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PROTECTING MEDICINE IN THE 21ST CENTURY

ILLUSTRATION: ALLAN M. BURCH

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I don't know if I became interested in science because I was interested in medicine, or if I became interested in medicine because I was interested in science. I have very early memories of wanting to be part of both the world of medicine and the world of experimental science.

From the time I was 6 years old I knew that I wanted to be a surgeon, and even as a young boy I trained my hands for future surgical maneuvers by cutting pictures out of magazines using both my right and left hands. But I also spent hours with my first chemistry set, at first just making colorful solutions, then conducting what may have been some rather sophisticated experiments for a 12-year-old. As a teenager I combined my interest in chemistry with my budding interest in surgery by performing simple operations on some of the many stray cats that prowled my Brooklyn, New York neighborhood. Using the ether that I supplied, my mother would anesthetize the cats while I removed an unnecessary organ, such as one ovary. We were a good team, and I never lost a feline patient!

After my mother's death in 1974 at age 86, I found among her treasured papers an essay that I had written as a high school senior. Its concluding paragraph summed up my hopes for careers in both science and medicine:

> Now at sixteen I picture myself a surgeon—nothing would give me a bigger thrill and would please me more than to operate on a human being from an altruistic viewpoint of relieving his ills, or from the scientific viewpoint of giving to science some information unknown to it.

That was the joint dedication to science and medicine that shaped my 40-year career as one of the United States' first pediatric surgeons. In the late 1940s and 1950s I, and a handful of other surgeons, were pioneers in this new field of surgery, often being forced to invent new operations as we encountered congenital abnormalities in newborns that had never before been corrected surgically. Although we were serving primarily as doctors attempting to bring healing and comfort to our tiny patients and their worried families, we were, at the same time, scientists pushing the surgical frontier into the unknown, all the while documenting our hard-won surgical successes. By performing thousands of new and then routine operations, through surgical research, published articles, and innovations in science, pediatric surgery eventually became an established surgical specialty. In those operations that were particularly difficult to perform on newborns, in the brief 40-year span of my surgical career I witnessed a mortality rate of 95% become a survival rate of 95%, thanks to the progress made in pediatric surgery.

In addition I learned that for all of its reliance on science, medicine is also an art. I learned that pediatric surgery requires a gentle touch, not just on the fragile tissue of an infant's body, but also on the fragile emotions of patients and their families. I learned that to do full justice to my interests in science, surgery, and research, I had to apply myself not merely to curing, but also to caring.

My stress on the human dimension of science remained important as I left my surgical career to become the United States Surgeon General. As surgeon general I always seemed to be issuing a "Surgeon General's Warning" about one thing after another that threatened the health of the American people: cigarettes, smokeless tobacco, AIDS, Reye's syndrome, violence, and a host of others. In each case I had to be certain that the science behind the health warning was impeccable and able to withstand the critics who sought to dismiss the warnings. But I also needed to ensure that the science made sense on a personal level. I had to listen to the American people as well as to talk (sternly) to them. Also, I wanted to be certain that my message reached the most vulnerable, often those high-risk groups living in poverty on the fringes of this affluent and sometimes overconfident society.

Now, in my present career as national lecturer, author, and advocate for the health of the American people, I find myself once again motivated by the concerns of both science and medicine. As I did when surgeon general, I strive to advise people about what they can do to promote health and avoid disease. In this ongoing endeavor I base my message on the best science, as, for instance, in my effort to communicate the dangers of hepatitis C. But I have also discovered that relying on the best science is not enough, because it can be pushed aside by politics and economics, or, to put it another way, by greed. For instance, the scientific evidence for the addictive dangers of tobacco is incontestable, but in June of 1998 the Republican Senate, influenced by tobacco industry money, in one way or another simply ignored that science when they killed the tobacco legislation.

One can observe similar trends in the world of health care delivery. At the end of the 20th century the scientific research

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community has done wonders to fulfill medicine's historic goals of prolonging life and alleviating suffering. Almost every day we read about a new scientific breakthrough that provides a cure for this, relief for that, and new hope for millions of people suffering from a variety of diseases. But we know that scientific progress is not enough. We have seen that the dictates of economics, that "dismal science," limit the benefits of medical science. I practiced surgery in the so-called "golden age of medicine," a time when it seemed that each day medical science could do more for patients, and more and more Americans gained access to the health insurance that would provide needed health care. But now, as daily an increasing number of Americans lose their health insurance (the United States has close to 50 million uninsured citizens), and as most of those who *are* insured are covered through economically driven managed care plans, those who need health care the most are often the ones who get it the least.

Physicians' unhappiness with a system that diluted their focus on patients with cost issues made them the initial advocates of managed care. The managers and physicians in these early Health Maintenance Organizations (HMOs) were unexpectedly surprised to find that maintaining their patients' health provided the added benefit of containing health care costs. This had been accomplished by shifting the focus to preventive care, to a standardization of practice that resulted in better outcomes, and by elimination of unnecessary tests and procedures. Now, in all too many cases, that added benefit has become the primary purpose of managed health care companies, as Wall Street investors have determined that hospital companies and health care companies should be treated like any other business, as an opportunity for investors to make money. Profit, not health, is the prime objective of this kind of managed care.

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I am concerned about the intrusion into medical education by these investor-controlled health care companies: Some have even bought medical schools, and at least one has subsequently filed for bankruptcy. I do not want the education of our next generation of physicians to be held hostage to bottom-line oriented managers who buy and sell hospitals, medical practices, and medical schools as though they were pork futures. Americans are only slowly realizing how many medical decisions have been taken out of the control of physicians and other health care personnel and placed on the desks of accountants and businessmen. Every American should be concerned about the unwillingness of managed care companies to do their fair share in supporting medical education and medical research, especially clinical research.

I do not intend my remarks to be a diatribe against managed care. This is still very much a fluid situation, and it may work out in such a way that HMO patients will be delighted to deal with relaxed doctors free to make clinical decisions in a financially neutral environment. However, it could also develop so that patients find themselves shuttled about from gatekeeper to nurse, denied costly specialists and unable to penetrate the bureaucratic maze of a health care company that cares more about profits than patients. The outcome can depend as much upon doctors and patients as it does upon the politicians and health care policy-makers. We must be better informed about our health care options, and must be "scientific" in the way we seek and organize vital information about health care. Regardless of the outcome, regardless of the evolution of our health care system, patients should have as much information as possible when they speak with their physicians. Fortunately this is possible now as never before because of the revolution in information technology. Unfortunately, this information is not equally reliable, so that we must also learn to distinguish between true and false information.

Basic demography has done much to shape American society in the last half of the 20th century, and it will continue to play a role in the evolution of our health care system. The political clout of elderly Americans lies behind the strength of the Medicare lobby and explains why Medicare has done so much for the health of Americans, while at the same time accelerating health care costs. The baby boomers will do even more to determine the quantity and quality of the health care available to them. Children of an affluent society, baby boomers are turning 50 with great expectations for their health and happiness. I am hopeful that this generation, with its high expectations, will push the system forward.

The scientific community must play a central role in the intense competition for health care dollars, doing what it can to ensure that the combination of public and private funding that has supported the greatest epoch of medical research in history during the last generation is not lost in the scramble for short-term profits.

The baby boomer generation, although accustomed to immediate gratification in most areas of life, has also benefited more than any other generation from the results of long-term scientific research. We need a refurbished partnership between science and consumers to ensure that the best of medical science is available to future health care consumers—I still prefer to call them patients.

I believe that it may take a decade or so to find a new equilibrium involving HMOs, medical innovations, patient concerns, and physician-directed decision making, an equilibrium that will deliver what is medically necessary, not what is merely profitable. I am hopeful, but not certain, that what is in the best interest of the patient will begin to prevail over what is in the best interest of the health care company investors. This attitude must support medical research as well as medical care. The issues of managed care, patient rights, physician professionalism, medical research, and health care in America need to be lifted from the bottom line to our highest aspirations.

ILLUSTRATION: TERESE WINSLOW