Hemodynamic Monitoring: Pulse Oximetry

When used properly, the pulse oximeter is an ideal primary monitor to utilize during anesthesia as stated by the ASA monitoring standards. Page 9
Stop the Spread of COVID-19
Temperature Monitoring Product Showcase

Stick-On, NO Touch AccuTherm® Forehead Temperature Indicators

- An affordable COVID-19 safeguard to continuously monitor the temperature of patients, visitors and staff.
- An easy-to-read fever indicator. Ideal for all ages.
- NO touch required. Simple-to-use.
- Within seconds of adhering AccuTherm Forehead Liquid Crystal Temp Indicator, the green oval temperature reading is clearly visible.
- May be worn for an extended time.
- Safe for even the most sensitive skin.

PN 10-LC-08-100 100 Pcs/ with Dispenser Box

Replacing Temperature Adapter Cables with NOVATEMP®

As you know, replacing temperature adapter cables to prevent cross contamination has become common hospital protocol. NOVAMED USA offers the broadest range of NOVATEMP temperature adapter cables to accommodate your monitor/probe requirements. For a complete list of NOVATEMP cables, visit our website or consult our experts. Here is a sampling of the cables we offer:

- For Monitors requiring ¼” Plug Connector / 400 Series probes
  - With Straight ¼” Phono Plug PN 11-CA-402-12 (12’ Length)
  - With Right Angle ¼” Phono Plug PN 11-CA-400-12 (12’ Length)

- For PHILIPS (HP) Monitors with 2 pin din connector / 400 Series probes
  - PN 11-CA-401-12 (12’ Length)
  - PN 11-CA-401-20 (20’ Length)
  - Also available with 1/8” jack for PHILIPS temperature probes: PN 11-CA-404-12 (12’ Length)

- For Dräger Infinity Series, Siemens Monitors / 400 Series probes
  - PN 11-CA-407-12 (12’ Length)
  - Connects directly to the Dräger multi-med cable – eliminating the requirement for interface cable.

914-789-2100
E-Mail: info@novamed-usa.com
www.novamed-usa.com
Greetings Y’all!
I hope everyone is safe and healthy during these times. I appreciate all of the feedback from members over the past weeks.

ASATT holds your safety and your family’s safety in the highest regard. And since we are in uncharted waters during COVID-19, I have a response to many questions regarding the ASATT 2020 Annual Educational Conference in Ft. Worth.

The ASATT Annual Educational Conference 2020 in Ft. Worth is officially postponed until September of 2021.

All members who have already registered and paid will be contacted by ASATT Headquarters at AEG about refunds or transfers. Registrants will have the option of a full refund or the ability to apply their paid registration fee toward the virtual conference.

This does not mean that we will not have an educational conference! Quite the contrary!!!

This means we will have the very first…

ASATT Sponsored Virtual Regional Meeting

Some people have asked questions…

“Why have a Virtual Regional Meeting?”
To provide members with approved CE’s at a fair price.

“But why even have it as a Regional Meeting?”
Because of time. If an east coast Regional Meeting is organized in the morning because of speaker availability, it would cause a huge time inconvenience for members on the west coast and Hawaii. Conversely, if a tech that works the night shift needs CE’s and is on the east coast, their sleep schedule will not be affected too much to attend a live virtual webinar.

“How much is this going to cost? Because times are tough, what are YOU going to do about it to help?”
That is why we are moving to a virtual platform. We are able to provide applicable CE’s at a reasonable cost to members: $10 per CE, the same price as a Sensor Quiz. The Virtual Regional Meetings will be open to all members. No taking several days off work to travel. No huge travel expenses for members. The Regional Directors are expected and have agreed to coordinate their meetings and topics. In this way, two meetings will not be on the same day. Also, there will not be repeated topics. We want members to have the ability of gaining all of their CE’s through the ASATT Academy.

“So what happens if a member is not able to attend any of these meetings? What are YOU going to do about that?”
The Virtual Regional Meetings will be available on the ASATT Academy in a single purchase per CE. The difference being, if it is a LIVE virtual webinar there will not be a test at the end of each presentation. If it is taken as a single CE by registering for and viewing the recorded presentation, there will be a test at the end of the presentation in order to earn credit. The ASATT Board of Directors has been working very hard on this to help members obtain their CE’s.

“Why is it $10 per CE? Who came up with that price? YOU??”
I did not come up with the price point. I am President, not a king. I work collaboratively with the Board. We have discussions about issues to come up with an equitable solution for membership.

The price of $10 per CE was decided upon because it is the same as the Sensor Quiz. Why make it different? We want membership to have an opportunity to be able to obtain their CE’s in a cost-effective manner.

“Then why charge at all? If you want to help members so much, why charge?”
ASATT has substantial overhead that must be paid for. While ASATT is volunteer-driven, we must employ a management company to provide operations for membership. That part cannot be handled via volunteers. It is too big of a job. And we are getting a bargain for what we pay. AEG has really helped ASATT out with professional guidance and management.

So everybody stay tuned!

God Bless,
Greg Farmer, Cer.A.T.
ASATT President
It is always future-forward-focused at ASATT as evidenced through a look at our current society happenings. Between cyclical annual governance activities that bring new perspectives into the leadership of our Society and recognize the service and achievements of our members (think Elections and Awards) and innovative programs and platforms for educating, informing and engaging our members (think Virtual Education and Discussion Forum), the forward momentum is continuing to gain pace as we move into the summer months.

2020 Election
Cast your ballot beginning July 6th!
ASATT will soon introduce you to the impressive array of talented and committed members nominated to stand election this year for a position on the Board of Directors. Our members have spoken, nominating fellow member colleagues they see as motivated, forward-thinking individuals, active in the Society and the profession, and sincere in advancing the Society for the benefit of the entire profession.

All candidate information and an electronic ballot will be posted to the Members Center of the ASATT website. The formal election will commence on Monday, July 6, and conclude on Friday, August 14. Stay tuned to further information and announcements in the monthly ASATT Update and other communications over the next few months, as well as on pages 27-28 of this issue of the Sensor.

Participate in the future of ASATT – YOUR Society – and cast your ballot come election time!

2020 Regional Education Awards
Celebrating the achievements of ASATT members and others contributing to our industry and profession is both a joy and a privilege. The annual Regional Education Awards were established to pay tribute to those individuals who are not required or paid to advance the education of technicians and technologists, but whose sincere interest promotes education in our specialty.

ASATT members are invited to nominate someone in their region that has genuinely contributed to promoting and furthering the profession of anesthesia technology.

Do you know someone that has:
• Helped you or a group of technologists and technicians gain valuable knowledge in the field of anesthesia technology?
• Volunteered their time to provide quality lectures for continuing education credits?
• Worked to improve the anesthesia technology profession?

We encourage you to visit the ASATT website, download the Nominations Form and submit your nominee today! Nominations will be accepted through July 1st.

All nominations will go to the Regional Directors for review. If more than one person, facility, or company is nominated in a region, the Regional Director will ultimately choose the recipient.

Winners for each region will be selected by the end of July and the awards will be given out during the ASATT Business meeting during the Annual Educational Conference.

ASATT Discussion Forum
Last issue we announced the new ASATT Discussion Forum on the ASATT website. With the launch of the online Discussion Forum, ASATT members have a dedicated platform from which to reach out to each other to ask questions and share resources and solutions. We encourage you to use this powerful tool for networking with your peers and colleagues!

Membership Renewal
And don’t forget to renew your membership for 2020-2021! Renew your membership by July 31st and continue to enjoy member savings throughout the year.

As an ASATT member you receive:
• Discounted fees for the Annual Educational Conference and Regional Programs offered throughout the year
• NEW! Discounted registration fees for e-learning webinars and other online offerings
• Reduced recertification application fees
• Quarterly Sensor magazine
• Monthly ASATT Update e-newsletter
• Sensor Quizzes and other ongoing continuing education opportunities
• And so much more!

Visit the membership section of the ASATT website and renew your membership today!

Education and Training
For updates on current and planned ASATT education and training initiatives, refer to page 31 for the latest ASATT Academy news.
Quentin Letson, Cer.A.T.

What is your current job title?
Chief Anesthesia Technologist

How many years have you been in the anesthesia technology profession?
I have been employed in this role since 2006, as lead for AtlantiCare Regional Medical Centers.

What do you find the most challenging about your job?
Wow, not sure where to begin. LOL I would have to say the care that goes into each patient when it pertains to anesthesia. No matter if it’s a patient that requires local anesthetics to a surgical case on a much larger scale, like a cardiac case, each patient brings a different dynamic, especially with today’s virus and worldwide health concerns. The interdepartmental workflow can be challenging, as well. For instance, if something breaks in-house and I call bio-med, they could have other projects going on. And regardless of the fact that I need my items ASAP, that doesn’t mean they will get to it ASAP, so that in itself creates an issue if I need a certain piece of equipment right away. I have to rely on these departments – Logistics, Blood Bank, Pharmacy, Housekeeping, O.R. nurses, not including vendors, to name a few – in some way or another in order to get a job well done. Having so many parts that need to come together can be challenging because, like a puzzle, the smallest piece missing will not complete the puzzle. Call-outs can really be challenging, but I have an AWESOME TEAM of Docs, Nurses and my Techs (who are the best!)

How many years have you been an ASATT member?
Since 2006

What is your fondest memory of ASATT, if you have one?
After hosting a Region 1 Meeting and going to the national that same year, it was cool and I’m appreciative of the Regional Award I received. But the people that came up to me and were asking if I was going to host another was really exciting. To see and hear from people that weren’t from my region that attended the Region 1 Meeting that year and wanted to come back, really made me feel like these Regional Meetings are just as important as the national meetings, especially the way organizations are cutting back.

What has been your proudest accomplishment? (Personal life or Professional life, or both)
God first and foremost, my kids and mother are the most important things in my life. Getting my degree in Healthcare Administration, obtaining and maintaining my Cer.A.T. credential, getting my NHRA license, going over 200mph on a motorcycle, and being a founder of a group of people that go once a month to feed and give clothes to the less fortunate.

What is your favorite food?
Chicken Alfredo

People would be very surprised to know that...
I have won two acting awards (Spiral Awards).

What do you enjoy doing with your time?
I like to go bowling, ride my Harley or go to the local quarter-mile track and race my drag bike.

What is your favorite type of music?
Gospel, R&B, Old School anything, Classic Rock, Rap (no profanities or such), Pop, some Country.

What is your favorite movie?
Goodfellas, Belly, Casino... can’t choose one!

What would you like to get around doing one of these days?
Remodeling my mom’s house.

Regional Meetings
As ASATT is making a shift to a virtual Annual Educational Conference in 2020, our Regional Meetings will follow suit. Until we know that we can meet safely in a face-to-face setting our Regional Directors will be joining in on holding Virtual Regional Meetings. Their goal as always is to provide as many educational opportunities each year as possible. As the Regional Directors shore up their plans and set dates, the Virtual Regional Meetings will be posted on the ASATT website and announced via the monthly ASATT Update.

ASATT Annual Educational Conference
ASATT has continuously monitored the COVID-19 pandemic to ensure the safety and well-being of our members, corporate partners and colleagues. Given the uncertainty of future directives for large gatherings, the ASATT Board of Directors has determined that we cannot proceed with the 2020 Annual Educational Conference scheduled for September 10-12, 2020 at the Fort Worth Hilton. ASATT will postpone the in-person conference until next year, September 23-25, 2021.

While the ASATT Board of Directors regrets the postponement of this year’s Educational Conference, it gives ASATT the opportunity to move forward with a virtual conference. The ASATT Annual Educational Conference and Sponsorship Committees are working hard to put together an informative and educational agenda. The committees are also looking at exciting ways to include our corporate sponsors and partners. Keep checking back to the ASATT website for new and updated information on the virtual conference.

The ASATT Board of Directors would like to thank you for your patience and understanding during these unprecedented times and looks forward to your participation in our very first virtual conference!
The Standards for Basic Anesthetic Monitoring were set and approved by the American Society of Anesthesiologists House of Delegates on October 21st, 1986. Pulse Oximetry is referenced in ASA Standard II, sub-section 2.2.2 and standard IV, sub-section 4.2.3 (ASA, 2015). The ASA guidelines state that during all anesthetics, the patient’s oxygenation, ventilation, circulation, and temperature shall be continually evaluated, whilst ensuring the adequacy of a patient’s circulatory system throughout all anesthetics (ASA, 2015). The ASA also denotes that (“continual” is defined as “repeated regularly and frequently in steady rapid succession” whereas “continuous” means “prolonged without any interruption at any time.”).
History
Johann Heinrich Lambert’s book “Photometria sine de mensura et graudibus luminis, colorum et umbre” was published in 1760, formulated the law which states that absorbance of a material sample is directly proportional to its thickness (path length) (Columbia University Archive, 2016). Almost 100 years later, in 1852 a man by the name of August Beer; A German physicist, chemist, and Professor of Mathematics at University of Bonn, added that “the absorbance is proportional to the concentrations of the attenuating species in the material sample” (Blood in the case of pulse oximetry).

Together, these two scientists developed the Lambert-Beer Law, which describes the dispersion in amplitude of the wavelength of light, in relation to the thickness of the material in which it is traveling through (Van Meter et al., 2017). The Lambert-Beer Law is the foundational idea of oximetry.

In 1860, two professors at the University of Heidelberg in Germany, Gustav Kirchoff, and Robert Bunsen (inventor of the Bunsen burner) established the technique of analytical spectroscopy. The discovery of spectroscopy aided Felix Hoppe-Seyler; a German physiologist and chemist in the discovery of the oxygen carrying material in blood called hemoglobin thereafter. In 1864. He defined hemoglobin as two parts, the heme dark-red, iron-containing, non-protein part, and the globin, the colorless protein part. He then applied absorption spectroscopy to hemoglobin, based on the principle that substances are colored because they absorb and reflect certain wavelengths of light. He demonstrated that if light passed through a solution of oxygenated hemoglobin; at that time, 540nm and 560nm wavelengths would be absorbed (twist-peak absorption pattern) (Hazelwood, 2001).

It was not until more than 100 years later, in Tokyo, Japan that the term “pulse” had been studied in connection to the field of oximetry, by a young Japanese bio-engineer by the name of Takuo Aoyagi who worked at the Nihon Kohden Corporation, a Tokyo-based manufacturer that developed and distributed medical equipment. At the time, Aoyagi was researching the measurement of cardiac output through dye dilution. An ear oximeter, designed previously by Earl Wood in the United States in 1949, was used during the research. Aoyagi was troubled by interference from pulsatile variations in the light signal, encountering difficulty because of the constant artifact created by these pulsations. After this finding, he concluded that the change in arterial blood flow could be utilized to measure the oxygen saturation without

the need for a zero calibration in a bloodless sample (Van Meter et al., 2017). Aoyagi chose different wavelengths of light than had been previously used, using 630 nm (red) and 900 nm (infrared) instead of using 805 nm, an isobestic point; a wavelength at which the absorption of light by a mixed solution remains constant as the equilibrium between the components in the solution changes (UCDavis, 2019). for hemoglobin, which is a point of equal absorption by oxyhemoglobin and deoxyhemoglobin (Severinghaus, 2007). Nihon Kohden Corporation produced the first commercial pulse oximeter, the OLV-5100, and applied for a patent to the Japanese Patent Office on March 29, 1974, but not elsewhere in the world (Aoyagi, 2003).

These are key events throughout history that have pushed pulse oximetry to where it currently is and have helped serve as an establishment for the ASA Monitoring Standards.

Although the probe was very sensitive to motion, it showed that the principle of pulse oximetry was accurate. Based on Aoyagi’s foundation, several groups within the United States began to develop their own versions of pulse oximeters (Van Meter et al., 2017). Improvements in diode technology led to several American companies to enter the field of pulse oximetry. In 1980, Biox Technology, an American medical technology company headquartered in Denver, Colorado marketed their first pulse oximeter in the United States (USPTO, 1983).

These are key events throughout history that have pushed pulse oximetry to where it currently is and have helped serve as an establishment for the ASA Monitoring Standards.

Principles
The World Health Organization defines pulse oximeters as medical devices that monitor the level of oxygen in a patient’s blood and alert the health-care worker if oxygen levels drop below a safe level, allowing rapid intervention (WHO, 2019). Practitioners can quickly recognize changes in blood oxygen saturation due to the changes in audible pitches and cadence.

The pulse oximeter is often the very first monitor placed on the patient upon arrival to the operating room (Guimaraes et al, 2019). This noninvasive method is used to measure oxygenation, ventilation and circulation by determining the oxygen levels within the arterial blood. The oxygen levels are determined by measuring hemoglobin saturation (SpO2) via red and infrared light transmission through tissue. Hemoglobin is a protein that is found in red blood cells (RBCs) and can either contain oxygen (oxyhemoglobin) or not contain oxygen (deoxyhemoglobin). Oxyhemoglobin and deoxyhemoglobin absorb light differently: oxyhemoglobin absorbs more infrared light than red light and deoxyhemoglobin absorbs more red light than infrared. The oxyhemoglobin has significantly lower absorption of the 660 nm wavelength than deoxyhemoglobin, while at 940 nm the oxyhemoglobin absorption is slightly higher. This difference is used for the measurement of the amount of oxygen in a patient’s blood by the pulse oximeter.

While SpO2 is used by the anesthetist to continuously monitor the oxygen delivered to metabolically active tissues, it is not a direct measurement of the oxygen content of blood. SpO2 serves as a surrogate measurement of oxygen saturation of hemoglobin in arterial blood (SaO2) (Guimaraes et al, 2019).

Equipment
There are three constituents that comprise a pulse-oximeter: probe transducer, cable and monitor. Each of these works in conjunction with one another to provide an accurate reading of the patient’s oxygen saturation levels.

Pulse Pitch
The pitch of the pulse oximeter sound correlates with the oxygen saturation. The lower the pitch, the lower the saturation will be. There are some pitfalls with this system and one of the main distractions tends to be the OR environment (Lichtor, 2014). The OR environment tends to be quite loud with respect to the staff and the music that the surgeon has requested. A loud environment is by no means conducive to utilizing a monitor that has a sound that is designed to help you readily identify SpO2 saturation when you are performing multiple tasks that directly affect the care of a patient undergoing a surgical intervention.

The element that comes in direct contact with the patient is the probe transducer. The pulse oximeter contains a red (650nm) diode, an infrared (940-1000nm) diode, and a photoreceptor. The light-emitting diode (LED) is part of the probe that emits light at a specific wavelength and sends it through the tissue for the photo-detector to receive. After the signal is received, the photo-detector relays that signal to a computer that utilizes an algorithm, which are company specific and proprietary, to transmit the data to the monitor. The probes can either be disposable or reusable and are available in different sizes. In operating room type setting it is more common to utilize disposable probes in order to prevent any potential nosocomial infections. Proper size selection is important because it ensures that accurate values are recorded. For example, if the size if too large then light from the diode can be overcompensated and not reach the photocell without passing through the tissue, which can result in a false high SpO2 reading. It is important for the photocell to be aligned with the LED so readings can be recorded accurately.

The next component is the cable. The cable connects the probe to the oximeter console and it is important that there is a complete connection between the two components or else the monitor will not have an accurate reading or even a reading at all. The values are displayed on the console for the operator to read and monitor. Once the console receives the signal from the probe transducer via the cable then it is displayed in pulsatile waveform and oxygen saturation is displayed in a percentage with the strength of the probe signal.
The department of anesthesia at Vanderbilt University assessed whether training to make use of combined visual and auditory cues might improve resident physicians’ ability to detect changes due to oxygen saturation. The results were just as lackluster as one might imagine. It was concluded that both environmental noise and attentional load impaired response time to detect changes in tones representative of decreasing oxygen saturation. Environmental noise also impaired accuracy of tone determination. The utilization of perceptual training improved the residents’ ability to detect changes in oxygen saturation determined by auditory pitch changes. Perceptual training also improved their response time in a noisy and attention-demanding environment like that of an operating room (Lichtor, 2014).

### Measurement Method

There are two types of methods that are used to collect data from the pulse oximeter: transmission and reflection. The most common and readily used method for measuring saturation is transmission pulse oximetry. With this method, the light source is transmitted through tissue to the detector that lies directly on the opposite side. There are situations where it is beneficial and even crucial to utilize transmission and reflective probes in conjunction with one another. In cardiac and vascular surgery in particular, practitioners seem to be adopting the use of cerebral oximeters (reflective) in order to get a more accurate reading of SpO2. Wax et al referenced a study in their research that stated “one study suggested that they may be more reliable than finger probes in patients with poor peripheral perfusion or low cardiac index” (Wax et al, 2009).

Common sites for transmission probes are the fingertip, toe, nose and earlobe because it provides a direct line with the light source and the photodetector, in contrast of the heel, cheek or forehead sites. Unlike transmission, reflection pulse oximetry relies on backscattering therefore, producing a weaker impulse. With reflection, the LED and photocell are on the same plane. There are ways that can maximize the signal such as heating the site being measured and applying pressure.

### Advantages

Pulse oximetry possesses qualities that make it advantageous from other monitors. These qualities include being noninvasive, serving as a continuous monitor and being the most readily available. Being noninvasive, pulse oximetry is considered a routine monitor and can be placed before anesthesia is administered. This allows some ease for those patients who fear the idea of surgery and may have some concern with needles and pain. The measurement of oxygen saturation is important throughout surgery because providers must be alerted when there is a drop of saturation due to anesthetics or other factors. It is the most readily available because it is easy and fast to place on the patient and it also provides a variety of sizes and different probes for a variety of site applications.

### Limitations

A limitation of the pulse oximeter that is often overlooked is the inability to detect hyperoxemia. There is growing evidence that the administration of oxygen in concentrations that produce hyperoxemia is associated with cellular injury (Vanderveen et al, 2006). More recent evidence also indicates that resuscitation of premature neonates with a high fraction of inspired oxygen (FiO2) is associated with greater mortality and worse outcomes (Iabi et al, 2007). The inability of the pulse oximeter to detect hyperoxemia is profound and worth noting.

Perfusion greatly affects the quality of information provided by the pulse oximeter. If a patient does not have adequate perfusion to its extremities it is impossible to get an accurate SpO2 reading. However, severity of poor perfusion should be noted. A recent study published in the 2018 edition of Anesthesiology, tested four different brands and discovered a confidence (p-value), in most cases of <0.0001. All devices had at least a 95% sensitivity and specificity in detecting hypoxemia (SaO2 ~ 88%) and severe hypoxemia (SaO2 ~ 78%) during motion. As to be expected, low perfusion was associated with less precision (Loosle et al, 2018).

In the case of poor perfusion, or amputation there are alternatives to placement. Ear probes are quite common practice when one cannot achieve reliable data from a digital probe. In the average patient, when placing a pulse oximeter on a digital site it is advised not to place the probe on the index finger as the patient can potentially cause corneal damage by rubbing their eyes during the emergence phase of anesthesia. When used properly the pulse oximeter is an ideal primary monitor to utilize during anesthesia as stated by the ASA monitoring standards.

### References


Director for one of the programs at the forefront of our profession’s academic footprint, I am excited to see where our profession goes in the coming years.

The Sooner State Litmus Test

This week (as of writing this piece), I am enjoying the fact that my first cohort has graduated, and we will begin our second cohort in the coming weeks. Our pathway to this point was hard-fought, filled with plenty of sleepless nights, and constant work. My program is located in Oklahoma City in a part of the nation often referred to as flyover country. Yet, this young program in a city that does not know what region it belongs in is a litmus test for what our profession can be.

In 2016, the University of Oklahoma Medical Center realized anesthesia technology needed to change and could no longer operate under an OJT format. It was at that time that Oklahoma City Community College (OCCC) and OU Medicine formed a partnership to create an academic program, which would educate and prepare the state and region’s future anesthesia technician. Oklahoma is a poignant example of where our profession is going and where it can go. Despite Oklahoma being a neighbor to Texas, virtually no certified personnel from Texas crossed the Red River to work in the Sooner State. Despite being historically devoid of qualified credentialed personnel, Oklahoma and OCCC bought into the profession and began to invest into the program financially.

Under the guidance of former Program Director Dr. Nancy Sweet-Fitzgibbon, Dr. Jane Fitch, Dr. Lara Dean, OCCC President Jerry Steward, and former Health Professions Dean Debbie Myers, OU medicine developed the program. In particular, Dr. Sweet-Fitzgibbon spent more than two years developing a curriculum and learning the finer points of our profession. She developed terminal learning outcomes, objectives that met the ASATT Scope of Practice standards, and CAAHEP accrediting standards. This was a massive undertaking.

For my part, I was initially brought into the program from Los Angeles to serve as the assistant program director in 2018 to help with course development, marketing, clinical site development, and simulation center creation. In 2019, I was promoted to Program Director. My journey from Los Angeles to Oklahoma City and OCCC has been incredible and has given me a vision for our profession’s future.

Fast forward to 2020, after thousands of hours of curriculum development, marketing, grant writing, state-of-the-art simulation center development, and many sleepless nights by faculty and students. Under the guidance of myself, Dean of Health Professions Dr. Vincent Bridges, Dr. Nancy Sweet-Fitzgibbon, Mr. David Foster, and countless preceptors and stakeholders, Oklahoma’s first anesthesia technology class graduated this May. This historical moment for OCCC and Oklahoma is also an indicator of where our profession is moving. With the graduation of our first cohort comes the recognition by the state’s largest hospital and only Level-1 trauma center that the primary standard for employment in anesthesia technology is being a graduate of an anesthesia technology program and the possession of the Cer.A.T.T. credential. Oklahoma, with its rural background and historical absence of certified anesthesia technical staff, is now a harbinger of what lies ahead for our profession.

The Next Frontier

Where do I see anesthesia technology education moving to next? My answers to this question are many, but I want to focus on one area that is of particular interest in the current season we find ourselves—which is simulation education. At OCCC, we are very fortunate to have a state-of-the-art anesthesia technology simulation center, which has been used to prepare our students for those pivotal high-acuity low-frequency events that clinical locations simply cannot guarantee. One classic example is the MH event. We can model this critical event with a high-fidelity patient simulator that replicates the physiological events of MH and responds to our students’ interventions. When I took over this program, I knew I had something special with this center, but as 2020 has progressed, this simulation center’s real value became evident. It affords us the ability to provide accurate, highly efficacious clinical learning modalities when those clinical locations cannot accept students. As clinical locations closed across the country in response to COVID-19, our program was able to transfer to virtual clinical opportunities utilizing our simulation software, so while not always ideal, we were able to maintain a highly cognitive learning environment for our students.

The reason I mention high-fidelity simulation and anesthesia technology simulation is this is the next frontier. I believe, our educational programs need to embrace. Before 2020, the difficulty of locating clinical locations across the country for any healthcare profession was already increasing due to liability concerns, increased competition, and just plain lack of access. Now with the continued threat of global pandemics further straining clinical access, simulation is the next frontier and our educational programs need to undertake to ensure we properly prepare our students and stay at the cutting edge of healthcare education. So as we move on from the changes of 2015, I am excited to see what happens with our programs as we seek to push the profession further.

Bryan Fulton, BAA, Cer.A.T.T.
Anesthesia Technology Program Director
Oklahoma City Community College
Lung Wedge Resection: VATS Modality

Introduction

The lung wedge resection procedure is the surgical removal of a wedge-shaped portion of tissue from one, or both, lungs. The least invasive and the more beneficial modality for the patient (in terms of trauma to the body) is the Video-Assisted Thoracoscopic Surgery (VATS) Modality. The utilization of a thoracoscope is required to perform a VATS procedure (videoscope) along with several small access incisions used as access points for the surgical instrumentation. (Cleveland Clinic, 2020)

There are various reasons in which a wedge procedure may be performed. "The wedge procedure is performed on patients with peripheral "non-small-cell tumors", who have pulmonary reserve limited to the point that they are unable to tolerate lobectomy." (Jaffe et al., 2014)

The primary rationale for the surgery is a patient with a thoracic or pulmonary cancer diagnosis. Further indications and patient history for this surgery will be discussed more in-depth in this article. Per the indications for the procedure, this article will also discuss the anesthetic and physiological implications that the anesthesia care team should be aware of along the entire perioperative spectrum. With that being said all anesthetic concerns discussed in this article revolve around the certified anesthesia technologist’s role on the anesthesia care team.
Indications for Procedure

Typical pre-op diagnoses include but are not limited to a positive metastatic tumor in the lung; primary lung cancer (usually requires a lobectomy); and unknown pulmonary lesions. The VATS portion of the procedure is preferred in the event the patient exhibited one of the following pre-op diagnoses. Possible diagnoses requiring a VATS procedure include: pleural disease (effusions); chronic emphysema; recurrent localized lung masses; achalasia; sequestration, pulmonary infarcts, and reflex sympathetic dystrophy, also known as RDS. (Jaffe et al. 2014) Other associated conditions with patients of this population include cardiovascular issues; Chronic Obstructive Pulmonary Disease (COPD); infections (cases of pneumonia); and other malignancies. (Cleveland Clinic, 2020)

Patient Information

The patient undergoing this procedure is a 56-year old female that exhibited symptoms of moderate-COPD (audible wheezing/ shortness of breath present during the patient interview), with no known allergies. The patient has not taken any medications before surgery. The patient has had no previous surgical history. In preparation for the operation, she underwent a 90-day cycle of chemotherapy in an effort to reduce the size of the mass. Additional etiology include a history of smoking (the patient stated a smoking cessation of six months), and repeated episodes of pneumonia. The patient was NPO for approximately 12 hours before surgery. Preoperative monitoring and maintenance include oxygen saturation of 89% on 7-liters per minute, heart rate of 78 beats per minute, blood pressure of 110/65, a height of 6’7, and a BMI of 25; the patient was calm.

The patient received numerous preoperative evaluations before surgery, including preoperative Pulmonary Function Test (PFT), arterial blood gas (ABG), three-view chest x-ray, and computed tomography (CT) of the chest. The PFT spirometry test is used to evaluate a patient’s lung function, focusing on compliance. The PFT is typically performed on patients with underlying structural or mucosal COPD. ABGs were drawn due to the patient’s chronically low peripheral oxygenation saturation, which can lead to intraoperative hypoxia if the underlying causes are not managed. The chest x-rays performed included views, anteroposterior, posteroanterior, and lateral views meant to map the location of the mass. Finally, the 3-D chest CT was done to provide further information about the mass and to rule out any potential airway anomalies that could potentially impact the placement of a Double-Lumen Tube (DLT). The patient was also checked for any jewelry or metal that may interfere with the electrocautery devices.

The computed tomography results came back and indicated that there was some evidence of a potential extra lobar sequestration (ELS) in the left lower lobe of the lung. The recurrent episodes of pneumonia are to be expected after this finding (Sakuma et al. 2004). Once all preoperative tests were complete, surgery of the Left Lower Lobe under Video-Assisted Thoracoscopy with wedge resection for possible Pulmonary Sequestration, with resection of malignant tissue, was confirmed.

Physiological Considerations

The key to the entire procedure is maintaining the ability to ventilate a single functional lung while the malignant lung is operated on under thoracoscopy. Single lung ventilation affords the surgeon an open immobilized surgical field to work in, which helps reduce surgical complications. One lung ventilation (OLV) is typically accomplished in one of two ways. One, the use of a double-lumen endotracheal tube (DLM), where the anesthesia provider and technologist use a video-scope to secure the distal end of the tube beyond the carina in the left or right bronchus. Second, the anesthesia provider and technologist can place an endobronchial blocker (EBB) through a single-lumen endotracheal tube using balloons on the EBB to prevent airflow into the immobilized lung. Additionally, contemporary research into the VATS procedure indicates the efficacy and feasibility of a third option referred to as non-intubated thoracic Surgery (NITS).

In 2017 a paper published in The Journal of Visualized Surgery titled: “Anesthesia for Uni-portal VATS: Double Lumen, Single Lumen and Tubeless” suggested that there is a less common third option for a VATS procedure. The paper stated that “there is evidence demonstrating the feasibility of NITS for minor procedures such as talc pleurodesis, mediastinal biopsies, and managing pericardial effusions; however, the application of NITS for major lung resection continues to be elucidated.” (Zhou et al., 2017). For this paper, the provider will be utilizing a DLT to achieve OLV.

Cert.A.T.T. Role

As an Anesthesia Technologist, a critical skill to have is the ability to properly and efficiently size a double-lumen tube for the patient. According to Miller et al., there is no consensus as to the ideal method for sizing a double-lumen tube (Miller et al. 2018). According to Basics of Anesthesia Seventh Edition, proper sizing of the DLT requires a knowledge of the patient’s height and sex (refer to figure 1). Based on this table, our patient required a 37Fr double-lumen tube.

With a VATS procedure, the insufflation of the chest cavity will be required typically using Carbon Dioxide (CO2) (Jaffe et al., 2014). With that in mind, it is crucial to remember that some of the insufflation gas (CO2) will be absorbed by the patient; thus, causing hypercarbia in some magnitude. Insufflation does one of two things: it aids the surgeon in being able to visualize the surgical field, and it aids in the deflation of the operative lung. Lung deflation is accomplished via direct suctioning to the lung. According to Jaffe et al., it should also be noted that insufflation should be done at a slow rate. Insufflating the thoracic cavity space too quickly can result in cardiovascular collapse because of the increased intra-thoracic pressure, decreased BP, decreased HR, and hypoxemia (Jaffe, 2015).

As far as supplies are concerned (aside from the DLT), the patient may or may not require an arterial line. According to the Anesthesiologist’s Manual of Surgical Procedures, a “cardiac catheters use is generally not required, unless indicated by patient’s medical condition” (Jaffe et al., 2015). With the procedure taking approximately two-three hours, fluid warming is indicated to counteract peripheral cooling and to warm blood products for potential transfusion.

The key to the entire procedure is maintaining the ability to ventilate a single functional lung while the malignant lung is operated on under thoracoscopy.

The anesthesia care team should be careful to compensate for deficits, surgical volume loss, and insensible loss, avoiding overheating the patient with crystalloids and colloids. This is a necessary precaution to prevent postoperative edema, which can lengthen the recovery time for the patient and can adversely affect the patient’s hemodynamic stability.

Standard ASA monitors are required, and special consideration should be given to their placement. Electrocardiogram electrodes should be placed properly to capture all three bipolar leads (I, II, and III) and the two unipolar leads (aVR and aVL). However, the patient’s lateral position needs to be considered as it relates to electrode placement. The RA and RL electrodes can irritate the skin with normal saline or lactated ringers solution (Jaffe et al. 2014). Anecdotally, The University of Oklahoma Medical Center (OUMC) prefers PlasmaLyte (Normosol-R) for most procedures unless sensitivity to acidosis and elevated potassium levels contraindicate its use. The paper’s author recommends placing a second intravenous catheter with a preferred gauge between 16-18 gauge. The rationale is derived from the surgical instrumentation making it challenging to secure a secondary line intraoperatively if the initial IV fails. The provider will typically calculate fluid deficit utilizing the 4:2:1 fluid deficit ratio. However, it is essential to note that the anesthesia care team should be careful to compensate for deficits, surgical volume loss, and insensible loss, avoiding overheating the patient with crystalloids and colloids. This is a necessary precaution to prevent postoperative edema, which can lengthen the recovery time for the patient and can adversely affect the patient’s hemodynamic stability.

Standard ASA monitors are required, and special consideration should be given to their placement. Electrocardiogram electrodes should be placed properly to capture all three bipolar leads (I, II, and III) and the two unipolar leads (aVR and aVL). However, the patient’s lateral position needs to be considered as it relates to electrode placement. The RA and RL electrodes can irritate the skin.
and cause compression due to the lateral position, which can lead to decubitus ulcers. Furthermore, the placement of the NIBP needs to be considered in relation to oscillometric readings. According to a 2006 study on pregnant women in a lateral recumbent position published in The International Journal of Obstetric Anesthesia, found that NIBP placement on the ‘up-arm’ while in lateral position was lower “by a mean 10mmHg or more” systolic compared the supine position (Kinsella, 2006). Meaning that if a noninvasive blood pressure cuff is the primary use for blood pressure monitoring a systolic artifact is to be expected. Practically speaking, if during induction, the patient is maintaining a pressure of 120/80, it is reasonable to expect a pressure of 110/80 when the patient is in a lateral position, barring no other influences on the patient’s habits. Pulse-oximetry should also be considered, and placement on the opposite limb of the NIBP is recommended. Finally, monitoring the patient’s Capnography is essential, but OLV ventilation can lead to inaccurate values of ETCO2 compared to PaCO2, so evaluations of PaCO2 via ABG is recommended (Cox and Tobias, 2007).

The Estimated Blood Loss (EBL) noted by Jaffe et al. is minimal. However, a technologist should always be made aware of rapid transfusion devices and rescue RBCs/FFP in the rare event of massive blood loss. Though intra-operative air embolism, intra thoracic structure injury during surgery, and cause compression due to the lateral position, which can lead to decubitus ulcers. Furthermore, the placement of the NIBP needs to be considered in relation to oscillometric readings.  

References


Medical information provided in this article is derived from supporting text, research, classroom time, and other sources. The author does not claim works as his own.
As far as Regional Meetings, the same goes for them. I would like to reach out to a few of the folks that have offered to help host the Regional Meetings for this year and see if we can still get the speakers to do some Zoom presentations and go from there. Once I get my Zoom skills up to par, I will reach out and get the dates set up and let you all know how that will work as well.

Thank you all for your time and patience!

Stay healthy and safe,
Jonnalee Geddis, Cer.A.T.
I believe it is in our best interest to hold our regional meetings virtually this year.

As we start to define what a “new normal” looks like for each of us, our employers, ASATT and the nation as a whole, the ASATT BoD has diligently been focusing on our regional and annual meetings and discussing what steps we will take to ensure that we can provide continuing education while at the same time focusing on the safety and health of our members, vendors and everyone who participates and contributes to our meetings. I anticipate that an announcement will be forthcoming within the next few days regarding the annual meeting.

As for Region 3 meetings, I believe it is in our best interest to hold our regional meetings virtually this year. I base that decision on the following:

Rationale #1: We have no idea if a resurgence will occur and if so, when. It will be easier to plan for a virtual meeting now rather than possibly having to scramble to move to a virtual format shortly before a scheduled meeting.

Rationale #2. (Which should really be first and foremost) Being mindful of the health and wellness of our members, ourselves and everyone else involved. If the meeting were to move forward, maintaining the 6’ distance in a classroom style seating arrangement may prove to be difficult and the meeting room might not allow for the 6’ distancing.

Rationale #3 Moving to a virtual format would make it more cost effective for us to obtain our CE’s. Some techs were laid off, some techs had spouses laid off. Some techs had their hours cut. The cost of a virtual meeting would be minimal compared to the expenses of time off, travel and lodging and hours cut. The cost of a virtual meeting would be minimal compared to the expenses of time off, travel and lodging and hours cut. The cost of a virtual meeting would be minimal compared to the expenses of time off, travel and lodging and hours cut.

Rationale #4 Travel. Who knows what restrictions will be in place around the time of planned regional meetings.

Rationale #5 Some facilities are prohibiting travel to Travel. Who knows what restrictions will be in place around the time of planned regional meetings.

Prior to the COVID outbreak, we were working on a couple of different plans for meetings; the first being the traditional sit-down meeting with speakers that was originally being planned for late April-early May. This unfortunately didn’t pan out due to the many stay-at-home orders issued. The second, which I still hope to be able to do, are a couple of half-day meetings where we will be able to hear a lecture and then transition over to the sim-lab where we can discuss and put our new knowledge to practical use. I’ve always been a strong proponent of hands-on learning as it reinforces new concepts and theories that are introduced.

Currently, I am in the process of putting together a web-based regional meeting where you can log in, listen to the speakers and get your CE’s. If the first one goes well, which I’m hoping it will, there will be more to follow. If you have any topics that you’d like discussed/covered, please let me know, I’m always happy to try and make sure your needs are covered! Look for the first webinar for Region 4 in late June-early July.

As always, be safe and see you soon.

Matthew Chandler, Cer.A.T.T.
Mark your calendars for the upcoming election!

All candidate information and an electronic ballot will be posted to the Members Center of the ASATT website. The formal election will commence on Monday, July 6, and conclude on Friday, August 14. Further information will be provided throughout this process in the monthly ASATT Update and other communications.

Make your voice heard come election time by casting your ballot! Take part in electing a new group of dedicated members to help guide our society into the future.

Joyce Freeman, Cer.A.T.
Immediate Past-President
Chair, Nominations Committee

Valid nominations had to have been received by June 10. Overseen by the ASATT Nominations Committee, chaired by Past President Joyce Freeman, Cer.A.T. and committee member Ravelle Rolle, Cer.A.T.T., the process has now turned to verifying eligibility to run for office and having the nominations formally accepted by the nominees.
Board of Directors
Position Descriptions

Have you ever wondered exactly what the responsibilities of individual Board members are? Here is a simple overview of the “position descriptions” of the Board of Directors.

No Board members or Officers of ASATT are paid for their time … their service is voluntary!

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.

President
Handle daily Society business as required.
Preside at all Society membership, Board of Directors and Executive Committee meetings.
Responsible for co-signing all negotiated contracts on behalf of the Society.
Fiscally responsible for operating the Society’s business within the approved budget.
Prepare agendas for Board business.
Co-Chair the Annual Educational Meeting.
Responsible for set-up, staffing and breakdown of ASATT booths at the national meetings of related organizations.

Treasurer
Three-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.

President-Elect
Three-year term
Communicate directly with the ASATT President.
Assume the responsibilities of the President when necessary.
Be familiar with the Bylaws and Policy and Procedure Manual and the workings of all committees.
Succeed the President at the end of his/her term.
Co-chair the Annual Educational Meeting.

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.
Responsible for attending the Annual Educational Meeting.
Assisting with registration, sales, etc., during the Annual Meeting.
Assisting with the ASATT exhibit booth at national meetings of related organizations, 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.
• Participating in the yearly budget process for the region’s activities.

Immediate Past-President
Serve as a member of the Board and Chairperson of the Nominations Committee.
Fulfill various other duties for the Society at the pleasure of the President by mutual agreement of both parties.
Assist with set-up, staffing and breakdown of ASATT booths at the national meetings of related organizations.
Participate in conference calls and Board meetings.

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.

Immediate Past-President
Serve as a member of the Board and Chairperson of the Nominations Committee.
Fulfill various other duties for the Society at the pleasure of the President by mutual agreement of both parties.
Assist with set-up, staffing and breakdown of ASATT booths at the national meetings of related organizations.
Participate in conference calls and Board meetings.

Member
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.

Immediate Past-President
Serve as a member of the Board and Chairperson of the Nominations Committee.
Fulfill various other duties for the Society at the pleasure of the President by mutual agreement of both parties.
Assist with set-up, staffing and breakdown of ASATT booths at the national meetings of related organizations.
Participate in conference calls and Board meetings.

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.

President-Elect
Three-year term
Communicate directly with the ASATT President.
Assume the responsibilities of the President when necessary.
Be familiar with the Bylaws and Policy and Procedure Manual and the workings of all committees.
Succeed the President at the end of his/her term.
Co-chair the Annual Educational Meeting.

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.
Responsible for attending the Annual Educational Meeting.
Assisting with registration, sales, etc., during the Annual Meeting.
Assisting with the ASATT exhibit booth at national meetings of related organizations, 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.
• Participating in the yearly budget process for the region’s activities.

Immediate Past-President
Serve as a member of the Board and Chairperson of the Nominations Committee.
Fulfill various other duties for the Society at the pleasure of the President by mutual agreement of both parties.
Assist with set-up, staffing and breakdown of ASATT booths at the national meetings of related organizations.
Participate in conference calls and Board meetings.

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
Three-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.

President-Elect
Three-year term
Communicate directly with the ASATT President.
Assume the responsibilities of the President when necessary.
Be familiar with the Bylaws and Policy and Procedure Manual and the workings of all committees.
Succeed the President at the end of his/her term.
Co-chair the Annual Educational Meeting.

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.
Responsible for attending the Annual Educational Meeting.
Assisting with registration, sales, etc., during the Annual Meeting.
Assisting with the ASATT exhibit booth at national meetings of related organizations, 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.
• Participating in the yearly budget process for the region’s activities.

Immediate Past-President
Serve as a member of the Board and Chairperson of the Nominations Committee.
Fulfill various other duties for the Society at the pleasure of the President by mutual agreement of both parties.
Assist with set-up, staffing and breakdown of ASATT booths at the national meetings of related organizations.
Participate in conference calls and Board meetings.

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
Three-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.
Vitals

INDUSTRY NEWS

Maintaining Human Connection in a Virtual World

Since the beginning of the COVID-19 pandemic, ASATT, along with other professional anesthesia associations and groups, have been continuously monitoring health advisories to ensure the safety and well-being of our members, partners, sponsors, and exhibitors. ASATT has confirmed it will be offering the first ever Virtual Educational Conference in 2020. Two of ASATT’s professional partners, the American Society of Anesthesiologists (ASA) and the American Association of Nurse Anesthetists (AANA), have also transitioned their in-person meetings to a virtual meeting / conference platform for this year.

We realize that maintaining professional growth, development, and education is important for moving our profession forward. Learning the latest updates and trends, as well as interactions with fellow members, are key contributors to our growth and development. We all wish that we could meet face-to-face this year and have our traditional conference experience, but a unique situation offers a unique opportunity.

While ASATT will integrate virtual and online learning opportunities into our education and training portfolio overall going forward, we have no intention of moving away from the in-person collaborative meeting experience long-term. For this year, virtual education and training is an important and necessary alternative to meeting in-person, and ASATT appreciates that the technology exists to provide ways for us to continue serving our members and supporting your professional development and certification goals through the provision of high-quality educational content to earn continuing education credit (CE’s).

While we may not know what the “new normal” will look like as COVID-19 remains a factor to consider in planning events and activities going forward, we are committed to reintroducing in-person opportunities – once it is safe and prudent to do so – and always under conditions that will ensure the health and welfare of our members and colleagues.

Healthcare News

For the latest industry and healthcare news, check out the ASATT Home page for the most up-to-date happenings published daily in the Healthcare News feed.

Academy

ASATT ACADEMY

2020 has brought with it many challenges and the unprecedented situation that has come in the wake of the COVID-19 pandemic. The ASATT Board of Directors has been closely monitoring the situation over the past months with the health, safety, and welfare of our members taking the highest priority in all decisions related to meetings and educational offerings.

ASATT Adds Virtual Education to Its Portfolio

One thing that we have all learned during this period is how resilient our members are and ready to adapt to and adopt digital and mobile platforms. With this in mind, ASATT has embraced the virtual realm and is taking steps to harness online technology to bring you timely, cost-effective and efficacious educational opportunities.

The Board and committees are already heavily engaged in the planning of online teaching webinars, virtual Regional Meetings, and the Society’s very first ever Virtual Annual Educational Conference! In fact, the Society hosted its first webinar on June 13th, Simulated-Based Learning and Anesthesia Technology, presented by Bryan Fultan from Oklahoma City Community College. The hour-long presentation provided attendees with one CE and was very well received. ASATT is planning more of these offerings along with Regional Meetings and, of course, the first Virtual Educational Conference! Watch for announcements of virtual educational offerings in future issues of the Sensor, on the ASATT website, in the monthly ASATT Update, and other communications.

Reach out also to your Regional Director to see what’s brewing and to get involved yourself!
Check out our all-new redesigned website.

asatt.org

Looking for "Vintage" ASATT merchandise?

With the rebranding of ASATT, we find ourselves with an overstock of vintage ASATT merchandise. We have taken inventory and reduced prices on items such as Conference t-shirts, hooded sweatshirts, travel mugs, and more! Check out the Storefront on the ASATT website for deals and be on the lookout for more sales announcements.