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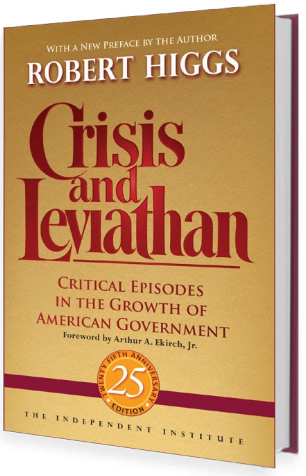

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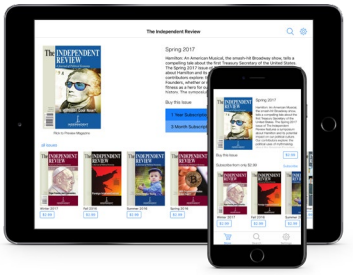

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Battling for Control of Health Care Resources

E. Haavi Morreim

An extraordinary upheaval in the health care sector has occurred during the past two decades. Skyrocketing increases in expenditures, which had become evident in the mid-1960s, gave way to a parade of attempts to rein in costs, ranging from price controls to restrictions on the proliferation of technology to modifications in the incentives under which providers function (Butler and Haislmaier 1989; Goldsmith 1986; Patricelli 1987; Starr 1982). These early efforts were largely unsuccessful, and national health care expenditures continued to rise rapidly (Aaron and Schwartz 1984; Butler and Haislmaier 1989; Fuchs 1987; Schwartz 1981; Starr 1982). By the late 1980s and early 1990s, as international economic competition and then a domestic recession challenged corporate vitality, employers nationwide finally determined that they could no longer continue to absorb annual double-digit increases in health care costs. First on the West Coast and eventually nationwide, corporations gave health plans an ultimatum: restrain premium prices or lose business. That move ushered in the managed care era of the 1990s, with its gyrations between (temporarily) successful cost containment and public vilification for the tactics by which that success was achieved.

Over time those tactics have evolved. Intensive utilization management and stringent gatekeeping systems, so prominent from the mid-1980s to the mid-1990s, have been giving way to broader profiling of providers and practices; incentives have gone from crude cash rewards for cutting costs to more sophisticated mixes rewarding productivity and quality alongside cost consciousness. Enormous changes are still under way.

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Throughout this period, a fundamental battle has raged: Who should control health care resources? Health plans insist that they contractually are entitled to determine the medical services and products for which they will pay, but physicians retort that the plans' denials of payment interfere with medical judgment, and patients complain that they are not receiving the care for which they believe they have paid. The battle will not disappear soon, for two reasons.

First, in contrast with other professions, the practice of medicine often requires considerably more than the practitioner's own knowledge and skill. Although other professions require some sort of broader infrastructure, individuals practicing law, architecture, accounting, and so forth usually can practice with a fairly modest array of personal tools—computers, libraries, drafting equipment—because the mainstay of their service is the knowledge, skill, and effort they personally provide to the client. Physicians, in contrast, must routinely use costly drugs, devices, diagnostic technologies, and a host of other expensive resources in addition to their personal expertise.

Second, in most cases the costs of these medical tools are not paid directly by the patients who receive them. Third parties write most of the checks, then transmit those payments to employers and taxpayers. Patients ultimately bear the cost, of course, whether through taxes, forgone wages, or reduced job opportunities, but employers, governments, and others generally cover the immediate bills. Here, too, health care differs from other enterprises. In most business transactions, the "consumer" is the one who chooses, pays for, and receives the product, decides whether the it meets his expectations, and seeks redress if it does not. In health care, various entities typically fill these roles. The employer, not the employee/patient, commonly chooses the health plan or limits the options. The physician (often with influence from the health plan) chooses the medical services, albeit perhaps with input from the patient. The patient receives the care. The health plan, employer, or, in capitated arrangements, the physician's medical group may pay most of the provider fees. If bills are inaccurate, the health plan, employer, or government, not the patient, must chase down the errors. Restitution for poor-quality service is pursued through the tort system and regulatory mechanisms, not usually through refunds or product replacements, as in other markets. In short, in health care there is no readily identifiable "consumer."

Together, these two factors mean that virtually every medical decision is a spending decision, and third parties can control their costs only by controlling, or at least by influencing, actual decisions about patient care. So long as this condition continues, the battle will rage. Although many combatants are engaged, the two primary parties have been health plans and physicians because most of the medical spending decisions are made in their nexus. Plans regard themselves as entitled to determine what they will pay for, and physicians believe that they themselves, not business managers or even medical directors, should decide what is best for patients.

In this article, I argue that neither plans nor physicians should "win" this battle, in the sense of gaining the power to dictate unilaterally what care will be provided and

how much money will be spent, for whom, under what conditions. On the one hand, the guidelines many health plans use to make coverage determinations and to reshape medical practices are seriously flawed. On the other hand, physicians' practices often are not based on existing scientific knowledge. Preferably, a balance should be found, a balance that ultimately must incorporate patients themselves.

Problems with Health Plan Guidelines

Although practice guidelines have proliferated in health care, many of those by which health plans make benefits determinations and guide medical care have an inadequate scientific basis. The reasons are numerous.

Many important topics in medicine have not been studied adequately. Although new drugs and devices must be proved safe and effective before they can be commercially marketed, surgeries and other invasive procedures are under no such regulatory requirements. Thus, although coronary artery bypass surgery was first performed in 1964, it was not scientifically evaluated until 1977; angioplasty to open clogged arteries in the heart was "performed in hundreds of thousands of patients prior to the first randomized clinical trial demonstrating efficacy in 1992" (Dalen 1998, 2180).

Many medical devices have never been evaluated scientifically because government regulations do not require an evaluation either for devices already in use at the time the regulations were enacted or for later devices that are substantially equivalent to those earlier ones. Hence, devices such as the pulmonary artery catheter, introduced in the 1970s for monitoring the cardiopulmonary function of critically ill patients, have not been studied thoroughly. Recent evidence indicates that this widely used device may do more harm than good, prompting some critics to urge a moratorium on its use pending further evaluation (J. B. Hall 2000).

Approved drugs and devices can be used in whatever ways physicians wish, and a large proportion of clinical practice is off-label. Anticancer drugs, for instance, are often used in ways and in combinations that go beyond approved indications. Similarly, until fairly recently much of the required testing of new drugs did not include either children or women with child-bearing potential as research subjects. The omission was intended to protect children and potential fetuses, and yet the result is that we have only limited knowledge about potentially important differences in the ways drugs affect children and women.

A newer genre of research, "outcomes studies," aims to establish better correlations between what physicians do during clinical care and the results that patients actually experience in both the short and long term. Outcomes studies in general unfortunately suffer from a lack of standardized methodologies—what counts as an outcome, which costs should be tallied, and the like (Epstein 1995; Feinstein 1994; Soumerai et al. 1993; Task Force 1995). Some studies look scientific yet lack any acceptable methodology at all (Brody 1995), whereas others potentially may be biased by researchers' and sponsors' conflicts of interest, given that drug and device

manufacturers and health plans undertake much of this research (Hillman et al. 1991; Perry and Thamer 1999). Among legitimate methodologies, each has distinct advantages and disadvantages. For example, administrative data such as hospital billing records are abundant and easily available, but they are littered with gaps and inaccuracies (Ray 1997).

For these reasons and others, managed-care organizations (MCOs) that seek to make benefits decisions or to shape clinical care may not have scientifically well-founded guidelines available. They may rely on panels of experts, who can bring their own biases. Alternatively, plans simply may rely on the Merck manual, Medicare guidelines, "an administrator who 'asked friends who are doctors,' or an insurance company's employee-physician (usually not a specialist in the field in question) who reads textbooks and discusses the issue with other insurance company physicians" (Holder 1994, 19; see also Perry and Thamer 1999). As several commentators recently have observed, "materials such as the practice guidelines prepared by Milliman and Robertson, a well-known actuarial firm, often rely on insurers' own decisions rather than on well-designed scientific research" (Rosenbaum et al. 1999, 231). Even if an MCO adopts or produces excellent guidelines, keeping those guides up to date may be nearly impossible as new technologies emerge and as knowledge about them keeps evolving.

The problems do not stop here. The best-designed, scientifically best-founded guidelines will not apply well to every patient. The most pristine kind of science—the randomized, double-blind, controlled trial—can be particularly problematic. In order to test strictly for the effects of the specific drug or procedure under investigation, the study must use patients who suffer exclusively from the disease being studied, with a minimum of other conditions. After all, multiple diseases and treatments introduce potentially confounding factors. Once the study is complete, however, its results will be applied in clinical practice to all those complex patients who would never have been included in the study. For instance, "as many as 60% to 80% of patients with heart failure have been excluded from clinical trials of angiotensin-converting enzyme inhibitor therapy. . . . However, the clinician must treat 100% of the patients with heart failure, not just the 20% to 40% who are free of comorbidities and associated conditions" (DeBusk et al. 1999, 2740).

Thus, the more thoroughly scientific and highly controlled a study is, the less its enrolled subjects resemble the ordinary souls, with their multiple problems, for whom ordinary physicians care. Equally important, guidelines do not always leave room for issues that are personally important to patients, such as the effects of treatments on quality of life. Neither do such guidelines have room for patients' personal preferences, which can be crucial for long-term adherence to therapy—an especially important factor in the treatment of chronic illness.

In sum, in view of the incomplete science, inadequate science, inapplicable science, and the complete absence of science, MCOs and their guidelines cannot claim to provide an immaculate conception of how health care should be delivered.

Problems with Physicians' Care

If health plans are ill equipped to dictate the details of care, unlimited clinical discretion for physicians is not necessarily superior. Clinical practices often vary widely and inexplicably (Wennberg 1996, 1999). "[S]everal studies estimate that only 15 to 20 percent of medical practices can be justified on the basis of rigorous scientific data establishing their effectiveness" (Shekelle et al. 1998, 1888).

Medicine is permeated with uncertainties. As noted earlier, there is much that science has not studied, and patients' biological idiosyncrasies can defy the textbooks. As a result, most clinical scenarios permit a number of acceptable approaches. Choosing one over another is less a matter of science and medicine than a matter of values regarding the management of uncertainty. It is difficult for physicians to insist that they alone are entitled to make these judgment calls.

Perhaps more important, physicians do not always adhere even to the practices that widely are agreed to be appropriate. Overuse, underuse, and misuse of medical interventions are common (Chassin and Galvin 1998; Schuster, McGlynn, and Brook 1998).

Specific examples of overuse—excessive care—are easy to find. Antibiotics have been used with unnecessary frequency and potency, so that resistant organisms are increasingly a problem (Avorn and Solomon 2000). In the realm of heart disease, coronary angiography and revascularization (bypass surgery) are used significantly more in the United States than in Canada and Europe, with no apparent justification in terms of patients' degree of illness. This highly interventionist approach does not seem to reduce the rate of heart attacks and actually may have a higher rate of treatment-associated adverse events (Lange and Hillis 1998).

In the same vein, prescriptions of psychotropic medications for preschool children increased dramatically between 1991 and 1995, despite inadequate evidence of safety and effectiveness in this population. The drugs include stimulants, antidepressants, clonidine, and neuroleptics (Zito et al. 2000). Likewise, intensive surveillance of women in preterm labor leads to additional interventions but has no effect on the primary outcomes (Fisher and Welch 1999).

For underuse, the treatment of heart disease again provides examples. During a myocardial infarction (MI, or "heart attack"), thrombolytic (clot-busting) agents can improve survival rates dramatically. Yet these drugs are seriously underused (Krumholz et al. 1997). Similarly, for patients who have survived an MI, aspirin and beta-blocker (ß-blocker) drugs can reduce the likelihood of a second episode significantly. Recent studies show, however, that an average of only 37 percent of physicians actually prescribe these drugs for their post-MI patients (Wang and Stafford 1998). In another study, "less than 50% of cardiologists' patients were taking ß-blockers" (Donohoe 1998, 1598). Likewise, patients with congestive heart failure can benefit greatly from angiotensin-converting enzyme (ACE) inhibitor drugs. Yet in one study of patients with congestive heart failure, "only three quarters of eligible patients were

taking an [ACE] inhibitor, and only 60% of those were at doses known to be efficacious" (Donohoe 1998, 1597).

In like manner, many surgery patients are at significantly increased risk for thromboembolism (blood clots). An array of safe and effective means can reduce this risk greatly, but often they are not used. In a study of Medicare patients from twenty community hospitals in Oklahoma, appropriate preventive (prophylaxis) "measures were implemented for only 160 (38%) of 419 patients studied. . . . Only 97 (39%) of 250 patients . . . at very high risk received any form of prophylaxis and of these 97, only 64 patients (66%) received appropriate measures" (Bratzler et al. 1998, 1909).

Many physicians fail to prescribe standard antiasthma medications, such as inhaled corticosteroids (Legorreta et al. 1998); to order standard diabetes care, such as frequent glucose monitoring, regular cholesterol checks, and annual retinal exams (Weiner et al. 1995); to use anticoagulents for patients in chronic atrial fibrillation; or even to wash their hands between patient visits (Bischoff et al. 2000). Instead of prescribing diuretics for hypertension, despite evidence that they are safe and effective, many physicians favor high-cost, highly advertised newer drugs such as calcium-channel antagonists that may have greater risks and lower efficacy (Moser 1998). Indeed, physicians sometimes unwittingly base drug selection decisions more on drug advertisements than on medical literature (Avorn, Chen, and Hartley 1982; Orlowski and Wateska 1992). In sum, they often neglect a broad variety of simple, widely accepted, routine health interventions (Newcomer 1998).

Misuse likewise presents problems. For example, it is now known that peptic-ulcer disease is often caused by a bacterium, for which antibiotics are the treatment of choice. Nevertheless, one study showed that "physicians continued to use traditional and ineffective [drugs] as their preferred approach for 72 percent of all patients" (Newcomer 2000, 60). Similarly, another study concerns Cox-2 inhibitors, such as Celebrex and Vioxx. These costly new drugs do not offer any greater relief for pain or inflammation, compared with other nonsteroidal anti-inflammatory drugs (NSAIDs), but they are said to reduce the risk of gastrointestinal (GI) bleeding for people who must use pain relievers continually, such as those with arthritis. Thus, there is no reason to prescribe these drugs to people without specific risk of GI bleeding. Nevertheless, one large physician group found that within nine months after Cox-2 inhibitors appeared on the market, 40 percent of its NSAID prescriptions were for these drugs, even though only 14 percent of patients receiving them had arthritis (Newcomer 2000).

In one case, improvements highlighted previous errors. Salt Lake City's LDS Hospital created computer algorithms to guide proper antibiotic use for patients in intensive care. Physicians were free to override the computer's suggestions, but those who followed them achieved a 76 percent reduction in the number of patients receiving antibiotics to which they were allergic, a 79 percent reduction in excessive drug dosage, and a 94 percent reduction in the number of patients who received the wrong antibiotic. These patients also left the hospital 2.9 days earlier than those whose physicians overrode the computer's recommendations (Evans et al. 1998).

Physicians' diagnostic accuracy is not always better than their therapeutic choices. In a ten-year retrospective review of autopsies at a major New Orleans medical center, researchers found that of the 250 tumors found at autopsy, 111 had been undiagnosed or misdiagnosed. Of particular concern, in 57 percent of these patients, the underlying cause of death was related directly to the undiagnosed or misdiagnosed malignancy (Burton, Troxclair, and Newman 1998). In other diagnostic areas, studies suggest that "simple clinical prediction rules have proven superior to physician judgment in the diagnosis of acute abdominal pain . . . acute myocardial infarction . . . tonsillitis . . . pneumonia . . . intracellular vs extracellular causes of jaundice . . . presence of ankle fracture . . . survival after diagnosis of Hodgkin's disease . . . or coronary artery disease" (Hadorn 1992, 48–49).

Moreover, doctors do not always master even standard techniques of physical examination. A recent study evaluated the ability of residency trainees in internal medicine and family practice to recognize heart sounds for twelve commonly encountered and important cardiac events. Overall, the resident-physicians were inaccurate 80 percent of the time, did not improve over time, and were not any better than a group of medical students. Indeed, for certain kinds of heart sounds, the students were better than the residents. "Deficiencies of this type will probably persist even after residents enter practice" (Mangione and Nieman 1997, 721).

When significant clinical deficiencies such as those listed here are pointed out to physicians, they do not always change their clinical practices. Studies suggest that concerted, systematic attempts to encourage physicians to adopt improved approaches are often unsuccessful (Landon, Wilson, and Cleary 1998).

The prevailing rates of overuse, underuse, and misuse are not entirely surprising. During the past several decades, "an explosion has occurred in the proliferation and supply of drugs, the availability of technological tests and bedside procedures, and the array of high-tech diagnostic methods and invasive therapeutic maneuvers. Each of these changes creates new opportunities for error" (Feinstein 1997, 1286). In other words, as medical science becomes increasingly complex, and with it the health care systems through which it is provided, it simply may be unreasonable to expect physicians to continue their traditionally unilateral responsibility for care and for outcomes.

Seeking a Reasonable Balance

As should now be evident, the battle for control has no obvious favorite. Forbidding health plans to "interfere" with physicians' judgment effectively would give physicians unfettered clinical discretion, which is potentially suboptimal medically and surely expensive financially. Yet the guidelines by which health plans exert financial control and clinical influence often are based on inadequate science, hardly a substitute for the professional judgment necessary to tune even the best generalizations to individual patients' distinctive needs. A reasonable balance needs to be found, which I can only begin to suggest in this brief article.

Health plans should fulfill several tasks. First, plans are better suited to carry out the broader, population-oriented tasks necessary for delivering health care, such as to ensure that the right care (or payment) flows to the right people, for the right purposes, in a timely fashion, as promised in the contract. These business and organizational functions are indispensable to a coherent system of care.

Second, plans should help take medical guidelines to their next step. Ideally used as coherent, scientifically well-founded protocols that suggest routine ways to handle routine problems, guidelines can be an important tool for promoting consistency of care, integrating new information into clinical practice, and eliminating practices that are pointless or injurious. Evidence-based guidelines are also needed if new technologies are to be integrated into medical practice in effective, efficient ways. Few physicians have time for the kind of systematic literature search that can help them to distinguish between solid research that warrants changing clinical routine, and the more transient findings that do not warrant change. Health plans should make it their business to evaluate ongoing research, especially regarding those aspects of medicine that are most amenable to general guidelines.

Third, plans should help physicians to integrate evidence-based practices into their clinical work. Many plans are beginning to do so, for example, via computer reminder systems that help physicians to implement improvements to care.

Physicians likewise have distinctive functions that should be complementary, not antagonistic, to the operation of the plans. Their most obvious tasks are the usual medical ones: to examine patients, to explore diagnostic hypotheses, to discuss medical options and their respective benefits and risks, and, in the process, to build the personal, trusting relationship with each patient that is indispensable to good care. Physicians must also discern when an individual patient does not fit the guidelines, which will happen even with the best clinical protocol, and then pursue an appropriate alternative course.

More broadly, physicians need to help health plans recognize when the guidelines are not working and should be improved or replaced. That task that can be carried out only by those who work at the intersection between the general (the science and guidelines of care) and the particular (the patients).

These changes might improve the coherence of the health care system and with it, it is to be hoped, both the quality and financial efficiency with which care is delivered. Nevertheless, an important element remains to be considered.

Patients as Empowered Consumers

The battle for control over health care and its resources has been waged mainly among physicians, hospitals, health plans, and payers. In recent years, problem-solving efforts have largely focused on "aligning" these players' incentives. If incentives are synchronized properly, so the thinking goes, everyone should have a motive to control costs while maintaining quality (R. C. Hall 1994; Morreim 1995; Rogers,

Snyderman, and Rogers 1994; Sederer 1994; Terry 1994). Interestingly, in none of these discussions is there any suggestion that patients are among the players to be aligned. Rather, the patient is left as the only "nonaligned party" via presumptions that it is undesirable, infeasible, or impossible to bring patients into the shared incentives.

Some commentators argue explicitly that patients cannot be important economic players. For example, Mark Hall argues:

> The simple market mechanism is not generally available or desirable for health care because of the unpredictability of illness and the complexities of medical judgment. We purchase insurance rather than pay out of pocket because we want to protect ourselves from the uncertainty of health problems and the anxiety of making spending decisions under the strain of serious illness. Moreover, even without insurance, we do not make many of our own treatment decisions because the complexity of medicine forces us to delegate authority to physicians. (1994, 34)

In other words, Hall presumes that because patients cannot pay their entire health care bill out of pocket, and because they do not bring a full complement of medical knowledge to the health care encounter, they essentially must be excluded from the decision-making process.

Recent developments suggest that these presumptions are mistaken and that one major solution to this battle for control should be to reempower patients as consumers. So long as patients have little or no contact with the financial consequences of their health care decisions, a spare-no-expense entitlement mentality drives many to demand levels of care they would not otherwise deem worthwhile, and so long as they demand such levels of care, they will continue to be deemed incapable of making reasonable, cost-efficient decisions about their care. Such a vicious circle has marginalized patients both financially and medically, even though they are the ultimate payers for their care. In contrast, where patients incur some sort of economic consequence for their decisions, they can regain the power of the purse and with it greater control over the care itself. Properly structured, such financial consequences need not pose barriers to care.

Currently a major move is afoot in this direction. Many employers are shifting from the traditional "defined benefits" approach, in which a specified package of services is purchased, to a "defined contribution" approach, in which the employer simply designates how much subsidy each employee will receive, then identifies an array of options that employees can purchase with that subsidy (Blumenthal 2001; Parrish 2001; Robinson 2001; Wye River Group 2001).

In some cases, as with the Federal Employees Health Benefits Program (FEHBP), the employer identifies a list of comprehensive health plans and covers the cost of the least-expensive plan, permitting the employee to choose costlier plans by

paying the difference out of pocket. A number of businesses and purchasing pools also offer this approach (Butler and Moffit 1995; Robinson 1995).

In a particularly promising approach—essentially a variant of the medical savings account—employees can use the defined contribution to purchase a low-cost catastrophic plan with a high deductible, then use the remaining money as a spending account to cover deductible expenses and to pay for whatever other health care they want. Many variations on this theme are cropping up via Internet sites that help consumers to assemble the plan options of their choice, to find low-cost providers, and generally to become more informed, active, and self-directing in their care. Ideally, funds unused in one year can be rolled over to the next year (Parrish 2001; Wye River Group 2001).

This latter arrangement connects patients directly with the economics of their care, giving them reason to purchase prudently because they, not their employers or health plans, enjoy any savings. At the same time, costs pose no barrier to care because the spending account is available and dedicated solely to health care. As a result, patients can be permitted far more choices among treatments and providers—including even unconventional treatments and high-cost providers—than in a managed plan because they, not the plan, pay the cost. In either case, there is no need for external surveillance or argument, or for financial incentives that pit physicians against their patients, because routine decisions do not tap the health plan's money.

Defined contributions with spending accounts might restore the power of the purse to the great majority of people because "85% of Americans spend less than $3000 a year on medical care, and 73% have less than $500 a year in claims" ("Consumer-First Health Care" 1994, A12.). More precisely, as of 1996, 69 percent of health care resources were consumed by the top 10 percent of the population, whereas the bottom half of the population consumed only 3 percent of total health care resources. These figures have been remarkably stable over the past several decades (Berk and Monheit 2001). Even so, a major issue remains. Although most patients consume limited resources, most of the money in health care is spent on the relatively few patients who suffer serious illness or injury. These individuals are the people for whom catastrophic coverage is tapped and who cannot reasonably be expected to assume the financial burden for their care. At this level, health plans must still wrangle with providers over control of dollars and thereby of clinical decisions. Yet even here patients might still function as consumers via "guidelines-based contracting."

Guidelines-Based Contracting

The major point of contention between plans and providers in recent years has been the concept of "medical necessity," which dominates health care contracts: once plans specify their coverage categories and exclusions, they generally promise to cover any care that is "medically necessary." Unfortunately, the concept is notoriously difficult

to define. Worse, it impedes intelligent, cost-effective use of health care resources by implying that a single, one-size-fits-all scientific criterion can determine whether a given intervention is appropriate for a particular patient.

The problems of medical necessity have been explored elsewhere (Morreim 2001a, 2001b). Here, suffice it to say that in reality most medical care is neither "necessary"—with the usual connotation of "essential" or "indispensable"—nor "unnecessary," with the usual connotation of "superfluous" or "pointless." Various options have merits, and often no single approach is clearly *the* "correct" choice. One antibiotic regimen may be medically comparable to and much less expensive than another, but with slightly higher risks of damage to hearing or to organs such as kidneys or liver. For a patient needing hip replacement, one prosthetic joint may be longer-lasting but far costlier than an alternative. Of two equally effective drugs for hypertension, the costlier one may be more palatable because it has fewer side effects and a convenient once-a-day dosage. In these cases and in many others, the critical question is whether a particular medical risk or monetary cost is worth incurring in order to achieve a desired level of symptomatic relief or functional improvement or in order to reduce by some increment the risk of an adverse outcome or a missed diagnosis. The proper descriptors are not "necessary" and "unnecessary," but rather "a good idea," "ideal if you can afford it," and "suboptimal but acceptable."

The recognition that medical care is permeated with value judgments suggests that patients should be permitted to choose what level of resources they wish to commit to what level of care. Neither physicians nor employers nor health plans nor policymakers can claim to have special expertise in the values underlying deeply personal preferences about what opportunity cost is worth bearing for various kinds of health care.

Once we accept the idea of multiple standards of care, the next question concerns implementation. Perhaps a basic level of care that any plan must cover should be identified —in part to ensure decent care for people in the most urgent need and in part to avoid the free-rider problem that emerges when people can purchase health plans so inadequate that the bulk of their care is thrust into the public domain. Beyond that basic level, however, plans should be free to offer diverse levels of care at diverse prices. Instead of making vague promises to provide "all medically necessary care" and then fleshing out those promises with widely varying criteria—or lack of criteria (Singer and Bergthold 2001)—on which to base benefits determinations, health plans should simply drop the notion of medical necessity entirely. They should lay open the clinical guidelines by which they already make benefits determinations, explain the procedures by which the guidelines will be changed over time, describe the procedures by which they will adjudicate disputes and resolve ambiguous cases, and then make those guidelines and procedures the explicit basis on which they contract with enrollees: "if you buy this plan, here is what you will receive."

Even better, plans might offer packages based on a specified philosophy of care. Levels of care might vary, for example, with regard to the threshold of evidence required before a test or treatment is deemed sufficiently "safe and effective" to include

in the plan's benefits. As noted earlier, the strength and quality of scientific evidence supporting various approaches to care can vary considerably. Less costly plans might demand higher levels of proof before covering a given intervention, whereas top-flight plans might cover anything that is even theoretically promising. Similarly, plans might vary on grounds of cost-effectiveness, with leaner plans covering only the most cost-effective care but higher-tier plans covering more marginally useful treatments or treatments whose only advantage is greater comfort and convenience. Plans might also vary in the extent to which they cover participation in research trials.

When health plans finally abdicate one-size-fits-all concepts of necessity and acknowledge that variations in quantity and quality of care are legitimate, patients can be reempowered as consumers at the highest level. Taking into account their own budgets and values, they can choose how much care to buy. Health plans can acknowledge openly that care is limited by reason of cost and finally gain the capacity to enforce legitimate limits. In addition, providers finally might escape from the tensions of intrusive micromanagement and inappropriate financial arrangements that pit them against their patients.

Conclusion

The challenge of determining who should control health care resources will never disappear, but it can be managed far more effectively than it is at present. Patients should regain the power (and responsibility) of the purse to make the vast majority of routine decisions. Costlier care should be based on the best available scientific evidence and on an open acknowledgement that the choices underlying health care can legitimately be made in accordance with more than one structure of values. Then, perhaps, the destructive battle for control can become a productive battle focused on bringing coherence and efficiency to the delivery and financing of health care.

References

Aaron, H. J., W. B. Schwartz. 1984. The Painful Prescription: Rationing Hospital Care. Washington, D.C.: Brookings Institution.

Avorn, J., M. Chen, and R. Hartley. 1982. Scientific Versus Commercial Sources of Influence on the Prescribing Behavior of Physicians. *American Journal of Medicine* 73: 4–8.

Avorn, J., and D. H. Solomon. 2000. Cultural and Economic Factors That (Mis)shape Antibiotic Use: The Nonpharmacologic Basis of Therapeutics. *Annals of Internal Medicine* 133: 128–35.

Berk, M. L., and A. C. Monheit. 2001. The Concentration of Health Care Expenditures, Revisited. *Health Affairs* 20, no. 2: 9–18.

Bischoff, W. E., T. M. Reynolds, C. N. Sessler, et al. 2000. Handwashing Compliance by Health Care Workers: The Impact of Introducing an Accessible, Alcohol-Based Hand Antiseptic. *Archives of Internal Medicine* 160: 1017–21.

Blumenthal, D. 2001. Controlling Health Care Expenditures. *New England Journal of Medicine* 344: 766–69.

Bratzler, D. W., G. E. Raskob, C. K. Murray, L. J. Bumpus, and D. S. Piatt. 1998. Underuse of Venous Thromboembolism Prophylaxis for General Surgery Patients: Physician Practices in the Community Hospital Setting. *Archives of Internal Medicine* 158: 1909–12.

Brody, B. 1995. *Ethical Issues in Drug Testing, Approval, and Pricing*. New York: Oxford University Press.

Burton, E. C., D. A. Troxclair, and W. P. Newman. 1998. Autopsy Diagnoses of Malignant Neoplasms: How Often Are Clinical Diagnoses Incorrect? *Journal of the American Medical Association* 280: 1245–48.

Butler, S. M., and E. F. Haislmaier, eds. 1989. *Critical Issues: A National Health System for America*. Washington, D.C.: Heritage Foundation.

Butler, S. M., and R. E. Moffit. 1995. The FEHBP as a Model for a New Medicare Program. *Health Affairs* 14, no. 4: 47–61.

Chassin, M. R., and R. W. Galvin. 1998. National Roundtable on Health Care Quality: The Urgent Need to Improve Health Care Quality. *Journal of the American Medical Association* 280: 1000–1005.

Consumer-First Health Care (editorial). 1994. *Wall Street Journal,* July 21, A12.

Dalen, J. E. 1998. "Conventional" and "Unconventional" Medicine. *Archives of Internal Medicine* 158: 2179–81.

DeBusk, R. F., J. A. West, N. H. Miller, and C. B. Taylor. 1999. Chronic Disease Management. *Archives of Internal Medicine* 159: 2739–42.

Donohoe, M. T. 1998. Comparing Generalist and Specialty Care: Discrepancies, Deficiencies, and Excesses. *Archives of Internal Medicine* 158: 1596–1608.

Epstein, A. 1995. Performance Reports on Quality: Prototypes, Problems, and Prospects. *New England Journal of Medicine* 333: 57–61.

Evans, R. S., S. L. Pestotnik, D. C. Classen, et al. 1998. A Computer-Assisted Management Program for Antibiotics and Other Antiinfective Agents. *New England Journal of Medicine* 338: 232–38.

Feinstein, A. R. 1994. Clinical Judgment Revisited: The Distraction of Quantitative Methods. *Annals of Internal Medicine* 1230: 799–805.

———. 1997. System, Supervision, Standards, and the "Epidemic" of Negligent Medical Errors. *Archives of Internal Medicine* 157: 1285–89.

Fisher, E. S., and H. G. Welch. 1999. Avoiding the Unintended Consequences of Growth in Medical Care: How Might More Be Worse? *Journal of the American Medical Association* 281: 446–53.

Fuchs, V. R. 1987. The Counterrevolution in Health Care Financing. *New England Journal of Medicine* 316: 1154–56.

Goldsmith, J. C. 1986. The US Health Care System in the Year 2000. *Journal of the American Medical Association* 256: 3371–75.

Hadorn, D.C., ed. 1992. *Basic Benefits and Clinical Guidelines.* Boulder, Colo.: Westview.

Hall, J. B. 2000. Use of the Pulmonary Artery Catheter in Critically Ill Patients: Was Invention the Mother of Necessity? *Journal of the American Medical Association* 283: 2577–78.

Hall, M. A. 1994. The Ethics of Health Care Rationing. *Public Affairs Quarterly* 8, no. 1: 33–50.

Hall, R. C. 1994. Social and Legal Implications of Managed Care in Psychiatry. *Psychosomatics* 34: 150–58.

Hillman, A. L., J. M. Eisenberg, M. V. Puly, B. S. Bloom, H. Glick, B. Kinosian, and J. S. Schwartz. 1991. Avoiding Bias in the Conduct and Reporting of Cost-Effectiveness Research Sponsored by Pharmaceutical Companies. *New England Journal of Medicine* 324: 1362–65.

Holder, A. R. 1994. Medical Insurance Payments and Patients Involved in Research. *IRB* 16, nos. 1–2: 19–22.

Krumholz, H. M., J. E. Murillo, J. Chen, et al. 1997. Thrombolytic Therapy for Eligible Elderly Patients with Acute Myocardial Infarction. *Journal of the American Medical Association* 277: 1683–88.

Landon, B. E., I. B. Wilson, and P. D. Cleary. 1998. A Conceptual Model of the Effects of Health Care Organizations on the Quality of Medical Care. *Journal of the American Medical Association* 279: 1377–82.

Lange, R. A., and L. D. Hillis. 1998. Use and Overuse of Angiography and Revascularization for Acute Coronary Syndromes. *New England Journal of Medicine* 338: 1838–39.

Legorreta, A. P., J. Christian-Herman, R. D. O'Connor, M. M. Hasan, R. Evans, and K. M. Leung. 1998. Compliance with National Asthma Management Guidelines and Specialty Care. *Archives of Internal Medicine* 158: 457–64.

Mangione, S., and L. Z. Nieman. 1997. Cardiac Auscultatory Skills of Internal Medicine and Family Practice Trainees: A Comparison of Diagnostic Proficiency. *Journal of the American Medical Association* 278: 717–22.

Morreim, E. H. 1995. Diverse and Perverse Incentives in Managed Care: Bringing the Patient into Alignment. *Widener Law Symposium Journal* 1, no. 1: 89–139.

———. 2001a. The Futility of "Medical Necessity." *Regulation* 24, no. 2: 22–26.

———. 2001b. *Holding Health Care Accountable: Law and the New Medical Marketplace*. New York: Oxford University Press, 2001.

Moser, M. 1998. Why Are Physicians Not Prescribing Diuretics More Frequently in the Management of Hypertension? *Journal of the American Medical Association* 279: 1813–16.

Newcomer, L. N. 1998. Physician, Measure Thyself. *Health Affairs* 17, no. 4: 32–35.

———. 2000. Medicare Pharmacy Coverage: Ensuring Safety Before Funding. *Health Affairs* 19, no. 2: 59–62.

Orlowski, J. P., and L. Wateska. 1992. The Effect of Pharmaceutical Firm Enticements on Physician Prescribing Patterns. *Chest* 102, no. 1: 270–73.

Parrish, M. 2001. A New Day Dawns . . . When Patients Buy Their Own Health Care. *Medical Economics* 78, no. 5: 95–111.

Patricelli, R. E. 1987. Employers as Managers of Risk, Cost, and Quality. *Health Affairs* 6, no. 3: 75–81.

Perry, S., and M. Thamer. 1999. Medical Innovation and the Critical Role of Health Technology Assessment. *Journal of the American Medical Association* 282: 1869–72.

Ray, W. A. 1997. Policy and Program Analysis Using Administrative Data Banks. *Annals of Internal Medicine* 127: 712–18.

Robinson, J. 1995. Health Care Purchasing and Market Changes in California. *Health Affairs* 14, no. 4:117–30.

———. 2001. The End of Managed Care. *Journal of the American Medical Association* 285: 2622–28.

Rogers, M. C., R. Snyderman, and E. L. Rogers. 1994. Cultural and Organizational Implications of Academic Managed-Care Networks. *New England Journal of Medicine* 331: 1374–77.

Rosenbaum, S., D. M. Frankford, B. Moore, and P. Borzi. 1999. Who Should Determine When Health Care Is Medically Necessary? *New England Journal of Medicine* 340: 229–32.

Schuster, M. A., E. A. McGlynn, and R. H. Brook. 1998. How Good Is the Quality of Health Care in the United States? *Milbank Quarterly* 74: 517–63.

Schwartz, W. B. 1981. The Regulation Strategy for Controlling Hospital Costs. *New England Journal of Medicine* 305: 1249–55.

Sederer, L. I. 1994. Managed Mental Health Care and Professional Compensation. *Behavioral Sciences and the Law* 12: 367–78.

Shekelle, P. G., J. P. Kahan, S. J. Bernstein, L. L. Leape, C. J. Kamberg, and R. E. Park. 1998. The Reproducibility of a Method to Identify the Overuse and Underuse of Medical Procedures. *New England Journal of Medicine* 338: 1888–95.

Singer, S. J., and L. A. Bergthold. 2001. Prospects for Improved Decision Making about Medical Necessity. *Health Affairs* 20, no. 1: 200–206.

Soumerai, S. B., D. Ross-Degnan, E. E. Fortess, and J. Abelson. 1993. A Critical Analysis of Studies of State Drug Reimbursement Policies: Research in Need of Discipline. *Milbank Quarterly* 71, no. 2: 217–52.

Starr, P. 1982. *The Social Transformation of American Medicine*. New York: Basic.

Task Force on Principles for Economic Analysis of Health Care Technology. 1995. Economic Analysis of Health Care Technology: A Report on Principles. *Annals of Internal Medicine* 122: 61–70.

Terry, K. 1994. Is This the Best Way to Divide HMO Income? *Medical Economics* 71, no. 19: 26B–26F.

Wang, T. J., and R. S. Stafford. 1998. National Patterns and Predictors of ß-blocker Use in Patients with Coronary Artery Disease. *Archives of Internal Medicine* 158: 1901–6.

Weiner, J. P., S. T. Parente, D. W. Garnick, J. Fowles, A. G. Lawthers, and H. Palmer. 1995. Variation in Office-Based Quality: A Claims-Based Profile of Care Provided to Medicare Patients with Diabetes. *Journal of the American Medical Association* 273: 1503–8.

Wennberg, J. E., ed. 1996. *The Dartmouth Atlas of Health Care in the United States*. Chicago: American Hospital.

———. 1999. Understanding Geographic Variations in Health Care Delivery. *New England Journal of Medicine* 340: 52–53.

Wye River Group on Healthcare. 2001. *An Employer's Guide to Consumer-Directed Healthcare Benefits.* Available at: http://www.wrgh.org. Also available as of December 2001 at http://www.ncpa.org/extra/health/wye_full.pdf.

Zito, J. M., D. J. Safer, S. dosReis, J. F. Gardner, M. Boles, and F. Lynch. 2000. Trends in the Prescribing of Psychotropic Medications to Preschoolers. *Journal of the American Medical Association* 283: 1025–30.

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