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PRESIDENTIAL ADDRESS:

A CONCERNED COMMENTARY ON COST CONTAINMENT

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RARELY does one have the opportunity to address his professional colleagues on a serious subject which concerns him, other than in committee meetings, in the doctors' lounge or in the locker room between cases, and on those occasions the opportunity to expound is severely limited. Here, at least, I know that I have your whole-hearted and undivided attention for two reasons: first, it would be painfully obvious and patently rude for you to rise up and leave; second, the lunch hour is rapidly approaching.

Forgetting for the moment that you are a captive audience, may I say that I consider it a singular honor to have been your president and to have the privilege of addressing you today on what Dr. Ben Eisman calls "Surgery's Greatest Challenge."[4]

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Escalating Costs

An 80-year-old man was hospitalized with small bowel obstruction secondary to known peritoneal implants from an adenocarcinoma of the colon, a familiar enough problem. Two days after admission he was operated on and three days later died. I do not intend to discuss or question the surgical management of this man's disease, nor do I intend to present a learned exposition on the ethics of whether or not he should have been allowed to die "with dignity"—all germane issues, to be sure. Permit me, instead, to review his hospital bill with you. (Ours is a community teaching hospital in a city of about 150,000 and costs are presumably lower than equivalent hospitals in urban settings. Our educational surcharges for medical students and family practice residents are probably considerably less than the average university teaching institution.) Let me proceed with the hospital bill.

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The operating room and recovery room charges totalled $325 plus an additional $125 for two blood transfusions. Add to this $430 for his semi-private room, $250 for pharmaceuticals, and about $240 for laboratory studies including various x-rays. Miscellaneous items amounted to another $360. The total hospital bill was $1700. Professional fees are estimated at $600 for the surgeon and his assistant, $125 for the anesthesiologist and $50 for the radiologist for an additional $775. The grand total becomes nearly $2500 for five days of hospitalization ending in what may have been a predictable death.

Medical World News recently reported that a 44-year-old man was deliberately paralyzed with curare for 72 days for acute necrotizing pancreatitis. He survived only to die of complications from an unrecognized pulmonary abscess. The total cost of his hospitalization was an unbelievable $300,000.[7]

At the other end of the spectrum, a 12-year-old boy had a simple scar revision. He was in and out of the hospital in less than four hours. My son's hospital bill was $340 for an outpatient procedure.

I know that it is no news to you that our staid, respected, and beloved profession is taking a beating today. As a ship at sea, on the one side she is being buffeted by the strong winds of societal change, consumerism, and politics, and on the other side by shrill accusations of unnecessary surgery, poor medical care, economic self-interest, lack of sensitivity, and fraud. As distressing as these accusations may be, they do not include the major issue, which was identified by Egdahl in a recent issue of the *Annals of Surgery*. He opens his article on fee-for-service HMO's with the following statement: "Health cost control is the single most important health issue today."[2]

The public press in newspapers and magazines and our own journals and professional news sources have flooded us with the statistics—a litany of the high cost of medical care. The awesome amounts bear repeating. The total cost of medical care in this country is alleged to equal 8.6% of the Gross National Product or nearly 140 billion dollars a year—over $650 for every man, woman, and child. Assuming the average working man receives about $9000 a year for his efforts, this translates into working one month a year just to pay for medical costs. That the product purchased with this astounding amount of money may be well worth the price is not the issue. The issue is the escalating cost of the product and the unfortunate fact that this nation's resources are being strained.

There is little to be gained if we only search for scapegoats for the high cost of health care. Of course there are multiple factors to consider and each has its place. Inflation, increasing demands for more services by a sophisticated public, the fear of malpractice and the defensive medicine it insidiously promotes, a technologic imperative to use expensive equipment and available laboratory facilities, overutilization, higher wages, professional fees, the habits of the populace and government regulations all add to the cost. With respect to the latter, the New York Hospital Association reported in 1976 that 164 separate governmental agencies regulate 109 areas of every hospital, and 82 of these areas are monitored by 10 different agencies!

Our Role

The variable I wish to consider today is the role we physicians and surgeons play in the cost of medical care, and I hasten to add that mentioning it last in no way is intended to imply a hierarchical position! Dr. William P. Daines, president of the American Society of Internal Medicine, is quoted as stating that "the economic impact of clinical decision-making [by physicians] is a factor that can no longer be passed over and must be made a consideration in each step of patient management."[8] After all is said, it is we, the physicians and surgeons, who initiate and generate these costs by our actions: we admit patients, we order the various diagnostic procedures, we direct the medical and surgical management and the sequence in which it is done, we decide the

time of discharge, and finally we advise the patient when he can return to work or when he should be placed in a nursing home. We do all this honorably, thoughtfully, and reasonably . . . or do we?

If there is a central thesis to my presentation, it is that we physicians are, in part, responsible for the present cost of medical care, and thereby incur some of the responsibility for searching for the means of containing this cost.

In the Shattuck Lecture before the Massachusetts Medical Society in 1976, Dr. William R. Roy, the physician legislator from Kansas, states that "it is increasingly necessary for physicians to measure the outcome of health services on the basis of cost benefits."[9] Furthermore, he quotes a resolution adopted by the House of Delegates of the American Medical Association 18 years ago. It reads as follows: "Medical Profession Responsibility: (1) the individual physician and the medical profession as a group must also be concerned with maintaining a proper balance between adequate medical care for the welfare of the patient and *economical use of public funds.** (2) The individual physician, as the key person in the care of the welfare patient, must, therefore, take into consideration not only the medical *but the financial aspects** of various acceptable modes of treatment."[9] In May 1976, the president of the American Hospital Association said, "As efforts to regulate hospitals continue, the physician will have to balance benefits with cost, not only to the individual patient but to the hospital and all its patients." In his presidential address to the American College of Surgeons last year, Dr. George Dunlop said that "it is apparent that the most important problem facing surgery is the escalation of medical costs."[2] Dr. Eugene Mayberry, Chairman of the Board of Governors of the Mayo Clinic, in an editorial in the *Mayo Clinic Proceedings*, writes, "What the solution requires (to control costs), however, is not cooperation of physicians but assumption of an aggressive leadership role and the development of programs by physicians."[6]

The response to this high cost of medical care comes from many quarters in a bewildering array of programs and additional regulations. State and federal governments desperately seek methods to control costs. PSRO's and Health Systems Agencies were established primarily to control costs. The Joint Commission on Accreditation of Hospitals now requires hospitals to engage in medical audits to assess the quality of medical care, and a byproduct of that is cost control. Third-party agencies are attempting to curb costs. President Carter is asking for a ceiling on hospital cost increases. Labor and management are cooperating more and more in seeking ways to control health costs, thereby decreasing loss of profit by such maneuvers as seeking a second opinion for elective surgery.

Frankly, I wish we could practice our art and craft with the degree of freedom enjoyed not too many years ago. We cared for our patients with nary a thought, much less concern, for how much it would cost or how it would be paid for. But that day has passed.

To some extent we are caught in the middle—public and professional opinion is that human life is priceless and no cost must be spared in its preservation.[1] On the other hand, the public (through its political representatives) and the media are stating in no uncertain terms, and often in rather shrill tones, that we providers in the health care industry are spending entirely too much of the public and private weal on the medical care they want us to provide. That the public is partially responsible for its state of health as it smokes, overeats, drinks to excess, and allows drunken driving to continue because of lenient laws, receives only occasional attention by our critics.

I am not certain that we should necessarily feel elated by lay testimonials from satisfied patients nor by occasional laudatory editorials in the national and local press. On the other hand, accusatory postures by the politician and by the reporter serve no purpose other than to make us

* Italics mine.

more defensive than ever. It is naive to assume that we can change our adversaries by counterattacking the press and the government. Would it be equally naive to assume that we, as professionals, also cannot change? Surely not!

It is time that we acknowledge that medical care is indeed a costly business that urgently—now, today—deserves our attention, and any investigation or proposal to control cost deserves our active support. Emotional responses on our part should be kept in the locker room where we seem to be so adept at playing the role of the gorilla, beating our breast and roaring with indignation at all those stupid unlearned critics who dare to criticize us. May I suggest that we begin to respond in a more mature fashion? As practicing clinicians we may not know exactly how to solve the very real problems of cost nor the ethical questions which will inevitably occur. On the other hand we have often demonstrated a capacity to learn new methods and techniques and surely none of us is offended by seeking consultation from another specialist. Surely we can adapt these professional characteristics to this particular problem.

Cost-to-Benefit Analysis

An entire book was published this year on cost-to-benefit analysis in surgery. Entitled *Costs, Risks, and Benefits of Surgery,*[1] it is edited by an anesthesiologist, a surgeon, and by a mathematician, and consists of over 20 chapters describing methodology of cost-to-benefit analysis, analyzing the benefits, alleged and real, of various common surgical situations in terms of their cost. These chapters have been contributed by physicians, economists, and statisticans who exhibit a surprising depth of understanding of such issues as elective cholecystectomy for asymptomatic calculi, the variable incidence of tonsillectomy and other common surgical procedures, suspected acute appendicitis, duodenal ulcer, cancer of the breast, and so forth.

With the information now available in the literature and using a concept of "shadow pricing" (the process of placing a dollar figure on such intangibles as life, pain, loss of companionship, etc.) these authors have arrived at various conclusions based on cost-to-benefit analysis. It is an excellent beginning to provide us with more precise methodology to facilitate our decision-making, which more than occasionally seems to emanate from such phrases as "I believe that" or "in my clinical experience." The authors correctly and candidly point out that much more data are needed and that their conclusions should not necessarily affect our clinical judgment for the individual patient, but they do raise some interesting and thoughtful interpretations. At the least they offer more logic for rational decision-making than do hunch, surgical dogma, clinical impression or conclusions based on non-randomized, inadequately controlled clinical reports.

One chapter demonstrates that there is little advantage of electively repairing inguinal hernias in the elderly as opposed to using a truss, as far as length of life is concerned. Extending the analysis further (and I assure you it is a very good analysis), substituting a $50 truss for a $700 to $1500 procedure for the 76,500 elective herniorrhaphies paid for by Medicaid would reduce total costs by nearly $90,000,000 per year for this procedure alone!

Does this ridiculous conclusion leave you dismayed, disgusted, angry, or intrigued? Read the book! For my part, I believe I would much prefer the more logical scientific approach that cost-to-benefit analysis seems to provide. The other approach to which we are so often subjected is a quick hearing in a congressional committee room with biased witnesses and even more biased legislators, followed by generalizations based on questionable statistics on isolated patient populations followed by newspaper headlines the next day. Do we really do all that unnecessary surgery resulting in thousands of deaths per year as Rep. Moss alleges?

We may have to prepare ourselves for some distressing conclusions. Our traditional surgical tenets, our favorite ap-

proaches to treating surgical diseases, and our comfortable little habits may "take a licking" as they are subjected to this kind of close scrutiny.

I have discussed the cost-to-benefit analysis approach to cost containment, because it represents a relatively different and unique approach to this vexing problem. But there are other methods and approaches available to us now, and they require little change in our knowledge and skills—only changes in our attitudes and habits.

What We Can Do Now

1. *Outpatient surgery.* An inguinal herniorrhaphy under local anesthesia as an outpatient costs approximately $750, including professional fees, compared with a traditional herniorrhaphy under general anestheisa followed by five days of hospitalization at an estimated cost of $1300. Using these conservative figures and assuming that 100 of us assembled here perform approximately 4000 adult hernia repairs a year which could be done as outpatient procedures, we could save $2,000,000 a year on that procedure alone. Outpatient surgery is safe and considerably less expensive. Patient acceptance is high. But I find it odd that acceptance by many surgeons is lacking.

2. *Earlier discharge of patients.* The average length of stay for a patient who has had a cholecystectomy at our hospital is about six days. Not infrequently patients are discharged on the third or fourth postoperative day with no increase in morbidity and an estimated savings of $300-$600 per patient. Patients subjected to appendectomy are not infrequently discharged within 48-72 hours and occasionally within 24 hours with no increase in morbidity. Each day of earlier discharge saves at least $150.

3. *Ordering less laboratory tests.* In economic terms, this is blunting the technologic imperative, a term which implies that simple availability of a test demands its use and encourages repetition. Must electrolyte tests be done on every patient who has vomited once, and must they always be repeated, particularly when they were normal on admission? Does a chest x-ray need to be done to confirm the clinical impression of atelectasis on the first postoperative day?

4. *Avoiding waste in the operating room.* How many of you require that several suture packs be routinely opened before you even make an incision? Or how many of you permit your nurse or operating room to continue that practice? Have you ever done a routine appendectomy with a single suture pack (atraumatic O Vicryl, for example) and Steristrips for the skin at a cost of about $2.50 compared with $8-$10 for four or five sutures and ligatures? Multiples of only $5 saved in this procedure alone can amount to significant savings. I submit that much of the suture and other supplies opened for your use represents utter waste. Exactly how pleased would you be if the mechanic who works on your car was wasteful with his supplies and tools and then included that waste in your bill?

5. *Discouraging the practice of allowing residents and students to order whatever they wish on the premise that this is one way they can learn.* Perhaps a few years ago this was a permissible luxury and an important ingredient in the learning process, but I submit that it is too expensive to allow the practice to continue. Ordering an extra set of tests of electrolytes and arterial blood gases at a cost approaching $50 without consulting the attending physician should not be permitted. I also question the routine triple blood culture when a patient has some postoperative fever at a cost of over $50—a fever which can often be diagnosed quite accurately by clinical means alone. Yet I see it happen time and again.

6. *Performing surgery expeditiously.* The mean time for a cholecystectomy in my hospital is about 45 minutes "skin to skin." Our mortality and morbidity rates are comparable to that of any other hospital. Patient care is not compromised. If you are taking one and a half hours and longer, I suggest you assess how you operate before peer review or a labor-management profile study identifies you. At a cost of $3 a

minute, operating room time must not be wasted. Another example: we close the abdomen routinely with continuous sutures. I would guess that closure with interrupted sutures will undoubtedly require an additional 10-15 minutes at the least, but at an additional cost of $30-$45. Is it worth it? And if you permit your resident to close in this fashion so he can learn how to tie knots, I submit that he can sew up a lot of orange peels at considerably less cost.

7. *Preadmission testing for with elective operations.* It is far less costly to have necessary blood tests, urinalysis, electrocardiogram and chest x-ray done on an outpatient basis up to one week before admission than to admit the patient a day early. Furthermore, it results in fewer last-minute cancellations of valuable operating room time. True, it may be inconvenient to the patient at times, but is not that inconvenience worth the $100 or more it would cost to hospitalize him a day earlier? This concept has been in use for several years at our hospital, with varying, but increasing, success and I strongly recommend that you introduce it into your own hospital.

What else can be done? I have some proposals.

We should become leaders in our respective hospitals in promoting cost awareness and containment.

We should encourage the cost-to-benefit analysis approach to surgical and medical decision-making and assist specialists practicing this new approach by developing and searching for the kinds of data they need, helping them to expand their analysis to include the quality of results as well as the quantity.

We should include cost containment and awareness in our undergraduate and graduate curricula. Residents and medical students should be asked to be aware of the costs they generate. Cefazolin and cephalothin have been shown to be equally effective; however, one gram of cefazolin given intravenously every eight hours is about equivalent to two grams of cephalothin given every four hours. At $10 per gram for each, the differential in cost between $30 for cefazolin and $120 for cephalothin is $90 for equally effective therapy. Furthermore, nursing time is saved, as well as the costs of intravenous tubing, because cefazolin is given three times a day compared with six times a day for cephalothin.

We should work toward the establishment of cost containment committees in our hospitals. These committees should be jointly manned by the medical staff and administration, reporting to the Medical Board and to the Board of Trustees. The functions of this committee should be more than advisory—they should include investigation and implementation. This is not a unique idea; it was suggested by the American Hospital Association last year.[1]

This leads me to my next proposal: that we foster a cooperative relationship with our hospital administrators, and they with us. We should cease our customary adversary positions and recognize that we and they are the best equipped individuals to solve the problem of cost containment. The more legislation that is passed and regulations promulgated, the more difficult the task will be, and there will be less and less room for local flexibility. We need to work together.

We should improve our relationship with the press and with the public, publicizing our efforts, and educating them in understandable terms about the cost of medical care. We must work cooperatively with the legally established agencies. Indeed it has been suggested that we can influence changes in medical care delivery far more by working effectively through Health Systems Agencies and PSRO's than we can through the political process.

My commentary on cost containment closes with the following thoughts. If we are to be effective in influencing cost containment in the delivery of our services, it will require a personal committment above and beyond our individual committments to being a good doctor, studying shock, investigating pancreatitis, teaching residents and medical students, and so forth. It is perhaps a sad note that in proposing cost containment I feel just a little defensive

and very vulnerable to criticism. By advocating that it may be possible to contain cost by safely cutting some corners off our traditional ways of patient management or by suggesting that we may be able to eliminate or radically change certain kinds of therapy, I will be leaving myself open to accusations of short-changing my own patients to their detriment. I am not for a moment suggesting that good medicine be abandoned in the pursuit of saving a dollar. But I question the myth that less expensive medicine is necessarily bad medicine. Perhaps one might say that wasteful and unnecessary medical care is immoral. I submit that we can deliver the same quality of surgery at less cost if we act as though we were spending our own money. Indeed, our stewardship to the public and to our individual patients carries with it fiscal responsibility in addition to the medical and ethical responsibilities we have always discharged so honorably.

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