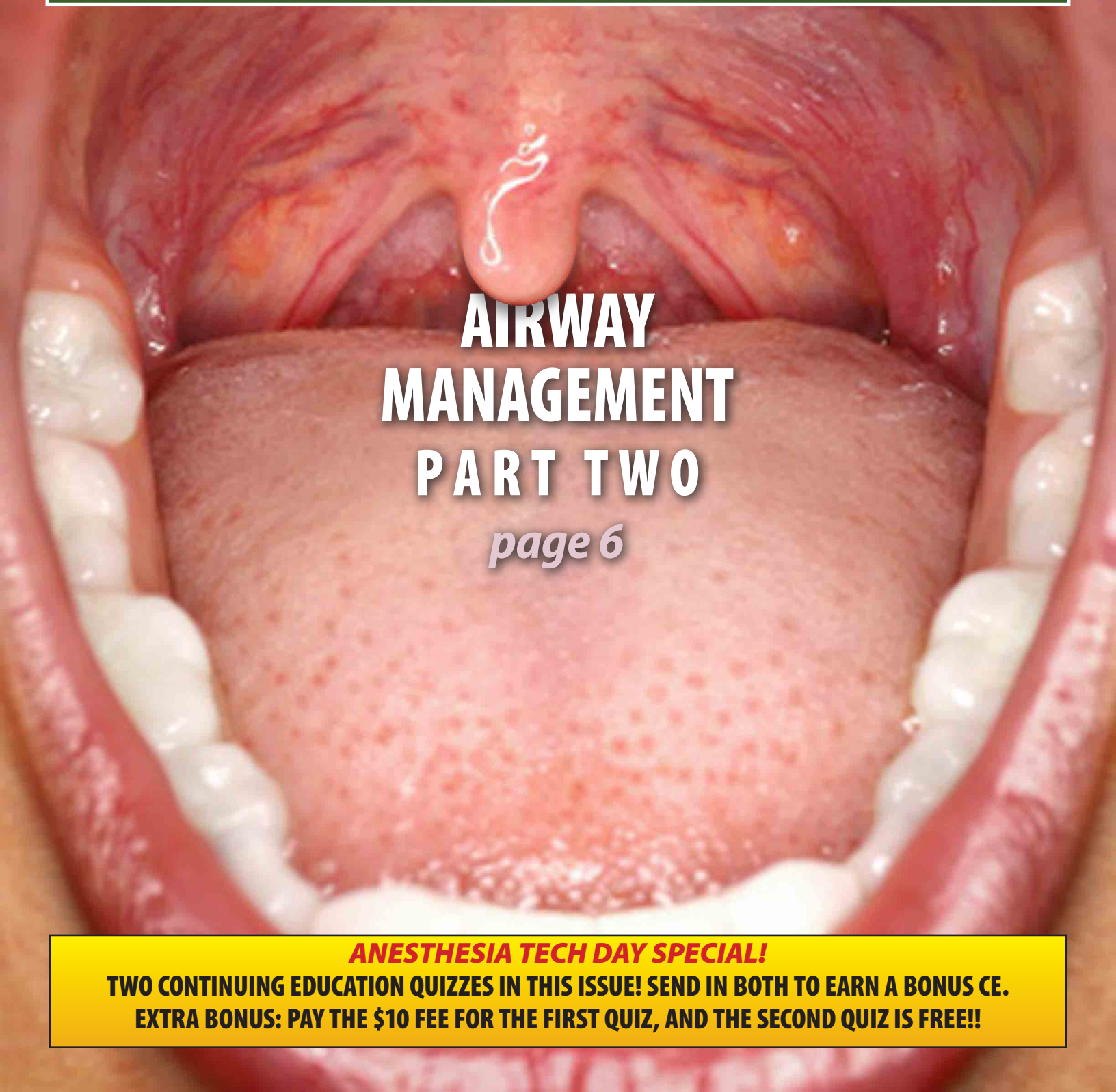
SENSOR ONLINE

THE OFFICIAL PUBLICATION OF THE AMERICAN SOCIETY OF ANESTHESIA TECHNOLOGISTS AND TECHNICIANS VOLUME XXV / WINTER 2015



AIRWAY MANAGEMENT PART TWO

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ANESTHESIA TECH DAY SPECIAL!

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is the quarterly publication of the American Society of Anesthesia Technologists and Technicians

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SENSOR

provides its readers with information on anesthesia-related topics, and with a forum for learning and discussion. *The views expressed herein are those of individual authors, and do not necessarily reflect the views or opinions of ASATT.*

All submissions pertinent to the objectives of ASATT will be considered for publication.
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Spring ..... April 1st
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PRESIDENT'S MESSAGE

Jeremy Wyatt, Cer.A.T.

GREETINGS ALL,

I hope everyone had a delightful holiday season and were able to take time with your family and friends.

With the New Year starting there should be 624 Technicians and Technologists recertifying. If you are part of this group you should have already completed the recertification process! Recertification is a long and tedious process requiring a large amount of volunteer hours from our Recertification Committee. I want to acknowledge Sue Christian, Cer.A.T.T., for her ongoing commitment to ASATT and helping members navigate recertification. With that, it is up to us as healthcare professionals to recertify early, fully complete the required paperwork and ensure the CEs we are using fall into the specific categories needed for our professional certification.

> ***We want to make the national meeting more cost-effective for those willing to further their own education and help advance the education of our membership.***
>
> ~ JEREMY WYATT

I want to encourage everyone to consider two options to help yourself and further our profession. First, we are in need of technicians and technologists to write Science and Technology articles for *THE SENSOR*. By doing this you will further your own knowledge of a specific subject by researching the topic and writing about the cutting edge advances. You will be able to help educate your fellow technicians and technologists. As the article is published in *THE SENSOR*, you will be able to add a notable item to your professional résumé and be eligible for the $1,500 Science and Technology Award!

The second option is to give a presentation during our national meeting in Salt Lake City. This will also give you the opportunity to further your knowledge of a specific subject, enhance your professional résumé, earn up to three extra CEs and you'll be eligible for the discounted registration rate of $100 for the national meeting. We are putting this forward for a few important reasons. First, we have heard the membership ask for more technicians and technologists to give presentations. Second, we want to make the national meeting more cost-effective for those willing to further their own education and help advance the education of our membership.

If you haven't already, be sure to put your vacation request in to attend our national conference, August 28–30, in Salt Lake City, Utah. It is my hope that members come forward to give presentations and take advantage of the discounted registration fee of $100.

It is time to start thinking about serving on the Board of Directors and different committees to further our Society. Currently the Certification/Recertification Committee, Ethics Committee, and Communications/Editorial Committee needs members from different Regions to help our profession move forward. If you are interested in joining or learning more about these and other committees, I welcome you to reach out to me so we can schedule a time to chat.

I want to remind everyone about the positive changes coming to our profession on July 15, 2015. This

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year will mark the much needed advancements forward as we retire the technician exam and only offer an enhanced technologist exam. We are also adding "Successful completion of an accredited anesthesia technology program" to the requirements for the technologist exam. Going forward after July 15th, all new certified anesthesia technology professionals will be entering our profession as an Anesthesia Technologist with an associate's degree! As more of us come to the workforce with a degree and certification we will continue to move toward a specific scope of practice and hopefully a state-issued license. This will be a long journey requiring all of us to step up to the plate, stand together, ensure the highest level of personal professionalism and continue to advance our personal education. By doing this we will move our profession to the next level.

March 31st: Anesthesia Tech Day!

March 31st marks our day to celebrate the Anesthesia Technology Profession. In preparation for OUR day I ask that you send photos to Alex at **a.llanas@asatt.org.** We want to create a collage of images to tell the story of Anesthesia Technology around the nation. Please use a high resolution camera when taking the pictures. It would be great to have group images and images of Anesthesia Technology Professionals in action. If you are going to take images of Techs in Action, be certain to keep HIPPA and any hospital policies in mind. I would recommend reaching out to your HR and PR departments for assistance with this task. March 9th is the cutoff date to have all your images to Alex. Thank you all in advance for taking the time to celebrate OUR profession.

Jeremy Wyatt, Cer.A.T.
ASATT President

IMPORTANT UPCOMING CHANGES TO THE ANESTHESIA TECHNOLOGY PROFESSION

Anesthesia Technology is rapidly being recognized as an Allied Health Profession. As a profession sometimes we need to make difficult and somewhat painful decisions in order to secure our position as a member of the Anesthesia Care Team. To help with these transitions we are circulating information that will impact many of us in the Anesthesia Technology vocation. Listed below are some very important dates to remember and plan for. ASATT is also requesting your assistance to disseminate this information to all of your coworkers and those looking to begin a career in the anesthesia technology profession.

- **July 15, 2015 is the last day to use work experience for qualification of the Technician Certification exam.**
- **If you plan on taking the Technician Certification exam you will need to have the examination application completely filled out, with all necessary supporting documentation and payment to ASATT Headquarters prior to June 30, 2015.**
- **You will need to fully meet ALL eligibility requirements by July 15, 2015 in order to qualify for the Technician Certification exam.**
- **After July 15, you will be eligible for the Technologist-level Certification exam after successful completion of an ASATT approved/accredited program.**
- **At midnight on July 15, 2015 CDT, we will retire the Technician-level Certification exam.**
- **After that date, the Technologist Certification exam will be the only one available.**

IMPORTANT:

(1) Certified Technicians will not be grandfathered to Certified Technologists. (2) You will be able to keep your Technician Certification as long as you meet the 20 CEs needed for your certification and remain in good standing.

Vicki Reyes, Cer.A.T.T., Chair
Education/Accreditation Committee

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AIRWAY MANAGEMENT PART TWO

Part one of airway management reviewed the anatomy of the adult and pediatric airway as well as the basic supplies and equipment used by anesthesia clinicians to support the airway. This article will discuss airway supplies in further detail; review the newer generation of airway instrumentation and awake fiberoptic techniques.

By Sue Christian, Cer.A.T.T.

The American Society of Anesthesiologists 2013 *Practice Guidelines for Management of the Difficult Airway: An Updated Report* defines a difficult airway as "the clinical situation in which a conventionally trained anesthesiologist experiences difficulty with mask ventilation, difficulty with tracheal intubation, or both." Furthermore, "the difficult airway represents a complex interaction between patient factors, the clinical setting, and the skills of the practitioner." The inability to adequately ventilate the patient can pose life-threatening outcomes for the patient that may include airway trauma, aspiration, hypoxemia or anoxic brain injury, cardiac arrest or even death. The ASA reports the "incidence of difficult airways to be 1:2500 for the non-obstetric population; 1:250 for the obstetric population; and the inability to ventilate/intubate population to be 1:10,000" *(Practice Guidelines for Management of the Difficult Airway: An Updated Report.)*

The pre-operative physical airway examination was implemented to diagnosis the potential of a difficult airway. Upon examination, the anesthesiologist should review the "patient's previous medical and surgical history; any anesthetic factors that may indicate the presence of a difficult airway" as well as "exam previous anesthetic records, if readily available." (*Practice Guidelines for Management of the Difficult Airway: An Updated Report).* The examination should begin with the overall facial appearance of the patient:

- **Size of head and abnormal facial features –** patients with Pierre-Robin syndrome or Down's syndrome, can contribute to difficult intubations.
- **The nasal septum –** should be assessed for any occlusions, deviations or discharges.
- **Jaw mobility –** patients with decreased range of motion, temporomandibular joint (TMJ) disease or masseter spasm may have a decrease in jaw mobility or opening.
- **Lips –** cleft lip deformity can present challenges with the

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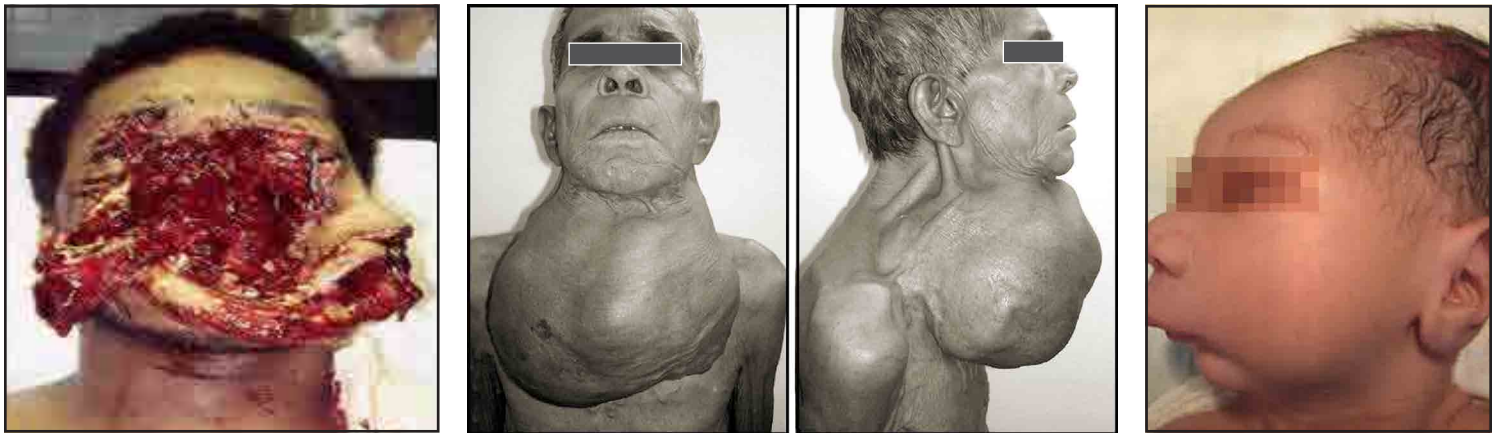
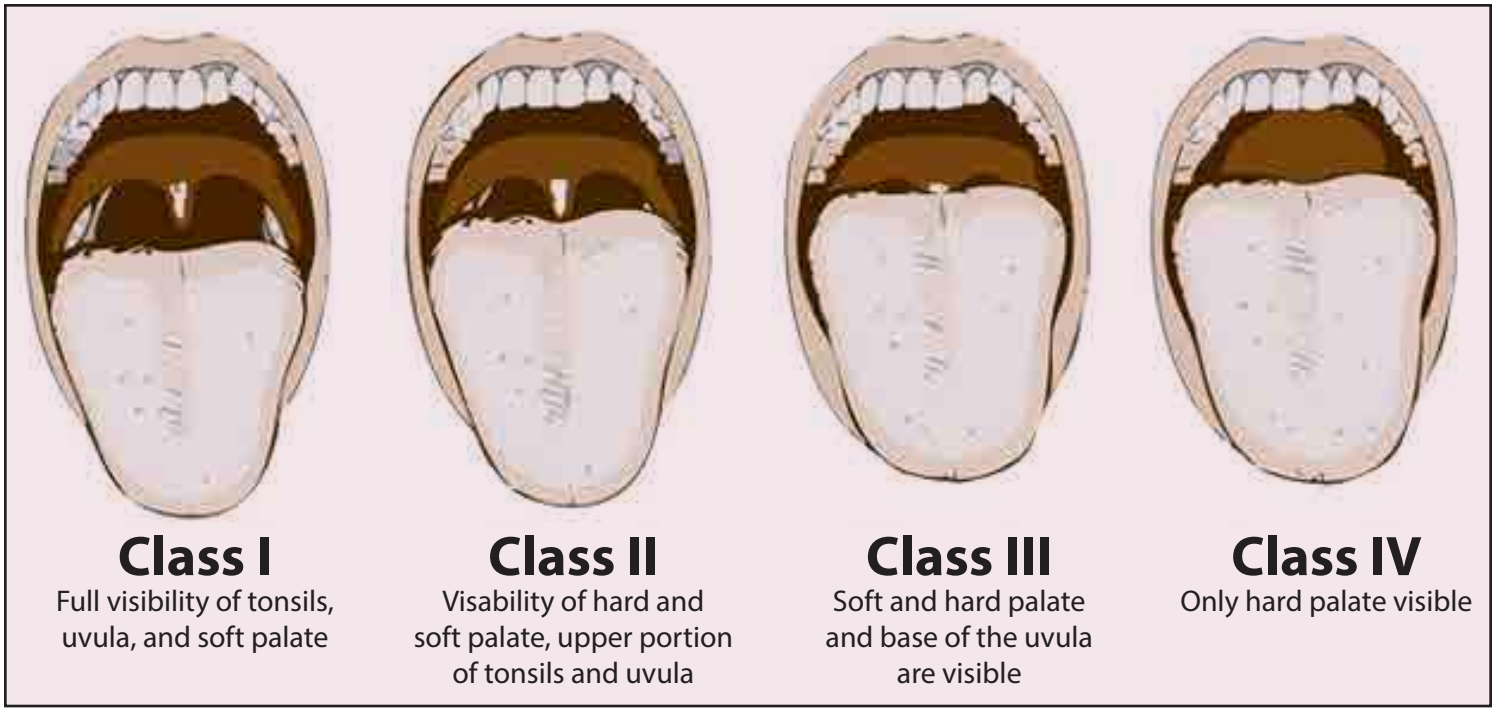


Patients with facial trauma, a large thryroid mass, or Pierre-Robin syndrome can be difficult to intubate.



The Mallampati classification system is a guideline developed to assist clinicians with the visualization of the size of the tongue in relation to the oral cavity, as a large tongue can hinder the ability to visualize the larynx.

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introduction of airway instruments into the oral cavity.

- **Oral cavity –** assessment should be made for foreign bodies/tumors.
- **Teeth –** assessment should be made for any loose teeth; caps, bridges or dentures. Patients that are "buck tooth" can restrict the amount of access with the introduction of airway instruments.
- **Tongue –** assessment should be made for foreign bodies (tongue piercings) or disease. A disproportionate tongue in relation to the oral cavity may occlude the ability to visualize the larynx (as experienced in many Down's syndrome patients). Mobility of the tongue should also be noted.
- **Mandibular space –** the thyromental distance, mandibular length and the mandibular-hyoid distances are also useful indicators for a potential difficult airway. With the patient's neck fully extended and mandible closed, the thyromental distance is measured from the tip of the chin to the thyroid cartilage; decreased thyromental distance is less than three finger widths. Next, the mandible is measured from the suprasternal notch to the tip of the chin; decreased distance is less than 12cm. Vertical distance of the mandibular from the chin to the hyoid should be at least three finger breadths. An increase of vertical distance usually makes laryngoscopy more difficult *(Barash, Cullen & Stoelting, 1997, pg. 580).*
- **Neck –** obese and/or pregnant patients may have short, thick necks that limit the range of motion. The clinician should also be vigilant of discoloration of the neck; this may be the result of radiation therapy which may have resulted in tissue scarring. Scarring or tumors in the neck region may cause the airway to become occluded if bleeding occurs. Tracheostomy scars could result in tracheal stenosis.
- **Cervical spine –** the degree of mobility of extension or flexion may be limited due to osteoarthritis, congenital deformities or trauma and may hinder direct laryngoscopy.
- Previous knowledge of difficult intubation.
- Additional history should note cardiac or respiratory issues and previous difficult or failed intubations.
- Other factors that could lead to difficult intubation:

  ~ Infections or abscesses
  ~ Airway burns
  ~ Acromegaly

If one or more of these indicators are present, there is a potential for a difficult intubation. Regardless of the number of indicators, the anesthesia care team should formulate a plan on how they will approach the intubation prior to the patient presenting to the operating room. The anesthesia technician needs to be included in the discussion to ensure that the proper airway supplies and equipment are readily available and in proper work-

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ing condition.

There are two common airway scoring systems used by clinicians to assist them with determining the potential for a difficult airway. These are only guidelines and should not be used for the sole purpose to determine the potential for a difficult airway. The Mallampati classification system (previous page) is a guideline developed to assist clinicians with the visualization of the size of the tongue in relation to the oral cavity, as a large tongue can hinder the ability to visualize the larynx. The examination begins with the patient sitting up straight, mouth open and tongue fully extended *(Barash, Cullen & Stoelting, 1996, pg. 450).*

- **Class I:** Soft palate, fauces, uvula, pillars visible
- **Class II:** Soft palate, fauces, uvula visible
- **Class III:** Soft palate, base of uvula visible
- **Class IV:** Soft palate not visible at all

The Cormack-Lehan scoring system (below) is used to document the view of the oral anatomy from the direct view with laryngoscopy *(Barash, Cullen & Stoelting, 1997, pg. 576):*

- A Grade 1 view means that the entire glottic opening from the anterior to posterior commissure is visible.
- A Grade 2 view means that only the posterior portion of the glottis is visible.
- A Grade 3 view means that only the epiglottis is visible.
- A Grade 4 view means that only soft tissue is visible without any identifiable airway anatomy.

The American Society of Anesthesiologists (ASA) developed a difficulty airway algorithm to assist clinicians with developing strategies for dealing with awake intubations; situations in which they are unable to mask ventilate the patient; and/or unable to intubate the patient.

Traditional airway equipment consisted of an ambu bag; variety of cuffed and uncuffed endotracheal and rae tubes; a variety of laryngoscope blades and handles, oropharyngeal and nasopharyngeal airways; flexible and rigid scopes; bougies; jet ventilators; light wands and the Combitube®. Advances in airway instrumentation began in the mid- to late '80 s and has continued to advance with the implementation of video and digital technology.

Supraglottic/Laryngeal Mask Airways

The Combitube® is classified as a supraglottic airway device that consists of two lumens; one lumen seals the oropharyngeal cavity while the second lumen seals the nasopharyngeal cavity. It can be inserted blindly or under direct visualization, and was designed to provide adequate ventilation. For years, the American Heart Association and the ASA supported it as the "go to" rescue device in the "I can't ventilate nor can I intubate situations". Newer variations of this design consist of the King LT®, Intersurgical i-gel® and the Rusch Easy Tube®.

Between 1985 and 2010, advance-

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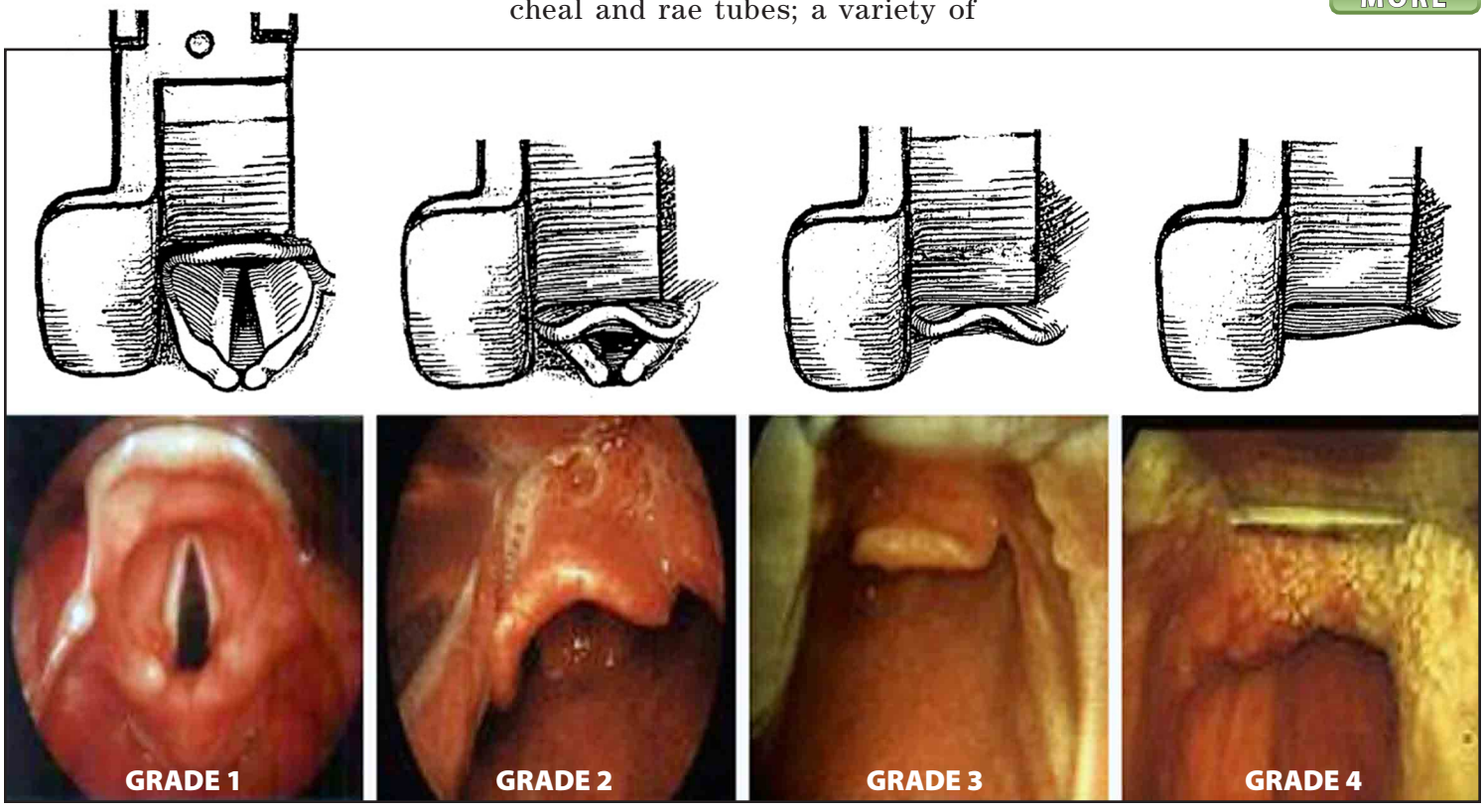
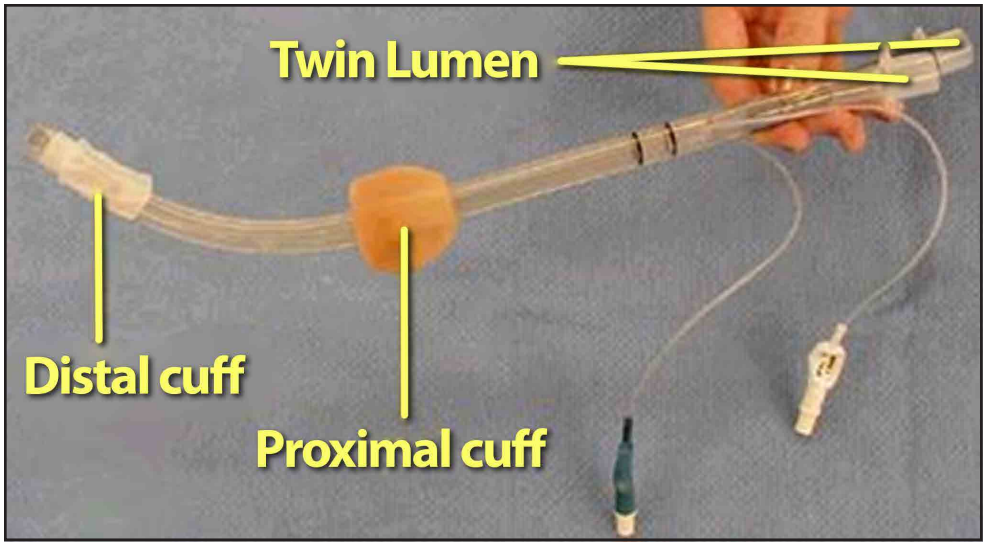


The Cormack-Lehan scoring system is used to document the view of the oral anatomy from direct view with laryngoscopy.



The "original" Combitube®.

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ment in airway technology exploded. Up until that time, traditional means of ventilating the patient was either performed with a face mask or an endotracheal tube. Dr. Archie Brain's introduction of the Laryngeal Mask Airway (LMA®) in the mid to late 80's provided for a third option to ventilate the patient. It took some time to gain popularity but the LMA (classic) proved more reliable than the face mask and was less invasive than an endotracheal tube. Dr. Brain then developed a variety of different LMA's that would facilitate intubation for a wide range of clinical settings that included the Flexible LMA® and the ProSeal LMA®. In 1997, Dr. Brain introduced the intubating LMA (ILMA®) or Fastrach® as we know it. Interestingly enough, the current ASA difficult airway algorithm has replaced the Combitube® with the use of the LMA® or ILMA® as an alternative difficult intubation approach. In recent years, the market has been flooded with a variety of different types of laryngeal mask airways such as the Cookgas® Intubating Laryngeal Airway & the Ambu® laryngeal mask. The LMA may be inserted blindly, with the aid of a laryngoscope blade and handle or with the use of a fiberoptic scope.

The Cuffed Oropharyngeal Airway (COPA) made its debut in the early '90s. A modification of the Guedel airway, it has a cuff at the distal end and a 15mm adapter on the proximal end to allow the connection of an ambu bag or breathing circuit. When the cuff is inflated, it displaces the tongue and elevates the epiglottis to provide a tight seal, but does not protect the airway from gastric regurgitation. It was available in four sizes (8, 9, 10 and 11cm).

Lighted Stylet (aka Trachlight®)

The lighted stylet was developed for blind intubation. The endotracheal tube is loaded onto the stylet and with diminished room lighting, the Trachlight® is inserted through the glottis. A bright red glow is then transilluminated through the soft tissues of the upper airway. Advancement of the endotracheal tube to just below the sternum should cause the "glow" to diminish/disappear at which time the tube is supposedly halfway between the chords and the carina. If the tube is in the esophagus, there is supposedly no transillumintation. Although manufacturing of the Trachlight® has ceased, Rusch® is currently manufacturing an advanced model of the original trachlight. Successful use depends upon the expertise of the clinician.

Lighted/Optical Stylets

A newer generation of lighted stylets, optical stylets are marketed as a combination of a malleable stylet, a laryngoscope handle, a trach light, jet ventilator and fiberoptic bronchoscope rolled into one device. The optical eyepiece allows for direct visualization while the malleable stylet with a distal end can be shaped for different applications (Clarus Medical's Shikani Stylet®; Levitan FPS Stylet®; Storz Bonfils optical stylet®). Some manufacturers have portable light sources while others require the use of fiberoptic light box and cables. Storz has recently launched a newer version of the Bonfils stylet® that includes a video camera at the distal tip.

Rigid scopes

The Bullard® scope, Wu® scope and Upsher® scope were the first rigid scopes available to anesthesia. The Bullard® laryngoscope has what is considered to be an anatomically curved blade. At the proximal end, an eye piece is provided for direct visualization and at the distal end, a fiberoptic light. It has two ports; one may be used to oxygenate the patient, inject medication and/or flush solution, or suction. The other port allows for the attachment of a stylet to position the endotracheal tube. There are two options for the light source; a conventional laryngoscope handle or with some modification, a fiberoptic light source. The Bullard® scope is available in both adult and pediatric sizes. In comparison, the Wu® and Upsher® scopes also have an anatomically curved blade with the major difference being a built in channel to hold the endotracheal tube in place. The Upsher® scope is powered by a conventional laryngoscope while the Wu® scope is outfitted with a battery pack. A few advantages of the rigid scope family include the sturdiness of the instrument; it provides direct visualization of the airway anatomy and requires minimal neck movement. However, if the airway has a lot of secretions or blood present, visualization can be hindered. Securing the airway with the use of

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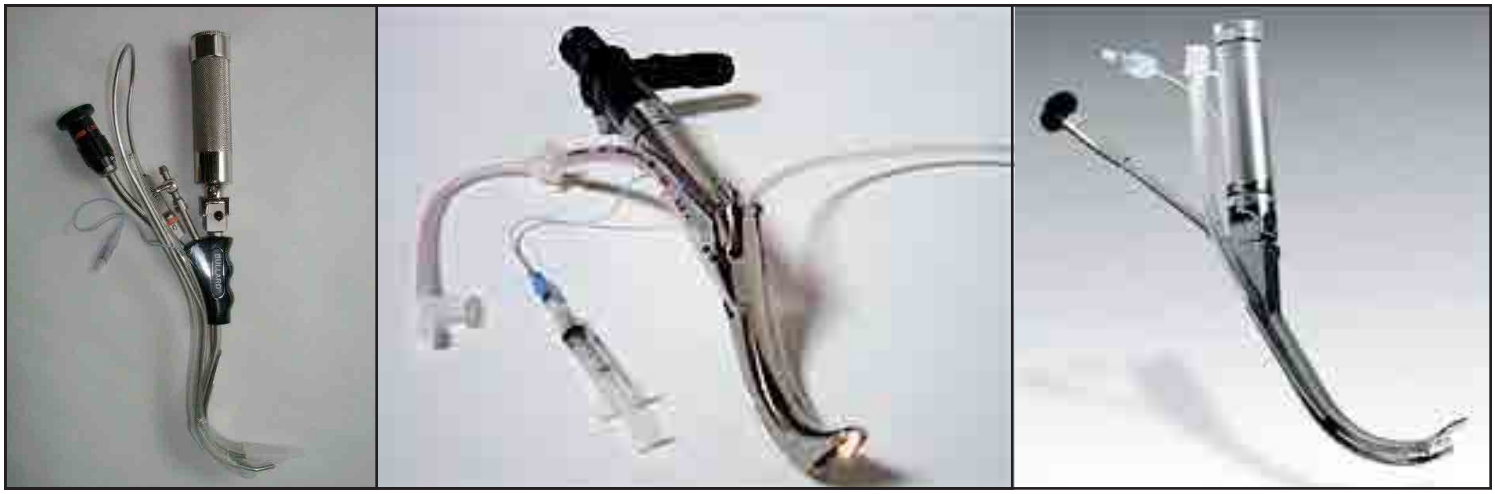

LARYNGOSCOPES — *Left: Bullard® laryngoscope loaded with stylet. The light source is powered with a conventional laryngoscope. Center: The Wu® scope with an endotracheal tube loaded into the channel, powered by a battery pack. Right: The Upsher® scope.*

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a rigid scope requires expertise skills for successful placement of the endotracheal tube. Another disadvantage is that the endotracheal tube design can hinder successful placement with preformed channeled rigid scopes.

Newer generations of rigid scopes provide both video and optical views. This category includes the Glidescope® Ranger, McGrath® and McGrath Mac®, Storz C-Mac®, King Vision®, Storz® DAVI video laryngoscope (Berci blade), Pentax Airway Scope® and the Airtraq®. With the *exception* of the Airtraq®, all of these rigid scopes are similar in that they apply both video and optical technology powered by a direct or indirect light source. The primary differences include the visualization of video capability (fixed screen or stand-alone screen) and location of video camera/light source.

Since the Airtraq® does not employ video technology; it relies on a series of mirrors and prisms to display the airway in the "viewing hood". The Airtraq® is available in two styles; an "all-in-one disposable" device or a reusable optics with a disposable blade. Both versions have a built in channel to house the endotracheal tube.

The King Vision® has a reusable color display that is permanently mounted to the handle and provides the option to purchase either a channeled or standard disposable blade and operates by battery power. The Pentax® Airway scope also has a reusable color display that is permanently mounted to the handle. It is used in conjunction with the PBlade®; a uniquely designed disposable blade that contains two built in channels, one for suctioning; and the other to house the endotracheal tube and is battery operated. The Storz® DAVI video laryngoscope Berci® blade is a reusable rigid blade that employs a stand-alone screen which requires the use of both a fiberoptic and camera cables that are connected to a light box. The Berci® blades are available in a variety of different sizes. One advantage to the DAVI cart is that the screen is large enough to allow everyone present the opportunity to visualize the intubation. The Storz C-Mac® is a smaller and a less cumbersome version of the DAVI set up. The monitor's screen, while smaller, still allows other individuals to visualize the intubation. Another perk to this system is the ability to record the entire intubation or take still shots. The light and camera cable are all-in-one and snap into the reusable handle. The McGrath® and McGrath Mac® are both reusable handles with a built in video screen and operate on batteries. Both McGraths use disposable

Newer generation of rigid scopes: the Glidescope® (left) and the Pentax AWS® (above).

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blades and are available in a variety of sizes. Lastly, the Glidescope Ranger is unique in that it offers a large selection of both reusable and disposable blades. Similar to the Storz C-Mac®, it too, employs a small monitor that requires the use of a fiberoptic light/camera cable. The downfall to the Ranger® is that there are no recording options. The Video RIFL® by AI Medical Devices combines CMOS imaging with an integrated video screen and detachable rigid scope with an articulating tip.

Examples of tracheal tube tip designs *— (from left): Left-facing beveled tube with straight cut, left-facing bevel with rounded edge, Parker ski-tip, LMA Fastrach disposable tracheal tube tip.*

Flexible fiberoptic scopes

Flexible fiberoptic scopes are available in a wide range of sizes and will accommodate both battery-powered light sources and/or fiberoptic light/camera sources. Many manufacturers (Pentax®, Storz®, Olympus®) offer video capability with their scopes. With the increased airway technology, routine use of these scopes will more than likely decrease in the future; their use will be limited to awake intubations and facilitation of insertion/placement of double lumen tubes.

Awake fiberoptic intubation

A recognized difficult airway provides the clinician with an opportunity to formulize a strategy prior to induction. Most of these patients will undergo an awake fiberoptic procedure and depending on the clinician's skill set maybe combined with regional anesthesia.

An awake fiberoptic intubation will require the intravenous administration of glycopyrrolate to dry the secretions, as topical anesthetics need a dry mucosal bed to be effective. Next, a topical local anesthetic is applied. For a nasal intubation, the nasal passage, nasopharynx, oropharynx and supraglottic structures must be anesthetized. For oral intubations, the tongue, oropharynx and supraglottic structures need to be anesthetized. There are numerous ways to achieve topical anesthetization (depending on the amount of time available) and these are just a few examples:

- **Nebulizer mask –** use 4 to 6ml of lidocaine 4%.
- **Lidocaine "gargle" –** uses a mixture of lidocaine 2% and lidocaine 1.5%. The patient then gargles the solution to cover the mucosal surfaces.
- Lidocaine "toothpaste" – lidocaine 5% ointment is applied to the tongue in a straight line. With the patient in the supine position, the patient is instructed to hold their tongue to the roof of their mouth to allow the ointment to melt and cover the mucosal surfaces.
- Lidocaine can be injected directly onto the vocal chords and down the trachea through the lumen of the fiberoptic scope.
- Viscous Lidocaine 2% can be applied by use of long sterile q-tip swabs or pledgets attached to a sterile tongue depressor (lidocaine lollipop).
- Atomization device (DeVilbiss® atomizer) or mucosal atomization device (aka MAD®) may be used to spray lidocaine into the nose or deeper into the oropharynx region.

Only the recommended doses of local anesthetic should be administered in order to avoid systemic effects.

Intubating airways

There are three that are available for use with fiberoptic intubation. They serve three purposes: to prevent the patient from biting the scope, to displace the tongue anteriorly and to help guide the tip of the scope towards the glottis. Each is a modified version of the oral airway. The Ovassapian has molded grooves that allows for removal of the airway after intubation without having to remove the 15mm endotracheal tube connector. The Williams Intubator airway is cylindrical on the proximal half and open on the distal half of the lingual surface. The 15mm endotracheal tube connector must be removed in order to remove the airway after intubation; which may pose a risk of accidently extubating the patient. The Berman Breakaway intubating airway is of similar design as the Ovassapian, except that it pulls apart for ease of removal after intubation.

Nerve blocks

A transtracheal nerve block or a Superior Laryngeal Nerve Block may be performed or used in conjunction with a topical anesthetic.

A transtracheal nerve block is performed by passing a needle through the cricothyroid membrane and injecting a local anesthetic. The block should be performed within minutes prior to the start of the intubation. When the needle is in the trachea,

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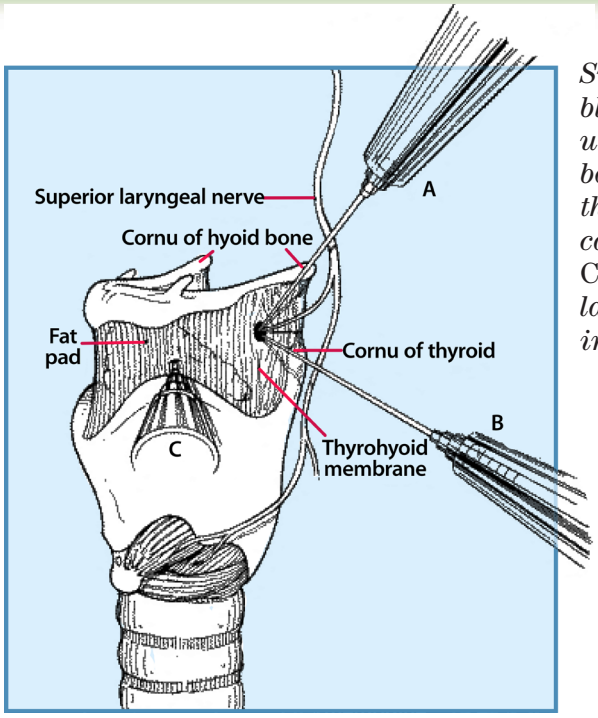
a sudden loss of resistance is felt. The position of the needle should be confirmed by aspirating air through the syringe. Lidocaine 2% is then injected and the needle removed. As the patient coughs, the lidocaine is then sprayed over the entire trachea. A superior laryngeal nerve block is performed by passing a needle through the thyrohyoid membrane and injecting local anesthetic bilaterally. A superior laryngeal block should only be performed in those patients who have no known infections or airway tumors.



Superior laryngeal nerve block. External approach, A, *using the cornu of the hyoid bone as landmark;* B, *using the cornu of the thyroid cartilage as landmark; and* C, *using the thyroid notch as landmark. (Fat pad is found in the preepiglottic space.)*

Specialty Endotracheal tubes

One of the most important items needed to secure an airway is an endotracheal tube. There are many variations available but the knowledge of the design and function as well as the selection of the appropriate endotracheal tube often times facilitates intubation. Most tubes are made of polyvinyl chloride or medical grade silicone rubber and have a high volume, low pressure cuff. Standard endotracheal tubes have a left-facing beveled tip and include a side port or Murphy eye. The side port allows for ventilation in the event that the main type becomes obstructed by blood, secretions or other foreign obstructions. The proximal end is fitted with a 15mm adapter to allow for the connection of an ambu bag or breathing circuit. Endotracheal tube tips can be straight cut, skip-tip, soft symmetric (like the Fastrach ETT) or shrouded. Because the tip of the tube comes into contact with the tracheal rings, it can cause problems depending on the technique used or it may cause difficulty in the removal of a stylet, bougie or fiberoptic scope. The cuff is inflated with air through a syringe that is attached to the valve which is attached to a side port.

"Airway Management: Part I" reviewed the most common standard endotracheal tubes and in this section we will review the "specialty tubes." The Endotrol tube comes equipped with a built-in stylet that is threaded through a channel in the tube and is attached to a ring. When tension is applied to the ring, the curvature at the tip increases and lifts the tip of the tube. The Microlaryngeal tracheal tube (MLT®) is of standard length and cuff size, but has a smaller ID and OD. Often used in microlaryngeal surgery, it can prove to be a life saver when a clinician encounters a narrowing of the airway due to a tumor or other obstruction. The Hi-Lo® Jet tracheal tube is designed for use with a jet ventilator. It is composed of three lumens; one lumen allows for ventilation, the second lumen allows for delivery of jet ventilation and the third lumen is available to irrigate the airway or monitor airway pressure. Laryngectomy tubes have a preformed curve that helps to prevents kinks and keeps the surgical field unobstructed during surgeries involving the larynx. The Parker Flex-tip® tube has the beveled tip pointing toward the back of the tube. It has a smooth, hooded tip that is designed to "skip" by laryngeal structures as it is being introduced into the trachea. For this reason, it is considered by many to be the "gold standard" of endotracheal tubes. The Hi-Lo® Evac endotracheal tube comes equipped with an evacuation lumen. Secretions above the cuff of the tube can be suctioned off intermittently or continuously. This tube was designed to reduce HAIs related pneumonia and is used for patients who will need to be on the ventilator for period of time.

Securing an airway can be challenging and a successful intubation is reliant on the clinical skills of both the clinician and anesthesia technician. Knowledge of the supplies and instrumentation, maintaining the instrumentation in proper working order and anticipation of problems will make a difference! S

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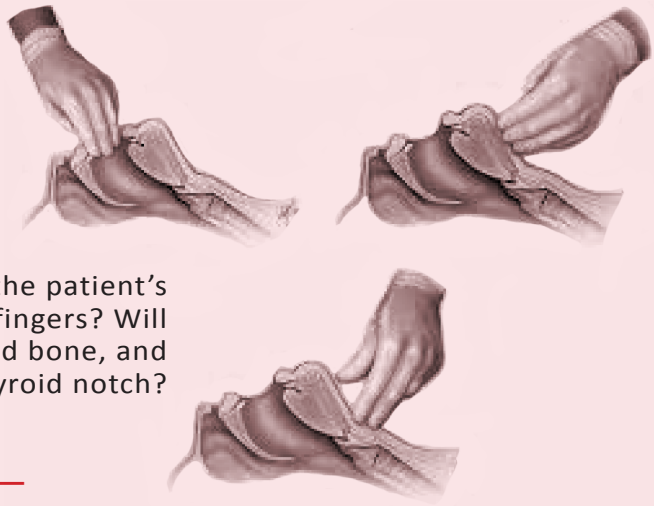
AIRWAY MNEMONICS



THE 3-3-2 EVALUATION — Does the patient's mouth open wide enough to accommodate three fingers? Will three fingers fit between the mentum and hyoid bone, and will two fingers fit between the hyoid and thyroid notch?

MOANS (Difficult bag mask ventilation) —

Mask Seal — improper seal due to odd shaped face, wrong mask size, facial trauma, beards.

Obesity or Obstruction

Age — greater than 55, can be difficult to bag valve mask.

No Teeth

Stiff — sleep apnea, stiff lungs (COPD, asthma, ARDS, etc.)

LEMONS (Difficult laryngoscopy and intubation) —

Look Externally — facial deformities, short necks, buck tooth, thick tongue, etc.

Evaluate 3-3-2 — Does the patient's mouth open wide enough to accommodate three fingers? Will three fingers fit between the mentum and hyoid bone and will two fingers fit between the hyoid and thyroid notch?

Mallampati Score

Obstruction — tumors, airway burns, trauma, scarring, etc.

Neck Mobility – Cervical Spine Immobilization, Halo fixations, etc.

Scene and Situation – access and positioning, etc.

DOA (Difficult cricothyrotomy) —

Disruption or Distortion — soft tissue damage, scarring, airway burns, radiation, trauma, etc.

Obstruction – tumors, abscesses, etc.

Access Problems – obesity, short neck, facial deformities, buck teeth, thick tongue, etc.

BURP (Manipulation of the trachea with simultaneous pressure of the thyroid cartilage [not the Sellick's maneuver]) —

Backward

Upward

Rightward

Pressure


TREASURE THESE INTUBATION TOOLS IN THE O-ARRGGHH!

In Memoriam

Jose "Joe" Luis Guzman, Cer.A.T., passed away on January 26, 2015 at age 34. Joe was born on January 30, 1980, and is survived by his ten-year-old son, Julian Matthew; parents, Joe and Manuela Guzman; and a large number of immediate and extended family members. Joe was an amazing, free-spirited, compassionate individual and will be greatly missed by all who knew him. Those of us who were fortunate enough to know Joe would agree that he always put those around him first before himself. We will miss you Joe, not only for the person that you were, but also because of that contagious smile!

The votes are in; bylaw changes passed

Thank you all that took the time to log in and vote for the changes to the ASATT Bylaws. Those changes were:

Article VIII Parliamentary Authority

All Board of Directors and committee reports shall be submitted to the president and HQ at least 15 days prior to any scheduled Board meetings.

Term of Office

The active term of President, President-Elect and Immediate Past President is one business year for each position.

Meetings

The President or three members of the Board of Directors may initiate a request for a telephone conference call of the Board. The telephone conference meeting shall occur as soon as it is practical; however, it should be held within 21 (twenty-one) days of the date that the request is given to the ASATT Headquarters.

Certification/Test Development Committee

Title change to ITEM WRITERS COMMITTEE

Ethics Committee

Title change to CODE OF CONDUCT AND ETHICS COMMITTEE

The committee shall have available for review an established CODE OF ETHICS and ETHICS for ASATT membership.

Consider Yourself a WRITER?

How about submitting a SCIENCE & TECHNOLOGY ARTICLE?!

Interested in being published?
Wish to enhance your professional portfolio?
Want to help your fellow Cer.A.T.T. and Cer.A.T. colleagues with Continuing Education credits?

How would you like to possibly WIN an AWARD (and $1,500 cash!) while you do this?

SCIENCE & TECHNOLOGY

DID YOU KNOW?

ASATT has a Science and Technology Award which is awarded to a selected individual annually. Individuals who are considered must submit a technical article to the editor of THE SENSOR and/or to ASATT HQ. The article must first be selected for publication in THE SENSOR. The author of the technical article must be either an anesthesia technicians or technologists.

The articles considered for the award will be selected from the winter through fall issues of the quarterly published SENSOR during that fiscal year. (e.g., Winter 2014 to Fall 2015.)

All published articles will be judged by a panel of medical professionals in anesthesiology and evaluated on the subject matter, relevancy and its written presentation.

All submitted articles must be composed of 2,500 to 3,000 words, be formatted following American Psychological Association (APA) guidelines and have properly annotated bibliographical references. A detailed guide is available at:

http://owl.english.purdue.edu/owl/resource/560/01/

All Science and Technology articles submitted for publication will be scanned with plagiarism detection software by ASATT.

PLEASE DO NOT PLAGIARIZE!

If plagiarism is suspected, THE SENSOR editor will notify the Board of Directors prior to submitting the information to the ASATT Code of Conduct and Ethics Committee for further investigation.

The technical articles must include a 10-question quiz; answers should either be multiple-choice or true/false. The questions are used for Continuing Education, and should be written by the author of the article.

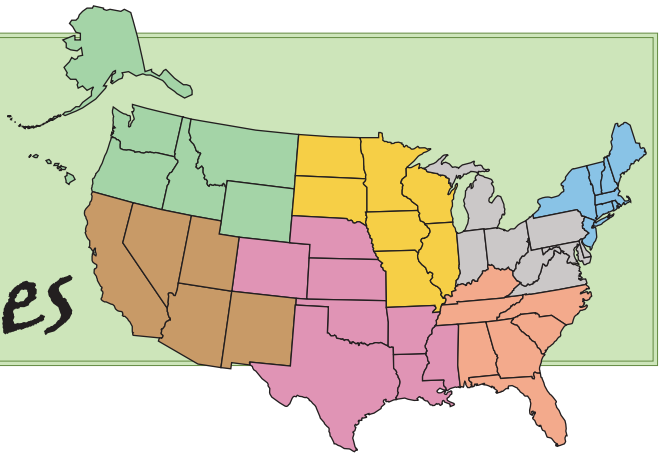
If you are the recipient of the Science and Technology Award, you will be notified first by mail, and then your name will be announced at the ASATT Annual Educational Conference. If the awardee is in attendance at the conference, a plaque/award and a check in the amount of $1,500 shall be presented. If the awardee is NOT in attendance, the plaque/award and check will be mailed to the winner at the address on record with ASATT HQ.

So ... what are you waiting for??

Call or email ASATT HQ if you have an article to submit.

Note: Please do not call or email ASATT HQ to ask for help in writing the article. However, you can ask what deadlines exist for article submission. You may submit your article multiple times if it is not selected for publication upon first submission.

ASATT Regional Activities



REGION 1

CT–ME–MA–NH–NJ–NY–RI–VT
Director: Joyce Freeman, B.S., Cer.A.T.
Work: 315/464-2825
Email: region1director@asatt.org

Hello Everyone!

I hope you're staying warm and safe during this winter season. The Northeast is truly in winter mode. The snow is coming down right now.

I want to remind everyone of the Region 1 meetings that are coming up soon. Please mark your calendars for April 11th, May 16th, and June 20th. April's meeting will be in Pittsfield, MA, May's meeting will be in Syracuse, NY, and June's meeting will be held in Iselin, NJ.

Please refer to the website for updates on topics for the May and June meetings.

The registration form and the schedule for the April Regional Meeting & Seminar at Berkshire Medical Center in Pittsfield, MA can be found on page 20. Register before April 1st to avoid the late fee. Please contact me if you have any questions.

Calling All Anesthesia Technicians/Technologists that have a writing spirit!! We need technical articles for *THE SENSOR*. I would especially like to call any Anesthesia Technician/Technologists that are students. Future employers will be impressed with what you have learned and published at an early stage of your career. This is definitely something that you can place on your résumé. Please go to our ASATT home page and you will find instructions for writing a Science and Technical article. Then go to your instructors and have them assist you with getting this accomplished. What a wonderful feeling to have something you have accomplished in print for others to read. If you do decide to do this, contact me so I can give you "kudos" in my website and *SENSOR* reports.

I need some assistance. During our educational seminar in December, someone mentioned that there was interest in starting an anesthesia technical program. I never was able to meet the individual and I don't have a contact name. If there is anyone who would like to start an anesthesia technician program, please contact me. I would love to speak to you.

July 2015: This is the final date for the last ON THE JOB training exam for Anesthesia Technicians. The only exam available after July 2015 will be the Technologist's exam. This can only be taken by a Technologist who has graduated from an accredited program. I know a lot of you are working hard to meet the deadline and some of you have already taken the exam. Kudos to all of you. Please let me know if you have any questions.

National Meeting will be held in Salt Lake City, Utah, August 27th through August 29th of 2015. Please go to our website and sign up for this great educational meeting. You will get to meet and know other anesthesia technicians that work across the country. Salt Lake City is beautiful, with lots of shopping and tourism. Hope to see you there!!

WE WANT TO HEAR FROM YOU!

Anesthesia Technologists and Technicians Do Contribute to Patient Safety!

If you know someone who has collaborated with the anesthesia patient care team to implement quality initiatives, *we want to hear from you!*

REGION 2

DE–IN–MD–MI–OH–PA–VA–WV
Director: Randy L. Harris, Cer.A.T.
Work: 443/492-8928
Email: region2director@asatt.org

Greetings Region 2!

I am so excited that our national meeting is in Salt Lake City, Utah, this year. I encourage everyone who's planning to attend to take advantage of the early bird special.

Our Region 2 educational seminar will be held in the state of Maryland during the month of June. Come and join us, especially if you know that you will not be able to attend our national meeting. We would love to have you visit our beautiful state of Maryland.

ASATT had a very exciting year in 2014. We celebrated our 25th anniversary. I'm happy about where our profession is headed. July of 2015 our organization will become

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a degreed profession.

Thank you to our previous Board members that had the vision of what our organization could become.

REGION 3

AL–FL–GA–KY–NC–SC–TN
Director: Gail Walker, Cer.A.T.
Email: region3director@asatt.org

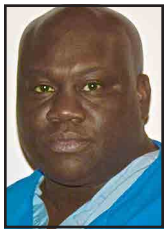
Region 3:

With the New Year brings new challenges and we are meeting them head on at ASATT. Changes in July with the certification exam, regional meetings and the national meeting in Salt Lake City are all events meant to educate, strengthen and promote the role of anesthesia technology. Take the time to get involved ... there are so many opportunities if you just look!

The Region 3 meeting this year will be held at the University of North Carolina in Chapel Hill. I recently sent out an email to all Regional members asking for input as to what you would like to see presented this year. I would like to gear this meeting towards the certification exam so please email me with suggestions.

It is also time for nominations for the ASATT Region 3 Education Award. I have been a technician for over thirty years, twenty-five of them in North Carolina, and have had the privilege of meeting so many of you that exemplify what an anesthesia technician is and does. Please take the time to nominate someone you know who is deserving of this award. Information can be found on the ASATT website.

REGION 4



IL–IA–MN–MO–ND–SD–WI
Director: Jeffery Blakney, Cer.A.T.
Work: 708/202-8387 ext. 29126
Email: region4director@asatt.org

Region 4,

What an exciting time to be an Anesthesia Technician and/or Technologist! Educational development, demand for our services and salaries are on the rise. We have been due diligent in maintaining our skills and knowledge on the cutting edge of anesthesia technical support issues and we are beginning to reap the rewards. I do want to encourage everyone who is not Certified to please sit for the exam before July 2015, as this exam will no longer be offered after that; ASATT is moving toward enhanced credentialing and will be offering only the Technologist exam.

Also I can give a "Save the Date" notice for our Spring Conference; the date is Saturday, April 18, 2015, held here in Illinois at Loyola University Medical Center (Maywood, IL). Open registration has begun, so please check the ASATT website. The 2015 ASATT Annual Meeting will be held in Salt Lake City, Utah, August 27–29. Please start planning your attendance for this meeting ; registration is open. Again I would like to take this opportunity to ask you all to join me in thanking Cindy Zellner for the outstanding job she has done for Region 4 the past several years. She has been very instrumental in helping us maintain our educational requirements and afforded many opportunities for educational enhancement. Cindy, Region 4 thanks you and we know you will continue to lend your vast knowledge to the continued growth and development of the Region.

REGION 5

AR–CO–KS–LA–MS–NE–OK–TX
Director: Robert Lopez, Cer.A.T.
Work: 713/441-1736
Email: region5director@asatt.org

Hello All!

Well, the recertification period is completed. I understand that the rush to get recertified coupled with all the other things that hit us all at once such as the chaos of the holiday seasons might have derailed us for the time being, but now we have to get back on track with our other business. This means that we have to start looking forward to our regional meetings. I have spoken with several people who have expressed interest in having a regional meeting in your home state and while I am all for it, we need to get together to discuss certain items necessary in order for this to launch. Thus far, I have one meeting in Fort Worth, Texas. However, we have not set a date, but we are proceeding with it. So if you want a regional meeting in your area, please feel free to contact me, and we can start to it set up.

As you all know, Anesthesia Technician Day is approaching very rapidly on March 31st, and we all know that means little celebrations in your institution for the Anesthesia Techs. At this time, I would like to shift the focus from these little celebrations to a very special and important person. She has celebrated so many years as a Registered Nurse and Manager at The Methodist Hospital in Houston, Texas. She was our Education Coordinator, who also became a Certified Technician not because she had to, but because she wanted to. She wanted to know what was required of a Technician so she could teach others. When she taught others, she passed along information that would help us pass our certification test and it was this course of action that led a lot of us to, in fact, pass our tests. She, then, became our Department Manager after the retirement of her predecessor. It was during her time as our Department Manager that our Department started to become one of the best departments to work for at The Methodist Hospital. We began to take on tasks that no other Hospital would allow. One such task was that we were able to stand next to CRNAs and Anesthesiologists and help them perform their duties. I'd like to think they

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couldn't do it without us. She has since retired now and is doing very well. Thank you, Linda Joullian, for doing everything that you have done for The Methodist Hospital, for our Department and especially, for all of us.

REGION 6

AZ–CA–NM–NV–UT
Director: Diane Alejandro-Harper, Cer.A.T.
Work: 650/283-2558
Email: region6director@asatt.org

Hello Region 6,

As you may have read on our regional web update, the Baldwin Park regional conference has been postponed. Regional members informed me of a pediatric anesthesia conference in Disneyland in February. ASATT has approved a minimum of 12 CEs for this conference. The link and details of the conference has been posted under Regional news.

As we start the New Year, I would like to reach out to those of you who would like to have a regional meeting at or near your facility. If you have anesthesia providers who have expressed interest in supporting continuing education for the anesthesia technologist community, this will be a great opportunity for them do so.

Please encourage your fellow co-workers who would like to take the test and have not yet done so, to remind them of the changes coming ahead in the next few months. Please have them reach out to me if they have any questions.

Thank you!

REGION 7

AK–HI–ID–MT–OR–WA–WY
Director: Delbert Macanas, Cer.A.T.
Work: 808/547-9872 (0930–1830 PT M–F)
Email: region7director@asatt.org

Howzit Region 7!!!

As we begin the new year, I hope that many of you had a successful 2014. It has been a very scary year for the people of Hawaii; there were numerous hurricanes passing through our waters. We were fortunate that only one hit any of the islands. The weekend of our Hawaii Regional Meeting there were two that buzzed us, one to the south and one to the north. That's why we need to count our blessings for the year.

"Time you enjoy wasting is not wasted time."
~ Marthe Troly-Curtin ~

Mahalo Region 7…We had three successful meetings again this year. In the process, we allowed our peers access to 22 CEs and a great opportunity to network and interact with our vendors. I would also like to thank all of our speakers who shared their valuable time and knowledge to educate us. But, more importantly, I would like to thank the coordinators of the meeting at Valley Medical Center, Jeremy Wyatt and the Kaiser Sunnyside meeting, Kellie Hines with help from Larry Roberts and Neil Allen. The time you spent organizing the meetings is really appreciated.

Also, at all of our meetings we need to thank our vendors. They are also taking time out of their busy schedules to sponsor these events. But, more important, they are presenting our attendees with the latest news and technology. These vendors are vital to everyone and they are doing their best to ensure we are helping provide our patients with quality care.

The region must continue to have three meetings a year for years to come. The three meetings touch over 100 of our peers and I would like to have increased attendance in 2015. John Gonzalez, the meeting coordinator for the Seattle meeting, has set the date for Saturday, April 18, 2015, at Overlake Hospital in Bellevue, WA. Our Portland meeting will be held at Oregon Health Sciences University Hospital and is being coordinated by Mario Saldano and friends. I will be coordinating the Hawaii meeting. The date has not been determined for these two meetings at this time. So, start thinking about coordinating a meeting in 2016.

"Live as if you were to die tomorrow. Learn as if you were to live forever."
~ Mahatma Ghandi ~

Remember, attending these ASATT sponsored meetings, ASATT members don't need to track these CEs, and they will go straight to the CE database. This simplifies the recertification process. Please do not wait until the last minute to get your required CEs. Every year ASATT Headquarters will get calls from frantic people looking for ways to get CEs. *Poor planning on your part does not constitute an emergency on their part.*

If this is your year to recertify, please ensure that your submitted CEs are legitimate. Do not take the process lightly. This makes it harder for the Recertification Committee and yourselves. As we move forward, this process will also evolve as we grow.

Last year's Annual Meeting, held October 8–10 at the Crowne Plaza in New Orleans, LA, commemorated ASATT's 25th anniversary. There have been many changes in the years and many milestones. It was a great meeting and it was fun to catch up with old friends and make new ones. As my old friend Russell Morales reminded me during the meeting, "I look around the room and see others who are experiencing the same problems I do at work." This brought a smile to my face because he brought a new perspective to my attendance of the meeting. Our annual meeting is very unique; where else will you find over two hundred of our peers in the same place at the same time? There is no other meeting like ours.

Anytime you visit New Orleans there is always so much good food to eat within walking distance. Our hotel was

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in an ideal spot. When you walked out the side door, world famous Bourbon Street was right there. Acme Oyster House was right around the corner, Red Fish Grill across the street, and Dickie Brennan's Bourbon House & Seafood Bar downstairs. That is right in the immediate area of the hotel. I saw many of our peers roaming around Bourbon Street while getting my evening walk done. Many of were having a great time. Start planning for our meeting in Salt Lake City, Utah. It is a great place to visit.

We must all remember being an Anesthesia Technician or Technologist has become our *PROFESSION*. We have come from many different walks of life, by chance, but mostly because of opportunity. Have pride in yourself; hold your head up high. At one of our Regional Meetings, every physician that lectured started their presentation thanking the Anesthesia Technical staff, emphasizing how we make their life much easier. We must continue to stand united, moving forward.

"Professionalism is like love: it is made up of the constant flow of little bits of proof that testify to devotion and care. Everything else is pretension or incompetence."
~ Tomislav Sola ~

Aloha! S

REGISTRATION FORM

ASATT Region 1 Meeting & Seminar • Saturday, April 11, 2015

Berkshire Medical Center • 165 Tor Court • Pittsfield, MA
Hillcrest Campus • Elms Classroom • (413) 447-2000

7:00 a.m.
Registration
Continental Breakfast and Vendor Exhibits

7:30 a.m.
Welcome
Joyce Freeman,
ASATT Region 1 Director

8:00 a.m.
Use of EV-1000 Monitor in Gold-Directed Fluid Management
Mark Vanden Bosch, MD

9:00 a.m.
Lung Separation Techniques
Larry Robbins, D.O.

9:50 a.m.
Break and Vendor Exhibits

10:00 a.m.
Complications with Blocks and Rescue
David Pomerantz, M.D.

11:00 a.m.
Complications in OB Anesthesia
Jessica DiPippo, MD

12:00 p.m.
Lunch Break and Vendor Exhibits

1:00 p.m.
Anatomy of an Anesthesia Machine
Thomas Herbert, GE

2:00 p.m.
Pharmacology/Pharmacokinetics
Michael Lipski, RPh

2:50 p.m.
Break and Vendor Exhibits

3:00 p.m.
Getting Inside Your Head EEG Monitoring (SedLine)
Michael Hogue, CRNA

4:00 p.m.
Anatomy & Physiology
Heather Altman, CRNA

5:00 p.m.
Adjournment

PROGRAM SUBJECT TO CHANGE ~ UP TO 8 CEs WILL BE GIVEN

Name_____

Phone (H)_____ (W) _____

E-mail_____ ASATT Membership No. _____

Home Address _____

City _____ State _____ ZIP _____

Institution _____

Registration Fee: $ _____ ASATT member, $100 • Non-member, $150

After April 1st, add $10 Late Fee

Credit Card: ☐ Visa ☐ MasterCard ☐ Discover ☐ AMEX

Card Number _____

Exp Date_____ SEC Code_____

Signature_____ Date _____

Make check payable to: **ASATT Region 1 Meeting**

Send to: ASATT / Alex Llanas
7044 South 13th Street
Oak Creek, WI 53154
Phone: (414) 908-4942
Fax: (414) 768-8001

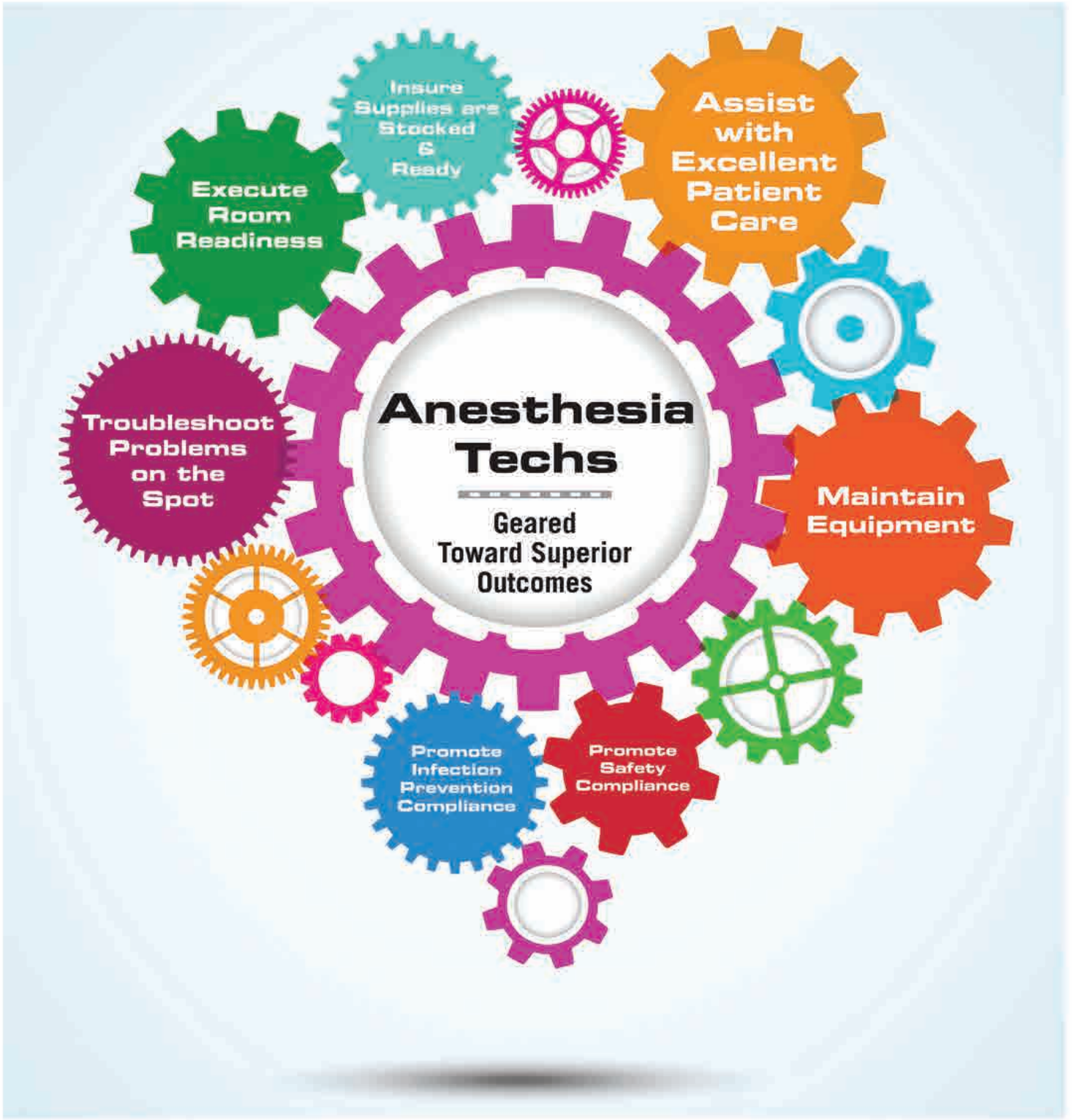
In order to receive continuing education / contact hours, course participants will be required to sign in for lectures and turn in evaluation form.

Vendors will again be exhibiting.
Please make them feel welcome by stopping by and learning what's new!

Dodie Krambeck, Cer.A.T., Program Director/Coordinator ~ Joyce Freeman, Cer.A.T., ASATT Region 1 Director

Anesthesia Tech Day

March 31, 2015



SHARN INC. ANESTHESIA

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CONTINUING EDUCATION QUIZ

To test your knowledge on this issue's **Science and Technology** *article on page 6, provide correct answers to the following questions on the form below; follow the instructions carefully. Submissions for this issue's Quizzes expire December 31, 2016. Achieve 80% in this quiz to earn one (1) Continuing Education credit.*

1. **The guideline developed to assist clinicians with the visualization of the tongue in relation to the oral cavity is:**
   A. The Cormack-Lehan scoring system
   B. The Mallampati classification system
   C. Guedel scoring system
   D. None of the above

2. **A supraglottic airway device that consists of two lumens to seal the oropharyngeal and nasopharyngeal cavities is:**
   A. King Vision
   B. COPA
   C. Endotrol
   D. Combitube

3. **The lidocaine toothpaste uses the following local anesthetic:**
   A. Cetacaine spray
   B. Cocaine
   C. Lidocaine jelly 2%
   D. Lidocaine 5% ointment

4. **Which of the following are intubating airways:**
   A. Ovassapian
   B. Berman Breakaway
   C. Williams Intubator
   D. COPA
   E. A, B & C
   F. B, C & D
   G. A, C & D

5. **Anesthetizing the cricothyroid membrane is involved in the following nerve block:**
   A. Superior laryngeal block
   B. Transttacheal nerve block
   C. Laryngectomy nerve block
   D. None of the above

6. **This specialty tube is of standard length but has a smaller ID and OD:**
   A. MLT
   B. Parker Flex-tip
   C. Endotrol
   D. All of the above

7. **This device is considered less invasive than an endotracheal tube:**
   A. COPA
   B. Laryngeal Mask Airway
   C. Trachlight
   D. Gum elastic bougie

8. **Traditional airway equipment consists of:**
   A. Ambu bag
   B. Laryngoscope blades
   C. Laryngoscope handles
   D. All of the above

9. **Which of the following are considered rigid scopes:**
   A. Flexible fiberoptic scope
   B. Malleable stylet
   C. Upsher scope
   D. Greenline scope

10. **Which of the following is considered the gold standard for endotracheal tubes:**
    A. Parker Flex-tip
    B. Endotrol
    C. MLT
    D. Laryngectomy tube

Earn another CE on the next page, in this issue's BONUS Continuing Education Quiz!

To apply for Continuing Education/ Contact Hours:

(1) Provide all the information requested on this form.

(2) Provide correct answers to this issue's quiz in this box > > >

(3) Mail this form along with $10.00 (check or money order, payable to ASATT) to:

ASATT
7044 South 13th Street
Oak Creek, WI 53154-1429

The answers to the Winter 2015 Continuing Education Quiz are:
(circle correct answers)

1:	A B C D	6:	A B C D
2:	A B C D	7:	A B C D
3:	A B C D	8:	A B C D
4:	A B C D E F G	9:	A B C D
5:	A B C D	10:	A B C D

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Signature_____ **Date**_____

BONUS!

CONTINUING EDUCATION QUIZ

To test your knowledge on this issue's **Science and Technology** *article on page 6, provide correct answers to the following questions on the form below; follow the instructions carefully.* ***Submissions for this issue's Quizzes expire December 31, 2016.*** *Achieve 80% in this quiz to earn one (1) Continuing Education credit.*

1. **The Hi-Lo jet tracheal tube allows:**
   A. Ventilation
   B. Irrigation of the airway
   C. Monitor airway pressure
   D. None of the above
   E. A, B & C
2. **The intubating airway is a modification of the Guedel airway.**
   ☐ True ☐ False
3. **The device that transilluminates the soft tissues of the upper airway is:**
   A. Trachlight
   B. Bonfils stylet
   C. Shikani stylet
   D. Levitan FPS stylet
4. **When using a local anesthetic during an awake fiberoptic intubation, it is acceptable to use more than the recommended dose.**
   ☐ True ☐ False
5. **The drug commonly used to dry secretions is:**
   A. Propofol
   B. Narcan
   C. Glycopyrrolate
   D. None of the above
6. **The endotracheal tube that was designed to assist with the reduction of HAI's is:**
   A. Hi-Lo Jet tracheal tube
   B. Hi-Lo Evac tube
   C. High pressure low volume tube
   D. Low pressure high volume tube
7. **This instrument requires minimal neck movement:**
   A. Trachlight
   B. Optical stylets
   C. Rigid scopes
   D. McGrath Mac
8. **Cleft lip deformity can present challenges with the introduction of airway instruments into the oral cavity.**
   ☐ True ☐ False
9. **Factors that could lead to a difficult intubation include:**
   A. Infections
   B. Abscesses
   C. Airway burns
   D. All of the above
10. **A class III Mallampati score indicates that only the soft palate and base of uvula are visible.**
    ☐ True ☐ False

To apply for Continuing Education/ Contact Hours:

(1) Provide all the information requested on this form.

(2) Provide correct answers to this **BONUS** quiz in this box >>>

(3) Mail the form for the first quiz (pg. 22) including $10 fee, and include THIS form with answers to this second quiz for **FREE**, in honor of Anesthesia Tech Day, March 31, 2015.

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The answers to the Winter 2015 **BONUS** Continuing Education Quiz:
(circle correct answers)

1: A B C D E	6: A B C D
2: T F	7: A B C D
3: A B C D	8: T F
4: T F	9: A B C D
5: A B C D	10: T F

Name_____ **ASATT Number** _____

Street Address_____ **Phone** _____

City_____ **State** _____ **ZIP Code** _____

Signature_____ **Date**_____

ASATT Calendar

ASATT 2015 Activities

Anesthesia Tech Day ..... March 31

Last Day to use work experience to qualify for Certified Technician Exam ..... July 15

Only Certified Technologist Exam available, beginning ..... July 16

Annual Educational Conference in Salt Lake City, UT ..... August 27–29

Tentative 2015 Meetings

Region 1 Meeting & Seminar, Berkshire Medical Center, Pittsfield, MA* ..... April 11

Region 4 Loyola University, Maywood, Illinois ..... April 18

Region 7 plans a meeting to be held in Bellevue, WA ..... April 18

Region 1 plans a meeting to be held in Syracuse, NY ..... May 16

Region 1 plans a meeting to be held in Iselin, NJ ..... June 20

Region 2 plans a meeting to be held in Maryland ..... June/TBD

Region 3 plans a meeting to be held in Chapel Hill, NC ..... TBD

Region 7 plans a meeting to be held in Portland, OR ..... TBD

Region 7 plans a meeting to be held in Hawaii ..... TBD

*registration form and program schedule on page 20

American Society of Anesthesia Technologists and Technicians
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