLS certification cards obtained through the American Heart Association or the American Red Cross, and ASATT will process each submission, updating membership profiles accordingly. We appreciate your attention to this important update and your commitment to maintaining the highest standards in anesthesia technology. Please feel welcome to reach out with any questions you may have.

### [SUBMIT YOUR ALCS](#)

[Click here](#) to upload a current copy of your ACLS Certification card, obtained through the American Heart Association or the American Red Cross, in PDF, JPEG, or PNG format. Upon receipt, ASATT will process each submission and update membership profiles accordingly.

**Beth McVeigh**  
ASATT Coordinator  
[asatt@asatt.org](mailto:asatt@asatt.org) 



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# Important Updates

## PRACTICAL EXPERIENCE PATHWAY (PEP) REQUIREMENT MODIFICATION



**BETH  
MCVEIGH**

Effective March 9th, 2024, adjustments have been made to the Practical Experience Pathway (PEP) in collaboration with Measure Learning.

The Practical Experience Pathway is designed for uncertified Anesthesia Technicians who have experience working in the field of Anesthesia Technology. To qualify, individuals must have at least 5 years of experience working as an Anesthesia Technician in the United States at a Level 1 or Level 2 Facility, OR 7 years of experience working as an Anesthesia Technician in a Tertiary or Outpatient Facility. Additionally, candidates must obtain 40 Continuing Education credits under specific topics outlined in the Practical Experience Pathways Brochure.

Previously, part of the basic eligibility requirements for the PEP mandated the completion of Anatomy & Physiology I & II, along with a course in General Chemistry. These courses had to be obtained from a regionally accredited college, with a grade of "C" or higher, within the previous seven years.

While no longer mandatory, these courses have transitioned from compulsory to highly recommended for applicants. This adjustment aims to better prepare applicants for the National Certification Examination by providing guidance on essential academic coursework.

These changes represent a significant step forward in ensuring accessibility and inclusivity within the certification process for Anesthesia Technicians. The goal is to reduce barriers, streamline education acquisition by focusing on anesthesia-specific topics, and eliminate potential discouragement in applicants who have not pursued academic coursework for an extended period that may require additional prerequisite courses at the institution of choice to enroll in Anatomy & Physiology I & II and General Chemistry.

**Beth McVeigh**  
ASATT Coordinator  
[asatt@asatt.org](mailto:asatt@asatt.org) 

**ASATT's 2022  
Annual Report  
is ready!**

**Check it out here** 







We would like to invite you to participate in the 35th Annual Educational Conference of the **American Society of Anesthesia Technologists and Technicians (ASATT)**, in Oklahoma City, Oklahoma, September 25-28, 2024. Our attendees, which consist of anesthesia technologists and technicians, travel from all over the world to learn, innovate, network, and expand their patient care knowledge and techniques. ASATT would love to have your company share/teach our attendees.

ASATT is excited to introduce our 2024 Sponsorship Opportunities that will compliment your company's marketing plan by connecting you with your target market as an official ASATT sponsor. Elevate your brand as a Silver, Gold, or Platinum Sponsor and enjoy exclusive benefits!

**\*NEW\*** Exhibitors & Sponsors are invited to participate in the **Hands-on Workshop** conference sessions to be held on Saturday, September 28, 2024 in order to provide participants with an introduction to new technologies and an interactive environment to improve clinical skills using advanced training. Seize this opportunity to showcase your brand—sign up today!

### **SECURE YOUR SPOT TODAY!**

Don't miss this opportunity to showcase your brand, connect with industry professionals, and elevate your presence in the field of anesthesia technology. Download our sponsorship prospectus, and learn about sponsorship levels, perks, and opportunities available to showcase your brand at our event! **Act now to secure your spot! Reserve Your Sponsorship and Exhibitor Package today by clicking on the Conference Contract on the site here!**

- Exhibit Contract Deadline: August 1, 2024
- Exhibit Locations: Awarded on a first-come, first-served basis
- Cancellation Policy: Refunds available for cancellations made in writing before June 15, 2024 (less a \$100 processing fee). No refunds for cancellations on or after June 15, 2024.

*If you have any questions or need additional information, please reach out to the ASATT Office: 414-295-9220: [asatt@asatt.org](mailto:asatt@asatt.org)*



# Write an article for *The Sensor*

Interested in writing an article for the Sensor? It's a wonderful opportunity for you to gain national recognition and earn CEUs!

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

[Click here](#) for details outlined on the ASATT website. 

## DID YOU KNOW?

You can now earn up to **5 CEUs** per year for contributing SENSOR articles!

Keep an eye out for an email with more information.



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**ASATT 2024**

**SAVE THE DATE!**

**ASATT 2024 ANNUAL CONFERENCE & ANESTHESIA TECH EXPO**

**OMNI OKLAHOMA CITY HOTEL - OKLAHOMA CITY, OK  
SEPTEMBER 25 - 28, 2024**

**asatt**

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