

THE ASA M SENSOR

Volume 1, Number 3

July 1991

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

President's Message ...

by Dennis McMahon

In a recent inquiry to the Society mail box, an anesthesia technician who had just become aware of the ASATT enthusiastically requested membership information, and mentioned that she had often wondered if there was any association for our specialty. "At last," she added, "a sense of identity!" Her comment reinforces one of the roles of the ASATT, that of conducting a periodic appraisal of who we are in terms of population, training, duties, compensation, and reporting relationship in our workplaces. In this issue of the *Sensor*, Ricki Kallish presents the results of the survey of anesthesia technologists that she conducted earlier this year. While any survey has its statistical limitations, the report makes interesting reading terms of seeing where we stand within the specialty, and where we are going. Many thanks to Ricki for her time and energy on this survey; it's no fun crunching all that data. The ASATT will conduct a similar survey annually, in order to track our progress in terms of function and compensation.

A sense of identity for each of us is further reinforced in the ASATT Membership Reference, which all members should have received by now. It includes Society leadership information, a list of regional societies, related clinical anesthesia organizations, and the ASATT roster. We will revise the list each quarter to reflect our growing membership. Recent new members will be included in the newsletter. Additionally, within the next

six weeks we will be sending each member a synopsis of training guidelines and suggested reading for our specialty, based on the work of the Training & Education Committee and with the guidance of our liaisons with the ASA and the AANA. Your suggestions for the improvement of these documents are invited and encouraged.

Training and education are certainly the focus of our annual meeting, and the details are being finalized for our conference in San Francisco this October. The dates for the meeting have been revised to Sunday and Monday, the 27th and 28th, in order to give maximum opportunity for access to the concurrent ASA meeting and exhibit. This year for the first time, anesthesia technical personnel have the option of registering at the ASA meeting for a reduced fee (see Dr Litwiller's letter). Consider

attending this meeting; it's our annual opportunity to convene and celebrate our role in the support of anesthesia care.

Finally, all active members should have recently received a nomination form for the positions of ASATT president and vice-president. Although we appreciate the vote of confidence of those who have nominated us for a second term, John Spaulding and I have each chosen not to run for another term in these positions, so that we can serve the ASATT and our regional society in other roles. Our continued progress as an organization will depend on competent leadership, and the membership deserves officers who are committed to Society goals and who demonstrate organizational and communication skills. *When your ballot arrives in another month or so, consider carefully who you would like to have in these positions, and vote.* Exercise your sense of identity!

AANA RECOGNIZES THE ASATT

Curt Pudwill, CRNA, BA

Chairman, Council for Public Interest in Anesthesia

The Council for Public Interest in Anesthesia (CPIA) of the American Association of Nurse Anesthetists (AANA) is pleased to have participated in developing a formal relationship between the AANA and the ASATT. Late last year, the AANA authorized the Council to invite representatives of your organization to meet and explore mutual interests. Attending the meeting in January were

your president, Dennis McMahon, and Wes Simpson of the California Association of Anesthesia Technologists and Technicians. This meeting provided an opportunity for each of us to clarify our common goals and the means of realizing them.

As a result of the needs expressed by the representatives of the ASATT, and the AANA's desire to assist you in

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1990 ASATT OFFICERS:

President

Dennis McMahon
Virginia Mason Medical Center,
Seattle WA
206 223-6980

Vice President

John W. Spaulding
Virginia Mason Medical Center,
Seattle WA
206 223-6980

Secretary

Chris Patterson
San Jose Medical Center,
San Jose CA
408 977-4500

Treasurer

Lee Amorin
Harborview Medical Center,
Seattle WA
206 223-3055

1990-1991 REGIONAL DIRECTORS :

Region 1: ME,NH,VT,MA,RI,CT,NY,NJ

Alberto Gonzalez
St. Luke's Roosevelt Hospital,
New York NY
212 523-6139

Region 2: PA,MD,OH,IN,MI,VA,WV,DE

Ricki Kallish
Children's Hospital of
Philadelphia, PA
215 590-2798

Region 3: KY,TN,NC,SC,AL,GA,FL

David Tackett
Univ of Kentucky Hospital,
Lexington KY
606 233-5197

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715 387-7179

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206 223-3055

NEWSLETTER EDITOR:

L. Dianne Holley
1212 West 38th Street
Austin, TX 78705
512 323-1000 ext 4037

The View From... The Medical College and Hospital of Pennsylvania

by Jack Logan

The Medical College and Hospital of Pennsylvania is located in the East Falls Section of Philadelphia. We are a three hundred and fifty bed, Level I Trauma Center. The Anesthesia Department employs twelve MDs, ten CRNAs, six dental anesthesia residents and approximately thirty students enrolled in the Graduate Nurse Anesthetist Program. We also have four anesthesia technicians, a secretarial staff of five and at least five employed in the Research Section.

My official title is Manager, Perioperative Services, O.R./Anesthesia Support. As this indicates, not only am I responsible for the technical side of anesthesia, but also for the O.R. support personnel, of which there are ten assistant technical personnel. I oversee and prepare the operational budget for Anesthesia, as well as the day to day activities of the department. I also serve as Technical Director of the Anesthesia Acute Care Laboratory (STAT Lab) which is located within the O.R. We do the ABG's and electrolytes on all surgical patients, as well as Recovery Room and ICU patients. The STAT Lab is fully licensed by the State, as well as CAP-accredited.

Our anesthesia technicians are totally responsible for all anesthesia equipment. They prepare and set up for all cases, including A-line setups

and generally everything needed for any given procedure. Since two of our anesthesia technicians have their R.R.T. credentials, we are also involved in educational programs for both the residents and student nurse anesthetists in the areas of hemodynamics and respiratory care. We participate in respiratory care in the Recovery Room as well.

Being a teaching hospital, we have a variety of anesthesia equipment: Dragers, Spacelabs monitors and Datascope Multinex models are the most common here. The physical plant consists of nine O.R.'s, three L & D rooms, a good size workroom for the technicians and, of course, the lab. We do almost every kind of surgery here, including an active open heart program.

In general, MCP is an exciting place to work. My job is challenging and rewarding, although there are times I could walk out the front door and never turn back. I've been here since 1979 though, so it can't be too bad.

I'm excited about the future of the ASATT. We play a vital role in the O.R. and once we come together and develop a bond, we will certainly have a strong voice not only in the O.R., but also in the marketing and development of anesthesia products.

Employment Opportunity

DEACONESS MEDICAL CENTER,
BILLINGS, MONTANA

Anesthesia Tech II

Duties: Preparing anesthesia supplies and equipment, maintain and troubleshoot equipment, assist with various invasive techniques, monitor drug charges, participate in purchasing, QA, Policy & Procedure, and orientation of techs.

Minimum Qualifications: High school, some college, and at least 2 years experience in anesthesia technology. Prefer basic life support certification, medical terminology, membership in ASATT or regional tech society.

Inquiries: 1-800-325-1774, or send resume to:
Employment Coordinator M
P.O. Box 37000
Billings, MT 59107

Developing Ideas

by Norman Holst, Jr.,
Anesthesia Tech II

Children's Hospital of Philadelphia

Anesthesia technicians are an incorporation of numerous skills. They are part paramedic, electrical engineer, plumber, pharmacist, politician, and overall handyman.

This versatility gives technicians an advantage as an observer. Seeing operations both close up and from the sidelines gives the tech a varied view of O.R. procedures. Who better to approach as a sounding board for equipment improvements and research projects?

Our position gives us opportunities not afforded all careers: a chance to show our ingenuity and a chance to be a positive influence on our profession through our input. Improvements will not surface if ideas are hoarded or smothered by embarrassment. Remember your ideas may make a patient's hospitalization easier and help eliminate stress from the anesthesiologist's routine; both can only help our cause.

Discuss your ideas with supervisor and co-workers. Submit articles to the ASATT newsletter or that of your regional chapter. Develop the idea and have your reasons listed so questions can be answered immediately. Welcome both criticisms and supporting ideas; they can only strengthen the development of a project. Technicians should carry an idea log. A lost idea is good to no one. You never know when, at a meeting or conference, a spark may ignite a promising proposal.

Now is the time to start developing these habits. With the movement to upgrade our jobs and the push for education, many ideas will be flowing and we shouldn't miss out. Perhaps our newsletter should have an idea corner open to all for submission. All of these suggestions give the tech an outlet for ideas but nothing will come of them if the prime mover (the tech) does not support and promote his own ideas. Don't underestimate your importance to anesthesia. Your input is your future.

ASA ANNUAL MEETING INFORMATION AVAILABLE

Roger Litwiller, M.D.
ASA Liaison to ASATT

The annual meeting ASA meeting will be held in San Francisco, CA, October 26-30, 1991. The fact that the annual ASATT meeting will be held in San Francisco during that same time period gives anesthesia technologists and technicians an excellent opportunity to attend the annual ASA meeting.

This year, for the first time, anesthesia technologists and technicians may register at the ASA meeting. Registration information pertaining to the ASA annual meeting may be obtained by writing to the ASA executive office and requesting it. The address is:

American Society of Anesthesiologists
515 Busse Highway
Park Ridge, IL 60068-3189

The ASA hopes to see many of you at its annual meeting in San Francisco.

Attention

California, Oregon, Washington

Coming to a theater near you
in late August:

Anesthesia Tech

ASATT Member

currently playing for 79
straight weeks at Seton
Medical Center in Austin,
Texas.

For booking information call

(512) 964-2920

AANA RECOGNIZES THE ASATT *continued from page 1...*

achieving your objectives, we were given the charge of arranging another meeting. This conference in April brought together representatives of the anesthesia community including the AANA, the American Society of Anesthesiologists, the Society for Technology in Anesthesia, and the ASATT to discuss the evolving role of the anesthesia technologist, job descriptions, and credentialing. The spirit of enthusiasm and cooperation that the participants demonstrated at the meeting resulted in a very productive discussion.

The AANA recognizes the positive impact that anesthesia technologists and technicians make in the delivery of anesthesia services, and wishes to facilitate activities that will result in enhanced recognition, educational opportunities, and utilization. With this in mind, the AANA Board of Directors approved the following actions at its June meeting:

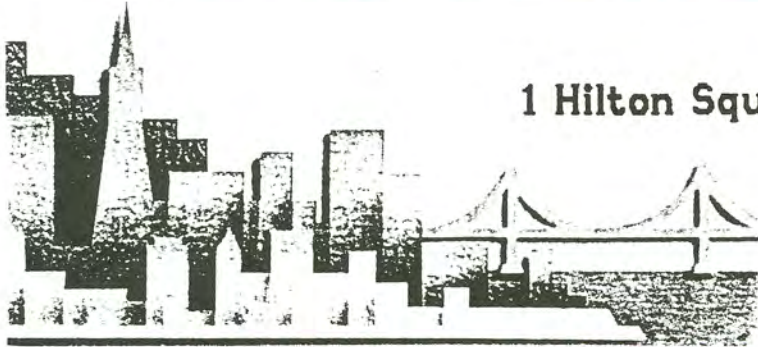
- 1) that the ASATT president be placed on the complimentary mailing list to receive the AANA News Bulletin and Journal;
- 2) that an offer be extended to the ASATT to forward articles of interest for inclusion in the Quality Assurance / Risk Management section of the News Bulletin or the AANA Journal; and
- 3) that the ASATT be invited to hold its annual meeting bi-annually at the site of the AANA annual meeting each August.

In recognition of the fiscal constraints of a newly forming organization, the CPIA has moved to offer the ASATT financial assistance to offset a portion of its annual meeting expenses. Again, as chairman of the CPIA, I would like to congratulate you on the progress your group has made and wish you continued success. We would be pleased to be of further assistance in the future should you desire it.

SECOND ANNUAL

A.S.A.T.T.

MEETING & EDUCATIONAL PROGRAM



San Francisco Hilton

1 Hilton Square

Mason & O'Farrell Streets

Cypress Room

SUNDAY & MONDAY, OCTOBER 27 & 28

SPEAKER TOPICS ON:

Current Technology & Standards

Anesthesia Mishaps

Anesthesia Technologist Development

Safety in the Workplace

REGISTRATION:

\$40. - ASATT Members

\$60. - non-ASATT Members

MEETING INFORMATION PHONE: 206-223-6980 (Leave name & number)

OPTIONAL ACCESS to the

AMERICAN SOCIETY OF ANESTHESIOLOGISTS

ANNUAL MEETING & EXHIBIT

October 27 - 30

TECHNICIAN REGISTRATION AT THE A.S.A. :

\$50 by pre-registration or at the ASA Registration Desk

FINAL PROGRAM TO BE SENT IN AUGUST

ASATT MEMBER ACCOMODATIONS:

A block of rooms has been set aside for ASATT meeting attendees at:

THE HANDLERY UNION SQUARE HOTEL, 351 Geary St

Single: \$85 Double: \$95 Cub Level: \$110

AND

VILLA FLORENCE, 225 Powell St

Single or Double: \$109

Both hotels are located within two blocks of the Hilton and the Moscone Center. Also ask about room sharing with other members.

ASATT MEETING AIRFARE:

A meeting airfare rate is available for ASATT members.

FOR RESERVATIONS OR INFORMATION, CALL DEBBIE McGINLEY AT:

800 875-2525

(FAX: 616 948-2507)



1991 ANESTHESIA TECHNICIAN SURVEY

Ricki Kallish

Chairman, ASATT Certification Committee

Here are the long-awaited results of the ASATT technician survey, from a mailing of over 800 questionnaires sent during the first quarter of this year. The data below represent a population of 206 nationwide returns. In each category, any responses left blank were factored out of the results for that category.

The profile of the typical technician that emerges is a person who:

- is a hospital employee.
- was trained on the job, but may have other training in addition.
- works in a department that has from 1 to 20 technicians.
- earns an annual salary anywhere from \$9000 to \$50,000. This range reflects a number of variables: job description, training, experience, and cost of living differentials between regions.
- assists the anesthesia provider with various aspects of patient care.
- is responsible for clean and stocked anesthetizing locations.
- is responsible for department supply levels (including drugs) from both internal and external sources.

SURVEY RESPONSES

WORKPLACE SETTING AND REPORTING

RELATIONSHIP:

Average:

HOW MANY ANESTHETIZING LOCATIONS DO YOU HAVE? 13

HOW MANY ANESTHETICS DOES YOUR DEPARTMENT DO ANNUALLY? 9053

HOW MANY TECHNICIANS DO YOU HAVE? 3.7

DERIVED NUMBER OF ANESTHETIZING LOCATIONS PER TECHNICIAN: 3.5

DERIVED NUMBER OF ANNUAL ANESTHETICS PER TECHNICIAN: 2447

HOW MANY LEVELS OF TECHNICIAN DO YOU HAVE? 1.4

WHO IS IN DIRECT CHARGE OF THE ANESTHESIA TECHNICIANS?

Director of Anesthesia	35.2%
CRNA	28.0%
OR Supervisor	26.6%
MD Supervisor	7.1%
Director of Surgery	2.8%
Other (includes: Techs & Engineers)	.5%

ARE YOU A HOSPITAL EMPLOYEE: 85.3%
or
ANESTHESIA GROUP EMPLOYEE: 12.04%

TRAINING & EDUCATION:

WHERE DID YOUR TECHNICIANS GET THEIR TRAINING?

On the job	99.4%
Military	7.4%
VA system	1.5%
Formal school	5.8%
Other	9.0% (manufacturer courses)

COLLEGE DEGREES OR CERTIFICATION YOUR TECHNICIANS HAVE: 44.7% of total

LPN	17.9%	AA	2.5%
BS	5.7%	EKG	2.5%
AAS	5.1%	PARAMD	1.9%
EMT	4.8%	IV THERAPIST	1.2%
OR TECH	4.4%	MS	1.2%
ACLS	4.4%	CAPB	1.2%
RN	4.4%	X-RAY TECH	.6%
RRT	3.8%	DENTAL TECH	.6%
BA	3.8%	BIOMED TECH	.6%
NA	3.2%	CCVT	.6%
BCLS	2.5%	P.A.%	.6%

DOES YOUR DEPARTMENT OR HOSPITAL PROVIDE IN-HOUSE TRAINING?

YES - 80.3%

DOES YOUR DEPARTMENT OR HOSPITAL PROVIDE FUNDS FOR EDUCATIONAL MEETINGS?

YES - 70.64%

COMPENSATION:

AVERAGE STARTING SALARY \$15,975/year
Range \$8,300 - \$30,000/year

AVERAGE MAXIMUM SALARY \$23,596/year
Range \$12,500 - \$50,000/year

TECHNICIAN DUTIES:

1. Cleaning machines and equipment	98.0%
2. Maintain stock levels in OR	7.5%
3. Prepare I.V.'s	7.7%
4. Assist with I.V. placement	71.1%
5. Perform I.V. placement	21.8%
6. Prepare pressure transducers	78.2%
7. Calibrate pressure transducers	68.6%
8. Assist in arterial line placement	72.6%
9. Perform arterial line placement	8.0%
10. Assist in CVP line placement	70.6%

11. Perform CVP line placement	3.4%
12. Assist in Swan-Ganz catheter placement	66.3%
13. Perform Swan-Ganz catheter placement	1.4%
14. Operate Cell Saver	18.4%
15. Operate ECMO	3.0%
16. Assist with intubation	68.6%
17. Perform intubation	8.1%
18. Assist with regional anesthesia	69.5%
19. Assist with pain clinic	46.4%
20. Mix or draw up drugs	52.0%
21. Perform administration of drugs	16.5%
22. Perform blood gas analysis	20.6%
23. Perform other lab studies	25.1%
24. Draw sample from arterial lines	47.2%
25. Order in-house supplies	95.9%
26. Order out-of-house supplies	85.9%
27. Meet with sales representatives	85.3%
28. Authorized to order new equipment	53.2%
29. Provide input for capital budget	60.1%
30. Order and store pharmaceuticals	80.3%
31. Control narcotics	31.3%
32. Maintenance of anesthesia machines	76.8%
33. Repairs to anesthesia machines	50.0%
34. Trouble-shoot monitoring equipment	83.9%
35. Repair monitoring equipment	35.1%
36. Prepare trays for sterilization	48.2%
37. Assist with fiberoptic intubations	70.3%
38. Care for fiberoptic scope	81.4%
39. Check patient charts	30.3%
40. Monitor and record vital signs	28.8%
41. Other duties reported:	

- Secretarial duties
- Schedule pain clinic patients
- Evaluation of products
- Assist with IABP insertion and operation
- Operate electromagnetic blood flow detector
- Operate internal and external defibrillator
- Operate pacemakers intra-op (inc. PC analyzer)
- Calibrate mass spectrometer
- Run errands
- Contribute to quality assurance
- Assist with cardioversions

Generally, differences in most of the survey categories are very small among the seven ASATT regions. The primary distinction is in the area of advanced training or certification: In the northeast and mid-Atlantic regions, more technicians have LPN, B.S., or A.A.S. degrees. The southern region has more A.A. degrees, followed by B.S. and LPN degrees or EMT and EKG certification. The mid-west and west show more B.S. degrees and technical certification (*i.e.* ACLS or CCVT). However, in all regions 50-60% of the technicians reported on-the-job training as their sole education for this specialty.

The ASATT plans to conduct future surveys to track the changes and progress in our field; for now I would like to thank all those technicians who helped us find out where we are today.

NEW MEMBERS

Welcome to the following new ASATT members, entered on the roster since April 1:

Lawrence Acuff Argyle, TX	Jerald Dunn Augusta, GA
John Armstrong Rochester, NY	Edward Dunn Penn del, PA
Susan Asai Honolulu, HI	Paul Faulpel Silver Spring, MD
Juanita Babcock Mt Clemens, NY	Carolyn Gates Endicott, NY
Phyllis Berg Roanoke, VA	Kathryn Griglak St Peterburg, FL
Valorie Bowman Cleona, PA	Marguerite Haaga New Haven, CT
Geoffrey Bright Gainesville, FL	Roberta Hall Augusta, GA
Paulette Brody Glenview, IL	Anthony Harding Houston, TX
Dorothy Brown Forestville, MD	Sharon Hignite Midland, MI
Leroy Brown Augusta, VA	Andre Hite St Louis, MO
Nancy Burgess Richmond, VA	Darlene Hutchins Manchester, CT
Paul Carney Woodlynne, NJ	Ken Hutton Rochester, NY
Joan Conner Joliet, IL	Kenneth Ingnoli, RCPT Wheaton, MD
Linda Cotton Bellevue, FL	Janice Jonas Glenview, IL
Maxine Cushman Augusta, GA	Cary Jones Chicago, IL
James Dadisman Forestville, MD	Charles Jones, Jr Ypsilanti, MI
Anne Davies Cleveland, OH	Gloria Jones Hephzibah, GA
Bernard C. DeLeo Chesterfield, MO	Taft R. Kelly, Sr Roanoke, VA
Bobby Dorsey Augusta, GA	Jenifer Kent Rochester, NY

MALIGNANT HYPERTHERMIA

*Alberto Gonzalez, Senior Anesthesia Technician,
St. Luke's/Roosevelt Hospital, New York*

In an earlier era of anesthesiology it would sometimes be said that "the operation was a success but the patient died". A routine surgical procedure would suddenly become a tragedy. How could a seemingly healthy individual undergoing surgery under commonly used anesthetic agents succumb to death?

There are many factors that can contribute to the death of an otherwise healthy patient. Over the past decade practitioners of anesthesia have become increasingly aware of one cause of this type of event, known as malignant hyperthermia or M.H. This event has probably occurred more frequently than we readily recognize. Death attributable to malignant hyperthermia is quite rapid and often unexpected. It is important that anesthesia technologists and technicians as well as other O.R. personnel be knowledgeable about the subject.

What is malignant hyperthermia? What are the signs that an M.H. incident has occurred so that technologists and technicians can support life-saving procedures for the patient? Is there a cure for this phenomenon? What are the treatments for M.H.? Can it be ascertained which patients are at risk for an incident? Because so much remains unknown about M.H., I shall address this subject using information from the Malignant Hyperthermia Association of the United States, or MHAUS (P.O. Box 191, Westport, CT 06881-0191. Phone:(203) 655-3007). It is the only association in the United States dedicated to the research, education, and management of M.H. The American Society of Anesthesiologists published a Technical Bulletin for the management of M.H. in November of 1982, and the American Association of Nurse Anesthetists issued a Position Statement on M.H. in April of 1987.

According to MHAUS and other sources, malignant hyperthermia, believed to be inherited from a blood relative, is caused by a defective gene. M.H. is a metabolic response to commonly used anesthetic agents or muscle relaxants. Researchers believe that when an M.H.-susceptible patient receives an anesthetic or a muscle relaxant drug (especially succinylcholine), abnormally high levels of calcium ion are released within the muscle cell. This leads to an uncontrolled increase in body metabolism, resulting in increased CO₂ production, elevated body temperature and unstable blood pressure. The skeletal muscles contract and become rigid. If left untreated, the result is brain damage, cardiovascular failure, and death. While the most dramatic symptom of this process is highly elevated body temperature, the first significant indication is an elevation in end-tidal CO₂ that cannot be explained by respiratory function.

Currently, there is no known cure for malignant hyperthermia. When anticipating an anesthetic for an M.H.-susceptible patient, experts recommend that the soda lime, circuit, and bag be replaced and the anesthesia machine be flushed with oxygen for at least ten minutes. (Some feel that an anesthesia machine should be available that has never been used for anesthetic agents.) The older rubber-based circuits especially absorb anesthetic agents. During an M.H. incident, we can only treat the symptoms as they occur, such as cooling the feverish patient and use of the antidote drug dantrolene sodium (Dantrium). MHAUS recommends that a large, written treatment plan be posted in a conspicuous place so that anesthesia and operating room personnel can respond knowledgeably to an M.H. incident. In its literature, MHAUS recommends that anesthesia personnel should have available the following supplies in locations where general anesthesia is administered:

1. Monitors to measure body temperature and oxygen saturation level.
2. A hypothermia blanket, a machine to manufacture ice, and a refrigerator to store at least 3000 ml of cold solution.
3. A cart with the following:
 - A. DRUGS
 1. dantrolene sodium IV, 36 ampules
 2. 2000 ml distilled water, sterile, to reconstitute dantrolene
 3. 500 ml sodium bicarbonate 5%
 4. 20% mannitol 500 ml x 2 (or ten 50 ml vials)
 5. procainamide 1 gm amp in 10 ml x 6
 6. Solu-Cortef 250 mg vials x 10 (or equivalent)
 7. furosemide 4 ml x 2 (40 mg/amp)
 8. 50% glucose, 50 ml x 2
 9. regular insulin, 50 units/ml x 1 (refrigerated)
 10. heparin, 1000 units/ml x 3
 - B. COOLING EQUIPMENT
 1. 50 ml syringe x 2
 2. nasogastric tube x 2
 3. large clear plastic bags for ice
 4. bucket for ice

Malignant Hyperthermia *continued...*

- C. EQUIPMENT
1. blood pump x 2
 2. cvp line set x 3
 3. urinary 3-way Foley catheter (several sizes)
 4. urimeter x 2
 5. mini spike IV additive pins, to facilitate mixing dantrolene, or multi ad transfer sets
 6. fresh anesthesia breathing circuits
- D. TUBES FOR LABORATORY TESTS
1. red stopper for six repeat CPK, LDH, Na, K, Cl, Ca, Mg, and myoglobin determinations
 2. heparinized 5 ml blood gas syringes x 6
 3. coagulation study tubes for PT, PTT, ACT, and fibrin-split product
 4. urine specimen containers to measure myoglobin
 5. urine dip stick

New Members *continued...*

Suzanne La Bon Hesperia, CA	Agnes Orth Overland Park, KS	Judith Thompson, RN Grand Rapids, MI
Tim Lewis Dunwoody, GA	Claudino Ortiz, Jr Cleveland, OH	Yvonne Tinsley Roanoke, VA
Bertie Luscher San Jose, CA	Arunkumar Ribadia Northvale, NJ	Jose Luis Torres Kansas City, MO
Mark Mango LaPlata, MD	Tony Ross Roanoke, VA	Univ of North Carolina, Dept of Anesthesiology Chapel Hill, NC
James Mappus Timonium, MD	David Rutland Macon, GA	Gail Upton Huntington Beach, CA
Edmund Marrujo Los Angeles, CA	Ian Schriefels Vancouver, B.C., Canada	Karen VanZweden Grand Rapids, MI
Lisa Martin Bairdford, PA	Diana Scott Bradford, PA	Roland Vinson, Jr Philadelphia, PA
Susan McGeary Tyrone, Pa	Linda Smith Concord, OH	Faith Weakley No Redington Beach, FL
Donald Milliron North Olmsted, OH	Larry Smith Houston, TX	Constance Williams Lebanon, PA
Thomas Neuzerling Milwaukee, WI	Florence Snead Roanoke, VA	Brookie Wood Garner, NC
Ruth Ann Nicholas Honolulu, HI	Barbara Stewart Roanoke, VA	Vivian Wyatt Roanoke, VA
Glenn Nishida Honolulu, HI	Arnold Taylor Roanoke, VA	Edmund Yodlowski, MD Augusta, GA
Edward Oberg St Paul, MN	Clifford Thomas Houston, TX	

If anesthesia personnel follow these recommendations, there should be far less danger to an M.H.-susceptible patient undergoing surgery. During surgery and in the recovery room for at least twenty-four hours, the patient should be continuously monitored, including monitoring the level of carbon dioxide and temperature.

With M.H. as with other diseases, the best treatment is prevention. It is difficult to diagnose an M.H.-susceptible patient. However, there are some steps that can decrease the possibility of an M.H. episode. During the preoperative visit by the anesthesiologist or anesthetist, a patient should be carefully screened for a family history of anesthesia complications or deaths. Anyone whose family has exhibited a variety of muscular disorders such as multiple sclerosis is also at risk. As M.H. is an inherited disorder, that patient as well as all blood relatives may be M.H.-susceptible. Unfortunately, many individuals may be unaware of their vulnerability until an anesthetic agent or drug triggers an M.H. crisis.

Presently, there is no noninvasive test for diagnosing a predisposition to M.H. The only accepted method available is the Halothane Caffeine Contracture Test. In this procedure, a biopsy of the skeletal muscle is taken from the thigh. Halothane and caffeine are exposed to the muscle in an attempt to simulate a muscular response such as occurs in an M.H. episode. Although this method is acceptable, its accuracy is questionable. Whatever defective gene causes M.H. in one family may not be the one to cause M.H. in another family.

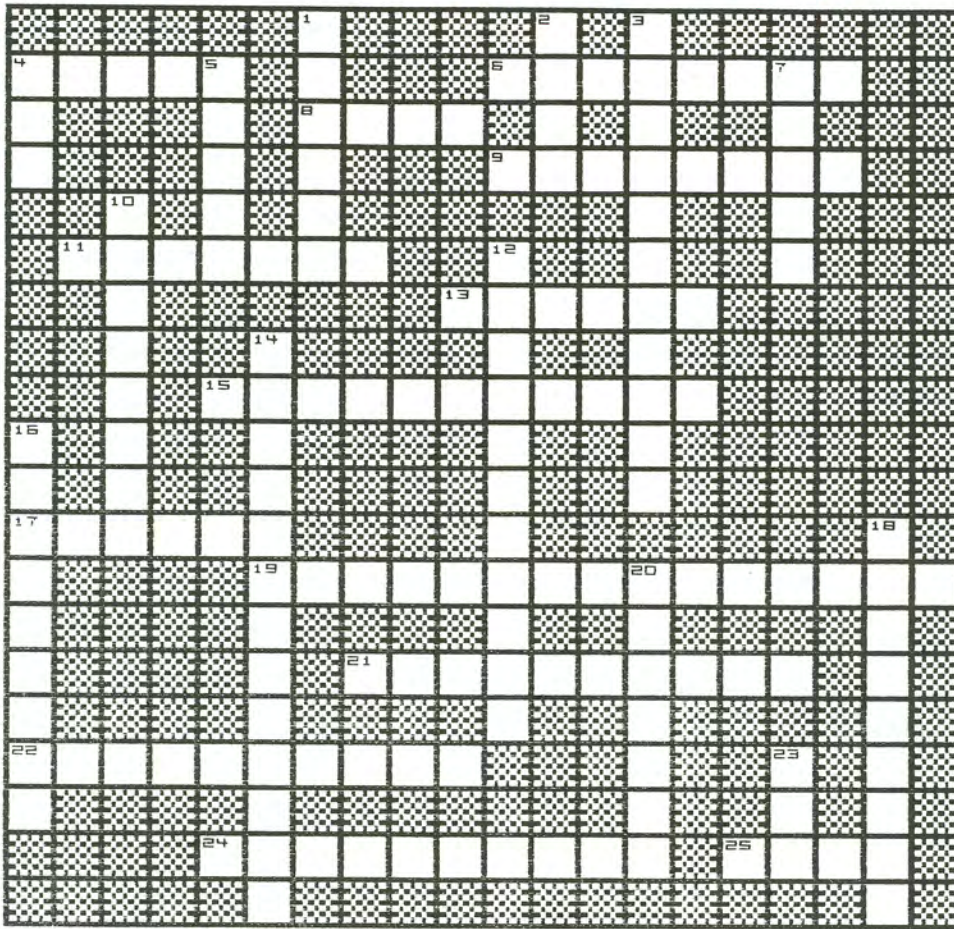
It is important that anesthesia technicians and technologists undergo periodic training in order to become familiar with the symptoms of and treatment for malignant hyperthermia. Until there is a cure for M.H. or a more reliable test for diagnosing M.H.-susceptible individuals, informed and prepared anesthesia technical personnel can contribute valuable support to decrease the morbidity and mortality rate from this disease.



Answers to previous puzzle:

REFLEX
E
DIAGNOSTIC ALCOHOL
CT U NH
U A O T A R O
P N H DORSAL O P
U Y Y I G N I
N L T G REGIONAL
C H G S C T
T R E I E
U ELECTRICAL S
R M L S C
EPINEPHRINE SALINE
G C O P N
FEVER T L SCIATIC
E A R D D E E
T I O U NERVES
A N D R S K
L RECEPTOR A I
S LIDOCAINE

ANSWERS



ACROSS

4. Untreated Malignant Hyperthermia can lead to _____.
6. The _____ on an anesthesia machine should be changed prior to use on a possible MH patient.
8. A safe non-rebreathing circuit for MH.
9. An analysis to confirm an MH event.
11. A patient's family _____ can warn of possible MH.
13. The Halothane-Caffeine Contracture test requires a muscle _____.
15. An initial sign of MH is increased _____.
17. An anesthesia machine should be flushed with _____ before use on an MH patient.
19. A muscle relaxant that can cause MH.
21. A drug specifically used to treat MH.
22. An anesthetic agent that can cause MH (generic name).
24. The symptoms of MH are a result of increased _____.
25. MH is caused by a defective _____.

DOWN

1. Circuits made of _____ absorb anesthetic agents.
2. Part of the treatment of MH is to _____ the patient.
3. Tube needed for gastric lavage.
4. MH patients need monitoring for at least one _____ post-op.
5. One symptom of MH is increased _____ rate.
7. An association devoted to MH.
10. Another symptom of MH is muscle _____.
12. An important drug used in treating MH.
14. Dantrium needs to be _____ with water.
16. _____ in the urine is a sign of MH.
18. The first observed sign of MH is usually _____ CO2 production.
20. Ion closely associated with the cause of MH.
23. Substance used to cool MH patients.

References:

- 1) ASA Refresher Courses in Anesthesiology, Vol 17, Chapter 9, 1989
- 2) Malignant Hyperthermia Association of the United States



In Cleveland; from left, Judy Oskowski and Wilma Frisco

REGIONAL SOCIETY ACTIVITIES *Let us know what's happening in your area!*

Send a brief report of recent and future activities to the editor by September 13, 1991.

Photos (black & white, 3x5, captioned on back) are also welcome.

California -

The *California Association of Anesthesia Technologists and Technicians* held their Seventh Annual Meeting at the Anaheim Marriot Hotel on May 17-19. The educational program focused on trauma and fluid management, the difficult airway, infection control, and anesthetic risks involved with posterior fossa surgery. The three day meeting was attended by nurses and technicians from across the country.

Officers for the 1991-1992 year were also introduced. They are: Wes Simpson II, President; Janis Malatesta, Vice-president; and Ron Turner, Secretary-Treasurer.

Plans for the Eighth Annual Meeting are already underway. It will be at the convention center in the beautiful coastal town of Monterey, California. For further information: Wes Simpson at 619-541-3453.

Florida -

The *Florida Society of Anesthesia Technicians* has a full-day seminar planned for Saturday and Sunday, July 27-28, at the Las Palmas Hotel in Orlando. Topics will include pulse oximetry, propofol, malignant hyperthermia, trouble-shooting equipment, and others. There will be a business meeting and election of officers, as well as vendor exhibits.

For further information: Ed Vasquez at 407-897-1529 (work), or 407-823-7687 (home).

New York -

The *New York State Anesthesia Technology Association* meets monthly in the Rochester area, with topics on anesthesia technology.

For further information: John Armstrong at 716-275-5545 or George Mann at 315-464-4640.

Ohio -

On Saturday, April 27, the Ohio Society of Anesthesia Technicians & Technologists held a seminar/workshop at the Ramada Inn in Euclid, Ohio (suburb of Cleveland).

The theme for the workshop was "The Anesthesia Technician in the Workplace". Those in attendance were from Wisconsin, Massachusetts, Pennsylvania, and New York, as well as Ohio.

The speakers were anesthesiologists, nurse-anesthetists, biomedical electronics technicians, an infection control nurse, a central supply supervisor, and anesthesia technicians. George Mann of the New State tech society and Ricki Kallish, ASATT Regional Director #2, gave reports from their area societies, as well as the results of the anesthesia tech survey. Tremendous enthusiasm was displayed throughout the daily activities. The session provided educational, professional, technical, and social benefits. Several major and local companies were represented.

The OSATT is committed to share in the pursuits of the ASATT; many thanks are extended to the ASATT leadership for their endorsement and encouragement.

For further information: Wilma Frisco at 216-541-5710.

Texas -

The *Texas Society of Anesthesia Technology* is preparing for their first annual statewide meeting in Galveston, September 6, 1991, in conjunction with the Texas Society of Anesthesiologists

meeting. A regional seminar was held in San Antonio on May 18, 1991, at Wilford Hall Medical Center by the San Antonio Society of Anesthesia Technology, a new chapter of TSAT. For further information regarding SASAT, contact Raul Sanchez at 512-670-5559.

For further information regarding TSAT, contact Dianne Holley at 512-451-7457.

Washington

A full-day seminar on anesthesia technology is planned by the *Northwest Society of Anesthesia Technology* for Saturday, July 27th, at the Four Seasons Olympic Hotel in Seattle. Topics will include invasive and non-invasive blood pressure monitoring, management of blood products, advances in pain therapy, monitoring of airway gases, and troubleshooting of anesthesia machines.

For further information: Lee Amorin at 206-223-3059.

Wisconsin -

By or in September, the first regional meeting of the *Great Lakes Society of Anesthesia Technology* will be held in Marshfield, to include organizational planning and educational presentations. For further information: Dean Rux at 715-387-7179.



Officers of the San Antonio Chapter of TSAT; from left, Raul Esquivel, Maria Uriega, Raul Sanchez, Nick Louis

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