

Becoming an Information Master

Using "Medical Poetry" to Remove the Inequities in Health Care Delivery

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In response to the spiraling costs, the US populace, for now, has chosen to ration health care by choosing who can receive it rather than what services are provided. Changing this approach will require an organized national policy and will be difficult. Clinicians must accept that providing minimally beneficial but not absolutely necessary care to their patients increases cost without significantly improving quality, and results in more people who lack adequate health care. The public must accept that exclusively focusing health care decisions on individuals places patients in conflict with their community, their family, and, eventually, themselves. Effectively using valid Patient-Oriented Evidence that Matters (POEMs) will give family physicians the tools necessary to improve the value of health care services. Family physicians are in the unique position to guide the necessary changes in health care delivery to resolve these conflicts and to be leaders in this process.

■ **KEY WORDS** Health care rationing; evidence-based medicine; medical errors; patient-oriented outcomes. (*J Fam Pract* 2001; 50:51-56)

It's one thing to say that we have evidence that something works. It's far more important to know how well it works. —David M. Eddy'

In previous articles in this series on information mastery we outlined the importance of finding, evaluating, and implementing POEMs (Patient-Oriented Evidence that Matters) to maximize patient outcome at the point-of-care. Clinicians practicing as "information masters" will have the information they need when they need it, allowing them to offer their patients the best care.

In this article we take the concept of using POEMs one large and significant step further, and apply it not only to making decisions about individual patients, but also within the context of the entire community and population. Information mastery can improve the value of health delivery systems by increasing quality and controlling costs. By improving the value of health care, physicians should be able to provide universal and equitable health care access for all.

than the rate of inflation. Whereas in 1960, when 5% of the gross national product was consumed by health care costs, this proportion has increased to 15% in the year 2000.³

Translating this number into actual dollars, the average family of 4 pays at least \$10,000 per year in direct and indirect health care costs.⁴ Direct health care costs include insurance premiums and co-pays, and out-of-pocket expenses for medicines and devices. Additional, indirect, health care costs come in the form of higher costs of purchased goods as a result of the burden of paying for the health care of the workers who manufacture and sell the products.

More money is spent, per person, in the United States on health care than in any other country in the world. Approximately 50% more is spent on health care in the United States than is spent in Canada. The United Kingdom spends only about one-third of this amount of money.⁵ Despite this increased spending, average life expectancy is not substantially longer here than in other industrialized countries.^{5,6}

THE PROBLEM OF COST

Our collective complacency for 44 million uninsured is a national disgrace.²

The amount of money spent yearly in the United States for health care continues to rise at a rate faster

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KEY POINTS

- We need to limit how much we can spend on health care.
- In the United States, we have chosen to ration people instead of services. Changing this will require an organized national policy.
- Providing minimally beneficial but not necessary care increases cost without improving quality and results in more people who lack adequate health care.
- Effectively using valid POEMs will give family physicians the tools to avoid overuse, misuse, and underuse of medical services.
- Exclusively focusing on individual patients places patients in conflict with their community, their family, and, eventually, themselves.
- Family physicians are in the unique position to guide the necessary changes in health care delivery to resolve these health services conflicts and to be leaders in this process.

Socioeconomic status plays a larger role in the United States than health care spending in determining the length and quality of life.⁷⁻¹² In a recent study comparing survival rates for 15 "curable" cancers in Toronto, Ontario, and Detroit, Michigan, researchers found that socioeconomic status had no effect on survival for 12 of the 15 cancers occurring in the Canadians. However, patients who were in the lowest economic strata in Detroit had survival rates 40% lower than patients who had greater income did.⁹ Similar results have been found with heart disease,⁷ breast cancer,⁸ and HIV infection,¹¹ and for mortality rates in general across socioeconomic strata.¹³

It is a common assumption among many US lay persons and clinicians that the increase in mortality among the poor is due to an increase in high risk health behaviors, such as smoking, alcohol and drug abuse, obesity, and sedentary lifestyle. However, controlling for age, sex, race, urbanicity, education level, and health risk behaviors, people in the lowest-income group (family income \leq \$30,000 per year) have a mortality rate almost three-fold higher than those in the highest income group.¹⁴ This risk is especially high for low-income women, presumably because of inadequate prenatal care.

Despite an unemployment level that is at a 30-year low, more than 44 million people are uninsured, including 11 million children.¹⁵ The number of uninsured people grows at a rate of 100,000 people per month. These uninsured people are termed the "working poor": persons who work in jobs with an income that makes them ineligible for public assistance programs but is insufficient to allow them to afford health care. These are the people who sell us our shirts, our shoes, our fast food, and those who cut our hair. The icon of the middle class — the

shopping mall — is staffed largely by the uninsured.

We have a hard time "seeing" these people since they do not walk into our offices. Those who get sick either self-treat or overload our emergency departments. As a result, they become almost invisible to a health care industry in which, despite advances in community medicine, care begins at the time of an office visit.

And so, medical care in America has a seeming incongruity: Americans spend more money on health care than any other people in the world, yet 25% of them do not have adequate care. On the surface we seem to have a free and open system, unlike other countries in which health care is rationed. As we delve below the surface, however, we find that instead of rationing health care, we limit it to those who can afford it.

CAN WE OPEN THE DOORS TO EVERYONE?

We are in a tailspin: Individual patients drive up costs, which are passed on to other people, who try to recover their 'fair share' by overusing services when their turn comes around.

—David M. Eddy⁴

The easiest course of action is to simply do nothing and allow US society to continue to devote more resources to health care. This choice, however, is likely not acceptable to that family of 4 that already devotes more than \$10,000 per year for this care in direct and indirect costs.

In addition, it may not be financially feasible in the world economy. Managed care organizations pass on their costs to the companies, large and small, that ultimately pay for health care. Most clinicians and laypersons are all too familiar with the problem of high business costs leading to many US businesses relocating their manufacturing plants in other countries where the costs are lower. One of the leading determinants of the costs of doing business in the United States is the cost of health care for the workers.

Historically, the costs of health care have generally risen at a rate of approximately 3% above the yearly rate of inflation. Eliminating many costs of health care services (Table 1)—which would be unrealistic—would produce a reduction in health care spending for about 5 years until the continued outpacing of inflation by health care costs would return us to the steady rise we currently are experiencing.

Another cost-saving approach is to eliminate coverage for potentially beneficial health care services that are not essential. Patients would have the option of obtaining these services, but only if they choose to pay for them at full price. This approach takes away a major incentive that drives up medical costs; patients who pay insurance premiums often want to get their money's worth, whether or not they need the care. Patients, not physicians, may therefore make decisions concerning whether they would like to pay for beneficial but not absolutely necessary services.

RATIONING

I think it's clear that future generations will marvel at our capacity to invent and document effective health services; let's hope they will not marvel equally at our failure to deliver access to these services.

— Mark Chassin'

Deciding where the split occurs between necessary and beneficial is not as easy as it sounds. For example, if we had to choose between paying for mammograms for all women starting at age 50 years, or paying for bone marrow transplants for metastatic breast cancer, how would we decide? Would it be fair to ask a 50-year-old woman with metastatic breast cancer, her family, or her doctor? Of course not.

Instead, what would happen if we were able to ask the same 50-year-old woman with breast cancer when she was only 20 years old and cancer free? Which option would she have chosen at that time in her life: mammogram screening starting at age 50 or bone marrow transplant for metastatic cancer? Chances are good that she would have picked periodic mammography screening, since the likelihood of benefit would appear to her to be greater. More likely, though, a woman, her family, and her doctor would want both.

Faced with limited resources, paying for both and not making a choice leaves us in our present position: We don't ration services in the United States, we ration people.

The R word—rationing—seems to induce the ire of most of us in health care. To many, rationing is defined as “denying necessary health care to persons who need it,” “not allowing people to receive expensive services,” or “interference by government or business entities in the practice of medicine.” Whatever the definition, explicit debate about methods of rationing health care is emotional and seems to focus on issues of a moral nature.

Yet clinicians already ration health care based on need. The patient with crushing substernal chest pain is given more time and effort than the hypochondriacal patient who comes in every month for a reassurance visit. Clinicians frequently make decisions about how to deliver health care based on a comparison of individual need—rationing in its purest form.

UNDERSTANDING RATIONING
This type of rationing is justifiable because it does not seem to violate the patient's best interest—although patients might derive additional benefit from a few minutes of your time, this benefit would be small and not essential. When discussing rationing of services, one needs to make this crucial

TABLE 1
THE EFFECT OF REDUCTIONS IN HEALTH CARE EXPENDITURES ON THE INCREASE IN HEALTH CARE COSTS

Component	Hypothetical Reduction, %	Amount Saved, in Billions of Dollars	Time Bought, in Months*
Drug company profits	100	10	4
Administration	100	56	22
Defensive medicine	100	25	10
Physician services	20	40	16
Total		131	4 years, 4 months

*Amount of time before health care cost would start rising again.
From: Eddy DM. Clinical decision making. From theory to practice. Sudbury, MA: Jones and Bartlett; 1996.

distinction between beneficial and necessary services, especially when resources are limited.¹⁶

Several other misunderstandings cloud the concept of rationing.¹⁷ The more-is-better fallacy stipulates that more care is synonymous with better care, and, since rationing limits care, it must be wrong. Research and common sense do not bear out this assumption. The common build-it-and-they-will-come approach to offering new health care services offers many examples of increased care without better outcomes.^{18,19}

The good-old-days fallacy occurs when we remember fondly those times when we did not have to face the endless frustrations of insurance forms, authorizations and peer-review forms. Unfortunately, getting paid in direct proportion to what services a clinician delivers also directly rewards unnecessary and even harmful interventions.

The Marcus Welby fallacy particularly applies to family physicians and is the most important one to correct. Named after the TV doctor who cared for only 1 patient per week, this fallacy refuses to let us acknowledge that (1) patients have a life outside of our offices, and (2) there are patients outside of our practice who are nonetheless affected by what goes on within our 4 walls.

All clinicians must recognize that always choosing to maximize care for individual patients places these patients, not only in conflict with society, but, ultimately, in conflict with themselves. For example, even though the incremental cost of an expensive versus inexpensive antibiotic for a respiratory infection seems minimal at the time, each of these decisions takes away money in the system that could be used by the same patients later in their life for truly life-threatening infections. In essence, beneficial yet unnecessary care mortgages the patient's — and society's — future.

THE TRUE MISSION

If we fix overuse or misuse problems, we improve quality and reduce costs at the same time.

Overuse is ubiquitous in American medicine.¹

Evidence-based medicine, and our derivation, information mastery, evolved as a way to make sense of the incredible amount of information available to practicing physicians so that they might improve their delivery of medical care. Lately the use of evidence-based/outcomes-based medicine techniques have been met with suspicion, especially because nonmedical professionals have embraced this approach.

The true goal of evidence-based medicine and information mastery is to provide effective and efficient care to patients via a health care system that allows all people to receive basic care. To meet this goal, this system has to be reconfigured so that existing resources are used in a way that is fair and equitable to all persons (and not just patients). Costs must be considered.

IMPROVING QUALITY AND DECREASING COSTS

The value of health care services can be improved either by improving quality or decreasing costs. This relationship can be conceptualized by the following equation:

$$\text{Value} = \frac{\text{Quality}}{\text{Cost}}$$

If we decrease cost and compromise quality in the process, we gain nothing and may lose value. This is many clinicians' greatest concern regarding cost-cutting efforts. If we can raise quality and decrease costs, however, we can significantly improve value.

Improving quality can be accomplished by reducing underuse, overuse, and misuse of medical care. Most current efforts to improve the quality of health care are focused on reducing underuse and are aimed

TABLE 2

EXAMPLES OF OVERUSE, UNDERUSE, AND MISUSE OF MEDICAL SERVICES THAT CAN BE ADDRESSED BY INDIVIDUAL CLINICIANS

Practice	Evidence	Patient-Oriented Evidence that Matters
Misuse: Treatment of primary hypertension	Despite guidelines first issued in 1992 that almost all patients should be treated with either a beta-blocker or a diuretic, less than 20% of the US hypertensive population is receiving one of these agents. ²³	Along with ACE inhibitors, these two classes are the only antihypertensives that have been shown to decrease hypertension-related morbidity and mortality.
Overuse: Management of acute myocardial infarction	Patients admitted to a hospital with a cardiac catheterization facility are much more likely to undergo angiography, angioplasty, and bypass graft surgery as compared with similar patients admitted to a hospital without such facilities. ¹⁹	Despite an increase cost of \$2500 per patient, morbidity and mortality is not better.
Overuse: Detection and treatment of microalbuminuria	Many managed care organizations and other groups advocate screening and treatment for microalbuminuria in diabetics.	Identification and treatment of microalbuminuria has not been shown to decrease the likelihood of developing chronic renal failure or the need for dialysis. ²⁴
Overuse: Breast cancer screening	Screening programs often suggest screening of women between ages 40 and 50 years.	For every 100,000 women screened, 36 cancers will be identified but 5998 mammograms will be falsely positive. ²⁵ Evidence of benefit from screening is still controversial.
Misuse: Antibiotic treatment for upper respiratory tract infections	On average, about 75% of patients with respiratory tract symptoms receive antibiotic treatment. ¹¹	No viral cold will respond more quickly with antibiotic therapy. Antibiotics also are of marginal benefit for otitis media, acute sinusitis, and acute bronchitis.
Misuse: Medication-related errors	Medical errors occur in 3% to 4% of all hospitalized patients, causing at least 44,000 deaths per year.	The most common groups of factors associated with errors are knowledge of drug therapy, knowledge of patient factors regarding drug therapy, and mistakes in writing or prescribing drugs. ²⁷

at ways (practice guidelines, peer-review reports, and so forth) to get clinicians to do things they should be doing but are not. The problem, however, is that doing more is expensive and raises costs, thus reducing the amount of value gained as a result of the increase in quality. As a result, the gains are usually minimal and do nothing to lower the costs of health care or to make access universal.

However, it is estimated that we can safely eliminate almost 20% of the things we do in medicine and no one will be harmed as a result.²⁰ The question is: which 20%? The best way to improve quality in the system is to address misuse and overuse of resources by focusing on using interventions that are less expensive, more effective, or both. Protecting our patients from overuse of services prevents them from being exposed to the risks of unnecessary interventions. This process starts by paying attention to what the evidence is telling us about our care. The concept of Patient-Oriented Evidence that Matters grew out of a need to identify information that tells us what treatments allow patients to live longer or better. As valid POEMs accumulate, practices must be changed according to this new and better information (Table 2).

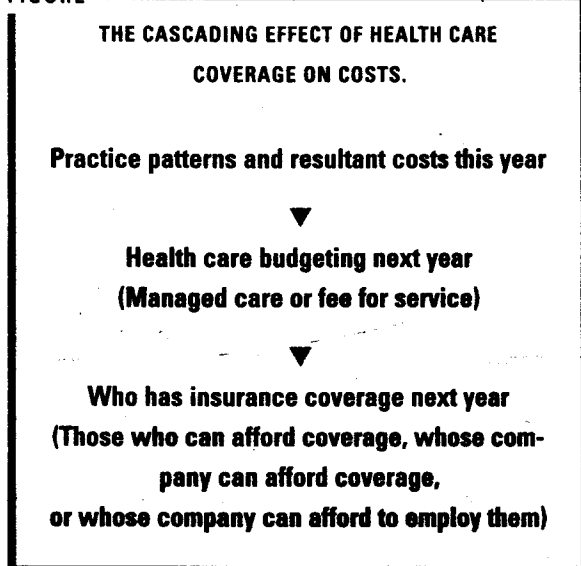
Using POEMs as our guide to which services to provide and which to leave out can eliminate waste in medicine, and in so doing, may result in a more fair distribution of resources. This will occur only if free market competition resulting from industry payers or legislation prevents the additional savings from becoming more profits for shareholders. A focus on POEMs will fit into any health care system concerned with proportioning limited resources. Many clinicians and laypersons in the United States connect the idea of rationing with the long waiting lists for health services in Canada and the United Kingdom. Even countries with universal health care access would benefit from eliminating useless or marginally helpful services.

**THINK GLOBALLY, ACT LOCALLY:
WHAT EACH CLINICIAN SHOULD DO**

Every dollar that is spent unnecessarily in the care of a healthy person potentially leads to further restrictions on reimbursement, further increases in health insurance premiums, loss of health insurance in borderline cases and, ultimately, fewer available resources for the care of the sicker patients who desperately need them. — Raymond J. Gibbons, MD²¹

Medicine has some very crucial decisions to make in the immediate future involving the allocation of resources, including the appropriate use of antibiotics, screening diabetics for microalbuminuria, screening for osteoporosis using bone densitometry, screening for prostate cancer using the prostate specific antigen test, and the use of routine obstetrical ultrasound. By continuing to provide services that do not improve

FIGURE



patient outcomes, we add to the rising costs of health care, which results in fewer patients being able to receive the health care they need.

What can the individual clinician do? Each of us needs to learn about the benefits, harms, and costs of important interventions.²² We need to identify both the unnecessary and underused services and determine with patients if those services are worth the costs. More basic, applied, and practice-based research is needed to determine patient preferences about what information they want or need and how they would like to be included in the decision-making process. In addition, we must take responsibility for incorporating valid POEMs and guidelines into our everyday practice. Finally, we must accept that resources are limited and we can either continue to limit people who receive services, or limit the services themselves.

Practice behaviors this year have a direct effect on the health care budget for next year, both in a fee-for-service and capitated system. Excess spending this year results in fewer patients being insured next year and has a direct impact on how many people can afford coverage or how many individuals a specific company can afford to employ. The money saved by increasing the value of the services we provide (by limiting costs or increasing quality using valid POEMs as a guide to delivering these services) may not result in a direct decrease in the overall cost of health care. It will, however, reduce the yearly increase in health care spending occurring above and beyond the inflation rate. (Figure)

THE ROLE OF FAMILY MEDICINE

The only thing necessary for the triumph of evil is for good men to do nothing.
— attributed to Edmund Burke

The survival of family medicine as an independent

specialty is being challenged by competition from other providers and increased control by insurance organizations. These challenges are reflected in the lower number of medical students attracted to the specialty.

What does family medicine have to offer the students who have only the dictatorial dons of medicine or the young, brash hero-docs on "ER" as role models? By comparison, family medicine does not look challenging or sexy. Family medicine must be seen as cutting-edge and patient-centered. To achieve these goals, the specialty must embrace patient-oriented evidence that matters and balance the needs of each individual with the needs of the family and the entire community.

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