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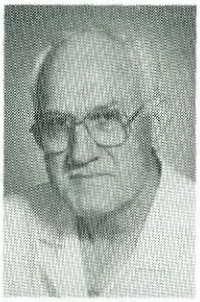
THE ASATT SENSOR

THE QUARTERLY NEWSLETTER OF THE
AMERICAN SOCIETY OF ANESTHESIA TECHNOLOGISTS AND TECHNICIANS

PRESIDENT'S MESSAGE...

1996: THE YEAR OF THE ANESTHESIA TECH

by Jerry Guttery



In my first message to the ASATT membership, I would like to give special thanks to Chris Patterson, our Immediate Past President. Chris became president at a very critical time in the development of ASATT—a time in which a contract for certification development was implemented and a time in which special funding for certification was needed. Chris worked tirelessly with the ASATT Board of Directors, corporate executives and the Educational community to ensure the certification process was kept on track. Chris also served on the Certification Test Committee in her capacity as President of ASATT. At the annual meeting in Atlanta this past October, Chris became Co-Chairman of the committee along with me. Thanks Chris, for a job well done.

Certification! It's a reality. I would like to encourage each member of ASATT to prepare themselves for the future by reading, attending seminars, and just asking questions. As we now move into the new era of the Professional Anesthesia Support Specialist, education must be our number one goal. We must demonstrate that we can "walk-the-walk" as well as "talk-the-talk." Educational opportunities are abundant. Seek out the manufacturer of your equipment. They want you to understand their products and will help. There are continuing education vendors that conduct seminars across the country and two schools offering AA degrees or certificates. Finally, contact your ASATT Regional Director to find out what is coming up in your area.

Let me urge you to maintain your membership. This not only helps the Society to finance its operation, but ensures that you will receive all bulletins and publications, including certification related subjects, in a timely manner. If we don't know you, we can't write you.

This coming year, 1996, promises to be an exciting one, offering new opportunities and new status as Professionals within the field of Anesthesiology. Don't be left out.

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Quarter-Page:	$100 per insertion
	3½" wide x 5" deep

[Camera-ready, mechanicals, one-color process.]

Classified Ads: Individuals seeking employment, or employers seeking candidates in anesthesia technical support.

Rate: $8/line, 5-line minimum
3½" wide

[Times New Roman type, 12-pt, typeset by editors.]

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THE SENSOR: Quarterly Newsletter of the ASATT

The opinions expressed herein are those of individual authors, and do not necessarily reflect the views or opinions of the ASATT.

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All submissions pertinent to the objectives of the ASATT will be considered for publication. Preferred format: 3 1/2" micro floppy diskette, PC or Mac format. Photographs, preferably black-&-white are also welcome and will be returned.

Deadline for the next issue is February 15, 1996

Printed on recycled paper

THE VIEW FROM...

CHANDLER REGIONAL HOSPITAL

Dean Rux, Lead Anesthesia Tech
Chandler, AZ

The city of Chandler borders southern Phoenix, AZ. Some say it's too hot for a lizard in summer, when the temps soar to 120. Then again, those other nine months are heavenly. It's wonderful to see snow on the mountain peaks while enjoying the outdoors in summer clothing on winter days, when the average temp is 50.

Chandler Regional Hospital is a 120 bed acute care community hospital. It serves a continuously growing area. Approximately 600 surgical procedures are performed a month. Nine anesthesiologists provide coverage to six O.R. suites and O.B. There is a pain clinic affiliated with the hospital that is staffed by a devoted anesthesiologist.

Two and one half years ago the director of surgical services introduced anesthesia technicians to Chandler Regional Hospital. She came from Marshfield, WI, where anesthesia technicians have been part of the anesthesia team for more than 25 years. The Marshfield Clinic implements science courses, inservices, and seminars to facilitate training needs. Under the direct supervision of the anesthesiologist, anesthesia techs are trained to operate cell saver, draw blood gases and be skilled at inserting IV's and arterial lines. Adjoined to Marshfield Clinic is St. Joseph's hospital with 520 beds and 16 OR's, where anesthesia techs initiate their skills. With the training and experience of 22 years as an anesthesia tech in Marshfield, I was ready for the change of weather.

Under the direction of the anesthesiologists, another tech and I provide daily technical support and 24 hour call. Recently a part-time assistant was hired to allow us to devote more time to the anesthesiologists and team staff of the OR. The assistant takes care of the evening stocking, cleaning and ordering. Our role is very diverse. The anesthesiologists administer patient care with our assistance in preoperative assessment, monitoring, cell saving, data acquisition, and preparation of procedures and treatments. Assistance is given to the anesthesiologist for intravenous, arterial, CVP, and Swan Ganz catheter insertion. Preparation of setup, calibration, and connection of these catheters and physiological monitors to the patient is performed. Each procedure is initiated by the anesthesia tech as primary assistant with various blocks, administration of blood, airway management, direct and fiber-optic laryngoscopy, and blood gases. Cell saving is performed on a average of one case a day. It involves primarily total hips and knees.

Time is allotted for preparing projected budgets, inservicing staff, and coordinating case scheduling with proper area coverage. Continuation of education is a necessity for the anesthesia technician to keep pace with changes in health care and providing qualified assistance.

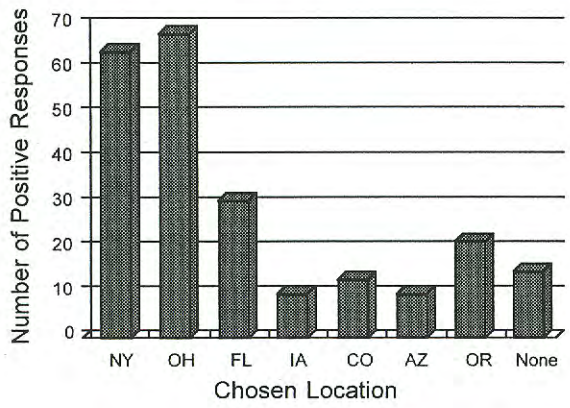
Team work among surgical staff is outstanding. The daily praise from the anesthesiologist and OR Staff energize the desire to perform and learn from each other. Chandler Regional Hospital has been a strong supporter for the national society, with promotion of education.

OFFICIAL NOTICES...

CERTIFICATION SURVEY

by Wilma Frisco, ASATT Secretary and Director Region 2

In November, 1995, a survey was sent to all members of ASATT. The survey was conducted in order that ASATT could determine the level of interest for certification testing in May of 1996. **Applications for the certification exam will be mailed to all members whose dues are current. Any other individuals desiring application for the May 18th, 1996 Certification Exam must request an application from the Secretary of ASATT.** Final testing sites are New York City, NY; Cleveland, OH; Orlando, FL; Cedar Rapids, IA; Denver, CO; Phoenix, AZ; Portland, OR, Shreveport, LA; Knoxville, TN, and central CA. The results of the survey are as follows:



More Certification Info on Page 4...

REGION 7 ELECTION RESULTS

As announced at the ASATT Annual Meeting in Atlanta, there was a revote in Region 7 for ASATT Director between candidates Linda Bewley and David Mastalski. The results of that revote was a 14-13 vote margin in favor of David Mastalski.

TENTATIVE DATE DETERMINED FOR FIRST EXAMINATION

Andrew J. Falcone, Ph.D.
Program Director, Research and Development,
Applied Measurement Professionals, Inc. (AMP)

The ASATT Board of Directors tentatively approved the date for the first administration of the Anesthesia Technician Certification Examination as Saturday, May 18, 1996. This Examination will be held in several cities across the United States; and at this time, these locations are being finalized.

A large group of ASATT members, as well as many of the ASATT officers were present at a certification discussion session at the Sixth Annual Meeting and Seminar in Atlanta, Georgia, on Sunday, October 22, 1995. The presentation focused on the impact of certification on the society of anesthesia practitioners, the general public, and ASATT. It was stated that when anesthesia technician certification is achieved, ASATT is testifying as to the technician's competence. ASATT will be taking the role of endorsing you as a competent anesthesia technician, and they will be putting their reputation on the line by vouching for you and saying that you are competent. How will they know that you are competent, and will engage in safe and effective practice? By making sure that you have the requirements to take the examination, allowing you to take the examination, and by you passing the examination.

When you pass the examination, you and the Society are telling the anesthesia profession that you are competent, that you are a trained professional, and that you can deliver the required services in an effective, capable, and professional manner, and in so doing, you will achieve the recognition that you deserve.

While in Atlanta for the convention, the certification committee met on October 25th and 26th to review the draft form of the examination and set the passing score. After the draft form of the examination was approved, each member of the committee gave their professional judgment as to the difficulty of the test questions (items). The results of this process will determine the score that will be required to pass the examination. This score is selected in an attempt to ensure that those who pass the examination have acquired a minimum level of knowledge required to be a safe and effective anesthesia technician.

The next phase of examination development will be that of the "key verification" stage. This will be a final check on the exactness of the correct answer to each of the test items, and will ensure that the correct answer for each item is clear and accurate.

OPEN FORUM...

by David G. Mastalski
ASATT SENSOR Associate Editor, ASATT Director , Region 7
Portland, Oregon

Dear OPEN FORUM:

Can you please provide me with information about the ASATT and the upcoming certification of anesthesia techs?

Honolulu, HI

The idea of some form of national certification for anesthesia support personnel has been in the works for several years and is presently the driving force behind the ASATT. Just to give you a little history of the ASATT: Back in 1988, a small group of anesthesia technicians from California, Washington and Colorado began meeting informally, discussing the latest trends in anesthesia technology. This group of dedicated technicians felt there was a need to form a formal educational society to support the needs of fellow anesthesia support personnel. The American Society of Anesthesia Technologists and Technicians was chartered in late 1989 and a group of members met in New Orleans at the site of the American Society of Anesthesiologists meeting. In the last 6 years, over 1400 members have joined the society. The main focus of the organization has always been to provide a forum for the continued education of anesthesia support personnel.

In the last couple of years, the need for a national competency certification and formal continuing education program has been the focus of the ASATT Board of Directors. In mid 1992, they began laying the groundwork for what has become a major undertaking of a certification testing program. There were three major points which were considered in the early planning stages to be mandatory in order to achieve the greatest success for membership: 1) the certification testing program must fit the needs of the ASATT membership, 2) the certification, in itself, will ensure employers of a certain level of competency, and 3) the program and process must be defendable to scrutiny by other health care professionals. The Board reviewed these requirements in detail and determined that the most effective way to proceed was to a hire a company which specializes in certifying allied health care organizations similar to the ASATT. After an extensive, nationwide search, Applied Measurement Professionals, Inc. (AMP) of Lenexa, Kansas was hired to handle the logistics of putting a certification testing program in place. A committee, consisting of anesthesiologists, CRNAs, nurses, respiratory therapists, anesthesia technicians and other health care professionals from around the country was assembled to oversee the many details, and act as liaisons to other health care organizations. This process has proved to be very expensive, but, thanks to contributions from many corporations, institutions, state societies, and the ASATT itself , the certification testing program is well on its way and on schedule.

As reported in this, and past issues of THE SENSOR, the final details are being worked out for testing beginning in the Spring. Regional testing locations and dates are being finalized. You should soon be receiving information regarding subjects of study from the ASATT. A two-day Certification Preparation Course offered by AIME, Inc., (502) 549-7046, is making its way around the country. All anesthesia support personnel interested in sitting for the test should be preparing themselves now by joining the ASATT (membership application in this issue), studying equipment manuals, attending in-house inservices, and participating in state society meetings and seminars. ASATT active members should watch your mail for further details, or contact your Regional Director (page 2 of this issue) for more information.

DID YOU KNOW...?

....If the oxygen sensor on your anesthesia machine will not calibrate.... Frequently, condensation will build up on the sensor interface. Instead of replacing it, try removing the sensor from the housing and gently wipe the electrode end with an alcohol wipe, air dry, replace it in the housing, let it sit open to air for 15 minutes, and recalibrate. If this does not work, then follow the manufacturers instructions for replacing the sensor.

....According to a recent study by the U.S. Department of Labor : "the Allied Health Care Field is one of the fastest growing occupations of the 1990's" and "....the demand for these workers will continue to grow well past the year 2000."

....You can prevent your anesthesia machine from damaging equipment power cords and gas hoses that are commonly found on the floor of operating room suites. There are a couple of products on the market which attach to the wheels of the anesthesia machine and "move" hoses and power cords out of the way as you roll the anesthesia machine in to position. These products work great, but can cost up to $1000.00 per machine. For about $40.00 per machine, you can do the same thing by taking 6 inch PVC pipe and cutting it to approximately 6 inch lengths. The length may vary with different anesthesia machines and size of wheels. The key is to make sure the length of pipe is longer (taller when stood on end) than the center point (or axle) of the wheel. This will prevent the wheel from "catching "or "hanging up" on the top edge of the pipe when rolled. With the help of your hospital biomedical engineering

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All OPEN FORUM questions and "Did You Know ..." ideas may be addressed to:

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Those chosen for publication in this column will receive a free ASATT T-shirt.

ACQUIRED SUBGLOTTIC STENOSIS;
PAST, PRESENT, AND FUTURE

by Jennifer Fuller, Anaesthetic Technician
Royal Children's Hospital, Melbourne, Victoria, Australia

(Editor's note: The following scientific paper won the Dr. Alison Holloway Award at the Australasian Society of Anaesthesia Technicians First Annual Scientific Meeting September 1995. Chris Patterson, then ASATT President, and Ann Martin, ASATT Director, Region 5, attended that meeting as ASATT representatives. Jennifer Fuller presented her paper at that meeting and subsequently gave permission for ASATT to re-print it in The Sensor.*)*

INTRODUCTION: Australian anaesthetists pioneered prolonged endotracheal intubation in children in the 1960's and subsequently reported subglottic stenosis (SGS) as an associated complication[10].

In the treatment of acquired SGS, anterior cricoid split (ACS) and laryngotracheoplasty (LTP) have been established as safe, effective procedures with successful outcomes[4].

At the Royal Children's Hospital (RCH), Melbourne, between 1987 and 1993, a group of 27 patients underwent surgery as an alternative to permanent tracheostomy.

The specific considerations during anesthetic management in children with acquired SGS, secondary to prolonged intubation, are outlined.

HISTORICAL ASPECTS OF ACQUIRED SGS: Prolonged intubation in children was initially reported by Brandstater, an Adelaide trained anaesthetist, in Beirut in 1962. His successful series of 12 patients (8 children) encouraged other groups to follow his technique[6].

In 1965, two large series of prolonged intubation in children were reported by Allen and Steven[1] from Adelaide and McDonald and Stocks[10] from Melbourne. Following their successful series, they subsequently reported complications, such as SGS.

Their findings concluded that the use of large tubes compressed the subglottic mucous membrane and impaired blood supply. Moderate compression caused edema and severe compression lead to destruction of the basement membrane resulting in stenosis.

During the 1970's, the Melbourne and Adelaide teams used narrower diameter tubes and the incidence of SGS subsequently decreased.[2, 13]

Other factors were also noted to contribute to SGS. These included asthmatic children when tightly fitted tubes were used to obtain adequate inflating pressures and children following cardiac surgery in which periods of low cardiac output may have been contributory[7].

In 1967, Cunliffe and Wesley reported that sterilization of plastics with ethylene oxide (gas) resulted in formation of toxic substances such as ethylene chlorohydrin, thus causing an irritant tissue reaction[7].

Tube material was also implicated, as the compound organotin had been formerly used as a plasticizer in polyvinyl chloride (PVC) tubes. In 1968, Guess and Stetson demonstrated that tubes which were chemically irritant could cause stenosis, as a result of toxicity.

The problems of tube materials are well recognized by manufacturers. The materials used today must pass implant and cell culture tests and be shown to be chemically inert and compatible with human tissue. Assurance that the tubes meet these standards are denoted by the marking Z79 and/or IT.

ANATOMY AND PHYSIOLOGY: The subglottic region of the larynx is located below the free edge of the true cords and the inferior border of the rigid cricoid cartilage[9]. The cricoid cartilage is a complete ring unlike other tracheal cartilages. Because it is the narrowest part of the airway, it is at this level that stenosis due to indwelling tubes will occur in children.

The diameter of the cricoid cartilage at full term is 6mm, it expands to 6.3mm by 3 months of age. Each year the diameter increases by 0.5mm until it reaches the adult diameter of 25mm.

Cartilage rigidity is due to its matrix and in neonates the cartilage is hypercellular with a scant matrix of high fluid content. As the cartilage matures, the matrix increases and becomes less hydrated. The cartilage becomes more fibrous and rigid and less tolerant of intubation[4].

Premature neonates tolerate prolonged periods of intubation.[7,12] In this age group, the cricoid cartilage is soft and pliable and allows the structures to mold around the tube. This becomes a significant problem as the cartilage matures.

The mucosal structures are composed of loose areolar tissue, lined with delicate respiratory columnar epithelial cells. It is capable of swelling easily in response to even slight trauma. Above the glottis, mucous membrane is of the stratified squamous type.

The limiting cricoid cartilage does not permit the swelling of tissues in any other than an inward direction, causing pressure necrosis of soft tissue lining the subglottis.

PATHOLOGICAL CHANGES TO THE SUBGLOTTIS: Pathological changes associated with prolonged endotracheal intubation commence with inflammation of the delicate respiratory mucous membrane. At this stage, initial edema and superficial ulceration are reversible upon successful extubation.

continued on next page...

Continual trauma and irritation results in irreversible SGS. This is a progression of mucosal ulceration resulting in exposed underlying cartilage. The cartilage becomes thick and soft.

A clinical history of unsuccessful attempts at extubation is common at this stage, respiratory failure occurring from hours to days after extubation.

Berkowitz suggests that anterior cricoid split (ACS) is an appropriate method of treatment prior to the development of irreversible changes, thus providing an alternative to long term tracheostomy[4].

Pathological progression leads to complete destruction of the cricoid ring. As it attempts to heal, granulation tissue forms and fills the ulcerated area. It produces collagen fibers that contract, resulting in submucosal fibrosis[4] (scar tissue).

This established SGS is normally resolved by long term tracheostomy, however, complications and a mortality rate of 24% in association with paediatric tracheostomy is well documented[4]. Open surgical reconstruction such as laryngotracheoplasty (LTP) is considered at this stage. ACS may also be appropriate for relatively mild forms of established SGS.

SPECIFIC CONTRIBUTING FACTORS OF SGS: There are multiple contributing factors, both mechanical and inflammatory that result in acquired SGS. Prolonged duration of intubation is the most significant.[1,2,4,7,10,12] Specific factors are pressure, movement, and infection.

Endotracheal tube (ETT) size and material were the initial contributing factors of SGS. Tube size and material are always assessed following a transferal from another location or unit. Cuffed ETT's are not used in the paediatric patient due to the narrow subglottic anatomy.

Currently, particular attention is drawn to the following factors:

- low birth weight[4]
- local infection
- motion of the patient while positioning and transferring
- patient's own mobility
- traumatic intubation of paediatric patient by inexperienced persons
- multiple extubations and reintubations
- failure to change ETT with minimal or no audible leak
- failure to decrease size of ETT for post operative emergency surgery

MODERN MANAGEMENT OF ACQUIRED SUBGLOTTIC STENOSIS: Varying degrees of acquired SGS are surgically corrected by anterior cricoid split (ACS) and laryngotracheoplasty (LTP). Severity and extent of SGS influence the type of operation performed. Both procedures provide alternatives to permanent tracheostomy in children.

ACS is indicated where the SGS is irreversible following prolonged intubation in neonates. A small horizontal skin incision is made and the cricoid cartilage is exposed. The cricoid cartilage and upper two tracheal rings are divided in the anterior midline. This may be modified by insertion of costal cartilage graft to maintain the expanded cricoid circumference, and should be considered when there is a significant degree of established SGS.

This reduces compression of the edematous mucous membrane between an ETT and cricoid cartilage. Circulation improves, thus allowing edema to subside and superficial ulceration to heal.

LTP involves division of the upper trachea, cricoid and thyroid cartilages in the midline, with or without division of the posterior cricoid lamina. This is maintained by costal cartilage graft, anterior/posterior. The larynx is stented using an Aboulker[14] teflon stent incorporating a double lumen (silver) Holinger tube. This counteracts scar tissue and supports the grafted surgical site[3].

Surgical goals aim to produce an adequate airway that no longer requires a tracheostomy; a competent larynx to avoid aspiration; and an adequate voice.

continued on page 8...

FOR THE "TECHNO-FILE"

(clip and save)

ANESTHESIA RELATED DRUGS AND GENERIC EQUIVALENTS

ADRENALIN	epinephrine
albuterol	PROVENTIL, VENTOLIN
XYLOCAINE	lidocaine
AMICAR	aminocaproic acid
AMIDATE	etomidate
aminocaproic acid	AMICAR
amrinone	INOCOR
ANCEF	cefazolin
ANECTINE	succinylcholine
ANTILIRIUM	physostigmine
APRESOLINE	hydralazine
atracurium	TRACRIUM
BENADRYL	diphenhydramine
BETADINE	providone-iodine
BRETHINE	terbutaline
BRETYLOL	bretylium
bretylium	BRETYLOL
BREVIBLOC	esmolol
bupivacaine	MARCAINE, SENSORCAINE
CARDIZEM	diltiazem
cefazolin	ANCEF
curare	TUBOCURARINE
DANTRIUM	dantrolene(MH)
dantrolene	DANTRIUM(MH)
DECADRON	dexamethasone
DEPO-MEDROL	methylprednisolone
dexamethasone	DECADRON
diphenhydramine	BENADRYL
digoxin	LANOXIN
DILANTIN	phenotoin
diltiazem	CARDIZEM
DIPRIVAN	propofol
dobutamine	DOBUTREX
DOBUTREX	dobutamine
DOPRAM	doxapram
doxapram	DOPRAM
droperidol	INAPSINE
DURAMORPH	morphine
edrophonium	ENLON, TENSILON
ENLON	edrophonium
epinephrine	ADRENALIN
esmolol	BREVIBLOC
etomidate	AMIDATE
famotidine	PEPCID
fentanyl	SUBLIMAZE
furosemide	LASIX
GARAMYCIN	gentamicin
gentamicin	GARAMYCIN
glycopyrrolate	ROBINUL
hydralazine	APRESOLINE
hydrocortisone	SOLU-CORTEF
INAPSINE	droperidol
INDERAL	propranalol
INOCOR	amrinone
ISOPTIN	verapamil
isoproterenol	ISUPREL
ISUPREL	isoproterenol
ISORDIL	isosobide
isosobide	ISORDIL
KETALAR	ketamine
ketamine	KETALAR
ketorolac	TORADOL
labetalol	TRANDATE, NORMADYNE
LANOXIN	digoxin
LASIX	furosemide
LEVOPHED	norepinephrine
MARCAINE	bupivacaine
metoclopramide	REGLAN
methylprednisolone	DEPO-MEDROL
midazolam	VERSED

ANESTHETIC MANAGEMENT IN THE TREATMENT OF ACQUIRED SGS: Maintenance of airway and oxygenation during pediatric tracheal surgery is challenging, technically difficult, and potentially stressful. Anesthetic technique commence with spontaneous ventilation, followed by controlled ventilation with muscle relaxant. This is supplemented by a volatile agent, narcotic, topical lignocaine to the larynx and regional blockade for costal cartilage graft donor site.

Spontaneous ventilation facilitates dynamic examination of the airway and these children are not paralyzed postoperatively.

ROUTINE MANAGEMENT: Assembly and preparation of equipment is a time consuming task for the anesthetic assistant. Communication from the anaesthetist is crucial in determining the availability of equipment to be used. Preparation of equipment is required for the following locations: anesthetic room, operating theater, and for transporting the patients to/ from neonatal and intensive care units.

The anesthetic room provides a quiet, calm atmosphere for induction of these children with a parent in attendance. Reassuring conversation and gentle restraint during adaptation of an Ayres T-piece circuit to existing tracheal tubes facilitate ease of induction. Use of EMLA (eutectic mixture of local anesthetic) cream aids intravenous access when intravenous induction is chosen.

(clip and save)

FOR THE "TECHNO-FILE"

ANESTHESIA RELATED DRUGS AND GENERIC EQUIVALENTS

MIVACRON	mivacurium
mivacurium	MIVACRON
naloxone	NARCAN
NARCAN	naloxone
neostigmine	PROSTIMIN
NEOSYNEPHRINE	phenylephrine
NEUT	sodium bicarbonate
nifedipine	PROCARDIA
NIPRIDE	nitroprusside
nitroglycerine patch	TRANSDERM-NITRO
nitroprusside	NIPRIDE
NORCURON	vecuronium
norepinephrine	LEVOPHED
NORMADYNE	labetalol
ondansetron	ZOFRAN
oxitocin	PITOCIN
pancuronium	PAVULON
PAVULON	pancuronium
PEPCID	famotidine
phenotoin	DILANTIN
phenylephrine	NEOSYNEPHRINE
physostigmine	ANTILIRIUM
PITOCIN	oxitocin
PITRESSIN	vasopressin
procainamide	PRONESTYL
PROCARDIA	nifedipine
PRONESTYL	procainamide
propofol	DIPRIVAN
propranalol	INDERAL
PROSTIMIN	neostigmine
PROVENTIL	albuterol
providone-iodine	BETADINE
QUELICIN	succinylcholine
REGLAN	metoclopramide
ROBINUL	glycopyrrolate
rocuronium	ZEMURON
scopolamine patch	TRANSDERM-SCOP
SENSORCAINE	bupivacaine
sodium bicarbonate	NEUT
SOLU-CORTEF	hydrocortisone
SUBLIMAZE	fentanyl
succinylcholine	ANECTINE, QUELICIN
TENSILON	edrophonium
terbutaline	BRETHINE
TORADOL	ketorolac
TRACRIUM	atracurium
TRANDATE	labetalol
TRANSDERM-NITRO	nitroglycerine patch
TRANSDERM-SCOP	scopolamine patch
TUBOCURARINE	curare
vasopressin	PITRESSIN
vecuronium	NORCURON
VENTOLIN	albuterol
verapamil	ISOPTIN
VERSED	midazolam
XYLOCAINE	lidocaine
ZEMURON	rocuronium
ZOFRAN	ondansetron

GENERICS

atropine
calcium carbonate
dextrose
dopamine
glucagon
heparin
magnesium sulfate
mannitol
nitroglycerine
papavarine
potassium chloride
protamine

The patient position is supine with hyperextension of the neck. Stability is maintained by a shoulder roll, head ring, and sterile head drapes. The patient's eyes are lubricated and taped securely.

Routine monitoring includes: oximetry, capnography, noninvasive blood pressure, electrocardiography, airway pressure manometer, and regular blood glucose monitoring. Leads are aligned distally and are secured in an orderly fashion.

Normothermia is maintained by humidification, increased room temperature, insulation, and a warming blanket. An overhead radiant heater is utilized for neonates and removed when surgery commences. Fluid balance is commenced and maintained while blood loss is monitored closely.

Analgesia is controlled by opiate infusion, regional nerve block, and/or, paracetamol in an adequate dosage (e.g.. 20mg/kg[11] on a regular basis).

SPECIFIC ANESTHETIC FEATURES: Particular attention to specific features during anesthesia include: airway control, intercostal nerve block, and sterility.

AIRWAY CONTROL

Anterior cricoid split: The premature neonate has a long term nasotracheal tube of a small diameter in situ (e.g.. 2.5mm). Following induction, laryngoscopy, and bronchoscopy, it is replaced by an orotracheal tube of the same diameter. A nasotracheal tube of an appropriate size for the child's age and gestation is inserted after the cricoid has been split (e.g.. 3.0mm). The desirable features of the ETT are: clear measurement indicators, a firm smooth surface for atraumatic intubation, and a small outer diameter.

During final intubation, the surgeon in unison with the anaesthetist, guides the ETT distally beyond the cartilage repair. It may be a time-consuming maneuver requiring maximum cooperation. Positioning the tube above the repair may result in further splitting of the tracheal wall and specifically, anterior protrusion through the neck wound. Essentially there is an inability to ventilate the patient and intubation has failed. Immediate recovery of the airway is critical.

The anesthetic assistant's vigilance, anticipation, and provision of immediate availability of an alternate ETT may result in a successful, uneventful reintubation.

Meticulous securing of the ETT is crucial. Elimination of ETT mobility avoids life threatening displacement. The patient's face must be dry and free of secretions. It is fastened to facial skin by adhesive tape that encircles the tube. Silk thread is tied at nasal level to indicate tube length and position. Compound tincture of benzoin is applied to protect the skin and to increase adhesiveness. Small lumen tubes will kink if not secured correctly.[7, 8, 10, 12]

A means to prevent traction on the tube is highly desirable. Lightweight circuits are always utilized with non-occlusive tube supports.

continued on next page...

Laryngotracheoplasty: The permanent tracheostomy tube is replace by a sterile silicone reinforced ETT, via the tracheal stoma. The rounded tip provides atraumatic insertion and the distal black stripe provides indication for depth of insertion. The flexible nature allows for gentle angulation from the trachea to the circuit without kinking or occlusion. No additional connectors are necessary. This reinforced tube is sutured to the chest wall intra-operatively. Alternatively it may be secured with an opsite dressing.

The surgeon deliberately removes and reinserts the flexible tube to facilitate surgical technique. The anesthetist pre-oxygenates the patient and coordinates the maneuver. The teflon stent is positioned by the surgeon and guided, via laryngoscopy, by the anesthetist to the level of the arytenoids. The reinforced tube is removed. Finally, the stent incorporating the double lumen(silver) tracheostomy tube is positioned and secured with wires. Stent position/location is frequently checked to observe for inadvertent migration prior to it being secured. Cooperation between the anesthetist and surgeon is essential.

Intra-operatively, gradual tracheal expansion may result in a poor seal around the tube lumen. Inability to ventilate and dilution of anesthetic gases are controlled by surgical placement of small packs. This effectively prevents a light plane of anesthesia, potential airway spasm and hypoxia.

Specific hazards related to stents include the following. Difficulty in positioning the stent while the flexible ETT has been removed. Broken and migrated stents which cause life threatening airway obstruction, if not rectified by immediate retrieval. Stents are removed prematurely when wires are fractured or broken.

Children recovering from LTP are aware that with increased thick bronchial secretions, suctioning of the occluded inner tracheostomy tube may fail. It is essential that an ETT marked to the length of the tracheostomy tube is inserted immediately.

Airway control is managed by an experience dedicated team. A lost uncontrolled airway will result in imminent death of the child.

INTERCOSTAL NERVE BLOCK

An intercostal nerve block is used for the costal cartilage graft donor site. This is a rapid procedure that provides excellent analgesia.

STERILE TECHNIQUE

Aseptic technique is maintained by skillfully placing surgical drapes that provide patient access, enabling the anesthetist and surgeon to work in unison. Particular attention to frequent handwashing is practiced by the anesthesia staff to reduce bacterial contamination. Single use items are used to prevent cross infection.

INTEROPERATIVE HAZARDS COMMON TO BOTH ACS AND LTP: Intercostal blockade and harvesting of costal cartilage graft, in children, are complicated by potential pneumothorax. Rapid detection and availability of a chest drain unit is essential. So far in this series there have been no instances of pneumothorax.

Multiple mechanical, anatomical, and physiological hazards are encountered during surgical repair of the injured subglottis. The lost airway being the most significant and life threatening.

Access to the patient airway is limited as a result of the shared airway, crowding at the operative site, and patient size.

Gentle surgical technique, precise suctioning, and controlled hemostasis aids in prevention of thick bronchial secretions, granuloma, and blood being pushed distally.

Complications with tracheal tubes include the following—Partial/complete tube obstruction caused by kinking or occlusion with tracheal secretions. Immediate detection is crucial and frequent suctioning with irrigation is necessary to clear obstructing secretions. Tube replacement may be indicated.

—Dislodgment of the ETT into the bronchi, pharynx, and soft tissue may be reduced by minimizing movement, gentle positioning, accurate reintubation, no traction, and gentle surgical technique.

—Accidental extubation is avoided by meticulous tube management. Early vigilant detection is crucial to successfully manage the difficult emergency reintubation that is hindered by distorted exposed anatomy.

—Disconnection is a problem to a lesser degree. This is detected by vigilant observation, a disconnect alarm and the interpretation of capnography.

—An experienced, trained anesthesia assistant is an essential team member that anticipates the immediate requirements of a rapidly changing environment.

RESULTS: During 1987 and 1993, a group of 27 children were treated for acquired SGS secondary to prolonged intubation. As an alternative to permanent tracheostomy, 12 children were treated with ACS and 15 children were treated with LTP4. Outcome of surgery is summarized in the following tables:

TABLE 1

OUTCOME FOLLOWING ACS:

SUCCESSFUL EXTUBATION (11 PATIENTS, 92%)

• at first attempt: mean 11 days	6 patients
• at subsequent attempt: mean 17 days	4 patients
• following repeat ACS	1 patient

UNSUCCESSFUL EXTUBATION (1 PATIENT)

continued on page 10...

TABLE 2

OUTCOME FOLLOWING LTP:

SUCCESSFUL DECANNULATION (13 PATIENTS)

• asymptomatic: mean 27 months	11	patients
• mild laryngeal incompetence (32 months post decannulation)	1	patient
• repeat tracheostomy (8 months post decannulation)	1	patient

FAILED DECANNUALTION (2 PATIENTS)

• repeat LTP with successful decannulation	1	patient
• improved lumen, remains trach dependent	1	patient

A relatively high rate of successful extubation and decannulation suggests that these procedures can be employed as an alternative to permanent tracheostomy.

Conclusion: Due to the improved survival of infants and children requiring prolonged ventilation, the appearance of SGS secondary to prolonged intubation will continue.

Problems related to the care of tracheostomy dependent children are generally greater in infancy. These problems include physical, emotional, and financial burdens on the care givers, difficulties with verbal communication, and a significant mortality rate related to tracheostomy tube obstruction and displacement[4].

In every case, the decision of surgery is based on what is safest and best for a particular patient under the prevailing circumstances. The sooner a normal airway can be provided, the better the outcome for the child.

Regular communication and follow-up care, special needs of the family and patient are addressed through teaching and support.

At the RCH, Melbourne, ACS and LTP have been established as safe and effective procedures that are alternatives to long-term tracheostomy in the treatment for SGS, secondary to prolonged intubation. These are procedures of low morbidity, provided they are performed in a suitable institution with care facilities, where endotracheal tube obstruction is avoided and reintubation of a difficult airway can be performed.[4, 7, 10]

The incidence of complications are reduced when experienced personnel are available. Specialist centers, such as RCH can provide overall management with a dedicated experienced group of health care professionals, for these small patients.

There has been significant successful outcome of extubation and decannulation for the 27 infants and children.

With improvements in neonatal care and the establishment of ACS as routine treatment as an alternative to tracheostomy in infants dependent on long-term intubation, the development of established subglottic stenosis will decrease[4]. Thus resulting in a lower incidence of patients requiring LTP in the future.

Acknowledgments: My thanks to Dr. Westhorpe, Dr. Kester Brown, my fellow anaesthetic technicians, Department of Anaesthesia and Dr. Rob Berkowitz, Department of Otolaryngology, Royal Childrens Hospital for their encouragement, advice, and support.

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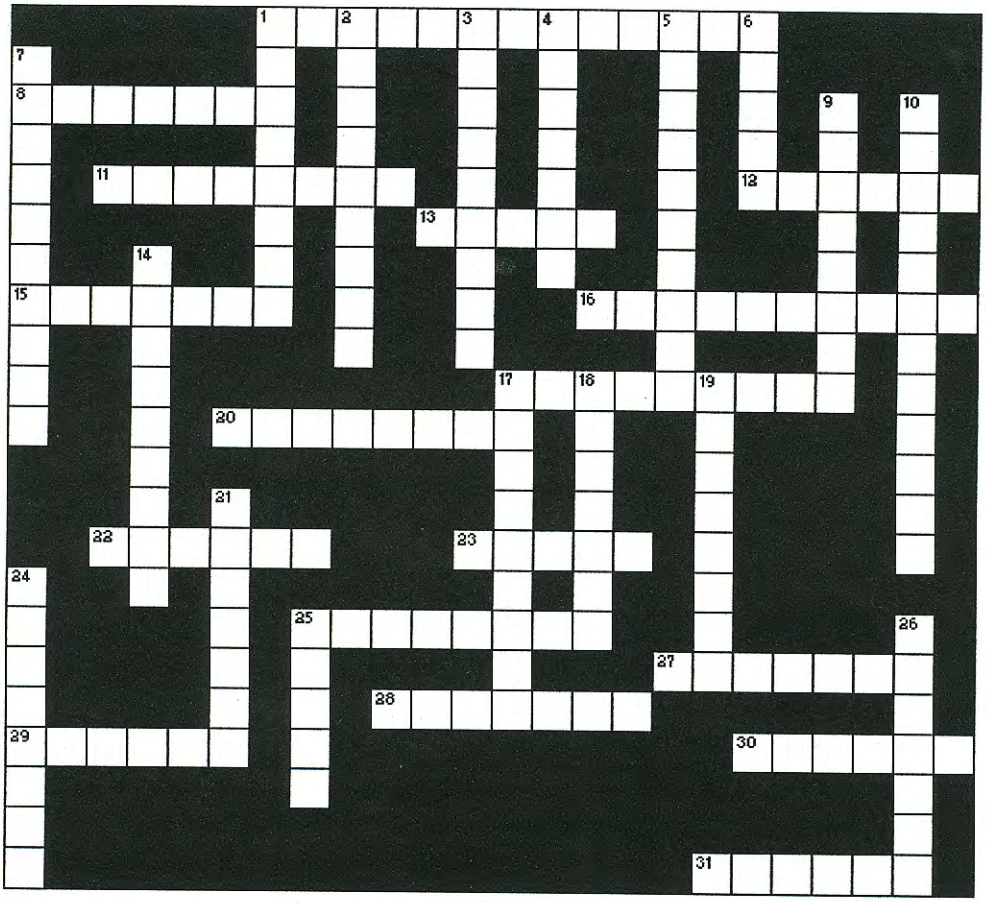
TECHNICIAN CROSSWORD



SCIENCE AND TECHNOLOGY POST TEST: Acquired Subglottic Stenosis and drug names

Use this crossword puzzle to test your knowledge on the "Science and Technology ..." articles on pages 6-10. Puzzle answers can be found on page 19 of this issue.

Across

1 Generic name for Neosynephrine.
8 LTP stands for __-tracheoplasty.
11 SGS stands for subglottic __.
12 Most significant intraoperative hazard during surgical repair of the subglottis is a lost __.
13 Brand name for furosemide.
15 Brand name for ketorolac.
16 During LTP, the trach is replaced by a __ ETT.
17 Brand name for epinephrine.
20 Generic name for Sublimaze.
22 Brand name for ondansetron.
23 In addition to a graft, LTP involves placement of a __.
25 Brand name for diphenhydramine.
27 Brand name for rocuronium.
28 Extubation after acquired SGS results in respiratory __.
29 __ ETT's are not used in pediatric patients due to narrow subglottic anatomy.
30 Brand name for midazolam.
31 Repair of the subglottic region can involve a __ cartilage graft.

Down

1 Generic name for Diprivan.
2 Generic name of Amidate.
3 Generic name for Xylocaine.
4 Brand name for oxitocin.
5 Prolonged __ can cause SGS.
6 Moderate compression of the subglottic membranes causes __.
7 Prolonged compression of the subglottic membranes results in __ of the tissue.
9 Brand name for vecuronium.
10 ACS or LTP is performed to prevent a permanent __.
14 Generic name for Trandate or Normadyne.
17 Generic name for Ventolin or Proventil.
18 Brand name for glycopyrrolate.
19 Brand name for succinylcholine.
21 ACS (anterior __ split) treats minor cases of (SGS).
24 Brand name for mivacurium.
25 Large ETT's can cause impaired __ supply to the subglottic membranes.
26 Brand name for propranolol.

REGIONAL SOCIETY ACTIVITIES...

Let us announce what's happening in your area. Send a brief report of recent or future activities for the next issue by February 15, 1996 to your ASATT Regional Director or to Dave Mastalski (address and numbers on page 2). Send newsletters, if available, a brief write-up, or call with your info. Photos (captioned) are also welcome, and can be returned.

ASATT Region 1:

For further information:
Jacqueline Polak at (718) 283-7188 [W] or (718) 979-8644 [H].

New York

For information on future events:
George Mann at (315) 471-6077.

ASATT Region 2:

For information on future events:
Vicki Carse at (412) 232 5807
Wilma Frisco at (216) 261-0649.

Ohio

See article on page 14.
For further information:
Wilma Frisco at (216) 261-0649.

Pennsylvania

See article on page 15.
For further information:
Vicki Carse at (412) 232-5807.

Virginia

For information on future events:
Linda Ferris at (703) 985-8351.

ASATT Region 3:

For information on future events:
Linda Cotton (904) 351-7343[W] or (904) 347-8118[H].

NCSAT OPENS JOB "HOTLINE"

The North Carolina Society of Anesthesia Technicians is starting a nationwide job referral service for anesthesia techicians looking for employment and hospitals with positions to fill.

A technician seeking a change of employment should send his/her name, address, phone numbers, fax number, and the city or state in which one desires employment. Hospitals should send job opening information and the name of a contact person. NCSAT is asking that technicians send in a one-time-only fee of $5 to help defray costs. Hospitals can register at no charge.

Hospitals can fax their job listings to (919) 966-4873, ATTN Gail Walker.

Technicians can mail their applications and a check made out to NCSAT to: Gail Walker, NCSAT President
6 Tamarack Ct.
Chapel Hill, NC 27514

Phone: (919) 966-5136[W] or
(919) 929-1865[H].

Florida

For information on future events:
Linda Cotton at (904) 351-7343[W] or (904) 347-8118[H].

Georgia

For information on future events:
Marc Dickens at (404) 712-7710.

North Carolina

For information on future events:
Gail Walker at (919) 966-5136[W] or (919) 929-1865[H].

Tennessee

For information on future events:
Sharon Baskette at (615) 322-4000[W] or (615) 646-1599[H].

ASATT Region 4:

A Region 4 Pre-Certification workshop presented by AIME Inc. will be held April 19-21 in Des Moines, Iowa. Watch your mail for registration information.
For further information:
Sheila White at (319) 589-8665[W] or (319) 556-8234[H].

Illinois

See article on page 15.
For more information:
Pat Zueck (217) 788-3780.

Iowa

See article on page 15.
For further information:
Sheila White at (319) 589-8665[W] or (319) 556-8234[H].

ASATT Region 5:

Please see ASATT Region 7.
For information about future events:
Ann Martin at (303) 270-8275 [W] or (303) 987-3907 [H].

Colorado

For information on future events:
Teresa Chavez at (303) 320-2440.

Mississippi

For information on future events:
Earl Coleman at (601) 984-5951, or
Nancy Marret at (601) 973-1656.

ASATT Region 6:

Please see ASATT Region 7.
For information on future events:
Dean Rux at (602) 821-3279[W] or (602) 497-9709 [H].

Arizona

Arizona technicians met on November 11 for a mini-seminar at Chandler Regional Hospital in Chandler, AZ. 15 techs from

7 area hospitals attended. The meeting included a business discussion concerning the formation of an Arizona Society, lunch, and also an educational meeting focusing on Perioperative Hypothermia and Temperature Management.
For further information:
Jane Fry at (602) 885-5756[H] or (602) 721-3836[W], or
Dean Rux at (602) 821-3279[W] or (602) 497-9709 [H].

California

For information on future events:
Ron Turner at (510) 674-2241.

New Mexico

Techicians in New Mexico are in the process of forming their own statewide society. A meeting is being planned in January to elect state officers.
For further information:
Chris Urso at (505) 286-1168[H] or (505) 272-0383[W]

Texas

Dallas/Fort Worth technicians attended a Target '96 Meeting on November 4 & 5, and will resume their regular meetings on the 2nd Saturday of each month in February. [Mary Gallegos at (817) 898-7024 or Lisa Shelton ((817) 685-4917] Houston is planning regular meetings this spring also, and will host a Target '96 meeting March 1-3. [Gerardo Trejo at (713) 793-2898].
For further information:
Dianne Holley at (512) 451-7457.

Utah

For information on future events:
Jeff Mann at (801) 581-6393.

ASATT Region 7:

The 1996 Annual Region 7 Meeting will be held in conjunction with Regions 5 & 6 on January 20-21, in Las Vegas, Nevada. AIME Inc. will be conducting a Certification Preparation Seminar at the Aladdin Hotel and Casino. All ASATT active members are welcome to attend. There will also be a vendor exhibit area.
For further information:
Dave Mastalski at (503) 642-1537 or (503) 273-5389

Oregon

Elections were held in October and the new officers are: Shannon Krecek, President ; Linda Bewley, Vice-President; Amy Haevischer, Secretary; and Richard White, Treasurer.
Plans are being made for an early Spring Educational Seminar which will focus on topics regarding national certification testing preparation. Watch your mail for more information.
For further information:
Shannon Krecek at (503) 273-5389 or (503) 257-2368 or
Linda Bewley at (503) 291-2151

Washington

For information about future events:
Don Milbauer at (206) 228-3450.

IN THE MIDST OF ELEGANCE ...THE ANESTHESIA TECH FACING THE TECHNICAL CHALLENGE

by Wilma Frisco, ASATT Secretary and Director Region 2, OSATT Director

On September 8-9, 1995, the beautiful and plush Cherry Valley Lodge in Newark, Ohio, was the location for the seminar sponsored by the Ohio Society of Anesthesia Technicians & Technologists. Barbara E. Powell, southeastern director of OSATT, Supervisor of Anesthesia and Surgical Processing at Bethesda Hospital, Zanesville, Ohio, coordinated the seminar.

An informal reception was held on Friday, September 8,1995; the reception was sponsored by Kathy Evans, Sales Representative from Organon. Videos, slides, graphs and information pamphlets were assists to the well-planned technical seminar that included courses in: Pain Management–Dr. James Wendroff, Licking Memorial Hospital; Troubleshooting the Anesthesia Machine–Glenn Heilemann, Ohmeda; Autotransfusion/Blood Recovery System–Lisa M. Fornicoia, Haemonetics; Transesophageal Monitoring–Patti Keller and Ray Swift, Hewlett Packard; Intra-aortic Balloon Pump–Datascope; ASATT: Update & Certification–Wilma F. Frisco, ASATT & OSATT. State of the art anesthesia equipment, research information and the latest pharmaceuticals were displayed by our vendors, Abbott Laboratories, Cardinal Breathing Spec., Datex Medical, Haemonetics, Hewlett Packard, Hudson RCI, King Systems, Ohmeda, O.E. Meyers Co., Rusch, Sims, Vital Care, Vital Signs, and Zeneca.

A tropical Saturday morning breakfast was sponsored by Gene Kieffer and Judy Nypaver, Abbott Laboratories. Lisa M. Fornicoia, Haemonetics, sponsored the registration fees for several of the technicians who attended the seminar. As the regional director from ASATT and the director of OSATT, I take this opportunity to commend and thank the speakers, the coordinators, the vendors, the family members and the technicians from Ohio and Michigan who sacrificed valuable hours to support another successful educational endeavor of the Ohio Society of Anesthesia Technicians and Technologists. As the technical community advances.....we will strive to maintain.....EXCELLENCE!!!!!

TARGET '96 SEMINAR, PITTSBURGH, PA

by Vicki Carse, President, PSATT

The Target '96/AIME Seminar was held at the Radisson Hotel in Pittsburgh, PA. The Seminar was sponsored by the anesthesia technicians at The Mercy Hospital of Pittsburgh. There were over forty anesthesia technicians in attendance. The Pittsburgh area was well represented with techs from local hospitals. A number of anesthesia techs from out-of-town braved the snowy road conditions for several hours to attend the seminar.

Vilma Young presented a very educational and informative two-day meeting. A wealth of new information was gained by all. The handbook used for the Seminar is a great learning tool. It certainly will be helpful in preparing the anesthesia technician for the impending certification test that is scheduled for May 18, 1996. Thanks to Vilma and her staff for a great weekend. Thank you also to all of the PSATT/ASATT members who attended.

Becoming prepared for the certification test is the goal for 1996. Happy Studying!

NEWS FROM REGION 4...

by Sheila White, ASATT Director, Region 4

ILLINOIS: I'd like to take this time to thank the officers of ILSAT for inviting me to their fall meeting on November 4, 1995, in Oakbrook, IL. It was a well-planned meeting filled with very interesting and educational topics. These are the meetings we need to turn out for and support. Many hours of organizing and planning go into setting up these meetings. The organizers do it for YOU! So please make that extra effort to attend your state meetings and support YOUR society!

IOWA: Our scheduled final meeting of 1995, on November 11, was cancelled due to lack of participation! We received only 3 RSVP's from people (and one of those was from IL)! Where is everyone and what's happening to our society!?! Instead of growing and moving forward, we seem to be regressing. It appears no one wants to get involved or attend meetings. We're open to ideas and suggestions on how to get people interested! We thought there would be great anticipation and excitement with certification on the horizon.

We will be rescheduling the meeting for spring, so watch you mail for information and ***please RSVP***. Let's make this a great kick off meeting to '96 and start the year off right.

GOING FOR GOLD IN ATLANTA

Surrounded by the excitement of the World Series and the bustling preparation for the 1996 Summer Olympics, ASATT members prepared for their own challenge in '96. Anesthesia Techs from around the world attended the Sixth Annual ASATT Seminar in beautiful, historic Atlanta, Georgia. Foremost on all minds was the eagerly anticipated 1st National Anesthesia Tech Certification Examination.

Chris Patterson, Immediate Past President and Jerry Guttery, President of ASATT, opened the proceedings on Saturday, October 21, at the Radisson Hotel in downtown Atlanta. Doug Draper, first speaker on the program, set an exciting but serious tone which extended throughout the three-day meeting.

Besides attending the many educational and informative lectures presented by a distinguished faculty, anesthesia techs were treated to a wine and cheese reception on Saturday night.

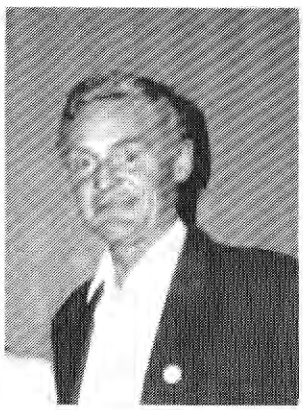
Registrants also had an opportunity to interact directly with the Loral Human Patient Simulator and to catch one of the shuttle buses to the ASA exhibit hall to get info on all the latest anesthesia products and equipment. Another highlight of the meeting was an extensive program provided by the anesthesia machine manufacturer of one's choice.

Educational lectures focused a great deal on troubleshooting and were organized in such way to facilitate easy comprehension. Andrew Falcone, Ph.D., of Applied Measurement Professionals, presented an update on our certification process and fielded many questions from the audience.

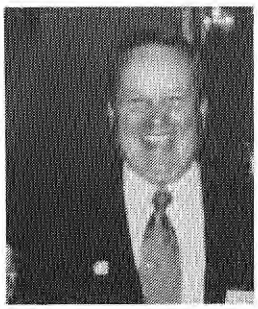
A business meeting concluded the annual program, as the presidential gavel was graciously passed from Chris Patterson to Jerry Guttery. Officers gave their annual reports and special awards were announced. Jerry Guttery, new ASATT President, gave final words of hope and encouragement for the future.

Dave Mastalski, Region 7 Director and Associate Editor of The Sensor*; Ann Martin, Region 5 Director and Exhibit Booth Coordinator; and Lee Amorin, Past President (1993-94) discuss ASATT's progress toward Certification*

Dean Rux, Region 6 Director; Louise Martin, Michigan; and Jacqueline Polak, Region I Director, discuss sightseeing in historic downtown Atlanta.



Speaker John H. W. Ballance, MD, United Kingdom, let us know "What's New in the U.K."



Speaker Doug Draper, AT, U.C. Davis, CA challenged our complacence and showed us how to "Make It Count"

Robin Tang, Baylor, Dallas, and Educational Director, TSAT; and Vilma Young, Seminar Coordinator, AIME compare notes on educational needs of anesthesia techs

GEORGE MANN RECEIVES JAMI BLUE AWARD

by Ann Martin, Director, Region 5

I had the privilege of knowing and working with Jami Blue for seven years. Jami loved her job and was dedicated to the professional development of anesthesia technologists and technicians. Her dream was national certification for the profession and that dream is soon to become a reality. Jami was one of the founders of the ASATT and was the first appointed Director of Region 5. In memory of this dedicated technician, this year's Jami Blue Lecture Series and Award presentation went to ASATT 1992-93 Past President, George Mann, for his continuing contribution and dedication in the field of anesthesia technology. George supported worthy programs that have advanced our profession and the knowledge of anesthesia technicians across the country. With technicians such as George, our Society will continue to grow. Thank you for your dedication, hard work, and a job well done. Our warmest congratulations!

AUGUSTINE MEDICAL HONORS JAMES TIBBELS

James R. Tibbels, CRRT, Chief Anesthesia Technician at The Hospital for Sick Children, Toronto, Canada, was the first recipient of the Annual Augustine Medical/ASATT Clinical Excellence Award. John Thomas, President of Augustine Medical, presented the award at the Annual ASATT Meeting in Atlanta. An all-expenses-paid (up to $1500) trip to the 1996 ASATT Annual Meeting in New Orleans accompanies the award, which recognizes excellence in research and writing in the anesthesia technology field. Jim's article in the October 1995 edition of *The ASATT Sensor* entitled "An Overview of the Paediatric Airway and Related Equipment" was chosen from among the previous year's technical articles appearing in *The ASATT Sensor.*

Jim, who has been an anesthesia tech since 1982, received training as a certified respiratory therapy equipment tech in the US Army at Fort Leonard Wood, Missouri. He has been at The Hospital for Sick Children for the past eight years. A computer aficionado, Jim developed the web site for his hospital and administrates the Pediatric Anesthesia Conference Group. He is married and has two children.

(left) George Mann, 1995 Recipient of the Jamie Blue Award and Lectureship and ASATT Past President (1992-93)

(right) James Tibbels receives the 1995 Augustine Medical/ASATT Clinical Excellence Award from Chris Patterson, ASATT Immediate Past President, and John Thomas, President of Augustine Medical

SPECIAL RECOGNITION...

The Society would like to acknowledge and thank the ASATT Examination Committee members:

Jerry S. Guttery, AT, Co-Chairperson
Chris Patterson, AT, Co-Chairperson
Wilma F. Frisco, AT
Wesley Frazier, MD
Don Biggs, MMSc, AAC
Maretta Grandona, AT
Jim Claffrey, CRNA
Nikolaus Gravenstein, MD
Lisa Fornicola, MT (ASCP)
William King, MD
Howard Odum, MD
A. William Paulson, MMSc (Anes), PhD, CCE
Capt. William Clayton Petty, MC, USN
Curt Pudwill, CRNA

EDUCATIONAL STAFF:

Doug Draper, AT, Univ. of CA, Davis
Richard F. Davis, MD, Oregon Health Sciences Univ.
Capt. W. Clayton Petty, MC, USN, Bethesda, MD
Paul A. Baumgart, MBA, Ohmeda
Linda Sielaff, BA, Ohmeda
James H. Cicman, BHS, RT, N. American Drager
Scott A. Laumbaugh, AS, N. American Drager
Robert Kirby, MD, Univ. of FL College of Medicine
David A. Paulus, MD, Univ. of FL College of Medicine
Earl S. Ransom, MD, Univ. of NC
Danny R. Bowen, CRNA, MSNA, Good Samaritan Hospital, KY
Michael L. Good, MD, VA Medical Center, Gainesville, FL
Andrew J. Falcone, PhD, Applied Measurement Professionals
J.H.W. Ballance, MD, United Kingdom
James M. Maguire, PhD, MEd, Pall Biomedical

NEW MEMBERS....

ASATT would like to extend a warm welcome to the following new members who have joined from 9/1/95 to 11/30/95

ACTIVE MEMBERS

Lorenzo Aguirre
Odessa, TX

David M. Arntz
Phoenix, AZ

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Applicants signature here to be valid_____, Date_____

Please check your membership category listed below and send the correct amount of membership dues in U.S. currency.

*Active: $50____, This category shall extend to anyone who works in a health care facility under the supervision of an anesthetist and functions in the capacity of technologist, technician, assistant, or aide. **(U.S. members only.)**

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**Individual: $60____, This category is open to anyone who has an interest in the anesthesia field.

**Associate: $60____, This category shall extend to Anesthesiologists, C.R.N.A.'s, and Anesthetists.

**Institutional: $100____, This category is open to academic, medical, hospital, philanthropic, scientific, governmental, or other nonprofit organizations with an interest in anesthesia technology.

**Corporate: $100____, This category is open to businesses and other profit oriented organizations that manufacture, distribute, and provide services that otherwise have an interest in anesthesia technology.

**Change of Address____

(for official use only)

Date rec'd_____, Region____,Mem#_____, Check#_____,Amt_____

Comments:_____

OPEN FORUM...*(continued from page 5)*

department, use a floor jack to lift the anesthesia machine and lower the wheels over the four pre-cut pieces of pipe. This will simply push any cords or hoses away from the wheels as the anesthesia machine is rolled into position. These can be wiped easily when soiled, and mop strands will not get tangled in them.

....Before making equipment or supply purchases, there is a private, non profit consulting agency which you can contact to help you with your purchasing decisions. They are considered the "Consumer Reports" of the medical equipment / supply industry. ECRI Inc. (610) 825-6000, has an international data bank on all areas of medical equipment and supplies, including performance ratings, recall information , and pricing structures.

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(From page 11)

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