
Perfusion/AMSECT, Past-Present-Future

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Looking back, the field of perfusion technology grew mainly out of need and AMSECT evolved out of both need and a desire to improve the status quo. In the late '30s and early '40s, the early years of cardiac surgery, the technology of extra-corporeal circulation as known today, was nonexistent. Surgical procedures were relatively simple by today's standards and the need for pulmonary and circulatory support was not paramount. This was all to change.

As surgeons became more aggressive and inquisitive, there evolved a need to support the patient's circulatory and pulmonary functions. At that time, the physician himself generally designed and developed the equipment. Since it was not logistically possible for the physician to operate the equipment and conduct the surgical procedure at the same time, someone close to him generally assisted in the operation of this new apparatus. Thus, the field of extra-corporeal perfusion had its beginning.

Such was the case with Dr. John Gibbon and his wife Mary Gibbon, two of the pioneers in cardiac surgery and extra-corporeal circulation. In fact, Mary Gibbon has since been recognized by AMSECT as being the first perfusionist in the history of extra-corporeal circulation. Mary Gibbon Thompson, now remarried, has become a very dear friend of AMSECT and blesses us each year at our annual convention by presenting the Gibbon Award to a physician who has made extraordinary contributions to the field of cardiovascular surgery and perfusion technology. Mary frequently reminisces about how she and Dr. Gibbon began and the experiences they shared, especially things and events that still stand out in her mind.

For the most part, the operators of this new life-support equipment were resident cardiac surgeons or fellows. As the number of surgeons willing to accept

such surgical challenges increased and diagnostic techniques improved, it became necessary that others become involved in the new and exciting world of cardiopulmonary support or extra-corporeal circulation—the science of taking blood outside the body in an attempt to artificially perform a body function. During these mid-years in the evolution of cardiopulmonary bypass, the mid to late 1950s, technically oriented people were recruited from many ranks—the dog lab, engineers, in-house gadgeteers, etc.

In the early and mid 1960s, there seemed to be a number of young cardiac surgeons entering the field eager to set up their own programs and establish their names in the world of cardiac surgery. Instantly there was a problem—too few skilled personnel knowledgeable in the operation of the bypass equipment. Almost nationwide, there was a search for medically and scientifically oriented people who could rapidly be trained in the basics of cardiopulmonary physiology and the operation of the heart-lung machine, or extra-corporeal bypass equipment as it is now more commonly referred to. People were sought from all corridors—college and university students, nurses, engineers, and military corpsmen to name a few. This was the beginning of the era of extra-corporeal perfusion as we know it today.

Around January 1964, a group of pump technicians, as they were then called, from Minnesota, Wisconsin, and Illinois, began regular communications with one another, sharing problems, experiences, and ideas. This exchange was probably precipitated by the fact that most of them had trained, in some part, at the University of Minnesota. The value of meeting in person to discuss these concerns and ideas were expressed many times, even as early as 1961. Regular meetings became a reality primarily through the efforts of two people, Mr. Richard Jensen and Mr. James Wade. At that time, Jim was chief pump technician at the University of Minnesota and Dick, who had just left the University of Minnesota with a young cardiac surgeon by the name of Dr. Richard DeWall, was at Mt. Sinai

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Hospital in Chicago. Dr. DeWall himself, was said to have been a perfusionist or pump technician at one time for Dr. C. Walton Lillehei, then Chief of Cardiac Surgery at the University of Minnesota. I am certain it was Dr. DeWall's appreciation for the technology that prompted the first meeting of interested extra-corporeal technicians to be held at his hospital.

In April 1964, a small group of extra-corporeal technicians from a five state area met in the Sol Fox Lounge of Mt. Sinai Hospital in Chicago. Films on cardiac research were shown, followed by discussion of these and other topics related to pump technology and cardiac surgery. All who attended thought this type of exchange was beneficial and were enthusiastic about regularly scheduled meetings. It was felt these meetings should be held under the guise of some type of organization and thus the title, *American Association of Pump Oxygenator Technicians* arose with the stated objective to: "Organize the members in study efforts to advance skills and to improve techniques of heart-lung machine operators and other perfusionists. It is not to be a union type of organization."

Hastily, an attempt was made to formulate an all-inclusive nationwide list of people actively engaged in the operation of heart-lung equipment, both clinical and research, since many practiced in both areas. During that summer, another meeting was held to consolidate ideas and begin formulating a constitution. At that time the name of the organization was changed to the *American Society of Extra-Corporeal Circulation Technicians*, to accommodate those involved in dialysis as well. Many pump oxygenator technicians also operated the dialysis equipment since it required handling the patient's blood in the extra-corporeal circuit. This also had the potential of greater numbers of people interested in such a professional organization. It was decided the word "technician," as used in the official name of the organization, would remain until such time as all active members qualified as technologists. Interested physicians and nurses, as well as all medical and surgical manufacturer representatives, were to be invited to future meetings. A meeting was held in October at which time officers were elected, organizational objectives discussed, and a constitution proposed.

The records are rather sketchy until 1966 which retrospectively exemplifies the manner in which the newly formed organization was operated. I feel I can criticize since I was part of it. We had the highest of intentions, but little knowledge in professional orga-

nizational management. Unfortunately, we continued to try on our own without consulting others who had been there before. We also felt we were committed to self-management since our financial status was weak and quite dependent on outside support, basically that of manufacturing.

One fact was as certain then as it is today—the purpose of the organization was for the exchange of ideas and dissemination of information. Major goals then were:

- Development of a system of certification in order to engender a uniformity of experience among technicians;
- Development of an educational program in which a society journal is vital;
- Stimulation of personal research and compiling experiences of individual technicians.

For such an infant organization whose membership came from such diverse backgrounds, this was a monumental undertaking.

The organization was beginning to grow. At the October 1964 meeting, 85 technicians were registered, in 1965 there were 100 registered and by 1966 there was a directory of almost 300 technicians. Membership at that time was open to anyone working in the field of extra-corporeal circulation; heart-lung machine technicians, artificial kidney technicians, regional perfusion technicians, and others concerned with the movement and treatment of blood in an extra-corporeal circuit. Membership criteria was intentionally broad at this time because of the need for members and educational input.

1966 featured the first publication of a journal under the direction of AMSECT's Publicity Committee Chairman, Mr. Edward C. Berger, who was to become deeply involved and instrumental in AMSECT's future development. The Journal, a 60-page publication, was well done containing both scientific and informational material, as well as the proceedings of the national meeting. This first journal included a message from the newly elected President, Mr. James B. Wade, exemplifying the general feeling of those actively involved in the development of AMSECT as a professional organization: "The society now numbers over 100 voting members and 250 associate members. This number will more than triple by 1967 because the progressive Atlantic Northeastern and Southern Pacific Sections have promised a membership drive that will not stop until 1,000 voting members honor our membership rolls."

Prior to this, the only official communication was a quarterly AMSECT newsletter. These were basically the only communication links for circulation technicians throughout the United States, Canada and the rest of the world. I mention rest of the world, since there were now members in Israel, as well as the United States and Canada.

Corporately, the young organization was also on the move. It was now governed by a president, four vice-presidents, secretary, treasurer, and eleven regional chairmen selected from nine regions. The United States was divided into nine regions, plus Canada. In 1968, the society was incorporated in the State of Minnesota as a not-for-profit educational organization. Interestingly, the name was then changed from the *American Society of Extra-Corporeal Circulation Technicians* to the *American Society of Extra-Corporeal Technology* (AMSECT) as we know it today. With incorporation, of course, came new obligations—drafting of a constitution and bylaws under which the society was to function, internal revenue, etc.

Mr. James Wade was still at the helm serving his second two-year term. The Journal was now published every three months and the Newsletter was published bimonthly, sometimes. The Newsletter received less emphasis since many news items were included in the Journal at that time. The annual conventions were rapidly becoming an international attraction. Mr. Wade's 1968 presidential message re-emphasized the purposes for which AMSECT existed:

"First, to unite in one organization, with the help of affiliate chapters in this country and around the world, all persons who practice or are interested in extra-corporeal technology. Second, to provide information and professional service to the members in the interest of an expanded and improved technology. Third, to assume and maintain active leadership in promoting the art of the technology; maximum standards of practice for all, members and non-members, concerned with the technology; and the acceptance by the medical professional and general public of standards for the technology devoted exclusively to the best interest of patients in the art of medicine."

There became an increasing awareness of the need to accumulate knowledge relating to the technology and disseminate it to all. Several ways to accomplish this were considered—local and regional meetings of interested individuals and informed sources from that

area; national meetings featuring distinguished speakers from around the nation, which could only be attended by relatively few; improved contact with individuals, professions, institutions, etc., related to the technology; provide journals, newsletters and other informational media in addition to the meetings; development of basic training program curricula as well as continuing education programs.

At the time, there was also an awareness of the need to look to the future:

How many adequately trained technologists would be needed?

What changes were in store for renal dialysis regarding chronic hospitalization and home dialysis, kidney transplantation and the shift in numbers and types of personnel that may occur?

What educational background is necessary?

What levels of knowledge and capability to shoulder responsibilities can be considered minimal?

Must practitioners of the technology be doctors, nurses, degree-holding technologists, specially trained technicians or what?

Already in 1968 there was an awareness of the need for many things which AMSECT is attempting to address today, more than a decade later.

In 1969 AMSECT's areas of interest expanded beyond membership and information to include liaison, certification and education. Liaison was needed to "affect a functional dialogue with other professional medical organizations, the educational community and the general public." Regarding certification and education, there was a need to "identify and establish, in conjunction with other professional medical organizations and the educational community, basic minimum standards of practice and develop curricula to meet the rising demand for practitioners of the technology." This was to be no easy task. Only now, some 12 years later, are we expecting to achieve this very goal.

At the '69 National Meeting in Detroit, Michigan, the corporate body formally approved the adoption of the Bylaws to the Articles of Incorporation. Edward C. Berger was elected president. Numerous resolutions were passed. Of key interest were:

That AMSECT make application for a federal grant to conduct a feasibility study entitled "Emerging

Occupation In Extra-Corporeal Technology—A Study Of Training Needs.”

That the society appoint an experienced technical/trained educator as an educational consultant to the society in matters concerning our educational program.

That the office of secretary and the office of treasurer be combined and the resultant office be filled by an individual in near proximity to the National Office.

That the Board of Directors consist of the six national officers and nine additional directors, three to be elected each year with not more than two directors from the same region serving at the same time.

That local chapters be chartered in order to stimulate interest and participation in AMSECT and improve the lines of communication between the National Organization and the individual member.

That the position of journal editor be considered a permanent appointment subject to resignation or removal by two-thirds vote of the Board.

In 1970 AMSECT established a National Office in St. Paul, Minnesota, basically to satisfy the corporate laws of Minnesota. At the 1970 National Convention, Ms. Katherine Hargesheimer was elected President. She re-emphasized the need for member participation and communication. Resolutions passed were:

AMSECT join the American Hospital Association as an associate member in the non-profit category.

Financial assistance to regional and chapter organizations be extended to help offset basic expenses concerned with postage, mailing, and newsletter production on the local level.

The number of regions denoting the geographic distribution of the membership of the society be increased from nine to eleven.

That these boundaries be dependent on delineation by postal zip code rather than hard fast state and/or geographical line.

Functional delineation of regional boundaries was no easier then than it is today. The need for specialized services are more closely tied with population than with zip codes. A Code of Ethical Conduct was offered for consideration. The Code was intended to aid technologists in the maintenance of a high level of professional

and personal ethics. Two major projects for the year were:

Further development of the lines of communication with other medical societies with an expanded liaison program.

Development of protocol for certification and education.

The National Convention also featured a Refresher Course in Basic Science which was attended by 88 persons. This was really the beginning of our Continuing Education portion of the convention as we know it today.

By 1971, AMSECT had grown beyond the ability of well meaning self-management. Time demands on elected officers was tremendous. An attempt was made to contractually manage a National Office for the society by a perfusionist member of AMSECT with a managerial and business background, since this was all we thought we could afford. For the first time, the Annual Convention was planned and managed by a professional convention manager.

It was at this time that a group of technologists from both teaching and nonteaching institutions were developing a certification exam in both the perfusion and dialysis disciplines. Each person submitted 50 questions with references in four categories—anatomy and pathology, physiology, pharmacology, and perfusion technology. The questions were screened for duplication and validity. AMSECT was very fortunate that the chairman of this committee, Mr. James P. Dearing, Director of the Ohio State Circulation Technology Program, later came to know a young man at Ohio State who was interested in such a project for his thesis work and had access to a computer. The goal was to have 50 questions in each of the four categories.

The design of the eventual exam was to be a true or false and multiple-choice format for ease of grading. Upon compilation and validation of the test questions, it was sent to all committee members for their response, as well as that of their surgeons. Apparently, in our enthusiasm to produce a very comprehensive exam, we were a bit over zealous. Many of the physicians felt they would have had difficulty passing the exam in its original state. Admittedly, some of the questions were difficult or unnecessarily confusing, primarily due to the wording. The questions were then reworked and revalidated. The goal was to have the exam ready for testing under the “Grandfather Clause” by the 1972 convention.

In 1972 the newly formulated AMSECT exam was tested in both perfusion and dialysis disciplines at the annual meeting held in the Grand Ballroom of the Waldorf Astoria Hotel in New York City. The exam was administered to "grandfathers" only, in an effort to find the background knowledge of those already practicing in the field. Criteria for grandfathering was: "minimum of two years clinical experience and 100 cases, verified by a letter from their surgeon." Following the grading of the exam, the test questions were analyzed to see if each question really asked what we wanted it to.

In 1973 at the National Convention in Los Angeles, a Basic Review Course was presented to those "grandfathers" taking the exam. This was done not only for educational purposes, but also to see if the test scores would be significantly different from those tested previously. There seemed to be little significant difference. Overall, the results reinforced our feeling regarding the minimum knowledge base for a practicing clinical technologist. The task then was to rework the exam so the questions were not the same, but to assure the same knowledge base was being tested. These questions were then analyzed and validated. A good question bank proved to be of great value. Each exam had a percentage of new questions to be analyzed for their validity. The results of these questions did not affect the examinee's grade.

AMSECT was now in a very exciting developmental phase of its growth process. Mr. Charles C. Reed, a dynamic, aggressive, doer-type individual, was President and things were beginning to happen for AMSECT and the world of perfusion technology. The dream of a certification process was realized. At that time AMSECT was working with its fourth management firm and already talking to the fifth. A liaison had been established with two physician groups—the American Association for Thoracic Surgery (AATS) and the Society of Thoracic Surgeons (STS), with hopes of eliciting their support.

In 1974 at the Annual Convention in Dallas, several new awards were established. The John H. Gibbon and the AMSECT Nephrology awards were presented to physicians who had made outstanding contributions in the field of cardiopulmonary and renal dialysis, respectively. Four technologists' awards were presented as well—the Polystan, Travenol, Perfusionist of the Year and Presidential awards. A system for AMSECT National to provide financial support to needy regions was formulated and approved. Expansion in the area

of Continuing Education was explored—audio-digest tape programs, special interest symposiums, articles of interest in the Newsletter and a Continuing Education section in the Journal. It was announced that in 1975 the AMSECT Journal would appear in the Index Medicus and Current Contents. A bylaws revision was presented for consideration that proposed a total change of AMSECT's corporate structure—terms of office, Executive Committee and Board makeup, etc.

The certification exam was given for the first time on a pass/fail basis as well as given to "grandfathers" at the '74 convention. At the same time a newly formulated Recertification Program was presented and adopted. This was the next logical step to ensure that certification retain its meaning and significance. It also kept pace with other medical societies for the continued assurance of competency of those certified. A program was designed to ensure minimum activity in the field of perfusion technology and ensure that the average perfusionist could meet the standards. The program was set up on a three-year period to take into account those perfusionists who had to alternate attendance at AMSECT and other medical meetings.

"74" Recertification Program

1. Each certified member shall file a report of his professional activities with the National Office on an annual basis.
2. Each certified member must acquire 150 points in each three year time period. If the necessary points are acquired within the specified time, recertification is automatic.
3. Each certified member must have primary responsibility for a minimum of twelve clinical perfusions per year.
4. A certified member will lose his certification if he/she:
 - a. Falsifies the annual report.
 - b. Does not have primary responsibility of twelve clinicals per year.
 - c. Does not acquire 150 points in a three year time period.
 - d. Is not actively engaged in perfusion technology for twelve consecutive months.
5. A perfusionist who has lost certification due to no. 4b or no. 4d may gain recertification by becoming actively engaged in perfusion technology and submitting a report of his/her clinical cases after a period of six months.

6. A method of appeal will be available for members losing or being in danger of losing their certification status.

“74” Recertification Every Three Years
150 points/3 Years

<i>Points per Activity</i>		<i>Maximum Number of Points per Activity in 3 Years</i>
20	Attendance at an international AMSECT meeting	60
10	Attendance at a regional or local AMSECT meeting	60
15	Attendance at a national medical meeting	45
10	Attendance at a state medical meeting	20
5	Attendance at a local (county or city) medical meeting	15
1/2	Attendance at a hospital medical conference or seminar	10
20	Publication of a scientific paper in the AMSECT journal	60
20	Publication of a scientific paper in a national medical journal	60
5	Presentation of a scientific exhibit at a national medical meeting	10
15	Presentation of a talk at a national AMSECT meeting	45
15	Presentation of a talk at a national medical meeting	45
10	Presentation of a talk at a regional AMSECT meeting	30
10	Presentation of a talk at a state or local medical meeting, hospital medical conference or seminar	30
1 or 12/yr.	Audio-Digest	36
1 or 12/yr.	Scientific Journal	36

2 per course	In-service training or college filed degree plan or relevant course	No limit
1/2 per case	Actively engaged in perfusion; minimum of 12 clinical cases per year	24
To be arranged	Original scientific research	
To be arranged	Special credit	

Minimum standards for Cardiovascular Training Programs were presented and approved. AMSECT was now working with their fifth professional management firm which I referred to earlier. It appeared as though management firms were becoming disposable, somewhat similar to much of the materials we daily use. The American Board of Cardiovascular Perfusion (ABCP) was established to assume primary responsibility for certification and recertification. Although it was appropriate for AMSECT to begin these processes, once they were developed it was felt these duties should be removed to a separate autonomous organization. Also, AMSECT, as a professional organization for the dissemination of scientific information, should not be a certifying organization. AMSECT, in conjunction with the American Association of Nephrology Nurses and Technicians (AANNT), established a National Board of Nephrology which was to function for dialysis personnel in a similar manner as the American Board of Cardiovascular Perfusion for perfusionists. There was a dream of these two boards, along with other clinical specialty boards, establishing a “Super Board,” yet unnamed, to be the overall certifying authority for extra-corporeal technology. The “Super Board” was never established and the National Nephrology Board, per se, was short lived. There were numerous logistical problems that existed between AMSECT as a representative of the nephrology technicians, and the nurse nephrology people of AANNT.

1975 was a year of evolutionary change for AMSECT. In an effort to reach a large number of technologists in a short period of time and thus give a broader data base to the question response, AMSECT administered the certification exam simultaneously at four regional sites—New York, Atlanta, San Francisco, and Chicago. During this time, AMSECT received formal recognition from the American Association for Thoracic Surgery (AATS) primarily through the efforts of Dr. Arthur C. Beall, Jr., who was ap-

pointed by the AATS to the AMSECT Medical Advisory Board as an official liaison member. Dr. Beall was to become most instrumental in AMSECT's future recognition by the Society of Thoracic Surgeons (STS) and eventually the American Medical Association (AMA).

AMSECT's future representation of both dialysis and heart-lung disciplines was in question. Representatives of both the American Medical Association and American Hospital Association had stated that "unless AMSECT could prove it is truly representative of both disciplines or that the disciplines are different, AMSECT will not be able to progress in meeting either goal." It was the consensus that each discipline in reality was holding the other back. AMSECT did not wish to abandon the dialysis technologists. The possibility of separating the disciplines under a Federation concept was considered and an investigatory game plan put into motion. The efforts were unsuccessful and eventually the dialysis technologists aligned themselves with AANNT.

At the 1975 convention, Mr. Michael Dunaway was elected President. Corporate approval was given for a new set of bylaws similar to the ones currently in effect. The new bylaws provided for the annual election of president and president-elect. Secretary and treasurer would serve two-year terms. Executive Committee consisted of the president, president-elect, secretary, treasurer and three directors at large. Board of Directors included the Executive Committee and one director from each of the eleven regions for a total of 18 members. Action was taken to change future meeting dates from July to March, primarily because summer was a peak time for pediatric surgery. AMSECT administered the certification exam for the newly formed American Board of Cardiovascular Perfusion (ABCP) for the last time. A four-person liaison committee was set up between AMSECT and the ABCP to maintain communication between the two organizations.

It was announced that "perfusionists had arrived." At that time there were four malpractice cases pending regarding perfusionists. AMSECT's legal counsel addressed the corporate body regarding malpractice and the court's apparent awareness of perfusionists. Due to the shortage of papers for publication in the Journal, it was announced that there would be no convention proceedings since the papers would be included in the four issues of the Journal. Mary Gibbon was invited to be AMSECT's guest at the annual awards banquet at which time she was presented with

an honorary membership. Added emphasis was placed on continuing education—a Continuing Education section in the AMSECT Journal, pre-convention Basic Science Review Courses and a full day devoted to continuing education at the end of the convention.

1976 arrived with a new slate of officers and directors elected under the new bylaws with Mr. Michael Dunaway still at the helm. AMSECT was still wrestling with the dialysis technology situation regarding certification then and in the future, as well as the Federation idea. The dialysis exam was contracted by AMSECT to the ABCP since AMSECT was no longer a certifying body. There were no other alternatives, even though only seven applicants were processed to take the dialysis exam. AMSECT had offered to transfer the dialysis exam to AANNT. However, a satisfactory agreement had not yet been reached.

A recertification point assignment process for educational programs had been established between AMSECT and the ABCP, with AMSECT recommending the number of points per educational program. Both AMSECT and the individual perfusionist kept records of attendance which, at best, was bad because points were accredited programs with which AMSECT was not involved. Today, each perfusionist is solely responsible for his/her own record of program attendance.

In 1976 two new perfusion awards were presented—the TMP and William Harvey, to join the Fellowship, Polystan, Perfusionist of the Year and Presidential awards. An impressive array of awards, to say the least. A Code of Ethical Conduct for perfusion was approved. AMSECT also approved the formation and establishment of operational guidelines for chapters within regions to enhance educational opportunities. Canadian perfusionists asked for and were granted membership and were encouraged to align themselves with adjacent regions within the United States. Formation of a Long Range Planning Committee was approved, to include only past presidents. Though this committee had merit in theory, it was doomed to self-destruct, which it eventually did.

For the first time, the American Board of Cardiovascular Perfusion conducted an oral exam as part of the certification process. At this time, the orals were only to confirm that the examinee was actively engaged and knowledgeable in clinical perfusion. It also provided a learning experience for the oral examiners who would play a more important role in certification as time passed.

1976 also was the year AMSECT made an official request to the American Medical Association (AMA) to be recognized as an Allied Health Profession. It met with no positive action for various reasons. Organized physician support, such as that generated through the efforts of Dr. Arthur C. Beall, Jr., became very important. It was during this same period that AMSECT requested the United States Pharmacopoeia (USP) and the Federal Drug Administration (FDA) appoint a perfusionist to sit on the legislative committee regarding cardiovascular devices. This too met with no positive action. AMSECT, at that time, was involved with the Health Industry Manufacturer's Association, Task Force on Oxygenators via the American Association of Medical Instrumentation (AAMI). This proved to be the route to perfusion representation on the FDA Panel as it is today.

In 1977 this author, LeRoy H. Ferries, was elected President. 1977 featured a change in our Continuing Education approach. Continuing Education responsibilities were divided into four areas—National Convention, General Program, Library and Aids, and Publications. The entire program was highlighted by the first presentation of a long discussed special symposium, "Dog and Pony Show." It became a reality primarily through the hard work of General Program Chairman, Larry Cavanaugh. The program on Pediatric Perfusion was presented in four places across the United States during the course of the year. It was an overwhelming success, featuring top medical and technical people in the field. Logistical problems were being addressed as they arose regarding certification points awarded per program and liaison with the ABCP.

On March 26, 1977, the AMA took official action recognizing Extra-Corporeal Technology, as submitted by the American Society of Extra-Corporeal Technology and co-sponsored by the American Association for Thoracic Surgery and the Society of Thoracic Surgeons. With this, an invitation was extended to work with the AMA's Council on Medical Education (CME) to develop Essentials and accreditation procedures for educational programs for extra-corporeal technologists. This truly was one giant step for the technology of perfusion in America. Due to the timing, however, it happened without pomp and pageantry. The next step was to begin working with the AMA process for accreditation of perfusion training programs.

In 1977 AMSECT published its first position paper

regarding the safety, performance and reliability of oxygenating devices and/or systems. As with most position papers, they either clarify an issue or create one. This particular position paper did the latter. Retrospectively, such a position paper was needed, however it's debatable whether a better mode of public release could have been used. Because of it, or in spite of it, the products we use today do address many of the very points taken in the position paper.

In 1978, Ms. Madeline M. Massengale was elected President and how appropriate with the worldwide emphasis on women's liberation. AMSECT, however, was really well ahead of the rest of the world since we had elected a female president back in 1970. A concentrated effort was placed on accreditation of perfusion training programs through the AMA in collaboration with its Committee on Allied Health Education and Accreditation (CAHEA). A Joint Review Committee (JRC) was established consisting of perfusion representatives from AMSECT and the ABCP and physician representatives from the AATS and the STS. The first task was to draft an acceptable Job Description and Essentials. Essentials are the minimal acceptable standards for training programs. An AMA liaison person was assigned to our Joint Review Committee and our task was begun. Little did we realize the delays and detours we would be confronted with. Exchange with our Professional Advisory Committee was improved and there appeared to be a renewed commitment on the part of the AATS and STS Councils to support AMSECT in its efforts to reach its goals.

Ms. Emily P. Taylor, a perfusionist and AMSECT Journal Editor since 1973, was invited to sit on the FDA Device Legislative Panel, something we had long awaited. The Continuing Education Programs were all showing improvement and there were plans to broaden their scope. This was the last year for the special subject Postgraduate Symposia "Dog and Pony Show" as AMSECT had chosen to change its focus in Continuing Education. An extensive search and evaluation resulted in AMSECT contracting with, I believe, its seventh professional management firm, The Cate Corporation of Reston, Virginia. This proved to be a most progressive move for AMSECT. Immediately, long range goals were outlined and a task force assigned to address objectives to reach these goals. As the 7-Up commercial says, AMSECT truly appeared to be "moving-up."

In 1979 Mr. Calvin Scott was elected President. AMSECT had changed its focus in Continuing Education and presented its first "Hands On Membrane

Seminar." A new approach to financial support for the organization was undertaken via the enactment of Corporate and Sustaining membership. This system allows manufacturers, individuals, and others to budget for and pledge a given amount on an annual basis rather than one project at a time. It definitely was much better for AMSECT because it ruled out the risks of deficit budget programs. AMSECT was hard at work developing accreditation for perfusion training programs via the AMA's Committee on Allied Health Education and Accreditation joint review process. Essentials were back for rewording and we were working on the Guidelines, which explain or illustrate how to satisfy the Essentials. The Joint Review Committee was also working on the initial draft of the Self-Study, which is a pre-accreditation site visit institutional guide.

1980 arrived with Mr. Larry Cavanaugh elected President and a lot of loose ends coming together. AMSECT's auditors proclaimed the budgetary system and corporate status "financially sound," another first. The Essentials and Guidelines were approved by all collaborating organizations and the AMA's Council on Medical Education. The Self-Study was completed and sent to all concerned. Everything appeared to be in order for accreditation of the first perfusion training program early in 1981. This was another important milestone for the profession and the achievement of one of AMSECT's initial goals. A more harmonious working relationship between AMSECT and the ABCP developed in 1980. This was essential if accreditation of perfusion training programs through the AMA process was to progress on schedule and the certification and recertification processes were to sustain their respective professional status; another positive step for the profession.

Continuing Education was expanding its goals as well. A five-part independent Self-Study Program was offered in the areas of Hemostasis, Blood Gas/Acid Base, Renal Physiology and Diuretic Therapy, Con-

genital Heart Disease, and Solutions: Composition and Therapy. This, along with the Hands On Seminars, Convention CE Programs, Newsletter articles of interest, scientific papers at the national, regional and chapter levels and our six Journals per year, should provide ample continuing education opportunities for perfusionists to keep abreast with the state of the art.

Early in 1980 the AATS and STS Councils, in a position paper, re-emphasized their support of AMSECT, especially in the areas of certification and accreditation; a very welcome expression of physician support.

What the future holds in store only God knows and humans can only conjecture. One thing is as certain today as it was in 1964; if the perfusionist community wants something bad enough and is willing to get involved, it will come to pass. Over the years, because of fear, time commitment, could-care-less attitude, etc., many talented people have chosen not to get involved. Today, most of these concerns can be greatly lessened with AMSECT's proven sound management firm and well-conceived corporate goals and objectives.

Reviewing the evolution of perfusion technology and the role played by the American Society of Extra-Corporeal Technology has been a labor of love. The art of perfusion certainly would not be what it is today had it not been for the efforts of AMSECT. To this point in time, Perfusion and AMSECT have been synonymous. Twenty years of sharing in the evolution of both AMSECT and Perfusion convince me this is also the way of the future.

This historical review was meant to be just that, "a historical review"; don't dwell on it, learn from it, use it as a reference to build for the future. I hope you have enjoyed sharing these moments and memories with me. In closing, I would like to thank Madeline M. Massengale for helping me verify some of the specifics.