

THE ASA M SENSOR

Volume 4, Number 2

April 1994

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

PRESIDENT'S MESSAGE ...

by Lee Amorin

Spring is here, and with it comes relief for many areas of the country which have had an unusually long and rough winter. This past year has been a difficult one for many areas what with earthquakes, floods, and bitter winter storms. Hopefully these are past and we can look forward to more tolerable conditions.

Summer is ahead and that brings vacations and busy O.R. schedules. Now is a good time to start planning and making arrangements to attend the ASATT'S FIFTH ANNUAL MEETING. Chris Patterson, this year's meeting chairperson, is busy planning an outstanding affair to be held in San Francisco, October 15th-17th. Every effort is being made to keep expenses at a minimum and enable as many members as possible to attend. We have selected the South San Francisco Conference Center as our location. It is adjacent to the airport and within easy access to the downtown attractions. This is your chance to take advantage of an excellent educational experience and participate in the annual business meeting.

Two important documents are occupying much of the Society's attention right now, and I would like to take this opportunity to assure of their importance. The

first is the 'Self Examination for Anesthesia Technicians', which was recently sent to all Active members. The participation of our members in filling this in and returning by the April 15th deadline, is vital to our ability to move forward in the development of a certification process. The second document, which will be sent out in the next few weeks, is the 'Job Survey'. This will allow us to fine-tune the specific categories which certification will cover. To move forward in this process we must have your active participation. Statistics show that a return of 1 out of 7 for a questionnaire is to be expected. This is clearly not the case this time. WE NEED YOUR SUPPORT!

Pat yourself on the back. You will notice this issue of the Sensor contains a reprint of an article from Anesthesiology News. The 'Roving Reporter' tells us that yes, the Anesthesia Technician does have a role in today's O.R. While we knew that all along, it is encouraging to have such support from our colleagues on the Anesthesia Patient-Care Team. In today's competition for the shrinking health-care dollar, they play a crucial role in the survival of the Anesthesia Technician. THANK YOU.

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Inside your Sensor:

The View From...

The Golden State.

Current Technology...

*Have you transduced
today?*

Coming Events...

*Meetings,
Meetings,
Meetings!*

Special Article...

A poll on your role.

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All submissions pertinent to the objectives of the ASATT will be considered for publication. Photographs, preferably black-&-white, are also welcome and will be returned.

Deadline for the next issue is June 1, 1994.

Printed on recycled paper.



SAN JOSE MEDICAL CENTER SAN JOSE, CALIFORNIA

by Chris Patterson, AT.

San Jose Medical Center is a 303-bed, non-profit, private, non-sectarian community hospital located in central San Jose. Since 1923, the medical center has been known for providing innovative, comprehensive services meeting the needs of an ethnically and economically diverse community.

Among the services which San Jose Medical Center provides are trauma, emergency and urgent care services, maternal and child services, adolescent behavioral services, cardiac services, and rehabilitation services. It was the second hospital in the nation to open the highly acclaimed Planetree Patient Care Unit and Health Resource Center. (The Planetree Health Resource Center is a medical and health library that is free and open to the public.)

San Jose Medical Center has approximately 600 highly skilled physicians on staff. The anesthesia services are provided by a private associated group of 14 anesthesiologists. The hospital employs 2 anesthesia technicians. The Director of Surgical Services and managers support the technicians in all of their endeavors to further their education and have made the anesthesia technicians part of the OR team. The center has 7 OR's plus a cysto room, 2 OR's in labor and delivery, and 4 OR's in the Surgicare Center (outpatient surgeries only).

The anesthesia technicians job is multifaceted. We are responsible for ordering the supplies for all three departments and for the anesthesia related inventories, up-to-date documentation for hospital records, QA's—at least two per year, and direct involvement in justification of the purchase of the latest anesthesia equipment. We assist the anesthesiologists in open-heart surgeries, operate cell savers, and provide detailed set-ups for the physicians to use in difficult intubations, pediatric cases, thoracic procedures, and trauma cases. We respond to STAT C-sections and occasional emergencies in the outpatient surgicare center.

Each uniformly organized anesthesia cart stores a drug cassette that is exchanged every 24 hrs and returned to the pharmacy for refill. We have revised and improved on the documentation and filing systems in our office and developed specialty carts for pediatrics, difficult intubations, and malignant hyperthermia. On occasion we are required to provide anesthesia equipment and assistance in the CT scan procedure room.

We perform daily apparatus checks on the anesthesia machines and when necessary, we troubleshoot monitoring equipment. Our responsibilities include the inservicing of other OR staff members on new equipment and on operating cell savers. Both of us have attended several cell saver certification seminars to assure proper operation of equipment and to provide the best care for the patient. We have been active in either our state or national society which were created for the continued education of anesthesia technologists and technicians. Our



director and managers have always been supportive of our activities in these societies and have made arrangements to assist us financially when we attend our California state society's annual seminar.

ASATT Progress Notes ...

Beginning with this issue, this space will provide a brief summary of the latest progress in Society activities -

Regional Meetings - (See Regional Activities in this issue)

Region 1: June 4, the LaGuardia Marriott, Elmhurst, NY.

Region 2: May 14, the University of Pittsburgh.

Region 3: Meeting in planning.

Region 4: Nov 5, the Hyatt Regency in Schaumburg, IL.

Region 5: July 16, the University Hospital in Denver.

Region 6: Aug 6, Chandler Regional Hospital in Chandler, AZ.

Region 7: April 16, the Red Lion Inn, Bellevue, WA.

The Mid-Year Board Meeting -

is set for April 30th in Seattle. Any member who wishes to place an item on the agenda should do so in writing to the Society address by April 15th.

The Annual Meeting -

Plans are developing for our Fifth Annual Meeting in San Francisco, next October 15-17. See ad in this issue for details. Program mailing to each member in June.

Continuing Education -

In addition to the many Regional Meetings and state society meetings planned for this year, both major anesthesia machine manufacturers are offering seminars on equipment theory and application.

The Self-Exam -

was mailed to every active member in late February. A summary of the results will be published in the next Sensor. (If you didn't receive an exam, let us know.)

Certification -

Progress is being made in identifying a testing agency to administer a certification exam, and efforts are being made to form a certifying committee to govern the exam-writing process. A job analysis or survey is the next major step.

The Job Survey -

will be mailed out to every member within the month of April. It will include questions pertinent to an eventual certification process, so be sure to fill it out and return it.

PRESSURE TRANSDUCERS

*by Maretta Paton Grandona
Spring Valley, California*

Definition: A transducer is a device that converts one form of energy into another. A pressure transducer converts mechanical energy (pressure) into electrical energy (current flowing via the transducer cable to the monitor).

Pressure transducers are used for monitoring arterial and venous pressures. The system is primed with heparinized fluid and connected to an arterial or venous catheter via a length of non-distensible tubing. Special care should be taken to ensure no air is trapped in any components of the pathway and that all connections are tight with no leaks, (see illustration). The pressure in the blood vessel is transmitted along the fluid pathway to the transducer. Disposable transducers have a gel cup sitting on top of a chip. As mechanical pressure is exerted on the gel cup, it presses against the chip, causing the chip to flex. The flexure produces changes in the electrical property of the chip. Those changes result in electrical voltage differences which are then sent to the pressure monitor, amplified, and then displayed as pressure readings. Prior to use, the transducer needs to be calibrated and zeroed.

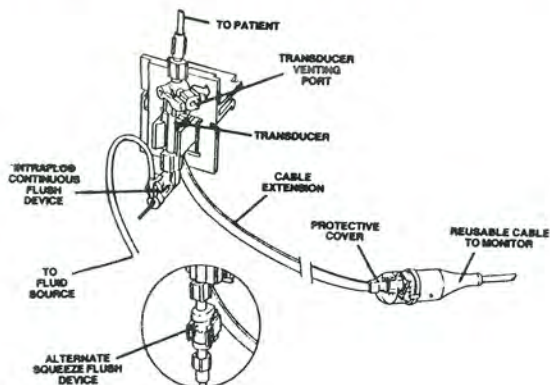


Figure 1.

Calibration is the process by which the monitor recognizes the unique electrical properties of an individual transducer. (No two transducers have the same electrical impedance.) On some monitors, calibration is automatic, but with some monitors, each time a new transducer is connected to a channel, the calibration must be checked. This is most accurately done by comparison with a mercury column.

Zeroing is a term that means allowing the monitor to recognize the atmospheric pressure as the baseline or zero point. The height of the transducer must be adjusted so that it is level with a reference point on the patient. The reference point most often used is the midpoint of the right atrium which generally corresponds to the mid-axillary line. The sternal notch and sternal angle can also be used. The reference point should be marked on the patient so that the same point is used for subsequent

readings. A bubble level can be used to ensure that the transducer and the reference point are at the same height.

Because the set is connected directly to an artery or vein, the fluid pathway must be sterile. Strict adherence to aseptic technique while preparing equipment is vital. Solutions that contain glucose provide a medium to support bacterial growth. For this reason, it is usually recommended that normal saline is used as the priming solution. If a transducer is set up and primed and not used, it should be disposed of after 24 hrs, or according to individual hospital's infection control guidelines.

An inaccurate reading may lead to treatment of hypotension or hypertension that does not exist. Causes of inaccuracy are: failure to zero the transducer before use, failure to check the calibration of the monitor, an air bubble or leak along the fluid pathway, and having the transducer at a different height relative to the reference point on the patient. If the transducer is too high, the pressure will read low. If the transducer is too low, the pressure will read high. Every 2.5cm (or 1") of difference between the height of the patient and the transducer is equal to an error of approximately 2mmHg.

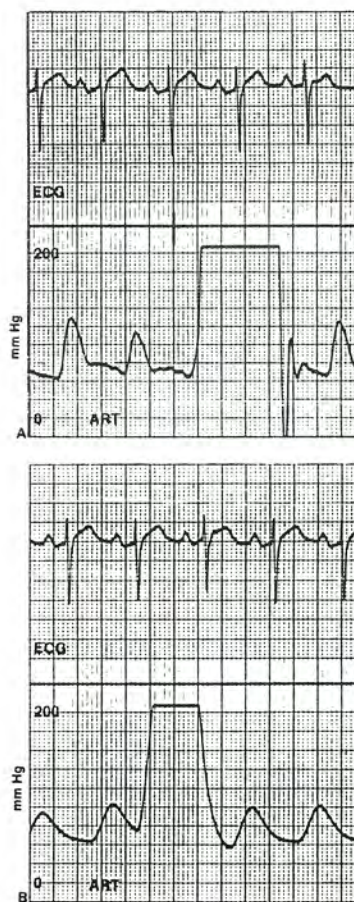


Figure 2.

(A) Normal arterial waveform (ART) with normal square wave response during rapid flushing with continuous flush system. (B) Significantly damped square wave response in arterial waveform when clots, bubbles, or loose connections are present.

TECHNICALLY SPEAKING

by Wes Simpson II

San Diego, CA

A wide variety of challenges face us in the clinical setting. Some are problems associated with a change in technology or technique. Others come about as a result of new standards and regulations. Controversies, both old and new, require discussion. The potential benefits of new technology must be evaluated in light of dwindling financial resources. The citations listed below offer technological updates and provide fuel for discussion on a wide variety of concerns.

Your comments on this column are welcomed. Suggestions for articles of specific interest are appreciated. If you are having trouble locating any of the articles cited, I will be happy to provide you with information on obtaining reprints. You may contact me directly at: 29445 Pamoosa Lane, Valley Center, CA 92082.

Frink EJ Jr & Brown BR Jr: Biodegradation and organ toxicity of new volatile anesthetics. *Current Opinion in Anaesthesiology* 6:644-647, 1993.

This article compares the structural formulas of desflurane and sevoflurane. Each agent is described in terms of biotransformation schemes. Desflurane is shown to be essentially metabolically inert, and has low partition coefficients. While sevoflurane is a more unstable molecule that is reactive in a circle system, it also leaves the body rapidly after discontinuance. Both compounds are judged to have low potential for hepatorenal complications.

Weiskopf RB & Eger EI II: Comparing the costs of inhaled anesthetics. *Anesthesiology* 79:1413-1418, 1993.

A common sense approach has been taken by the authors of this study. The methodology needed to determine the cost of using differing agents is illustrated by comparing isoflurane to desflurane. Tables and formulas are provided which would allow you to make similar comparisons in your own institutions.

Rooke GA & Bowdle TA: Syringe pumps for infusion of vasoactive drugs: mechanical idiosyncrasies and recommended operating procedures. *Anesth Analg* 78:150-156, 1994.

Medfusion Model 2010 and Baxter Model AS-20GH syringe pumps were utilized during the study that this well written and illustrated article reports. The authors describe syringe/tubing/manifold combinations that are commonly used by anesthesiologists for the delivery of multiple drugs to a patient. A series of experiments were designed to test the pumps occlusion alarms, delivery rates, and effects of elevation on flow. Suggestions are given to prevent potential complications that are useful regardless of pump manufacturer.

Harrington GR & Hnatiuk OW: Noninvasive monitoring. *Am J Med* 95:221-228, 1993.

This is a good review article which compares and contrasts invasive and noninvasive monitors that are used in operating room and critical care settings. Blood pressure, respiratory, hemodynamic, and neurologic monitors are covered. The references may

be particularly useful in that they come from journals not widely read by anesthesia personnel.

Manthous CA, Hall JB, Schmidt GA & Wood LDH: Metered-dose inhaler versus nebulized albuterol in mechanically ventilated patients. *Am Rev Respir Dis* 148:1567-1570, 1993.

Unlike many prior studies, the authors found the use of a MDI and endotracheal adapter was inadequate to provide bronchodilation in mechanically ventilated patients with airflow obstruction. They urge that until further studies can define a clinically viable method for MDI use in ventilated patients, that nebulizers be used for aerosol delivery.

Newhouse MT & Fuller HD: Rose is a rose is a rose? Aerosol therapy in ventilated patients: nebulizers versus metered dose inhalers—a continuing controversy. (Editorial) *Am Rev Respir Dis* 148:1444-1446, 1993.

The authors of this editorial discuss several studies in the literature, including some that they were involved with. The Manthous study is contrasted against the majority of conclusions. Delivery efficiency of MDI adapters may vary by as much as 100%. It is their opinion that the major importance of the Manthous study is in making clinicians aware that the Marquest adaptor was probably not providing useful MDI therapy, and that clinicians need to study aerosol delivery systems as thoroughly as they do the medications involved.

Gronbeck C III & Miller EL: Nonphysician placement of arterial catheters. *Chest* 104:1716-1717, 1993.

This study reports on a hospital developed protocol for arterial line insertion performed by respiratory therapists. In over 500 catheter insertions, in which placement lasted from 1 to 20 days, a superficial infection developed in only 5 percent of patients and only one patient has a major complication. The authors conclude that specially trained nonphysician personnel can safely insert arterial catheters when following an established protocol.

ECRI: Device-related "burns". *Technology for Anesthesia* 14; 5:1-5, 1993.

continued on page 6

This technical report details how skin injuries to patients in the operating room are often mistaken for burns. Understanding the possible causes and effects of skin injuries is emphasized. Causes are broken down into the categories of: electrical, thermal, chemical, mechanical, pharmacologic adverse reactions, and physiologic/medical. Steps which should be taken after a skin injury are suggested.

ECRI: Selecting and using multiple medical gas monitors. Technology for Anesthesia 14; 3:1-4, 1993.

This article provides a good overview of the issues involved when selecting airway gas monitors. Differences in infrared technology, laser Raman

spectrometry, and mass spectrometry are highlighted.

ECRI: High-risk anesthesia equipment problems. Technology for Anesthesia 13; 11:1-3, 1993.

Problems discussed in this article have shown up during numerous investigations of equipment-related incidents. They are labeled "high-risk" due to the potential for serious harm to a patient if precautions are not taken. Problems highlighted are: added downstream vaporizers, outdated anesthesia machines, anesthetizing locations outside the OR, anesthesia vaporizer calibration, heated humidifiers, infant ventilators, continuous oxygen monitoring, and creation of oxygen-enriched atmospheres. Recommendations for potential problems are provided.

CLARIFICATION:

A number of renewing members have recently called the ASATT office with inquiries about their annual dues. The wording of the renewal form could be misinterpreted to imply that dues are \$50 each quarter.

Our dues for active members have not changed; they are \$50 annually.

The renewal form has been revised to avoid any confusion, and now includes an option for contacting the ASATT office by E-mail (for those of you on the Information Superhighway).

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*Have YOU sent-in your
Self-Exam answer sheet yet?*

Return yours by April 15th!

SPECIAL ARTICLE ...

In the January issue of *Anesthesiology News*, the following "Roving Reporter" article posed the question:

"Do you see a role for anesthesia technicians in the operating room?"

The article is reprinted here for the benefit of the anesthesia tech community, and with the permission of the publishers of *Anesthesiology News*.

Dr. I. Cary Andrews
Acting Chairman,
Department of Anesthesiology
Albert Einstein College of Medicine
Bronx, NY

Yes. I had been chairman of the ASA Anesthesia Care Team for seven years, and the new American Society of Technologists and Technicians [ASATT] had been part of this team. This is a large, heterogeneous group of people. The technologists basically have much more education, many of them have some college education [such as] an associate's degree, and they are very knowledgeable of how to prepare an anesthesia machine, how to set up the monitoring equipment that we use for very sick patients—ie, open heart procedures— and how to interpret blood gases.

With technicians, you may have a person with not as much education who basically may help more with the cleaning up and making sure that the anesthesia machine has all the necessary equipment. They may also learn how to set up monitoring equipment.

Most anesthesia departments will have a person who basically is the head of that group [of technicians]. That person usually has administrative experience and is usually is one who talks to many of the people who are bringing around new equipment and new drugs. He will be the purchaser, along with the director of anesthesia, of many of the things that the department of anesthesia needs.

Once they are trained, the technician can become extremely helpful to the anesthesiologist. In hospitals where one is running a very busy operating room schedule with a rapid turnover, and where there are no residents or very few residents, [the technician] is very important. The technician comes in and cleans out all the dirty equipment that was used on the previous case and basically sets up the room [for the next case]. They are a very vital part of what we call the anesthesia care team.

The ASATT's numbers are growing. Their educational programs are improving. The technicians are even looking to be certified somewhere in the future; this is to their benefit because they will become much better parts of the anesthesia care team.

Dr. Bertram W. Coffey
Rex Hospital
Raleigh, NC
Chairman, Anesthesia Care Team
Committee of the ASA

Yes, there is a role and it's an expanding role in the modern operating room today. Their role is to aid in

setting up equipment, helping keep track of items for quality assurance, keeping track of inventory and a whole raft of chores that they can do to facilitate the delivery of anesthesia. The other kinds of things that anesthesia technicians do is baseline lab work in the operating room, and this facilitates the delivery of anesthesia.

I don't know of any real arguments against having them; in our type of practice, there must be 70, and I don't see how we'd get along without them. In our main operating room where we probably have 12 operating rooms, we have at least five or six technicians; there's one here almost around the clock helping to set up carts, set up machinery and check equipment.

They are an extra pair of hands when we are putting lines and monitors on patients. There is just a lot of equipment, procedures and manual things where an extra pair of hands comes in handy. Technicians are invaluable and, I think, irreplaceable.

I think that you have to be careful that you don't expand their role into the delivery of anesthesia. I think they should not be involved in the administration of drugs—they are not trained or equipped educationally to handle drugs. But with anything short of giving drugs, mixing drugs and delivering anesthesia, they can be a big help.

I think that an anesthesiologist, whether he's a solo anesthesiologist or one working with a nurse anesthetist, needs technicians. Probably their most valuable role is working with those anesthesiologists who work by themselves. They are even more invaluable to those doctors than they are to people like myself who practice with an anesthesia care team, which means that we work with a nurse anesthetist. The ASA needs to help them develop their guidelines, their policies and procedures and do everything that we can to encourage the growth of this particular group.

Dr. Richard H. Stein
Director of Anesthesia,
Good Samaritan Hospital
Director of Respiratory Therapy,
Vincennes University (Indiana)

Yes. In this day of cost containment, certainly we are looking for qualified people who help in the delivery of anesthesia under the supervision and direction of an anesthesiologist. They are part of an anesthesia care team, and I do see a role for them.

In our particular hospital we have four
Continued on Next Page

anesthesiologists and we're taking on a fifth. We just do one-on-one, so in our particular setting I don't see any role[for anesthesia technicians] in our immediate future. However, in the large municipal hospitals where you have a lot of operating rooms and a lot of cases that have to be going on at one time, to assist the anesthesiologist would be vitally important to him. I think that municipalities is where the future lies [for technicians].

These are well-trained people; I understand there are about 700 or 800 of them, with a future growth to about 4000. I can only tell you what I've heard at the annual meeting and sitting down on a committee basis, but I have not personally seen technicians work.

They are working with the ASA. They have the ASATT. The ASA liaison to the ASATT, Dr. Roger Litwiller, is in personal contact with their president and he's working with them on a certifying process, and so on.

The only drawback that I can possibly see is that you have to medically direct them, and anytime you spread yourself out over two rooms, you are diluting your ability. But on a positive side, you are able to do more cases and help the shortage in anesthesia.

My personal bias is I prefer to [treat patients] one-on-one, which is the way that I've practiced the last 35 years. We have only anesthesiologists and we are growing. We're adding a five-story addition to our hospital and we're in the process of getting two more anesthesiologists.

*Dr. Roger W. Litwiller
Staff Anesthesiologist,
Roanoke Memorial Hospital
Roanoke, VA
ASA Liaison to ASATT*

There's no question that there's a role for the anesthesia technician in the operating room. These are individuals that have a variety of different skill levels but, without any question, help to serve patients' welfare. They contribute to the safety of anesthesia as we now know it. They contribute to making the operating room a more efficient place and therefore contribute to the welfare of the hospital. In short they are very, very valuable people to us.

The anesthesia technicians and technologists are looking at a standardization of their skills. One of the reasons that there are so many different skill levels is that there are really no programs for the training of these people at the present time. There may be one exception to this in Texas, but most of the individuals are just trained on the job; the training that they get in one hospital may be significantly different than the training that they receive in another.

I've been fortunate in my 20 years of practice to have had an anesthesia technician available to me the entire

time. That has really helped to speed turnaround time between cases. It has been a great help to me during cases to get drugs or equipment—often you need things, but you are not able to leave sight of the patient. These people are very important in that area also.

I think one of the things that the anesthesia technicians and technologists will ultimately want to do—and I know that they are working on it at the present time—is to develop some type of an examination system. This will allow technicians and technologists from across the country to have some kind of standardization in terms of their credentials or capabilities.

The ASA feels that these individuals are an extremely important part of the anesthesia care team. Accordingly, at the ASA meeting, the leadership of the ASATT is invited to come and talk with that committee of the ASA regarding their concerns.

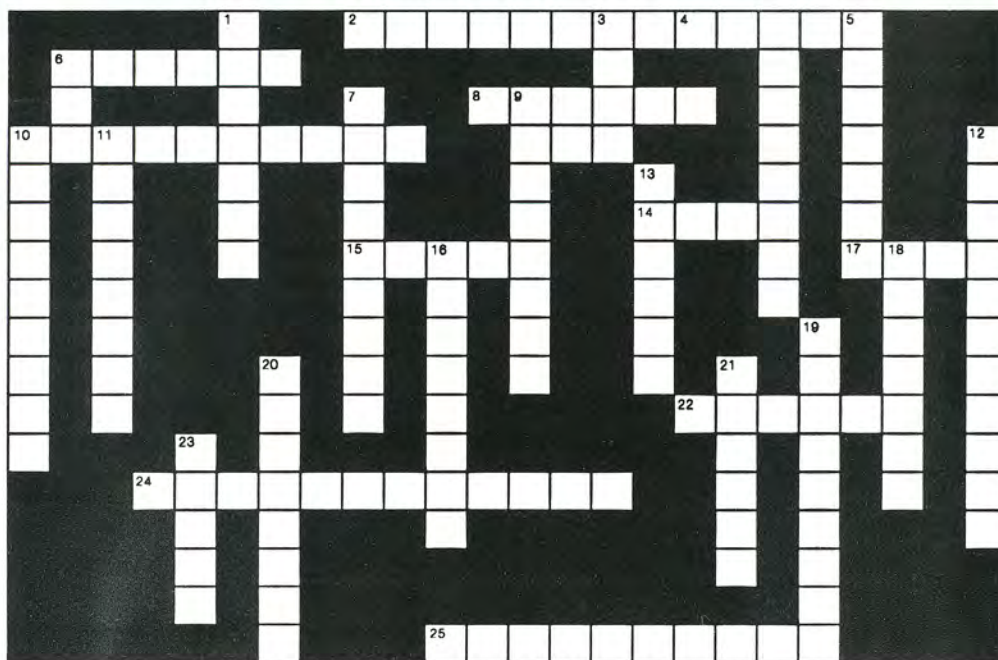
*Dr. Bernard D. Morgan
Staff Anesthesiologist,
Riverside Community Hospital
Riverside, CA*

I certainly do and I see a need for them more and more each day. Anesthesia technicians are particularly important in assisting the anesthesiologist in equipment maintenance, equipment safety checks and in our operating room suite. All anesthesia supplies are ordered and stocked by the anesthesia technician.

Anesthesia technicians also provide the anesthesiologist with assistance in the more demanding parts of an anesthesia procedure, yielding a decrease in operating room turnover time by assuming some of the duties of other operating room personnel. For instance, there are many times when an extra pair of hands are invaluable: placement of invasive lines, such as arterial lines and pulmonary artery lines, and assistance in the induction of some patients—especially in the pediatric age group. All of the activities of the anesthesia technician lead to increased efficiency in the operating room and increased safety for the patient.

I think anesthesia technicians, if they are not already, will become an integral part of the anesthesia care delivery system. As you already know, there is a national organization of anesthesia technicians: the American Association of Anesthesia Technicians and Technologists. The American Society of Anesthesiologists, through the Committee on Anesthesia Care Team of the ASA, have a liaison with this organization and is assisting them in developing criteria for educational requirements for their members.

The future for anesthesia technicians is bright. In our local area historically, our anesthesia technicians have come from related fields such as the Army Medics. In the future, I think that motivated individuals can look forward to at least community college programs that will qualify them as anesthesia technicians. Anesthesia technicians will more and more become a mainstay in any modern operating room environment. — End



**ANSWERS TO
PREVIOUS PUZZLE:
ON PAGE 12**

Chest Excursions II... *by Abel Borromeo, Seattle*

ACROSS:

- 2 A risk of intermittent positive pressure ventilation is that it can increase _____ pressure by 2 - 3cm H₂O.
- 6 The driving gas used for virtually all mechanical ventilators is _____.
- 8 A mass spectrometer measures the concentration of gases by analyzing the component gases according to their molecular _____.
- 10 Apparatus used to control or assist breathing.
- 14 Common term for positive end-expiratory pressure.
- 15 Type of gas analyzer that measures the partial pressure of each component gas.
- 17 Common term for constant positive airway pressure.
- 22 Type of breathing system most commonly used for adults.
- 24 Tidal volume multiplied by the respiratory rate equals _____.
- 25 On the Drager AV-E ventilator, a malfunctioning pressure relief valve will cause the _____ pressure alarm to sound.

DOWN:

- 1 Part of a ventilator that contains both the inspired and exhaled gases.
- 3 When using a Bain circuit, a _____ fresh gas flow is required because there is no absorption of CO₂.

- 4 An ascending ventilator bellows will _____ if a patient circuit disconnect occurs.
- 5 CO₂ absorbents should be handled with care because they are _____.
- 6 For every 10cm H₂O of inspiratory pressure, _____% is retained in the breathing circuit due to compliance.
- 7 An ascending ventilator bellows _____ during the inspiratory phase of the respiratory cycle.
- 9 An ascending ventilator bellows _____ during the expiratory phase of the respiratory cycle.
- 10 Suprane, Forane, halothane, and Ethrane each require a _____ for use.
- 11 The standard diameter for scavenging connections in anesthesia apparatus is _____ mm.
- 12 A humidifier should be placed on which limb of the breathing system?
- 13 The CO₂ monitor sample port is usually part of the _____.
- 16 Type of breathing system that does not utilize a CO₂ absorber.
- 18 The inspiratory _____ or pause provides the best opportunity for gas re-distribution between alveoli.
- 19 Most modern ventilators have _____ bellows.
- 20 Anesthetic vaporizers should be serviced _____.
- 21 In a normal adult, the _____ volume ranges from 5 to 10 liters.
- 23 Gas from the hospital piping or regulated cylinder is supplied to the ventilator at about _____ psig.

Reference: **Anesthesia Equipment: Principles & Applications**
J Ehrenwerth & JB Eisenkraft
1993. Mosby Publishers, St Louis.

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 May 31 to Dianne Holley. Send newsletters, if available, or give your info on my answering machine if I'm not home. Photos (captioned) are also welcome.

ASATT Region 1:

A regional meeting is planned for June 4 at the LaGuardia Marriott in New York City.

For further information:

Jacqueline Pollack at (718) 283-7188 [work]
or (718) 979-8644 [home].

ASATT Region 2:

A regional seminar focusing on state society assessments and updates is slated for May 14 at the University of Pittsburgh Medical Center, Presbyterian Hospital conference room. Anesthesia techs living in PA, MD, OH, MI, VA, WV, and DE are invited to attend.

For further information:

Wilma Frisco at (216) 541-5710.

ASATT Region 3:

A meeting is in the planning stages for the third quarter of this year.

For further information:

Jerry Guttery at (904) 374-6051 [work]
or (904) 472-3925 [home].

ASATT Region 4:

A joint ASATT/ILSAT meeting is in the works for next November 5th at the Hyatt Regency in Schumburg, IL.

For further information:

Jim Underwood at (309) 968-6998.

ASATT Region 5:

University Hospital in Denver is the site for a meeting on Saturday, July 16th.

For further information:

Ann Martin at (303) 270-8275 [work]
or (303) 987-3907 [home].

ASATT Region 6:

A meeting is planned for August 6th at Chandler Regional Hospital in Chandler, AZ near Phoenix.

For further information:

Dean Rux at (602) 821-3315 [work],
or (602) 497-9709 [home].

ASATT Region 7:

Speakers are preparing now for the Regional Meeting at the Red Lion Inn, Bellevue, WA on Saturday, April 16th.

For further information:

Ruth Ochoa at (503) 370-5200 pager 225 [work]
or (503) 390-0736 [home].

California:

The annual CSA/CSATT Educational Seminar will be held in Monterey on May 20-22. Past seminars by these organizations are always well coordinated and extremely interesting.

For further information:

Ron Turner at (510) 674-2241.

Colorado:

Newly elected officers of the Colorado Society of Anesthesia Technicians are: president, Teresa Chavez of Rose Medical Center; vice-president, Lori Moore of Boulder Community Hospital; secretary-treasurer, Mary Dameron of Fitzsimmons Army Medical Center; and newsletter editor, Debbie Bell of the University of Colorado Health Sciences Center. See also "News from Crash '94" on page .

For further information:

Ann Martin at (303) 270-8275.

Florida:

Ocala will host a one-day anesthesia machine seminar in North Florida on April 30. A seminar in South Florida is tentatively being scheduled in June. All members of the Florida Society of Anesthesia Technologists and Technicians are invited to attend both meetings.

For further information:

Jerry Guttery at (904) 374-6051 [work]
or (904) 472-3925 [home].

Georgia:

An organizational meeting was held in Atlanta on March 26.

For further information:

Alfred Yin at (404) 248-4031.

Illinois:

The Illinois Society of Anesthesia Technology will hold an educational/membership meeting for downstate Illinois on April 30 at the Springfield Memorial Hospital in Springfield. Educational topics are pediatric anesthesia and muscle relaxants. Breakfast and lunch will be provided.

For further information:

Jim Underwood at (309) 968-6998.

Maryland/DC:

For information on future events:

Robert Bowling at (410) 225-8176.

Michigan:

For information on future events:

Louise Martin at (313) 593-7696 or
Jim McEvoy at (313) 343-4766.

New York:

All New York State Anesthesia Technology Association members should contact the state offices regarding the NYSATA newsletter as soon as possible.

For information on future events:

John Armstrong at NYSATA, P.O. Box 23073, Rochester, NY 14692-3073.

North Carolina:

Beautiful Myrtle Beach South Carolina is the location of the annual meeting being held for the **North Carolina Society of Anesthesia Technicians**, September 30-October 2. NCSAT held their first organizational meeting last September and an educational seminar in mid-February. The first newsletter will be mailed soon.

For further information:

Kathline Leahan at (919) 681-5228.

Ohio:

The Ohio Society of Anesthesia Technologists and Technicians continues with their monthly educational meetings held on the 4th Saturday of each month. The April meeting is being hosted by Burroughs-Wellcome and the June meeting discusses anesthesia tech cross-training. A May regular meeting was not scheduled so members could attend the Region 2 Seminar on May 14 in Pittsburgh.

For further information:

Wilma Frisco at (216) 541-5710.

Oregon:

The Oregon Association of Anesthesia Technologists and Technicians will hold an educational seminar at the VA Medical Center in Portland on May 21.

For further information:

Dave Mastalski at (503) 642-1537, or

Guy Buckman at (503) 370-5200 pgr 227.

Pennsylvania:

A Region 2 Seminar focusing on state society assessments and updates is slated for May 14 in Pittsburgh.

For further information:

Wilma Frisco at (216) 541-5710.

Tennessee:

A one-day educational meeting is slated for April 30 at Vanderbilt Plaza in Nashville for the **Association of Tennessee Anesthesia Technicians and Technologists**.

For further information:

Sharon Baskette at (615) 322-4000 [work]

or (615) 646-1599 [home], or

Tammie Carr at (615) 322-4000.

Texas:

The Texas Society of Anesthesia Technology will hold a one-day educational seminar and business meeting at Cyprus-Fairbanks Medical Center in Houston on June 18. Meeting coordinator is Frieda Frances at (713) 397-0206. Educational meetings are regularly held in San Antonio [Raul Sanchez at (210) 675-1564], Dallas [Kyle Logsdon at (214) 820-2165], Austin [Dianne Holley at (512) 451-7457], Houston [Drucilla Overton at (713) 729-5606], and El Paso [Estella Ramirez at (915) 544-0606].

For further information:

Dianne Holley at (512) 451-7457.

Virginia:

Roanoke is the location of a June 11th meeting for the **Virginia Society of Anesthesia Technologists and Technicians**. Cost containment, awareness and recall in anesthesia, JCAH, and quality management are some of the topics being discussed.

For further information:

Linda Ferris at (703) 985-8351.

Washington:

The Northwest Society of Anesthesia Technicians will meet in Bremerton at Harrison Memorial Hospital on May 28. Elections are planned in the near future.

For further information:

Don Millbauer at (206) 228-3450.

Wisconsin:

For information on future events:

Noreen Soeller at (715) 387-7179 [work]

or (715) 387-4792 [home].

NEWS FROM CRASH '94

By Ann Martin, ASATT Region 5 Director

The University of Colorado Department of Anesthesiology CRASH '94 for Anesthesia Technologists and Technicians featured 4 days of educational lectures, shared information, social functions, and access to the nearby ski resort. The annual Vail, Colorado session opened with a reception at the Radisson Hotel on Friday evening, February 25 for the 28 registrants representing nine states (Colorado, Texas, Wisconsin, South Carolina, North Carolina, Nebraska, Washington, DC, and New Mexico). ASATT Region 5 Director, Ann Martin and the Colorado Society of Anesthesia Technicians' newly elected officers hosted a booth in the exhibit hall.

It was an exciting opportunity to meet new people, exchange ideas, and improve our knowledge and skills. We received many thanks from the anesthesiologists for the personal support, safety, and attention we provide to the patient. The University of Colorado Department of Anesthesiology, Dr. Clayton Petty, and Paul Baumgart left us more knowledgeable and motivated.

On behalf of the ASATT and myself, I would like to thank Dr. Charles Gibbs, MD, Professor and Chairman for the Department of Anesthesiology and his staff for supporting the Anesthesia Technologists and Technicians Educational Program.

Wisdom in the West!



The Fifth Annual ASATT Meeting & Educational Program

Saturday thru Monday, October 15-17, 1994

South San Francisco Convention Center

South San Francisco, California

5 Minutes from the airport,

15 Minutes from Downtown San Francisco

Complete program and details to be mailed in June!

GOOD NEWS: DEAN IS BACK!!

by Chris Patterson, ASATT Vice-President

Dean Rux, former ASATT Region 4 Director, has relocated to Gilbert, Arizona and is the Lead Anesthesia Technician at Chandler Regional Hospital, Chandler, Arizona.

Dean has agreed to serve as ASATT Region 6 Director on an interim basis until the 1994 ASATT elections for officers and board members have been concluded. He brings experience, technical skills, and proven dedication to this temporary assignment. We look forward to giving Dean our full support in the future.

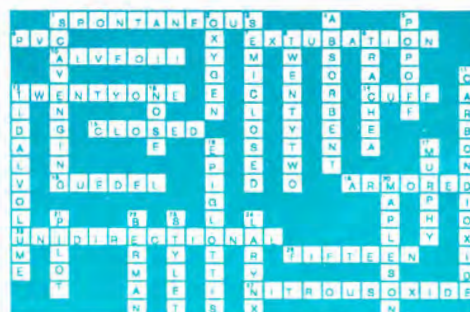
On Saturday, August 6, 1994, Dean will host the annual ASATT Region 6 Educational Seminar at Chandler Regional Hospital, 475 South Dobson Road, Chandler, Arizona. Information about the program and registration will be forthcoming in an edition of the ASATT Sensor—watch for it! In addition, programs for this event will be mailed to all ASATT Region 6 members. We will look forward to seeing you at the seminar.

We also have two other important seminars currently “on tap” in our region for this year:

The Annual CSA/CAATT Educational Seminar will be held at Monterey, California on May 20-22. Past seminars sponsored by these organizations are always well coordinated and extremely interesting.

The ASATT Annual Educational Meeting will be held at South San Francisco, California on October 15-17. The ASA will also be holding their Annual Meeting in San Francisco. The exhibits are scheduled for October 17-19.

All anesthesia techs and other interested persons are invited to attend these important meetings, so mark your calendars and ask your supervisors, Chief Anesthesiologist, and Educational Departments for educational leave and financial assistance to attend. Your participation at these important functions is needed. We all benefit from increased education which provides us with the opportunity to further advance our profession.



ANSWERS TO
PREVIOUS PUZZLE:

I am pleased to announce the appointment of Dean Rux as Interim Director for Region 6. He comes with experience, having been the past Director for Region 4 before assuming his current position as Technician Supervisor for the Anesthesia Department at Chandler Hospital in Chandler Arizona. As the board welcomes Dean's participation, we are busy preparing for the Mid-Year Board meeting to be held in Seattle on April 30th. Any Society member who wishes to have an item placed on the meeting agenda may do so by sending written notification to the Society's address no later than April 15th, 1994. Also, members are reminded that elections for Vice-President/President-Elect and Directors for Regions 2, 4, and 6 will be held this summer. Start thinking of candidates for these positions.

While the business of keeping the internal workings of the Society on the move takes up much of the Board's activity, we are pleased with all of the hard work occurring in the regional groups. Many regional and local technicians continue to meet on a regular basis. We applaud your efforts and offer encouragement to keep on supporting one another.

Dear Editor:

I would like to address an important issue: state societies. State societies play a very important role in the ASATT organization. They generally hold monthly or quarterly meetings, seminars, workshops, and inservices in areas where technicians need further education. As we approach certification, continuing education credit will be required and this is where state societies will be of great benefit—helping to prepare a member. I wish it were possible for every ASATT member to attend our annual meeting, but not everyone has the support, time, or money.

Our world is very busy and fast paced. No one needs to tell that to an anesthesia technician. Hard work, long hours, and a commitment to the best possible care for the patient is what makes a good technician. "Why then, after exerting all my energy for 8-10 hours a day should I attend a state society meeting?" I asked myself this question about 2 years ago. Support is the main reason. At the meetings there are others just like me who know what I am saying. They can relate, they have been there. We all need to help each other.

I felt a need to write this letter to reach out to the technicians whom I have never met, to offer my support. A state society meeting takes a couple hours a month of your time. With a pot-luck dinner and an evening to vent your feelings, laugh, and know there are others out there wearing the same shoes.

It takes courage and hard work to form an association and make it work. From the contact that I have with some of you, I know that you have what it will take to succeed.

Power is in numbers! The ASATT needs you and your support. Feel free to call me anytime if I may be of help.

Sincerely,

Ann Martin
ASATT Regional Director #5
(303) 270-8275

P.S. Much of this letter was contributed by an anonymous anesthesia tech. I felt that it deserved to be shared since it speaks to all of us. My thanks to the author.



THE BOC GROUP

Essentials of Anesthesia Equipment for anesthesia equipment support personnel and end users

The Ohmeda Technical Training Center is a CEU User member of the International Association for Continuing Education and Training.

Upon successful completion of the course, students will receive 2.0 continuing education credits.

Course Objectives

After attending the Essentials of Anesthesia Equipment class, the attendees should gain:

- A better understanding of theory, pneumatics, design, operation of anesthesia machines, ventilators, and associated monitors.
- Hands-on experience performing preoperative checkout procedures to FDA recommendations.
- Familiarity with and understanding of technical terms for anesthesia equipment, troubleshooting, and applications.
- First level troubleshooting knowledge and skills through theory and hands-on experience.
- Knowledge of manufacturer recommendations for anesthesia equipment cleaning and sterilizing.

Benefits

- Small class size allows for individualized instruction.
- Increase your effectiveness as a communication link between the clinician and the service provider.
- A reduction in service calls to the maintenance provider saves the clinician time and the institution money.
- The attendee should gain a comprehensive understanding of the anesthesia delivery system through theory and hands-on experience.
- Reduction in equipment downtime.

1994 Class Schedule

- May 3-5, 1994 – Los Angeles, CA
- May 10-12, 1994 – Las Vegas, NV
- May 17-19, 1994 – Fresno, CA
- June 7-9, 1994 – San Francisco, CA
- June 15-17, 1994 – Portland, OR
- June 21-23, 1994 – Seattle, WA
- July 12-14, 1994 – Washington, DC
- July 19-21, 1994 – Dallas, TX
- July 26-28, 1994 – Kansas City, KA
- August 9-11, 1994 – Sioux City, IA
- August 16-18, 1994 – Minneapolis, MN
- August 24-26, 1994 – St. Louis, MO
- September 13-15, 1994 – Chicago, IL
- September 20-22, 1994 – Hawaii
- September 27-29, 1994 – Detroit, MI
- October 4-6, 1994 – Columbus, OH
- October 11-13, 1994 – Pittsburgh, PA
- October 26-28, 1994 – Boston, MA
- October 31 - November 2, 1994 – Boston, MA
- November 9-11, 1994 – New York, NY
- November 14-16, 1994 – New York, NY
- November 29 - December 1, 1994 – Philadelphia, PA
- December 6-8, 1994 – Washington, DC

If you have questions or need additional course information please call Tessa Gillham, Ohmeda Inc, Technical Training Center at 1-800-345-2700.

Advertising Rates for The Sensor

Effective 1 August 1993

Display Ads: Announcements of products, services, or educational programs relevant to the theory, maintenance, or application of anesthesia technology.

Rates: Display Advertising (camera-ready mechanicals, one-color process):

Half-Page Horizontal	7 1/2" wide x 4 3/4" deep:	\$200 per insertion.
Half-Page Vertical	3 1/2" wide x 9 1/2" deep:	\$200
Quarter Page	3 1/2" wide x 4 3/4" deep:	\$100

Corporate Member Discount: 25%

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

Width: 3 1/2", CG Times type, 12-point. Typeset by editors.

Rate: \$8/line, 5-line minimum

Active Member Discount: 25%

ASATT reserves the right to refuse advertising copy for any reason at any time.