When you and I first encountered the QRS complex, we learned it was descriptive of the electric events accompanying the heartbeat. Today I would like to introduce you to the other side of the QRS complex, the entire electrocardiogram, in fact, and discuss an alphabet of issues and alternatives facing the medical profession and America.

About 30 years ago when I became involved in medicine, the management of heart failure was easy—phlebotomy, digitalis and oxygen in the hospital and more digitalis and salt restriction in the office later. We weren't quite sure whether the tincture and the pill should give way altogether to the "modern" tablets. But science evolved rapidly. Soon we began to differentiate the specific disease entities that caused well known clinical syndromes. We rejoiced at the introduction of oral diuretics such as Diamox, but we continued to rely on injected mercurials. There was the latent suspicion that the advent of penicillin a few years earlier represented the capstone of modern medicine.

In medical school, we were taught to make accurate diagnoses and careful prognoses. Therapeutics was taught but briefly in the second-year pharmacology course. I remember well being told by one very distinguished professor that the clinical application of various drug treatments would best be learned later by attendance at meetings of the local medical society.

During the past 75 years we have come a long way from cupping, bleeding, purging and homeopathy; and who could have imagined the explosion of knowledge over the past quarter century. Our success at becoming based in science has been spectacular, expensive and highly visible. Small wonder then that society concluded that we can cure anything through research and that medical care should be a universal American right. We are no longer certain of our priorities. Does medical education and medical research still have a place in the financing scheme? Last week, the Wall Street Journal (March 14, 1983) noted that Social Security borrowed $12 billion from the Medicare Fund and that costs for senior citizen entitlements are growing faster than the income to these funds. The Wall Street Journal concluded that "the benefits for some seniors must be reduced."

The proposed national budget for fiscal year 1984 is $848.5 billion. Of that amount, 29% is allocated to defense and 42% to entitlements. Twelve percent is reserved to pay interest on the national debt while 11% is earmarked for grants, leaving only 6% for miscellaneous expenditures. It is clear then that any major cost containment will have to involve a holding of the line on defense and health care expenditures. It is planned that the new Tax Equity and Fiscal Responsibility Act as well as the prospective pricing plan will generate savings of $5 billion to $6 billion annually. It is worth remembering in this regard that these programs speak only to one-third of all health care expenditures since the private sector still shoulders most of the costs.

In 1965 we enacted Medicare and during the ensuing decade health care expenditures rose from 6.1% to 8.6% of the gross national product. During the next 5 years, expenditures rose only 0.4% and over the past 10 years, health care costs rose only another 1% to the current level of 10% of the gross national product. Thus despite increasing demands, there has been a significant slowing in the proportionate growth of the system over the past 15 years. While inflation has been significant, we are in trouble mainly because the actuarial projections, made in the 1930s, were based on the assumption that people would live 2 years past

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retirement at age 65. Now we are living, on the average, to age 77 and that is at least 10 years longer than we are budgeted for. It is that same group of people, of course, who are occupying 40% of the country's hospital beds and consuming more than 30% of the federal health care dollar. This is the real societal issue—are we willing to pay the price for progress?

It is tempting to look for a quick fix. I agonize with our state and national leaders as they are trying to balance the budget. Continuing resolutions, however, are not the answer. I hope that you and I in the profession can assist in the public debate and help set priorities. In doing so, we cannot argue for a continuation of the status quo. The events of change have indeed begun. We must provide a reasonable range of responses to the societal problems affecting all of us. An approach which may be ideally suited for a small town in the Midwest may be entirely inappropriate for a large city such as New York. I hope we will recognize that diversity of effort is what has made this country great and is likely to continue our progress. Nonetheless, we have to reduce our costs, even at the risk of reducing the quantity and range of services. We must be candid about the potential options and the consequences of various alternatives. We must educate not only those who pay for the care, but also those who happen to have the misfortune of being sick without third party coverage.

In ancient times hospitals served as jails, poorhouses, quarantine quarters, asylums and orphanages. In the early part of the 19th century we invented the charity hospital. Scientific advances and specialization soon gave rise to specialty hospitals. Further progress resulted in the establishment of comprehensive community hospitals and academic health science centers. There are now nearly 7,000 hospitals of various kinds and sizes. However, 40% of all the complex illnesses, almost all of the research and education and most of the charity care is provided in only 5% of them. It is these large referral hospitals which are at greatest risk as we are seeking to streamline the system and reapportion reimbursement.

As we move through the 1980s, we find ourselves at a variety of frontiers. The scientific frontier includes test-tube babies, surgery in utero, the production and utilization of biosynthetic insulin, measles and hepatitis vaccines and new technology including positron emission tomography, echocardiography and nuclear magnetic resonance.

Another frontier is our social environment, which includes the discovery that health care is now a marketplace phenomenon and that our patient population is changing. The age-adjusted death rate for heart disease and stroke has tumbled 19% and 37.5%, respectively, and the life expectancy for a 45 year old man has risen to over 77 years. There are more elderly individuals who have more infirmities and more diseases requiring, therefore, more medical attention.

Another new challenge is the advent of coalitions and contract care. We are beginning to see contracts with industry, with unions, with all levels of government, with groups of physicians, proprietary clinics, ambulatory centers and a variety of new business arrangements with the established insurance intermediaries.

I am pleased that the new prospective payment plan clearly recognizes the importance of tertiary care and of medical education. It is likewise heartening that the research budgets of the National Institutes of Health, despite major cuts elsewhere, have fared relatively well during the past two budget cycles.

“Q” for Quality

The “Q” stands for quality. It has been held for generations that it is our national goal to provide affordable care of high quality to all segments of society. As the real need for care is rising, it is clear that the quantity of our efforts will have to increase proportionately. In order to maintain an even quality of health care delivery, therefore, it will be essential that we maintain a high level of research and development, for it is only through more advanced technology that we can effect further savings as the volume of services will inevitably rise.

In our eagerness to contain costs, we have de-emphasized planning. The future can be shaped by our actions, but we must be clear about goals and objectives and that calls for thoughtful projections of need and programs. We must educate the next generation of physicians, nurses and other health professionals, but we must have a reasonably clear notion of the shape of the future for which we are educating them. We must develop new ideas, information and technology in order to be ready to accept the new challenges imposed upon us. We must broaden our perspectives to think of society as a whole and not just those who are brought to us with an acute illness.

I do not fear the new competition. There is really nothing new about it. America was built on the principle that everyone has an equal chance of becoming unequal. It is healthy in a free society to allow for the fullest expression of diversity. This means that we should not only tolerate but foster the multiple experiments in health care delivery. It is essential, of course, that all players work with the same rules and it is axiomatic that with the freedom to succeed, we must have the freedom to fail. Eventually we shall emerge stronger for having tried a variety of new approaches to the new problems facing us.

“R” for Research

The “R” stands for research. Somehow we have become complacent and now spend less than 2% of our health care dollar on renewal, on creative scholarship, on basic science
and on clinical investigation. Our colleagues in business and industry learned long ago that they must invest in the neighborhood of 10 to 12% of their annual budgets in order to remain competitive, to provide a new product line and to stay in business. It is clear that the current amount of research effort is insufficient to maintain America's preeminence in medical education and scientific discovery. In order to be able to address the relevant issues and to assure future generations of continued progress, we must be willing to earmark a higher proportion of our health care dollars from all sources for research purposes. It is now clear that contracts with business and industry and private philanthropy cannot be substituted for a stable base of ongoing support from the tax dollar. We could argue about the allocation of such dollars in terms of program projects versus grants to individual investigators, but it is essential that there be a certain amount of basic support for both programmatic and individual research.

“S” for Science

The “S” stands for science. At a time when we as a nation are preoccupied with economic difficulties, we must not ignore the fact that the entire world is in transition. We are moving from a labor and manufacturing society to a new way of life based on high technology and communication. It is this very fact which augurs well for the future because if we embrace the new biology and become comfortable with high technology, we will there find answers for incomplete solutions such as dialysis and organ replacement. It is only through these new kinds of investigation that we will be able to prevent illness and disability as well as reduce the cost of care. Think of the savings engendered by the discovery of poliomyelitis vaccine, to cite but one example of cost effective research.

“T” for Technology

The “T” stands for technology. In a recent article the late Walsh McDermott described the great medical advances of this century as having revolved about the discovery and implementation of new technology. He vividly recalled the drama of a major hospital ward at New York’s Bellevue Hospital in the 1930s filled with patients with rheumatic fever, lobar pneumonia, rheumatic heart disease, typhoid fever, meningitis, mastoiditis, tuberculosis and the like—all diseases now found almost exclusively in the medical textbooks. We have been engulfed by an explosion of medical progress, new diagnostic devices such as the CAT scanner, new techniques for definitive therapy, new cures and new preventions. In fact, we have become so scientific that we sometimes forget the hallowed traditions of caring, touching, listening. Can we in the midst of the drama of our progress and the pressures of financial and social crises rediscover the humanism of medicine? Can we, in fact, determine a theme for the next decade? How about a change in attitude? We need to reestablish the family as the nuclear unit of society. Most especially, we need to stop warehousing our senior citizens. It would be a major milestone of medical progress to care for our own older family members at home.

“U” for Uniqueness

The “U” stands for the uniqueness of our American medical education and care system. Over the past 75 years, we have made uncommon progress. True, there is still an uneven supply of physicians, unequal availability, affordability and accessibility of care, but well over 90% of our population have available to them the most advanced forms of diagnosis and treatment known anywhere on earth. Despite the current unrest and uncertainty, I am convinced that we can rise above our present difficulties and that we can afford to provide appropriate care to all who need it. The rhythm of life is marked by the pauses between events. We are now in such a transition. We must make the most of this break in the action. The future need not be a self-fulfilling prophecy of gloom and doom, the status quo or of self-destruction. We can direct our destinies, but we must act now mindful of our accomplishments and our traditions. We have always provided a believable hope to each of our patients; the time has come for the physician to cure himself.