

## COMMERCIALISM, CONSUMERISM, CAPITALISM AND CARE OF THE ACUTELY ILL SURGICAL PATIENT

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ADDRESSING one's colleagues as the elected chief administrative officer of an organization is not only a privilege but an opportunity to provide meaningful communications within the realm of the chief administrator's area of expertise. Along these lines I must restrict my homily to the care of critically ill and injured patients, thereby reflecting my full-time staffing of the Emergency Surgical Service at Detroit General Hospital for the past 10 years. This address could easily be restricted to the many dramatic therapeutic successes, humorous anecdotes, or scientific contributions observed on this service on which over 200 patients are treated each month. However, conscience demands that this address draw attention to potential problems which appear on the horizon and may adversely affect the care of injured patients.

### Commercialism

From the atrocities, frustrations and medical heroics of Vietnam and Korea, a new romanticism in medicine has evolved and is reflected in the Hollywood-type of commercialization of medicine on television and in movies during the past 10 years. Dr. Kildare became everyone's favorite intern as he relentlessly traveled the

corridors of Blair General Hospital ministering to the sick, salvaging life, and even making an occasional mistake which, fortuitously, was corrected in the "nick of time" by the Chief of Medicine. When the heroics of therapy for diabetic ketoacidosis and pulmonary edema no longer stimulated the Nielson ratings, Dr. Kildare, at the tender age of 24 years, became an expert consultant for emotional problems, business strifes, love triangles, family differences, and alcoholism.

With time, the luster of a lowly intern wore off and a new, more exciting medical hero appeared. Thus emerged Ben Casey, the chief neurosurgical resident at Bellevue Hospital. Ben Casey emulated the decision-making qualities of George Patton, the wisdom of Solomon, the patience of Gandhi (when appropriate), and the technical skills of William Halstead as he meticulously extracted malignant brain tumors. Occasionally he allowed the attending neurosurgeon to assist him in these endeavors. The end result was typically a medical triumph and the viewer knew another "cure" had occurred.

Unfortunately, as the viewers became more aware of the prognosis in patients with malignant brain tumors, Ben Casey had to expand his capabilities by providing solutions to various social and psychological problems. Finally, our hero even extended his activities into police work and placed his own life in jeopardy by pursuing an escaped murderer who threatened one of his patients. When the public would no

Presented at the 18th Annual Meeting of the Midwest Surgical Association, Sept. 2-4, 1976, Mackinac Island, MI.

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longer accept a chief neurosurgical resident in the role of a cop, the Nielson ratings dropped and Ben Casey presumably retired into the private practice of neurosurgery.

The most heroic medical efforts compatible with successful Hollywood commercialization relate to resuscitation and treatment of acutely injured patients. Drama reigns supreme as a helicopter team flies behind enemy lines, picks up an injured soldier, institutes treatment during lift-off, and delivers the patient to a specially equipped forward surgical unit where successful operation and supportive care are provided. This sequence reflects the movie "M<sup>°</sup>A<sup>°</sup>S<sup>°</sup>H<sup>°</sup>" and the subsequent television series of the same name. Each week exciting emergency care is subtly blended with a touch of humor and a smidgeon of illicit lovmaking, bribery, and anti-war propaganda.

#### Consumerism

These television programs, more than any scientific literature, familiarized the consumer, namely the American citizen, with the possible benefits of a well-organized emergency medical service (EMS) system, including helicopter facilities. Consumers in the plains states quickly recognized the advantages of rapid transportation provided by helicopters compared to ground transportation over great distances. Interested medical personnel in these states, therefore, were able to implement an airborne EMS system. Even more consumer awareness evolved from the television series "Emergency," which weekly depicts two fireman-emergency medical technicians (EMT) extracting patients from overturned vehicles, removing people from burning buildings, instituting cardiopulmonary resuscitation, providing cardioversion assisted with telemetry recordings of cardiac rhythm, and controlling external bleeding from various types of wounds.

Unfortunately, the life-saving potential of the EMT has been grossly exaggerated on "Emergency," so that the consumer has been deluded by propaganda into believ-

ing that implementing comparable programs in his own community will bring about a marked reduction in loss of life. This direct correlation between modernizing and implementing an expensive EMS system and reduction in morbidity or mortality is not apparent across the country. A Rand Corporation report showed no such relationship between expenditure, type of EMS system, and reduction in morbidity and mortality.

A Department of Transportation Demonstration Program conducted in the city of Detroit, likewise failed to demonstrate any meaningful relationship between the expertise of the EMT and subsequent morbidity and mortality. I was a consultant on this project, in which there was comparison of the effectiveness of emergency medical care as provided on the scene and in transit by (1) untrained police, (2) minimally trained police, (3) moderately trained firemen, and (4) advanced EMT's working for a private ambulance firm. Response time, time at scene, care at scene, transportation, care in transit, and transfer of responsibility at the trauma center were graded for efficiency and effectiveness in reducing morbidity and mortality. In this demonstration program, the effectiveness of a helicopter was evaluated in a large city with several conveniently located centers capable of treating injured patients. The level of training of the EMT did not affect, in any measurable way, morbidity and mortality; therefore, the city of Detroit was advised to incorporate its EMS system into an ongoing service which would provide EMS as a secondary function. Therefore the EMS in Detroit was placed within the Fire Department which offered strategic location of vehicles, a low ratio of job turnover, and circumvention of an expensive new EMS system. Even the EMS system which was subsequently implemented by Detroit became much more expensive as the Fire Department developed a select division of EMT's and vehicles which had to meet new state laws regulating ambulance structure, size and capabilities, although adherence to

such laws is not known to decrease morbidity and mortality.

Recently, budgetary constraints in Detroit forced layoffs for several EMS personnel. Before these layoffs, a cry was raised that the EMS would increase its response time from six minutes to 11 minutes, thereby jeopardizing life and limb. After two months of reduced services, it was clear that the response time was only slightly increased and no apparent increase in morbidity and mortality resulted therefrom. Subsequently, these EMS positions were reinstated with federal funds. In retrospect, a significant cutback in services resulting in significant savings caused the consumers no medical harm. It seems appropriate to ask: "How much is preventable morbidity and mortality worth to the consumer?"

Despite this nonscientific approach to EMS by the medical community, the consumer continues to receive the erroneous impression that more money will provide an EMS system which will decrease morbidity and mortality. This was quite apparent in the recent public broadcasting system documentary "Trauma—The Fourth Largest Killer." This documentary, which nicely portrayed the overwhelming cost and loss of life from injuries, placed emphasis on treatment of injury by promoting federal legislation and fiscal support for training more EMT's and implementing EMS systems rather than on more inexpensive solutions such as registering firearms, placing drunken drivers in jail, enforcing regional speed laws, and educating the consumers on the advisability of using seat belts or comparable restraints. The documentary also implied, at least to the nonmedical viewer, that training EMT's with federal funds would provide a greater salvage in life and limb than would the training of surgeons and emergency physicians working within trauma centers.

The cumulative efforts of well-meaning lay and medical people hoping to achieve better care for injured patients have engendered a tremendous lobbying effort for massive expansion of the federal govern-

ment's role in EMS. This federal expansion theoretically would eliminate the problem of medical facilities having to provide care for injured patients when, in fact, neither the medical personnel nor administrative staff desires to provide such care, which tends to "dirty up" the emergency room and "interfere" with elective activities. Unfortunately, like all federal programs, the potential for expansion of administrative paper work, creation of committees to define minimum guidelines and other committees to check on implementation of such guidelines, establishment of minimum criteria for trauma centers and investigation thereof, and the development of multidisciplined trauma centers based on perceived needs of interested parties is astronomical. Needless to say, this astronomical expansion will be fraught with unacceptable cost expansions as each program must be planned, implemented, and then reviewed on a regular basis.

This potential geometric fiscal expansion will certainly be advocated by self-seeking university centers interested in creating or expanding trauma centers and by legislators seeking a politically popular platform to gain fame or achieve re-election. Several laws currently being advocated could result in an open-budget approach to EMS and it appears there is no limit to organized medicine's ability to propose expensive federal programs. This expansile attitude will persist as long as no budgetary restraints are placed at the other end, namely the federal government, and, of course, will result in higher taxes and inflation unless the federal government removes funds from other areas of support in favor of EMS. Certainly the tax-paying consumer has a right to know the cost and effectiveness of EMS and we as interested medical scientists should do our best to provide the answer. Once a scientific answer is provided, the citizenry can push for meaningful legislation for an appropriate EMS suited to both financial restraints and potential benefits in terms of reduced morbidity and mortality. Extracting funds from other areas will be very

difficult since each interest has its own lobbyists. The medical community interested in providing care for the injured patient must adapt a more mature approach to this intimate balance between health care delivery and cost. This will allow EMS programs to develop within sound budgetary constraints, with appropriate local and federal government support, and with meaningful scientific analysis of effectiveness, possibly provided by interested university trauma centers.

### Capitalism

Success of any service system, be it the automotive industry in Detroit or EMS in Louisville, necessitates a fine balance between governmental guidelines and a competitive attitude permitting delivery of such services on a capitalistic basis. University trauma centers must avoid the chicanery of becoming the implementers of EMS programs in order to restrict select services to their own "superior" trauma centers while "inferior" facilities in the private sector are bypassed. Any such system will rapidly expand the medical community's knowledge of intricate derangements in multiple organ function after trauma, sepsis, and other insults while the actual delivery of "routine" care will become secondary. University trauma centers attract medical and surgical "physiologists" who implement research programs, contribute to the scientific literature, and thereby advance academically; these academic pursuits must be balanced by the administering of an excellent EMS program providing optimal care. The private sector, by providing comparable EMS programs and by providing competitive care for the injured patient on a fee-for-service basis, will prevent monopoly of such care by university trauma centers and, thereby force the university centers to maintain high quality patient care in conjunction with academic achievement.

Lack of financial gain to surgeons working within university trauma centers is compensated for by the potential for academic achievement. This achievement al-

lows on a capitalistic basis for injured patients without third-party insurance to enter into a first-class trauma center and receive expert care at little cost to the state or federal government. Rapid national achievement has been the capitalistic reward of many surgeons working in trauma centers at Parkland Hospital in Dallas, Ben Taub in Houston, Bellevue in New York, Cook County in Chicago, San Francisco General, Charity in New Orleans, and Detroit General. I am a recipient of this type of capitalistic gain, and I doubt that astronomical increases in federal support to these institutions will result in a meaningful improvement of care to injured patients. These institutions are already providing first-class care to injured patients with the primary reward for hard work and effort being academic advancement. The same academic achievement factor is the prime reward gain for many surgeons who have dedicated themselves to the care of burned patients throughout the country.

Both state and federal programs are supporting the development of regional trauma centers. A classic example is the Maryland Institute for Emergency Medicine. Specific advantages of such centers include (1) in-depth evaluation of implementing a systemized approach to care of injured patients, (2) opportunity to study deranged pathophysiology related to trauma, (3) facility to train medical and paramedical personnel, (4) evaluation of cost effectiveness comparing this centralized system of trauma care to the more random sporadic type of care which has traditionally evolved in response to local need. The Maryland Institute in Baltimore, as of 1976, employs 25 medical doctors and about 175 nonphysician medical personnel for the care of approximately 35 patients. Despite this seemingly large personnel-patient ratio, Dr. R. Adams Cowley had recommended that 50 to 80 comparable centers be established throughout the country. Before such a program is instituted, however, I would like to know cost effectiveness of the Maryland Institute for Emergency Medicine compared with pri-

vate, municipal and university trauma programs in Baltimore. Lacking scientific data on cost effectiveness, one is hard pressed to support a full-scale expansion of such centers. The ultimate goal of any EMS system is to improve care within appropriate budgetary restraints.

### Care

The most heroic and glamorous aspects of EMS revolve around the responsible physician. Unfortunately, during the past 10 years this glamour has not attracted many surgeons; most are more interested in golf outings or social functions than providing care on an episodic basis to injured patients. This growing unavailability of surgeons combined with the romantic nature of primary care for injured patients has led to the development of a specialist, namely, the emergency department physician. Like all new specialties, however, its birth reflects the difficult labor and delivery of "cranial pelvic disproportion" as the traditional specialties, primarily surgery, have resisted the emergency physician moving into the arena of "emergency surgery." Significantly, however, this impingement could never have occurred had the surgeons maintained a clean house by routinely providing quick and expert care to the acutely injured patient. Since all vacuums demand to be filled, the most difficult administrative problem remaining is to define, in various localities, the area of innerchange between the traditional specialists and the new emergency department physician.

The pendulum over the past few years has favored continued expansion of the emergency physician specialty. This partially reflects the commercialized view of EMS as seen by the consumer, university and medical school administrators, many paramedical personnel, and even some medical personnel who are not intimately involved in such care. Many of these individuals perceive the emergency physician as providing definitive surgical correction for multi-organ injuries rather than

providing early resuscitation and early referral to the appropriate surgical specialty.

The actual delivery of health care must develop around the abilities and objectives of the emergency physician, surgeon, and other interested parties. Jurisdictional disputes between these different specialists must be resolved on the basis of good patient care and sound financial practices. Viewed only from a patient-care vantage point, the injured patient ideally would be transferred from the EMS vehicle to a trauma center staffed 24 hours a day with surgeons fully trained in all specialties. Obviously such care is reserved for the President of the United States and various other privileged dignitaries. Even large municipal trauma centers rely, in large part, upon surgical residents to provide routine care. Furthermore, society could not support fully trained specialty coverage 24 hours a day. Not being able to finance such a program, the consumer must look toward financing a program which will provide the greatest care to the largest number of injured patients with the best expectation for maximizing survival and minimizing morbidity.

Continued evolution of care for the injured patient, if it is to be in the consumer's best interest, must follow basic capitalistic principles—first-class care must be balanced with a proper reward. Manpower, equipment, and facility needs will expand according to these guidelines reinforced by a gentle push from governmental agencies. The relationship between emergency physicians and surgeons will then evolve according to patient need and will most certainly vary from institution to institution depending upon the number of emergencies. Within large trauma centers, the number of injured patients will necessitate around-the-clock involvement by surgical specialists who will then care for the injured patient from admission until discharge. Such a system will not only provide the best care for the injured patient, but will also create the most desirable milieu for the training in trauma of surgical residents and medical students.

The disadvantage of such a system is that it removes the emergency physician resident from exposure to caring for patients with acute trauma; this can be easily circumvented by rotating the emergency physician onto an emergency surgical service as is currently being done at Detroit General Hospital. This permits optimal training of emergency physicians in caring for injured patients.

Hospitals receiving fewer injured patients are less able to maintain surgeons and surgical specialists within the hospital 24 hours a day without undue expense. Such hospitals must resort to use of either emergency department physicians or rely on specialists from many departments to provide emergency coverage. Small hospitals with few injured patient visits cannot support a team of emergency department physicians and must rely on the emergency rotation of staff members from each department. Hospitals or centers with a moderately heavy flow of injured patients should provide primary care by emergency department physicians who develop expertise in resuscitation for all types of emergencies including injuries. This approach augments the training of emergency department physician residents. Hospitals with full-time emergency physician coverage must then provide a proper milieu for

the training of surgical residents in caring for injured patients. This can be done by rotating the surgery resident on the emergency department physician service as is done at the University of Chicago.

At the American College of Surgeons meeting in 1975, Dr. Henry Cleveland urged the surgical community across the country to accept emergency department physicians, since they fulfill a vital need and they have already become established. The question, as I view it, is not to accept or reject the emergency department physician but rather to define the relationship between them and surgeons. As this relationship becomes better defined for each institution caring for injured patients, there will be a blending of appropriate EMS, hospital facilities, postgraduate training facilities, residency training programs, and finally, reward for the providers of service. The end result will be the best affordable care for injured patients. We can hope that these delicate inter-relationships will continue to mature without excessive government intervention and with minimal conflict between the private, university, and community interests. The injured patient's interests are best served by a natural evolution of trauma facilities and personnel based upon a free capitalistic patient flow system.