Physician as Pareto

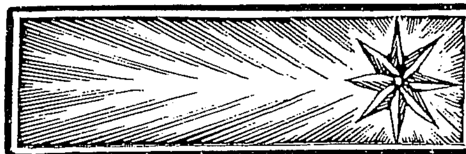
The Search for Optimality in Health Care

by David Randolph Smith

At what point is the cost of health care so exorbitant that persons in need of medical treatment should not be treated? Is it ever appropriate to juxtapose cost considerations against human health or life? As health care costs grab national attention and consume ever larger shares of the gross national product (11 percent at present), society faces the stark reality that cost benefit analysis soon will replace the traditional medical ethic of maximal care. The emerging view is that health care is more nearly an economic product than a social good. Heretofore, physicians and other health care providers have managed to deflect difficult quality/cost/access trade-offs in subtle ways, avoiding direct confrontation.[1] However, with the onset of prospective rather than retrospective payment systems coupled with the raging debate over decisions to withhold or terminate treatment, the United States medical profession now faces the advent of open appraisal of the age-old dilemmas of dollars versus human life and rationing access to scarce medical resources. The crunch, born of escalating costs and patient demands, casts physicians in the unfamiliar role of appropriating scarce resources by balancing quality and cost concerns to achieve optimality. George Bernard Shaw's play, *The Doctor's Dilemma*, comes to mind. Dr. Ridgeon explains to a prospective patient's wife why he cannot treat her tubercular husband:

> *I have at the hospital ten tuberculosis patients whose lives I believe I can save. . . Wait a moment. Try to think of ten patients as shipwrecked men on a raft—a raft that is barely large enough to save them—that will not support one more. Another head bobs up through the wave at the side. Another man begs to be taken aboard. He implores the captain of the raft to save him. But the captain can only do that by pushing one of his ten off the raft and drowning him to make room for the newcomer. That is what you are asking me to do.*[2]

The prospect of openly taking economic costs and scarcity issues into account in making health care decisions is perhaps most vividly dramatized in cases involving critically impaired patients—hospitalized patients with acute illnesses and limited life expectancies or an extremely poor quality of life potential. Newborn infants with serious afflictions (e.g., anencephaly, trisomy 13, Tay-Sachs) and comatose adults who live only through the wonder and grace of "artificial" cardiopulmonary life support machinery often fit this description. Critically impaired patients recurrently confront doctors, families, and clergy with agonizing choices: whether to preserve life by postponing death, or whether to withhold or suspend treatment. In such cases one issue among many is whether it is moral or ethical to consider the financial impact and burden to the family and to society of a decision to go forward with all possible treatment. Many argue that all treatment must be administered—no matter the financial and psychic costs to parents,



family, or society—even though there is limited hope of benefit to the patient. The Reagan administration's infant "Baby Doe" regulations essentially mandate treatment and forbid consideration of such cost factors. The recently completed study of the President's Commission titled *Deciding to Forego Life Sustaining Treatment: A Report on Ethical, Medical and Legal Issues in Treatment Decisions* concluded that in infant treatment cases a "best interests of the child" standard should govern and that the interests of parents, sibling, and society should not count.[3]

One may express doubt about the imposition of a treatment-at-all-costs regime on persons whose financial and psychological interests "don't count." For the parent or relative who must shoulder huge medical bills to prolong a family member's limited and painful life to be told (pursuant to Department of Health and Human Services regulations) that the machines and tubes must continue, one understandable response is "easy for you to say." It is ironic, bordering on tragic, that the government sees fit to order treatment in medically hopeless cases but washes its hands of all obligations to pay if the family or private insurance can foot the bill. Recall Stanley Baldwin's response to press coverage of Winston Churchill's eloquent defense of India's untouchables: "What the proprietorship of the papers is aiming at is power and power without responsibility—the prerogative of the ha[...] lot."[4]

Closing our eyes to the realities of financi[...] harm also ignores the essential fact that th[...] best interests of the patient are almost ine[...] tricably tied to the interests of the family. [...] its 1980 *Declaration on Euthanasia* the Vatica[...] concluded not only is it appropriate to with[...] hold or withdraw treatment when there [...] little hope of benefit to the patient, but also [...] duty to take into account the costs and bu[...] dens to the family imposed by medical trea[...] ment.[5] On a macroallocational level it [...] equally questionable to block out econom[...] considerations in health care decisions affec[...] ing critically impaired patients. In neonat[...] intensive care, billions of dollars are e[...] pended annually, often with wondrou[...] results—witness the recent episode of th[...] Frustaci septuplets. In many cases, howeve[...] huge expenditures are made to prolong pa[...] and suffering in the face of certain dea[...] within weeks or days. Similar results occur [...] the case of critically impaired adult patient[...] medical costs to artificially maintain ca[...] diopulmonary or nourishment functions a[...] not insignificant. Responding to these co[...] cerns, the American Society of Law and Me[...] icine's Committee on Legal and Ethical A[...] pects of Health Care for Children conclud[...] that cost factors on both a familial and societ[...] level should be considered in making trea[...] ment decisions involving critically impaire[...] infants.[6]

What is at stake in this debate is wheth[...] the health care profession and industry w[...] move toward greater cost consciousness a[...] efficiency. Lester Thurow, professor of ma[...] agement and economics at MIT's Slo[...] School of Management, urges that the tir[...] has come to forge a new medical ethic [...] guide health care professionals in decidi[...] when medical procedures are inapprop[...] ate—not simply because they do not bene[...] the patient, but because the marginal benef[...] do not justify the costs.[7] Along the lines of t[...] Professional Standards Review Organiz[...] tions (PSROs) of the 1970s, Thurow argu[...] that the profession's norms on what cons[...] tutes bad medical practice should be e[...] panded to include cases in which high co[...] are not justified by minor expected benefi[...] If physicians do not develop such guidelin[...] Thurow predicts the government will. [...] deed with the Diagnostic Related Grou[...] (DRG) prospective payment system, t[...] government already has begun.

The growing trend toward prospecti[...] payment for patient care directly confro[...] hospitals and physicians with the task of [...] tioning access to health care and employi[...] cost benefit thinking. A brief history is [...] order. In 1983 Congress enacted Title Six [...] the Social Security amendments to provi[...]

In 1897 Vilfredo Pareto, an Italian economist, developed a theory of general equilibrium in his first work, *Cours d'Economie Politique*. At equilibrium, market forces (supply and demand or price and costs) are at a steady state and balanced. The popular concept of Pareto optimality or Pareto efficiency refers to the relationship between the aggregate benefits of a situation and the aggregate costs of the situation.

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for prospective as opposed to retrospective payment to health care providers to Medicare patients. The amount of the payment to providers is based on a formula determined by the provider's case mix as defined by DRGs into which patients are categorized. In essence, the DRG system fixes costs by decreeing in advance that certain procedures will merit payment in specified amounts. By 1983 not only the federal government but also twenty-six states had in place some form of state prospective hospital reimbursement system. As of 1984 six states were conducting Medicaid hospital payments by DRGs. It is quite reasonable to assume that prospective rate setting along the lines of the DRG format eventually will apply to all patients, payers, and providers. What the DRGs have done—and show every sign of continuing to do—is to focus attention radically on controlling resource consumption—a shift away from quality and access concerns. Although designed to achieve efficient allocation of medical resources, the DRG framework ineluctably fosters rationing and trade-offs between quality and costs by creating incentives in many cases to undertreat, cease services, restrict patient populations, and prematurely discharge patients. As one critic observes:

Policy makers are going through a process that seems in part delusory. That is, they believe that there is a way that federal payment for medical care can be sharply reduced without affecting access to care by the elderly and what they [the elderly] will have to pay out of their own pocket to receive it.[8]

In short, we face a new era in medicine and health care delivery in which physicians, patients, and health care administrators must deliberately address costs as well as medical benefits when making health care judgments. Ultimately, this may not be bad. For too long the traditional private insurance system imposed virtually no cost restraints. Each insured patient urged the "spare no expense" route; physicians and insurance companies had little incentive to deter expenditures since greater usage promoted greater income. Skyrocketing costs resulted. Only recently have serious efforts been made to incorporate market concepts to the health care industry—hospitals, for example, in some sections of the country have published rates for services. The growth of for-profit hospitals and Health Care Maintenance Organizations (HMOs) provide further evidence. As insurance companies pay less of the tab, consumers too will learn to ask exactly what each procedure will cost. Unless the private sector solves the health care costs spiral, government likely will seek a greater presence—that of referee. We should not be

misled, however, into thinking that government-regulated or socialized medicine necessarily will solve the conundrum of access to health care. In Great Britain the system of socialized medicine in time has "solved" tough rationing decisions by simply redefining the standards of medical practice to a lower level of health care. It is extremely rare for patients over fifty-five in Great Britain to receive kidney dialysis or for patients over seventy to be admitted to intensive care units. Referrals to specialists are selective. Through a downward redefinition of the level of care, the British have managed to keep health care spending levels at one-half that of ours. The British experience is ample incentive for everyone to become personally concerned about health care costs.

"All well and good," you may say, "but the fact remains that human life is the most unique 'good' and one cannot compare or 'trade-off' dollars and human health or life. The right to life is inalienable and any amount of money is worth spending to save life, particularly the life of a loved one." Individually these points may be true; when applied to society as a whole it is evident that costs can, and indeed, must be compared with human health and life. Economists cogently note that while individuals voluntarily do not sacrifice life or limb for any amount of money, they are willing to pay money to reduce the probability of bodily harm and are willing to be paid to accept an increase in the probability of bodily harm. Wage rates, for example, often reflect the trade-off between dollars and health concerns. That Hollywood stuntmen get paid more than stagehands makes the essential point. Similarly, how much society should pay for safer roads, better bridges, or more crashworthy cars is at bottom an inquiry into the economic costs of safety compared to the economic benefit of fewer injuries and a greater number of lives saved. It would be nice to live in a world where safety concerns and all risks to health could be eliminated; unfortunately, that life is reserved for the next world. Given the inherent need for health care and a world of limited economic resources, some form of cost benefit analysis must inform the health care cost debate. The challenge for doctors is to develop a framework that achieves optimal levels of quality at efficient costs. The greater challenge, however, is to attain that balance and still serve the ends of distributive justice and egalitarianism. In the new age of physicians as Pareto, society (the state) will still need to step in and assist those who fall by the wayside and cannot afford treatment. By inculcating a greater cost awareness on the part of every person in society, however, it is hoped the subsidization role can be a limited one.

Notes

1. Havighurst, C.C., Blumstein, J.F., *Coping with Quality/Cost Trade-offs in Medical Care: The Role of PSROs*, 70 Nw. U.L. Rev. 6-68 (March/April 1975); Blumstein, *Rationing Medical Resources: A Constitutional, Legal, and Policy Analysis*, 59 Tex. L. Rev. 1345-1400 (Nov. 1981).
2. Shaw, G.B., *The Doctor's Dilemma*, in *Collected Plays With Their Prefaces*, Vol. III (1975) pp. 954-55.
3. The President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research: *Deciding to Forego Life Sustaining Treatment: A Report on Ethical, Medical and Legal Issues in Treatment Decisions* (Comm. Print March 31, 1983).
4. *See* Manchester, W., *The Last Lion, Winston Spencer Churchill: Visions of Glory 1874-1932*, p. 854 (1983).
5. *See* Paris, *Terminating Treatment for Newborns: A Theological Perspective*, Law and Medicine and Health Care 124 (June 1982).
6. American Society of Law & Medicine, Committee on the Legal and Ethical Aspects of Health Care for Children, *Comments and Recommendations on the "Infant Doe" Proposed Regulations*, Law Medicine and Health Care (October 1983).
7. Thurow, L., *An Antidote for Soaring Health-Care Costs*, 88 Tech. Rev. 16 (April, 1985).
8. Iglehart, J.K., *Medicare's Uncertain Future*, 306 N. Eng. J. Med. 1308-12 (May 27, 1982).

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