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The 1974 Scudder Oration on Trauma

Education in trauma: the surgeon's responsibility

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The more I considered, while preparing this oration, the multifaceted aspects of medical education related to trauma, the more I realized that I must establish certain priorities to prevent this address from degenerating into a hodgepodge of the educational aspects of trauma. After considerable thought, I have decided to focus my attention on the three areas of education in trauma that I consider to have the most pressing priorities and an urgent need for consideration.

The first is current trends in undergraduate and graduate medical education and their effects on trauma.

The second concerns the education of paramedical personnel, including the emergency medical technician, the emergency room nurse, and other members of the team that enables the surgeon to extend the benefits of his care to more patients in need of such services.

The third area is education of the public, particularly education of public officials.

Although only one previous trauma oration was specifically titled "Education in Trauma",[1] education related to trauma has been emphasized by many trauma orators. This is only fitting, I believe, since by title doctors are educators. The word doctor comes from the Middle English Doctour, meaning teacher, which in turn is derived from the Latin Docere, "to teach". In fact, a current dictionary has gone as far as defining a doctor as a man of great learning.

As men of learning, you all are aware of the revolution in education that has taken place during the past two decades. This has occurred in part from the vast research programs initiated after World War II. The result has been an explosive increase in knowledge. Research became the popular panacea for all problems. The success of the Manhattan Project in developing the atomic bomb set the pattern; if enough money is expended in research, any problem can be solved, and Congress quickly became convinced that if a little money for research is good, a lot is much, much better. Principal attention in medical research was devoted to cancer, cardiovascular disease, and mental illness. Soon the resultant hoard of knowledge became so great it staggered the minds and the imaginations of the researchers, the educators, and, particularly, the poor students who were attempting to gain footholds at the base of a mountain of knowledge, most of which has been developed since they were born.

Several approaches have been developed to systematize or reorganize this mass of new knowledge into a reduced and more comprehensible form that can be assimilated by students, as well as those trying to teach them. Systems oriented, interdepartmental committee instruction is one such approach, introduced at Case Western Reserve in the late forties and adopted by many other medical schools with varying success. Others adopted a method whereby the period of structured instruction was reduced to a minimum and designed to teach only those "essential subjects which any Doctor of Medicine should know". These 'essential subjects' were designated as Core Knowledge, and the method, the Core Curriculum. The time thus freed was to be devoted to electives or selectives where students' interests determined their curricula content. The advantages of flexibility created by such a

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In brief . . .

If the care of trauma victims is to catch up in quality with the care consistently extended to victims of cancer, coronary thrombosis, and mental illness, trauma is first going to have to lose its 'stepchild status' in medical school curricula, this specialist in the delivery of emergency medical care argues.

Dr. Wickstrom, Lee C. Schlesinger professor and chairman of the Section of Orthopaedics at the Tulane University School of Medicine and a member of the Committee on Trauma of the American College of Surgeons since 1964, cites the basic Core Curriculum and the popularity of social medicine and the behavioral sciences as being responsible for the displacement of courses in trauma management.

In order to help trauma management receive proper recognition on a national scale, Dr. Wickstrom suggests that three general groups—medical students at both the undergraduate and the graduate levels, paramedical personnel, and the general public and its elected officials—must be reached by educational programs in trauma.

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program were attractive particularly to students with maturity and intellectual curiosity.

Those of us who have experienced the new methods recognize that both have certain advantages as well as disadvantages. Interdepartmental committee instruction with clinical orientation has been accused by some of deemphasizing the influence of the basic science participants to the point that sufficient scientific knowledge to comprehend the basis for management of the clinical problem was not being acquired. Some faculties complain that when there is insufficient liaison between participants in interdepartmental committee teaching, the end product resembles an elephant, which has been alleged to have such unbelievable characteristics that it must have been designed or at least assembled by a committee.

The Core Curriculum method also appears to have problems, one of which has to do with time. Students have accused some departments with reduced instruction time of expecting the acquisition of the same amount of knowledge learned in less time, with impossible overloading the result.

QUALITY OF ELECTIVES is another Core Curricula problem. In order to offer variety, the quality of electives occasionally suffers. Some instructors and students have approached electives with the attitude that since one 'elected' to take a certain course, one could 'elect' to study or not to study and that grades for credit in electives were unimportant. You can imagine the embarrassment when the curriculum committee of our institution discovered that an insufficient number of elective courses were being offered to allow students to fulfill the minimum required number of electives established by the faculty to insure that students would not waste the time freed by Core Instruction.

Some educators have gone so far as to state that, instead of representing the heart or the meat of essential knowledge, the core might be compared to what remains after the fruit has been eaten. One added that today's core may be tomorrow's garbage.

I have already expressed my concern with Core Curricula in a forward to *The Language of Fractures*,[2] when I stated that in Core Curricula we are teaching less and less about more and more. We soon might reach the point where our graduates know nothing about everything. With Dr. Schultz's book, at least they should be able to talk about what they may not have learned about fractures.

It is of more than passing interest to note that one of the most liberal medical faculties has recently discarded its Core Curriculum, which used interdepartmental committees in the basic sciences, because of the marked drop in achievement by its students on the national board examinations during the five year period of Core Curriculum instruction.

How has education in trauma and emergency care of the seriously ill or injured fared during this period of revolution in research and education? As far as research from the national standpoint is concerned, it appears that trauma has benefitted little from the energy and monies expended. This was clearly spelled out as early as 1966 in *Accidental Death and Disability—The Neglected Disease of Modern Society*.[3] Insufficient effort has been made by HEW to upgrade support of emergency care services in proportion to the need. In spite of reorganization and centralization of grant support into the new National Institute of General Medical Sciences, only nine trauma research centers have been established. Surgical training grants have been curtailed or practically eliminated.

HOW HAS TRAUMA FARED in medical education? Several studies have been completed recently on the actual teaching time alloted to emergency care in medical schools in the U.S. and Canada. In 1970, Stephenson reported that there was an increased awareness of the pertinence of teaching emergency medical care as evidenced by the fact that 33 out of 106 schools reported they had didactic courses in the emergency management of the acutely ill and injured.[4]

Ruoff, reporting for the Committee on Injuries of the American Academy of Orthopaedic Surgeons in 1974, found that 72 percent of the responding schools had some form of training in emergency care as part of their curriculum. Such education was required in 46 percent of the schools and was an elective in the other 26 percent. The committee expressed enthusiasm over the increased availability of instruction in trauma, from the 31 percent reported by Stephenson to the 72 percent found in their survey. They concluded that "we still have a long way to go", and they particularly deplored the fact that many medical graduates "have no interest as to how to respond to medical emergencies in any setting".[5]

In preparation for this oration we sent questionnaires to these same schools, asking professors of surgery and orthopaedics to estimate the actual hours of teaching time devoted to CPR (cardipulmonary resuscitation) and all aspects of emergency care of trauma. We had responses from professors in over 90 schools. I identified the meaning of CPR because a number of respondents indicated that they did not know

what CPR meant or whether, when, or where it was taught in their schools. As one would expect, time devoted to teaching emergency care varied immensely from as little as 10 hours during the entire four years, to as much as 240 hours in a single year. Some reported exposure to trauma management during all four years and some reported exposure only as an elective course, usually offered during the junior or senior year.

Only 21 percent of the professors of orthopaedics and 33 percent of the professors of surgery were satisfied with the time allotted them for education in trauma. The majority of the respondents deplored coverage of trauma only as an elective, and a number of respondents expressed the opinion that teaching the management of trauma to freshmen and sophomores was unnecessary.

I MUST PREFACE my unenthusiastic assessment of the data developed in these three surveys by first pointing out that many may misinterpret my fundamental, characteristic attitude of realism as cynicism. No matter how it is classified, I believe, realistically, that trauma management does not receive sufficient emphasis, and that emergency medical care is still considered a "second class citizen" by too many faculties. From personal experience I believe that instruction time for the teaching of emergency care in surgery and in the surgical specialties has actually been eroded. Much of the lost instruction time has resulted from the introduction of new forms of curricula. Often the time made available by implementing Core Curricula has been utilized for social medicine and other behavioral sciences such as psychiatry and community medicine. During the past 25 years psychiatry has had practically unlimited resources available for faculty salaries, research, and subsidized graduate training. As in all financially hard pressed social institutions, which describes the status of most medical schools, those departments with affluence have influence.

The shift in instructional time has occurred for several reasons. The various behavioral sciences and social medicine have become more popular primarily because of the need to prepare the new physician to contend with the ever expanding bureaucracy originating either in government or in organized medicine. Without this preparation the new physician could not survive when he goes out into the new world to deliver health services rather than practice medicine.

In spite of the pessimism I have so far expressed, I must admit that surgeons have discharged their responsibilities fairly well as far as teaching in this area is concerned. I still contend, however, that the importance of teaching emergency medical care has not gained proper recognition.

If the surgeon is to succeed in increasing the prestige of teaching emergency care, he must interject himself into basic science teaching, and make attractive and meaningful elective courses in trauma management available to undergraduates that will successfully compete for their time and attention. Above all, he must successfully enlist the help of faculty in other disciplines to succeed in winning more time for the teaching of emergency care. The surgeon cannot win this battle alone; he must successfully recruit the cooperation of other disciplines within the medical school if he is to succeed.

Surgeons must also work to increase recognition of the importance of teaching emergency medical care in postgraduate medical education; particularly to gain support for trauma research centers and for training grants in this area.

The second major area of education in trauma concerns the training of paramedical personnel. Farrington's 1973 Scudder Oration, "The Seven Years' War",[6] was a magnificent summation of paramedical education in trauma, to which I can add little except to emphasize its importance.

THERE ARE FEW SURGEONS active in trauma care who are not aware of the increasing role paramedical personnel play or can play in administering emergency care. Many of you have had personal experience with corpsmen in the armed forces. Anyone who watches Kevin Tighe and Randolf Mantooth perform intriguing miracles every Saturday night on TV certainly recognizes the actual extension of the physicians' skills emergency medical technicians (EMTs) can achieve. We must also realize that hospital-based members of the team are an integral, if less dramatic, and most important part of this effort, as witnessed by Julie London and her present husband Bobby Troup.

How effective is the well-trained emergency service team in rendering care? We would first cite Waller's study of delivery of emergency services in Vietnam[7] which showed that the improved survival rate was due to the quality of care furnished by corpsmen in the field and not to helicopter transportation.

Frey's significant study of autopsy findings of accident victims is of equal importance.[8] He concluded that 20 percent of the victims could have survived if endotracheal intubation and intravenous therapy had been available through EMTs at the accident scene.

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Who must be responsible for the development of training programs to produce these paramedical personnel? Who is to teach them?

Certainly this must be a responsibility of the physician and primarily the surgeon. The prevention of death and a decrease in morbidity following injury is as much a responsibility of the physician as is the prevention of contagious disease through immunization.

How does one go about training such personnel? There are two basic methods of training, the first conducted and controlled by organized medicine where courses are presented by practitioners at the county or community level. Programs have been developed in Wisconsin and in Illinois that can serve as models for the rest of the country. The second method is to organize instructional courses through community colleges which would qualify graduates for certification. It is important that physicians maintain control of such programs in order to insure their content and quality. In spite of the fact that the input from medicine will become restricted and relatively dilute, if adequate avenues of communication are maintained there need be no reason why the educators cannot continue to educate and the doctor continue to teach, even in a community college.

IMPROVEMENT of training emergency personnel must include all personnel, because the entire team must function as a unit with the EMT acting as an extramural member. Some schools, including the Medical College of Georgia, have been studying team development by combining successfully a portion of the curriculum of medical students, nurses, physician assistants and technicians.

The issue is not whether to have teams or not, they already exist. The issue is whether through education we can develop a team that not only knows the name of the game but also the score; a team on which the physician will avoid deification yet remain a leader; a team on which the nursing and other personnel are respected and delegated responsibilities which allow the team to function to its fullest capabilities.

Education of the EMT and other members of the team is only the first step. They must be certified through examination and by demonstration of skills, then given the authority and recognition commensurate with their capabilities. Lastly, personnel trained in the use of modern equipment and techniques cannot apply these techniques without the equipment.

Before leaving the education of emergency care personnel we must touch briefly on the emergency room physician. This newly emerging specialist needs the surgeon's help in training to insure proper application of diagnostic skills, resuscitative measures, and emergency therapy to prevent errors in management which might prove costly as far as patients' lives are concerned. We cannot become involved in jurisdictional disputes as to who is to deliver what care to whom. We must work to assure that the physician who initially sees the accident victim in the hospital is capable of delivering first-class emergency care, no matter what title he bears or what hat he wears.

THE THIRD AREA of trauma education is education of the public, the public's officials, and the politicians. This educational effort is the most difficult, the most exasperating, the most challenging and, by far, the most important of all. If we are to improve the delivery of emergency health care by improved training of the team for delivering such care, and improve and upgrade the equipment and facilities with which to deliver these services, we must have support of the public. This support must be shown by the public through its demands for improved services through improved standards, training, licensure, equipment, and enforcement of the regulations. Support must also be proven by allocating funds to finance the entire program, and funds do not emerge without public demand. If necessary, we must educate the public as to what it needs and what it wants.

Let us first consider the national scene. We have previously mentioned the changes HEW and the National Institutes of Health initiated in 1963 whereby the trauma-related research and training grants were lumped in the newly established National Institute of General Medical Sciences (NIGMS). By 1965 this was funded in the amount of six hundred thousand dollars. When Accidental Death and Disability was published in 1966,[3] it stimulated assessment of the total effort in the area of trauma care by the NIGMS staff. This confirmed the White Paper findings that in proportion to the problem, little was being done. Trauma-related research projects were being supported by all government agencies at a cost of under four million dollars per year. In response to the obvious need, a trauma research program was initiated using monies earmarked for surgical research grants. The first research center was established in 1966 under John M. Kinney at New York City's Columbia-Presbyterian Medical Center. The ninth one was just opened and is a burn center. Unfortunately, the training grants for surgery have become extremely restricted or have disappeared entirely.

I mentioned trauma research centers because of the spin-offs from this program, such as the dramatic changes that have taken place in

patient care with reduction of mortality rates in severely injured patients at these centers. Publication of the proceedings of the International Trauma Symposium of 1970[9] is one of several benefits of the program.

IN SPITE OF the impressive figures and publications resulting so far from these trauma programs, in my opinion funding has been entirely inadequate, particularly when we consider that trauma has become the leading cause of death from age one to forty-four years in some areas, and that 22 million bed-days of hospitalization are required each year to care for the surviving injured. This figure exceeds the number of bed-days required to care for all the heart patients in this country each year, or for all the babies born each year, and is more than four times greater than the number of bed-days required to care for all cancer patients in this country each year.

More funds have recently been made available through the Health Resource Administration Office of HEW with the enactment of Public Law 93-254, which should result in improved emergency care. This has made funds available to communities to use to study their needs to improve emergency medical services, and to fulfill these needs. This is another point of attack which needs the action at the national level to insure the continuation of such funds. It also requires efforts by state and regional trauma committees to insure that state governments are taking advantage of such funds, and that such funds are being utilized to accomplish the most improvement in emergency services. This requires personal input and vigilance at all levels.

Funds from the Department of Transportation have become available, which either directly or indirectly could lead to improvement in delivery of emergency health services. The Highway Safety Program contains specifications published by DOT designed to improve highway safety. These specify what an individual state's highway program must contain to meet minimal emergency medical services standards to "insure that the best resources of knowledge, techniques and equipment are available to victims of highway injuries".

Each state must develop a comprehensive EMS plan or face loss of its federal highway funds. So far only one state has had its funds curtailed. This distinction belongs to Texas whose legislature procrastinated and failed to develop any plan for EMS until the state's federal highway funds were actually stopped for a few days. I especially emphasized the words develop and implement since many states have developed plans without implementation and their federal highway funds continue to pour in, while victims of highway injuries continue to go without services, such as resuscitation and maintenance of life. DOT admits laxity of enforcement but contends that the threat is still there and that is all that is needed. We must make certain that DOT insists on compliance to and implementation of these standards, and that such federal highway funds actually reach the programs which will insure proper EMS for the "victim of highway injuries" and not be syphoned off into pet schemes for the benefit of the politician.

TO ILLUSTRATE how fallacious DOT's thinking is, I would like to explore the relationship between the development of medical service plans without implementation and its relationship to increased mortality rates in the state I am most familiar with, Louisiana.

I was privileged to work as a consultant to the Gulf South Research Institute when a comprehensive emergency medical service plan was adopted in 1968. I was proud of this effort and sent many of you copies of the comprehensive report[10]. I have no intention of reviewing this entire report but I would like to review some of the findings in certain areas to indicate the problems facing this state. To illustrate the gravity of the situation, I have selected, from many areas involved in EMS, two with which you are all familiar, ambulance services and ambulance attendants.

In 1968 we found that there were 214 organizations offering general emergency ambulance services. Only six percent listed ambulance service as their primary business. These 214 organizations had 422 vehicles of every description from regular ambulances to pick-up trucks. Forty-seven percent of the vehicles were four years old or older.

Although Isadore Cohen, Sr. had been instrumental in getting the first law pertaining to minimum equipment for ambulances in this country enacted in Louisiana decades ago, no one seemed to have enforced it before 1968. We found that only 10 percent of the ambulances met the minimum standards of the Committee on Trauma of the American College of Surgeons. There were an additional 55 vehicles (13 percent) that could be up-graded to minimum equipment standards by adding one or two items. Most important, we found that 50 percent of those emergency vehicles serving towns of less than 10 thousand had only three items: a pillow, oxygen, and a flashlight.

THE SITUATION regarding attendants was more depressing. Fifty-four percent of the

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ambulance services in the state did not send two people with an ambulance to answer calls. Fifty-one percent of the attendants had only minimal Red Cross training, and in rural areas only 24 percent of the attendants had more than minimal training. In spite of this apparently inadequate training, 70 percent of the personnel interviewed claimed ability to splint fractures, "control hemorrhage", handle emergency births, and handle similar emergency tasks. This deficiency in expertise may not have been as bad as it first appears, since only 56 percent of the ambulance services reported that the attendants regularly rendered first aid at the emergency scene anyway.

In February 1974, another survey was reported by the State Office of Comprehensive Health Planning, which is interesting to compare with our original survey of 1968. We find the number of ambulance services and vehicles have both decreased in five years. There are now 120 services and 241 vehicles. The variety of the vehicles continues about the same, although 39 percent of the vehicles are properly designed ambulances, and the pick-up trucks are down to three percent of the total; however, 55.2 percent are four years old or older.

As far as the emergency vehicle equipment is concerned, the later survey reflected some improvement in five years. Twenty-four percent of the emergency vehicles have equipment that meets ACS Committee on Trauma minimal standards. Of the 36 items on the minimal medical equipment list recommended by the ACS C/T, an average of 14 items were missing. Unfortunately, equipment needed for extrication was sadly lacking. Again most important was the fact that over 50 percent of the ambulance services indicated that they did not provide rescue or extrication services, and only 39 units (16 percent), all in larger metropolitan areas, had any significant extrication equipment.

There have been improvements in the education level of ambulance personnel in the past five years. The 1974 survey revealed that 63 percent of the ambulance services always had two attendants on all calls which is an increase of nine percentage points over the 1968 survey.

I have been active in teaching emergency medical personnel for the past seven years. During the past two years, the state hospital board, under the Louisiana Health and Social Rehabilitation Services Administration, has afforded 80-hour EMT courses throughout the state. In spite of these efforts, the Comprehensive Health Planning Report[11] cited the low educational level required and attained by ambulance attendants, which further highlights the inadequacy of Louisiana's ambulance service. To demonstrate the inequity of regulations, our present state law requires ambulance attendants to have the 26-hour Advanced Red Cross first aid training or its equivalent for certification, whereas the man who cuts my hair is required to have one thousand hours of training and apprenticeship to become licensed.

EVEN WITH the increase in improved training courses, the 1974 survey revealed that of 1,085 ambulance attendants, 59 (five percent) had no formal training, and 299 (28 percent) had only standard first aid medical self-help or equivalent courses. In other words, one-third of the attendants were operating in violation of the law. It was of some consolation that of the two-thirds who met at least minimal requirements of training, 167 (15 percent) had approved EMT training or higher educational achievements. Unfortunately, 95 percent of these with EMT training or better were located in major metropolitan areas and only 16 (three percent) were in rural parishes. Incidentally, many of these statistics were gathered with great difficulty because of the inadequacy of ambulance records. Six (0.05 percent) of the services kept no records and of the 114 services which did, only 56 percent described the type of emergency. Less than a third recorded the care administered to the patient. Over 90 percent of the records did at least identify the patient and the location where picked up, but only 71 percent described what deposition was made of the patient.

Other aspects of delivering emergency health care in Louisiana are equally as abject. Both the state and local governments have had the authority to act decisively and upgrade these services without extensive additional legislation. Most police juries which govern the rural parishes, and the sheriff of each parish, have the power to operate ambulance services or contract for such services. Clearly the power to act is there.

What are the demonstrable results of an emergency medical system as just described? I believe it is more than coincidental that the accidental death rate in Louisiana is over 63 per 100 thousand population. Only 19 states exceed the Louisiana rate. Louisiana's death rate for motor vehicle accidents in terms of deaths per one hundred million vehicle miles and deaths per ten thousand registered motor vehicles also have exceeded national averages for the past seven years. Accidental injury is the leading cause of death for persons between one and 37 years of age in Louisiana, and more deaths are caused in persons between five and 24 years of age by accidents than all other causes combined. In 1971 there were 2,301 persons in Louisiana who died as a result of acci-

dents and in 1972 the figures are similar, with 2,363 deaths as a result of accidents. There were 59,897 people injured on Louisiana highways.

ANOTHER SOURCE OF CONCERN is the number of individuals who die of heart disease each year in Louisiana and in the United States. Heart disease was responsible for 12,390 deaths in 1971 and 12,617 deaths in 1972 in Louisiana. As you know, the majority of heart-related deaths are due to acute myocardial infarction where, if the patient is to be salvaged, definitive care must be instituted without delay. It is obvious that lives now being lost could be saved and the disability figures diminished if an effective emergency medical service system were available to the citizens of our state. According to the ACS Committee on Trauma, ten percent of the deaths attributable to heart disease and 15 percent of deaths attributable to accidents would be saved if proper medical treatment could be initiated at the scene of the incident and continued on route to an emergency medical facility. If these percentage formulas were applied to the situation in Louisiana, they would reveal that over 1,600 lives could be saved each of the last two years.

I have tried to show that on the national, state, and local levels deficiencies exist because of apathy and lack of public awareness or identification with the problem. As Haddon pointed out at the Airlie Conference,[12] accidental injury and trauma suffer politically because they lack a constituency. For psychological reasons, which are hard to comprehend, people identify themselves with the vast problems of cardiovascular disease, cancer, mental illness, nervous diseases, blindness and numerous other illnesses but refuse to be identified or concerned with injury. It is equally difficult for me to understand how a country whose governmental emphasis in matters of health has been as poorly planned and ill-devised as our national health planning has been can ignore trauma. When we consider that the great emphasis and interest in cancer research may have been stimulated by the death of Vandergriff, in heart disease by the involvement of Eisenhower's coronaries, in mental health by the Kennedy's family problems, and with the rash of violence resulting in the assassination or injury of national leaders, why accidental death or trauma should remain so neglected is a mystery.

WHAT IS THE SURGEON'S responsibility in solving this problem? Since it is a problem concerned with health and since the surgeon is identified with management of trauma more than any other individual in medicine, it is my contention that it is the surgeon's responsibility to attack public and political apathy. As previously mentioned, the American College of Surgeons' Committee on Trauma has continued to cry out against the inequities and lack of concern with the problems of managing trauma, but, unfortunately, in many instances this has been a solo voice crying in the wilderness. The two surveys in Louisiana I mentioned earlier both had input from local members of the College's State Committee on Trauma, input which resulted in meaningful data.

But the recommendations made in the first survey were inconsistently implemented and I am willing to wager that the sound recommendations which developed out of the second survey will not be implemented any better unless public apathy is overcome by aggressive action on the part of those of us who are concerned with the management of trauma.

How can we gain the public's attention and the attention of public officials and politicians? In discussing this with police officers responsible for delivery of emergency medical care and transportation in New Orleans, I have been encouraged by my advisors to "put the politicians' feet to the fire". Unfortunately, few of us have the political acumen or, to put it more bluntly, the political clout to outpolitic the politicians. No matter how excellent an education program is developed to inform the public of the problem, if there is lack of continuity or insufficient pressure developed to bring about action, the politicians' continued silence and failure to respond to questions soon leads to a return of public apathy and the matter is quickly forgotten.

It is my contention that we should adopt the tactics of the environmentalists and launch a three-pronged attack on the problem of educating the public, which includes public officials and politicians.

The first would be to broaden our base of concern to see that both the physicians and the public become identified with the problems associated with trauma by active participation in the American Trauma Society. We must involve laymen in the American Trauma Society and we must be certain that it becomes an activist organization with adequate exposure in the media.

The second prong of our attack would be to call on individual politicians who may need enlightenment as to the seriousness of the problem. I have found a surprising number of politicians who are not stupid and are sensitive to reason and educational enlightenment. Personal identification on the part of public servants with certain aspects of emergency health

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care, such as their potential need for immediate coronary care, may have a decided influence on their response to appeals for improved emergency medical services.

IF WE FAIL TO ACCOMPLISH what we feel are legitimate goals, a third prong, which has been so effectively used by the environmentalists, remains. Since most politicians are attorneys, and are therefore sensitive to judicial procedures and have an unusual sensitivity to court actions, the use of class action suits might correct the apathy so frequently encountered in politicians by those who are attempting to correct a deplorable but unpopular situation. The class action suit, as most of you know, is a suit brought by an individual on behalf of everyone in a particular class. The Supreme Court has recently ruled that before a class action suit can be filed, everyone in that particular class must be notified of the action that an individual is taking on behalf of the entire class. It has not been spelled out what form notification of the class must take, but after solving this phase the actual cost of filing such suits is not excessive.

I feel certain that even in a city such as New Orleans our mayor would become more sensitive, and the city council would at least pay attention to a multimillion dollar suit brought on behalf of those people who do not have modern emergency medical services to adequately take care of their accidental injuries and cardiac emergencies. If this suit were fortunate enough to reach the proper federal courts, and not be lost in the quagmire of overloaded dockets, I am certain that politicians would understand the voice of the court, and would at least be aware of the fact that a problem exists and demands a solution.

It is my contention that too many of our efforts over the past 52 years have been expended in convincing each other that trauma is a serious problem, that fractures have been poorly managed, that people have died from accidental injuries, and that an appreciable percentage of those sustaining injury can be saved if proper emergency service and definitive care are applied. What we need now is to quit talking to each other and address the public in general, and particularly the politicians, in order to secure the resources needed for funding of improvements and expansion of the existing services. It is not enough that functioning systems for delivery and organization of emergency medical services are planned, they must be applied and be available on the street, on the highway, in the car, and in the home if we are to significantly reduce the accidental death rate.

It is time we quit talking and started acting. I strongly urge each of you to identify yourself with the education of the medical student and young physician in the management of trauma, to participate in developing paramedical personnel needed to extend your efficiency in solving trauma related problems and, above all, to work within the organization and individually to attack with vigor the public apathy and gain attention of the public servant, the politician, in order that the resolution of these problems can be brought about. It is my contention that the education in these fields is the responsibility of the surgeon who bears the title of "Doctor" defined in the dictionary as a learned man.

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