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## Guest Editorial

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# Cost Efficiency: A New Dimension of Emphasis for Family Practice

King S. Udall, MD  
Salt Lake City, Utah

Physicians traditionally view themselves as healers of the sick; however, in the present system of health care delivery in the United States, the physician also must accept the role of manager of the health care dollar for his patient. The concept of the primary care physician as gatekeeper to the health care marketplace has become broadly accepted. Although only 20 percent of the health care costs are paid to physicians, an estimated 70 percent of all health care expenditures are determined directly or indirectly by physicians. The physician is the one who must decide to admit and discharge patients from the hospital, order diagnostic tests, write prescriptions, and recommend surgery. In many respects, physicians, not patients, are the consumers of the health care dollar.

With the identification of the physician as the manager of scarcer health care resources, increasing attention is now being centered on identifying physicians whose practices are characterized by a conservative, cost-efficient style. That such style differences actually exist has been documented by Norbrega and colleagues,<sup>1</sup> who compared physi-

cian practice styles in one part of the country with national patterns in practice style. Furthermore, investigation has also revealed that physicians in training can learn to practice in a more cost-efficient, conservative style without sacrificing quality.<sup>2</sup> Other research has also begun to focus on particular primary care specialists to identify characteristics that indicate general trends in practice style regarding cost-efficient use of medical resources. This commentary summarizes the findings of several of these studies and considers their implications for family practice.

### Fee-for-Service Setting

One of the first evaluations to look at conservative practice style patterns among primary care physicians was done by Noren et al.<sup>3</sup> In their study, data from the National Ambulatory Medical Care Survey were used to compare the style of practice of general internal medicine physicians with family physicians and general practitioners. This study demonstrated that internists were 30 percent more likely than family physicians and general practitioners to refer their patients to an-

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From the Department of Family and Community Medicine, University of Utah School of Medicine, Salt Lake City, Utah. Requests for reprints should be addressed to Dr. King S. Udall, Department of Family and Community Medicine, University of Utah School of Medicine, 50 North Medical Drive, Salt Lake City, UT 84132.

other physician or agency. Referrals by internists occurred in 4.4 percent of outpatient visits vs 3.1 percent of family physician and general practitioner visits ( $P > .001$ ). Lengths of visits for internists averaged 18.4 minutes compared with 13.0 minutes for family physicians and general practitioners. For general internists 20 percent of all visits were devoted to general examinations compared with 12.4 percent of all visits for family physicians and general practitioners ( $P > .0001$ ).

Laboratory testing occurred in 39.1 percent of visits for general internists vs 22.6 percent for family physicians and general practitioners, and roentgenograms were obtained by internists in 13.4 percent of visits vs 6.0 percent of visits with family physicians and general practitioners ( $P > .001$ ). These differences could not be accounted for as a result of general internists having more new-patient encounters, since both specialties saw approximately the same number of new patients. Furthermore, it was noted that family physicians and general practitioners actually saw a significantly higher number of established patients returning with new problems ( $P > .001$ ). The authors urged caution in interpreting their findings, as important parameters, such as quality of care, severity of illness, and patient age distribution, had not been included in the analysis. They concluded, however, that these findings had important implications regarding the cost, as well as quality, of primary medical care rendered in the United States and that further investigation is needed.

### Prepaid Practice Setting

In a study that examined differences in practice patterns among primary care physicians practicing in a prepaid independent practice association in Pennsylvania, Burkett<sup>4</sup> also noted disparate practice styles among primary care physicians within the prepaid practice. The study compared physicians in family practice, general practice, internal medicine, and pediatrics. Pediatricians, because of their unique age grouping of patients, were separated from most of the analyses regarding hospitalization, referrals to specialists, and so on. In com-

paring other primary care specialists (general practitioners, family physicians, and general internists), the author acknowledged that no data were available to determine the health status of individuals utilizing the various types of medical specialties. It was noted, however, that the average age difference of patients of general internists and of family physicians and general practitioners was very small, 28.3 years and 27.9 years, respectively. Health service utilization rates for this group showed the highest hospital utilization among internists at 560 days per 1,000 persons per year. Internists also had the highest referral expenditures, \$19.42 per person per month. Family physicians had the lowest hospital utilization, with 477 days per 1,000 persons per year, and they also had the highest primary visits per referral (5.68) and referral expenditures of only \$15.40 per person per month (general practitioners had the lowest, \$14.56). Statistical analysis of these variables using zero order correlation revealed significant differences between general internists and family physicians. It was the author's conclusion that among this relatively young population practitioners in internal medicine rely more heavily on referral services and on inpatient care than do family physicians or general practitioners.

In an evaluation of a closed-panel health maintenance organization (HMO), Farrell and colleagues<sup>5</sup> also studied the utilization rate for physician visits and cost of laboratory and radiology services over a 33-month period. This study differed from the previous two cited in that the investigators attempted to match patient profiles not only for age and sex of family groups, but also by family size, by plan membership of more than one year, and for frequency and severity of medical problems according to already established medical records. Family practice center group patients with their matching pediatrics and medical groups were compared for patterns of utilization. The family practice group patients visited specialists about one half as frequently as the matching group, with 0.9 visits per patient per year compared with 1.8 visits per patient per year. Furthermore, the family practice group visited non-physician providers only one third as frequently as the matching group. However, family practice patients had one more physician visit per year than the matching group. For pediatric patients aged under 15 years, visit rates for primary care physi-

cians did not differ between the pediatric group and family practice group. Nor were there such significant differences between the number of specialty physician visits. There was a greater number of visits to nonphysician providers, such as for audiometry, dietary, optometry, and physical therapy services, for the pediatric group. No differences were noted for laboratory or radiology costs between the family practice group and the other matching primary care groups.

More recently Catlin and colleagues<sup>6</sup> examined the role of the family physician in 104 HMOs regarding their hospital utilization patterns. Although the authors acknowledge the study represents only preliminary findings, the results demonstrate a trend that may indicate an inverse relationship between hospital utilization rates and the number of family physicians in the HMO. This relationship was noted to be present whether the number of physicians is measured by ratio of HMO membership or as a percentage of the total number of physicians in the HMO.

## Comments

All of these studies indicate that the present training of family physicians in comprehensive medical care may instill in them a basic behavioral attitude toward cost-efficient medical care, for example, greater continuity, fewer referrals, and less hospital usage. All of these characteristics are highly valued in a prepaid medical practice. As Geyman<sup>7</sup> recently noted, prepaid medical care is here to stay and will play an even greater role in the delivery of health care in the American society as it attempts to conserve health care resources. Furthermore, he predicts that family physicians will necessarily play a critical and growing role in this health delivery model. Health care administrators, usually nonphysicians with a business perspective, will be examining profiles of physicians who deliver high-quality medical care, but do so in a cost-conscious manner. As the projected oversupply of physicians becomes more pronounced, these factors may play a greater role in the recruitment of newly trained family physicians as they leave residency training.

These forces currently acting in American society give increased incentives for the discipline of family medicine actively to adopt conservative, cost-efficient medical practice as a part of its traditional essence of health care delivery, ie, continuous and comprehensive medical care. The studies cited demonstrate that the practice of cost-efficient medicine readily complements and enhances these factors. Rather than merely giving lip service to cost-efficient medical practice, however, an active adoption of this new dimension of prudent medical care should be considered an integral part of residency training and continuing medical education of family physicians. As noted previously, the study by Martin et al<sup>2</sup> nicely demonstrates that conservative medical care can be taught to medical students and residents. Other innovative teaching models are now being developed.<sup>8-10</sup>

Family practice has been applauded for providing individuals with accessible physicians who can address a broad range of health care problems for themselves and their families. A new opportunity now presses the discipline to fill yet another priority of society: to help conserve its limited health care resources.

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