Maintaining Quality: Our Present Challenge—1986 Presidential Address To The American Burn Association

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We, the members of the American Burn Association, are embarking on our 20th year. Our objectives as set forth in the bylaws are to stimulate and sponsor the study and research in the treatment and prevention of burns, to provide a forum for presentation of such knowledge, to foster training opportunities for individuals interested in burns, to encourage publications pertaining to the foregoing activities, and to consider such other matters as may properly come within the sphere of the Association. These objectives are embodied in the seal of the Association as CARE, PREVENTION, TEACHING, and RESEARCH. Today, the American Burn Association is balancing on a tightrope between its goals of patient care, prevention, education, and research and the harsh realities emerging within the health care field.

Our challenge must be to ensure that QUALITY IS MAINTAINED in each of these four objectives. Why is this a challenge in 1986? The pressures being exerted on the health care field today are immense. These pressures originate from governmental, societal, and financial sources. As Hanlon, Director of the American College of Surgeons, so succinctly put it, "It requires no mastery of economics in health care to recognize that profound changes in the nature of surgical practice are being imposed on us by the well-known corporate transformation of American medicine and by legislative and regulatory enactments. . . . A brief look at these pressures will underscore the challenges we face.

Pressures That Could Erode Quality

Beginning in the 1940s and the 1950s health care was attracted to large medical centers as a result of research and specialization. Physicians began to address physiologic abnormalities and the public began to demand better care. Social planners responded, the federal government began to infuse money, and the health care industry underwent massive growth. The ultimate subsidy came in 1965 with Medicare and Medicaid so that during the 1970s health care became America's number one growth industry.

However, as Kiser has stated, "Excessive costs and changes in social trends have brought about new rules for medicine in the 1980s. A government that previously encouraged limitless spending, suddenly has capped costs and introduced legislation to promote competition." The Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA) and The Social Security Amendments of 1983 legislated the most significant changes in the Medicare program since its inception. In less than one year, inpatient care reimbursement changed from a cost-based retrospective payment system to cost-per-case limits under TEFRA, to a prospective payment system based on diagnosis-related groups (DRGs). Although the Medicare regulations did not affect all burn patients, other reimbursement systems are quickly moving toward decreasing health care costs. Medicaid has already adopted the DRG system in at least 10 states, and in my state of Michigan, all Medicaid patients have been under DRGs since February 1985. It appears that the DRGs are rapidly becoming the new status quo of reimbursement policy. Webber, of the American Medical Peer

Review Association, has stated that the present system of the DRGs presents some threats to quality of patient care by making payment incentives to undertreat and explicit incentives to discharge prematurely. These governmental pressures certainly present a challenge to our MAINTENANCE OF QUALITY in carrying out the objectives of this Association.

The next set of pressures to discuss are those exerted by the public. As Citrin pointed out, "Our society still wants to have access to the best care that modern medicine can deliver, and it continues to articulate a morality calling for the provision of an adequate level of health care for all." However, as shown by the Canadian experience, the public will not be consistent in their demands to preserve the quality of their care. When presented with a choice such as The Canada Health Care Act, people will opt for what is perceived as "free" hospitalization and medical care. This apparent dichotomy by society certainly exerts pressure on health care providers and presents an additional challenge.

The final pressures adding to the challenge we are facing are financial. Hospital costs have been escalating at a rate of more than 15% annually from $28 billion in 1970 to $136 billion in 1982. In 1965 the total national health care budget was $42 billion dollars or 6% of the gross national product; in 1983, the total was $322 billion, or 10.5% of the GNP. Stated differently, the country's health bill equaled $300 per person in 1970. It had risen to $900 by 1977, $1235 by 1981, and $1435 by 1982.

The next financial pressure we are facing is a prospective pricing system to pay physicians. Whether the final version of this takes the form of a DRG system for physicians, capitation, or a relative value system is not yet determined, although some type of capitation appears most likely. Capitation payment will put the providers at risk for the total cost of care rendered to a beneficiary over a defined time period. Therefore, capitation payments will encourage the development of strategies to reduce the number of hospital admissions and substitute alternate, lower cost care whenever possible. This will provide a significant challenge to all of us.

Meeting the Challenge

How can the members of the American Burn Association meet these challenges to MAINTAIN QUALITY as we carry out the objectives of the organization; and how can this be done in a cost-effective way? I would first like to concentrate on CARE which is our chief reason for being. We must be able to assure ourselves that burn care is QUALITY CARE, regardless of the outside pressures.

The original fear of DRGs was that, although they were likely to decrease costs, they were also likely to have deleterious effects on the QUALITY OF PATIENT CARE and our access to care. After two and one-half years, the government has stated that quality has not suffered although the necessary studies to substantiate this are not yet complete. As mentioned previously, a prospective pricing system for physicians fees is on the immediate horizon. Again, some believe this will result in decreased QUALITY OF CARE.

The Need for Accurate Data

Before success or failure of any system can be determined, we need DATA. As scholars have noted, even accurate numbers can obfuscate as well as illuminate and we do not have accurate numbers. The reasons for this are most frustrating. In 1975, four members of this Association felt a need for specific functional outcome data collected prospectively. The National Burn Information Exchange had been making a herculean effort to collect data, but the data were collected retrospectively from patient charts. Clark and Lerner had shown that burn chart data were grossly inaccurate.

The group interested in prospective data collection wished to design an information system that was not bound by the standard medical record. Dimick became interested in these efforts and asked that they be carried out within the purview of the Association. Monafo, then President of the ABA, constituted that group and additional interested members of the Association into an Ad Hoc Committee on the Epidemiology and Morbidity of Burns. The ability of the Association members to collect data prospectively on QUALITY OF OUTCOME and COST OF CARE became a possibility.

Simultaneously, the U.S. Senate Committee on Appropriations requested a report on plans for a national burn care network. During Congressional hearings, it became obvious that sufficient data concerning the incidence, distribution, and cost of burn injuries in the United States were lacking. The Health Services Administration's Division of Emergency Medical Services planned a National Burn Demonstration Project to obtain these answers and turned to our organization for advice. A contract was awarded to the American Burn Association to develop this prospective information system. It appeared the problem had been solved. The Committee on Epidemiology and Morbidity of Burns presented the government with an optimal data set to be collected. The granting agency rejected that proposal and desired to have only a minimal data set. The minimal data set presented to the agency was further abbreviated until a workable information system was chosen. The data were then collected in six demographic sites. For reasons which are not entirely clear, the information gained from that National Burn Demonstration Project has never been disseminated. The Ad Hoc Committee on Epidemiology and Morbidity of Burns was discontinued in 1980 because it was considered superfluous.
during the period of the Demonstration Project. The incidence, distribution, cost, and functional outcome of burn injuries remains unknown.

Now the challenge is even greater. We must have an information system to determine the QUALITY of our end product as well as its cost effectiveness. Another type of data we need is accurate information on the costs for each of us to carry out our mission. Several individual burn centers have sophisticated information systems and data collection instruments. Several of our standing committees such as the Committee on Organization and Delivery of Burn Care and the Ad Hoc Committee on Burn Rehabilitation have ongoing attempts at selective data collecting. Peripheral organizations such as the National Coalition of Burn Center Hospitals and the Burn Foundation are collecting the first accurate cost data. These have not yet been integrated with functional outcome data.

Therefore, my first solution to meet the challenge to assure QUALITY OF COST-EFFECTIVE DELIVERY OF CARE is to have the ABA develop a state-of-the-art prospective DATA collection system which will be interactive with, and responsive to, the members and which can produce answers to outside pressures that may affect the quality of care we deliver. Winston Churchill observed that first we shape buildings and then they shape us. The same might be said of data.

Diversification: Alternate Methods of Delivery

Using outcome data, we can assure ourselves that we are maintaining the QUALITY OF CARE we all desire for our patients. However, the outside pressures previously cited demand that the care be delivered in the most cost-effective manner. Cost-effectiveness cannot be equated only with cost control or budget cuts. To equate them misses Fein’s important observation, “We live in a society, not in an economy.” We must remember that we are dealing with patients, and not only with numbers, and we must keep the economists aware of this fact. Our challenge is to develop additional strategies to obtain cost-effectiveness.

Civetta, in his article on “Maintaining quality of care while reducing charges in the ICU,” pointed out that only by understanding the medical care processes which generate charges, can we learn to do less. The actual costs of burn care delivery are being obtained for the first time. The National Burn Patient Classification Study by the Burn Foundation* and The Analysis of Impact Study by the National Coalition* are separating costs from patient charges. Each of us needs to follow this example in our own units and costs need to be documented for all disciplines of the burn team. Marvin has suggested that nurses must define what is involved in the nursing care of burn patients, must quantify the time required, and must cost out the nursing care needs of the patient.*

Similar costs need to be dissected for physical and occupational therapists, social workers, dietitians, etc.

When true costs are realized, ways need to be devised to lower these costs. One way to lower costs is to increase productivity. This becomes paramount in a prospective payment system. A suggested method to increase productivity is to spread the peak service demand for ancillary delivery over 24 hours instead of lumping it chiefly into 8 hours. Consideration of using the operating room around the clock could more efficiently use the expensive high technology capital equipment. Another approach popular with hospital administrators has been the use of part-time employees.* This has not been popular among burn teams since people untrained in burn team management are of little use in specialized patient care. However, since it will certainly become more common, I believe we should develop our own pool of part-time employees. Previous team members or burn team members from other geographical areas who have moved into our communities are ideal members of such a pool. This pool could then provide flexibility so that nursing and other needs could meet the changing patient volume.

Bonney has suggested diversification as an ideal means to lower costs. In quoting health care consultant Henry Simmons, he states, “The traditional acute in-hospital focused disease-oriented hospital is dead. It will be buried with the dinosaurs. The future belongs to those who can identify the community need and then organize and market a delivery system to efficiently, effectively, and economically meet the need.” Since the advent of DRGs, successful hospitals have been able to continue their missions by diversification. Can we as burn teams apply this principle to our units and centers to ensure QUALITY BURN CARE DELIVERY? I believe we can by developing alternative patterns of care.

Burn care presently is centered about in-hospital burn units and centers. That care is being constricted by DRGs, and although modifications will continue to be made and outliers extended, the in-hospital length of stay will never be as long as in the past. Curtiss has suggested that alternative care services such as intermediate care facility beds and home-care services to permit earlier discharge will be critical to the success of operating under a restrained financial system. Ambulatory service and home-care need to be further explored for the burn patient. We need to devise patterns of ambulatory care in which the various specialists of the burn team can deliver their expertise to the nonhospitalized patient. This could take one of several forms. A more sophisticated home care delivery is needed in which materials and equipment necessary for proper exercise, dressings, and nutrition are made available to the home-bound patient. Possibly a mobile van staffed by burn team members would be useful. Another form might be a “half-way house” or extramural stepdown unit for burn patients. A third method would be a more liberal
use of existing rehabilitation facilities. In reviewing 46,667 discharge diagnoses from 119 rehabilitation facilitation facilities, it was found that only 391 or 0.8% of the diagnoses were due to burn injuries.\textsuperscript{22}

In Lincoln, Nebraska this latter type of diversification is working. Patients are being discharged from the St. Elizabeth’s Burn Unit much earlier. The Madonna Centers Rehabilitation Hospital admits those patients in need of more than home care. To provide a continuum of care, the two institutions have exchanged staff members in all disciplines for short periods of time so that each understands the others capabilities and limitations. They feel this has been successful and a cost-effective way to maintain quality of care. Our center at Wayne State University is presently evaluating this method of diversification. The physiatrists from the Rehabilitation Institute have joined our burn team and take part in all team conferences and weekly patient rounds. They are aware of each of the patients and participate in decisions of early discharge or transfer.

Therefore, my second solution to MAINTAIN QUALITY OF CARE AND COST-EFFECTIVENESS is to have the ABA evaluate alternatives to in-hospital burn unit care such as home-care, “half-way houses,” and rehabilitation facilities. This could be done through the Committee on Organization and Delivery of Burn Care. Another issue regarding diversification for the committee to address will be the need to determine methods of reimbursement for the alternative care. Certainly at present, high technology ambulatory or home-care is not satisfactorily reimbursed.

Extended Definition of Burn Care

The definition of care is being extended as alternatives to in-hospital care are being sought. The onset of prehospital trauma care in the 1960s and the development of Emergency Medical Services markedly improved the quality of care for the general trauma patient. The development of the Advanced Trauma Life Support Course in 1978 certified a quality level for prehospital trauma care. Presently, your Board of Trustees is in the early evaluation phase of an Advanced Burn Life Support course. Several members of the Association are working with the Lincoln Medical Education Foundation to try to further improve prehospital burn care.

However, greater emphasis is now required for post-hospital care. The concept of total optimal rehabilitation with return to society as functionally and aesthetically acceptable as possible is a rational goal. Rehabilitation can no longer be separated from acute burn management. To do so detracts from the continuity of care and partially clouds observation of the final outcome.\textsuperscript{24} McDermott has suggested that rehabilitation can be envisioned as a progressive algorithm with the understanding that at any given stage there is overlap.\textsuperscript{24} Rehabilitation begins with the initial care of the patient as I tried to suggest in a chapter entitled “Reconstruction and Rehabilitation From Admission.”\textsuperscript{21} The goal of each phase of burn treatment should be to ensure for the patient the highest level of entry possible into the next progressive stage of the rehabilitation algorithm.\textsuperscript{21}

As the continuum of care is extended, novel techniques to achieve optimal rehabilitation will become commonplace. The principles of “work hardening” which have been so successfully applied to hand injuries and back injuries at places like the Work Assessment and Rehabilitation Center in Kansas City need further expansion for the post-burn patient.\textsuperscript{26} Combining the work hardening principle of achieving the best with the patient’s residual limitations with current reconstructive surgical procedures to minimize those limitations should help the patient physically. Add to this psychological, sociological, and vocational rehabilitation and we will improve the final QUALITY OF THE RESULT. The American College of Surgeons presented a postgraduate course based on these concepts at its last Clinical Congress and many exciting new ideas evolved.\textsuperscript{27} These need to become available to all of our patients.

A third suggested solution to MAINTAIN QUALITY is to make rehabilitation a more accepted part of the ABA objectives. Possibly the time has come to include this objective in the Seal of the Association. The Ad Hoc Committee on Burn Rehabilitation needs to become a standing committee and to work with the American College of Surgeons’ Committee on Trauma Rehabilitation. Reimbursement patterns for optimal functional rehabilitation will have to be addressed in future governmental regulations, as well as with private insurers and industry.

Prevention: The Wellness Concept

To this point, I have concentrated on MAINTAINING QUALITY OF CARE. However, the challenges extend to the other purposes of the Association as well. Bonney has stated that health promotion activities provide another way to increase productivity.\textsuperscript{28} The concept of “wellness” is the basis for the present proliferation of health maintenance organizations (HMOs). How can this be translated into our activities? Although the “wellness” concept is not directly applicable to the burn patient, BURN PREVENTION is definitely a way to maintain health. “There appears to be a new individualism movement going across America. A new patriotism. A new interest in self-sufficiency, and certainly in fitness. What began as a fad seems to be an ongoing trend.” We should be able to expand on this spirit and improve the QUALITY OF OUR BURN PREVENTION EFFORTS. Having the first National Burn Awareness Week, February 9-16 this year, was a great impetus. With this impetus, it is time to expand the function of the Burn Prevention Committee.
Liability has become an integral part of the current financial pressures. This liability includes professional liability, product liability, and, I believe, patient liability. The Burn Prevention Committee should investigate the possibility of decreasing financial pressures by establishing a means for certain burn patients to assume liability for their care. Possibly a special burn tax could be placed on cigarettes, alcohol, gasoline, fireworks, and other products known to be associated with a higher incidence of burn injuries. People staying above the eighth floor in hotels or engaging in activities with increased burn risks might elect a short-term burn insurance policy to cover the risks much as the current specific air travel policies. My suggested solution for maintaining QUALITY IN BURN PREVENTION is to expand our horizons into maintaining nonburn “wellness” in a cost-effective manner.

Education Must Not Be Challenged

Teaching and education are of interest to every member of this Association regardless of his/her discipline. The governmental and financial pressures being exerted on medical education are as significant as those exerted on patient care. To MAINTAIN QUALITY IN OUR EDUCATIONAL ENDEAVORS may become the major challenge of the next few years. In a panel discussion entitled, “Living Under the DRGs,” Glenn pointed out that DRGs can be expected to have a deleterious impact on medical education. This will compromise educational opportunities by decreasing inpatient care. Fewer inpatients, remaining for shorter periods of time, will make education of all health care providers more difficult. Heimbach has pointed out the need for a critical mass of patients to provide the experience crucial in providing optimal care. If alternatives to inpatient care are a proposed solution to MAINTAIN QUALITY OF CARE, then expanding our teaching into these alternative care facilities will be required to MAINTAIN QUALITY OF EDUCATION. Although returning the medical student and nursing student to the home to observe the continuum of disease will not be cost-effective, they will have to become involved in ambulatory care centers and in extramural stepdown units.

Financial pressures may present an even greater challenge to education. Haddow, an HCFA administrator, has stated that the Medicare medical education “pass through” originally designed to stimulate physicians’ training is no longer needed because of the predicted oversupply of physicians by 1990. It has been predicted that within the year we can expect regulations that will change direct medical education payments from Medicare and Medicaid by disallowing faculty salaries, disallowing nursing and allied health education costs, and by imposing limits on the allowable education cost per resident. With a prospective payment system for surgeons, Mulder has shown that the individual surgeon spends longer and longer hours related to clinical activities in order to generate a satisfactory level of income. He feels that this is the most serious threat to academic activities in any university department of surgery. This can be translated to mean that with the burn director so clinically occupied, a serious threat to education and research within the burn center is inevitable.

When a type of prospective payment for physicians services is enacted this year, one probable outcome will be a reduction in the number of health care providers caring for individual patients. It is predicted that the number of consultations will be markedly decreased. What will be the effect of this on the QUALITY OF TEACHING and EDUCATION? In 1983, Lee, et al reviewed the outcome of 156 consultations in a teaching hospital. They found that in 23% of the cases, the consultation changed the patient’s diagnosis or treatment and proved “crucial” to patient care. In an additional 46% of cases, the consultations contributed useful new insight or information. Overall, the study showed that more than 90% of consultations were crucial, confirmatory, or contributory. Therefore, the limitation of consults will present a challenge to MAINTAINING THE QUALITY OF EDUCATION.

Consultations are a vital part of continuing education for the entire burn team. They are a critical component of resident and fellow education. Through this mechanism new knowledge is shared regarding diagnosis, treatment, and even cost-saving technologies. A possible solution to this challenge would be for us to expand our current burn teams to include commonly used consultants so that they become an integral part of burn care and education and are not excluded by the economic pressure to limit consultations.

The explosion of new knowledge in the burn field is also presenting a challenge to the QUALITY OF EDUCATION of the individual ABA member. It was not many years ago that the entire burn literature appearing in a given year could easily be read by anyone interested in doing so. Today, that is impossible. However, two things have occurred in the past month which will make that more feasible in the future. On March 11, 1986, your Board of Trustees purchased The Journal of Burn Care & Rehabilitation. With this change, the journal will become the official Journal of the American Burn Association. The format is expanding, and as you will notice in the past issue, the world’s burn literature is being abstracted and presented. This abstract service has been provided by the outstanding efforts of the COMMITTEE ON EDUCATION under the chairmanship of Dr. Herndon. These solutions will go a long way toward MAINTAINING THE QUALITY OF EDUCATION.

Quality Research: The Only Type

The final objective of the Association demonstrated in our seal is RESEARCH. Last year, in his Presidential
Address, Alexander outlined reasons why he felt external pressures could decrease the quantity of research. The number of NIH research grants is decreasing. Clinically related burn studies do not appear to be a leading priority of the National Institute of General and Medical Sciences (NIGMS). Two major program grants dealing with burns and wound healing were not refunded during the past year. Another pressure which will decrease the quantity of research was alluded to by Skinner in his address to the Society of University Surgeons. He showed that as academic surgeons progress, the amount of time spent in the operating room and the need for the surgeon to earn his own compensation increased. Obviously, the time allowed for the academic surgeon to perform research correspondingly decreased.

If the quantity of research decreases, it will be a challenge to MAINTAIN THE QUALITY OF RESEARCH that is performed. As your incoming President last year, I appointed an Ad Hoc Advisory Committee for Research. My charges to that committee included trying to categorize funding agencies, trying to develop priority subjects in the burn field in need of intensive investigation, and trying to locate research personnel among the nation’s basic scientists to assist in burn-related research. We must now expand these charges to MAINTAIN QUALITY. It is my feeling that the committee should become a standing committee since research is the only objective expounded by the Founders of the Association which is not represented by a standing committee.

In Current’s Presidential Address two years ago, he recommended that the burn community should look to other sources for funding of burn research. The solution for MAINTAINING QUALITY IN RESEARCH lies in this recommendation. In 1983, a conference was held at Wayne State University exploring the concept of developing scientific-academic-industrial complexes. This would allow partnerships to be developed between academic centers and industry to prevent duplication of effort. High technology equipment would not be present in both the university laboratory and the industrial laboratory. This concept is being utilized in several major universities at this time and appears to be working. Endowed professorships and entire laboratories can be underwritten when true partnerships are established. The paranoia and distrust of one another will disappear when QUALITY OF THE END RESULT is the priority.

Major corporations, beyond those which make burn care related products, need to become interested in burn research. This has happened in other fields of medicine. For example, the General Motors Corporation yearly presents awards for accomplishments in cancer research. These prizes amount to $300,000 a year being awarded to three cancer researchers. Industry must be made aware of what the results of burn research have done for the understanding of nonburn trauma and other diseases. I believe our Advisory Committee for Research can help to effect this. The National Burn Awareness Week can be expanded from making the public aware of burn injuries to making industry aware of burn research. If these ideas are incorporated into the expanded charges of our Research Committee, then the challenge facing us can be met.

Preserving Interpersonal Quality

We have discussed the need to MAINTAIN QUALITY in each of the objectives of this Association. The pressures trying to erode the QUALITY are truly staggering. However, we can keep these pressures in perspective by PRESERVING THE QUALITY OF OUR INTERPERSONAL RELATIONSHIPS. The burn team allows us a vehicle to both establish and maintain such a quality. Above all, we must jealously guard that ability and not allow any of the outside pressures mentioned to erode our esprit de corps.

I would like to thank the American Burn Association, each and every one of you, for the opportunity of serving as your President. I appreciate this chance to share with you my thoughts on solving the challenges of MAINTAINING QUALITY for all the victims of thermal injuries. I would like to close with this quotation delivered by Abraham Lincoln during the blackest days of the Civil War: "Let not a worship of the past, nor the confusion of the present, prevent us from preparing wisely for the future."

References

1. Bylaws of the American Burn Association, Article II, Section 1.
24. Tate-Henderson SC: Personal communication Re: Work assessment and Rehabilitation Center.
35. "The Emergence of a Scientific-Academic-Industrial Complex," a conference at Wayne State University, Detroit, MI, June 1, 1984.