The explosive growth of managed care has led to an increased role for general internists and other primary care physicians in the American health care system. This change is welcome in many respects, since generalists have perennially been undervalued by health care institutions, payers, and even patients.1-3 The greater prominence of generalism has led to an increase in the number of medical students who choose careers in primary care,4 expanded job opportunities for generalists,5 and a modest increase in the incomes of primary care physicians.6

Two of the principles underlying generalism, whether in the form of internal medicine, pediatrics, or family medicine, have been comprehensiveness and continuity.7,8 Ideally, the primary care physician would provide all aspects of care, ranging from preventive care to the care of critically ill hospitalized patients. This approach, argued the purists, would result in medical care that was
more holistic, less fragmented, and less expensive. To its proponents, the notion was so attractive — the general internist admits the patient to the hospital, directs the inpatient workup, and arranges for a seamless transition back to the outpatient setting — that questioning it would have seemed sacrilegious merely a few years ago.

Unfortunately, this approach collides with the realities of managed care and its emphasis on efficiency. As a result, we anticipate the rapid growth of a new breed of physicians we call “hospitalists” — specialists in inpatient medicine — who will be responsible for managing the care of hospitalized patients in the same way that primary care physicians are responsible for managing the care of outpatients. Specialists in inpatient care have long had a central role in urban hospitals in Canada and Great Britain, but until recently, such specialists have been scarce in the United States. However, a role for this specialty is now being developed both in and outside academia, especially in areas where managed care predominates, such as San Francisco, and we expect this growth to accelerate soon.

We believe the hospitalist specialty will burgeon for several reasons. First, because of cost pressures, managed-care organizations will reward professionals who can provide efficient care. In the outpatient setting, the premium on efficiency requires that the physician provide care for a large panel of patients and be available in the office to see them promptly as required. There is no greater barrier to efficiency in outpatient care than the need to go across the street (or even worse, across town) to the hospital to see an unpredictable number of inpatients, sometimes several times a day. There are parallel pressures for efficiency in the hospital. Since the inpatient setting involves the most intensive use of resources, it is the place where the ability to respond quickly to changes in a patient's condition and to use resources judiciously will be most highly valued. This should prove to be the hospitalists' forte.

Equally pressing is the question of value, defined as the quality of care divided by its cost. The survival of all health care systems is becoming increasingly dependent on the delivery of high-value care. (For academic health centers, this means that more expensive care must be justified by better outcomes.) Many physicians, though primarily serving outpatients, have exceptional skills in providing inpatient care. It seems unlikely, however, that high-value care can be delivered in the hospital by physicians who spend only a small fraction of their time in this setting. As hospital stays become shorter and inpatient care becomes more intensive, a greater premium will be placed on the skill, experience, and availability of physicians caring for inpatients.

The debate over the role of hospitalists is taking place against the backdrop of the larger controversy over whether generalists or specialists should provide care for relatively ill patients. The first decade of managed care has been dominated by a gatekeeper model, in which care is managed by a primary care physician. There is some evidence that this model saves money, and for common diseases, the quality of care provided by generalists and specialists appears to be
Building on a considerable body of data demonstrating a positive relation between procedural experience and outcomes,\textsuperscript{15-18} a number of recent studies have examined whether a similar relation exists for nonprocedural care of patients with complex medical illnesses. Those who favor the use of inpatient specialists for hospital care point to the strong correlation of experience with the quality of care provided for patients in an intensive care unit,\textsuperscript{19,20} as well as for those with AIDS,\textsuperscript{21-25} asthma,\textsuperscript{26,27} rheumatoid arthritis,\textsuperscript{28} or acute coronary syndromes.\textsuperscript{29-31}

If our prediction of an increased role for hospitalists is borne out, the effects on academic medical centers will be profound. The “triple threat” leader — skilled clinician, researcher, and educator — was the paradigm of exceptional faculty achievement (or fantasy) for more than a generation. Balancing a productive research career with teaching and clinical care was easier when academic health centers were less accountable for the quality and cost of clinical care than they are now. Given the parallel pressure for funding research,\textsuperscript{32} one can envision fewer triple threats in the future, with researchers concentrating on research and clinician-educators concentrating on clinical work and teaching. And the clinician-educators may branch again, with some focusing on outpatients and others on inpatients. We also believe that the relation between quality and volume in the performance of procedures may lead to another schism between medical specialists who primarily perform procedures and those who do not.

What will hospitalist jobs in academia look like? In the light of the increasing intensity of inpatient care, we believe that 12 months as an attending physician is a formula for burnout; 3 to 6 months a year seems more sustainable. The experience of critical care specialists (“intensivists”) is a close parallel.\textsuperscript{19,20,33} In academic settings, these specialists typically limit their yearly service on the intensive care unit to three to six months in order to prevent burnout and to have opportunities for academic productivity (Cohen N, Luce J: personal communication). As with intensivists, a major challenge is to link the hospitalist role successfully with other activities. The outpatient enterprise, which is subject to the same pressures for efficiency, high quality, and low cost, may have little use for a physician who is otherwise occupied 80 percent of the time during half the year, except perhaps in drop-in settings that do not require continuity of care. For some physicians who are trained in a specialty, work as a hospitalist may be complemented by an inpatient or outpatient consulting practice in that specialty, and for generalists, inpatient consultation in general medicine will have a similar role. In the academic setting especially, a premium will be placed on clinical quality improvement, the development of practice guidelines, and outcomes research, not only to provide the physician with a creative outlet and a potential source of funding during the nonclinical months but also to give the academic center a practical research-and-development arm. One of the advantages of the hospitalist model is that it creates a core group of faculty members whose inpatient work is more than a marginal activity and who are thus committed to quality improvement in the hospital.

For house staff in internal medicine, the introduction of hospitalists may mean a greater likelihood
of being supervised by attending physicians who are highly skilled and experienced in providing inpatient care. House staff have long enjoyed a certain amount of autonomy, because many of their faculty supervisors have been relatively unfamiliar with modern inpatient care. Such autonomy may be diminished with the new approach to inpatient care. Although there is bound to be transitional pain, we believe that the potential for improved inpatient teaching will more than compensate for it. Moreover, this change will help answer public calls for closer and more effective faculty oversight of house staff and students.34

Training programs in internal medicine have emphasized flexibility. Many traditional programs, although based in inpatient settings, pride themselves on providing training that is flexible enough to allow graduates to practice primary care competently. Pressures from residency-accreditation agencies have also resulted in a broader curriculum. Over the past few years, many traditional programs have augmented and improved training in ambulatory care so that their graduates will have the necessary flexibility. And most primary care programs, while training residents for careers as outpatient generalists, have included enough inpatient and intensive care medicine in the curriculum to ensure that their graduates are competent in these settings. However, if the medical marketplace creates jobs that are based in either inpatient or outpatient settings (but not both), the primary care program of the future may need to provide only enough inpatient training so that its graduates will know how to care for sick outpatients. Conversely, some traditional programs may develop hospitalist tracks that emphasize acquisition of the skills most relevant to inpatient practice. If such tracks are developed, it will be important not to reduce training in ambulatory care too aggressively, since the competent hospitalist will need a full understanding of what can — and cannot — be done in the outpatient setting.

The hospitalist trend is already visible at both teaching and nonteaching hospitals in areas where managed care has taken root. Some medical groups, such as the Scripps Clinic in La Jolla, California, use a rotating schedule of primary care physicians, each of whom is the “dedicated admitting physician” for week-long tours of duty.35 The Park Nicollet Medical Group, a large multispecialty practice in Minneapolis, uses a hybrid model with two full-time hospitalists complemented by rotating general internists and family physicians.36 Other groups, such as San Francisco's California Pacific Medical Group, employ full-time hospitalists to handle inpatient care for a large group of patients receiving care on a capitated basis (Aronowitz P: personal communication). Similarly, the Kaiser Permanente system now uses full-time hospitalists in 3 of its 15 hospitals in northern California and is planning to introduce this model in most of its other facilities in the region over the next few years (Likosky W: personal communication). Anecdotal reports suggest that the use of each of these models has resulted in substantial decreases in lengths of stay, hospital costs, and specialty consultation.35-38

In both academic and nonacademic settings, the most effective way to organize hospitalists may be as a multispecialty group. Envision a model for a large integrated health care system in which a
team of hospitalists — some trained as generalists, others as specialists — shares responsibility for the management of inpatient care. Consultation is provided by members of the group who have the appropriate expertise; specialty consultation is obtained outside the group when the required knowledge is unavailable from the members. Although not everyone in the group possesses the skills to oversee the development of practice guidelines and to study the outcomes of care, all the members participate in developing and disseminating guidelines, as well as teaching clinical medicine. Group members develop strong relationships with hospital staff, discharge planners, specialty consultants, and outpatient physicians. The outpatient physicians, in turn, have more time in the office to see patients and less hospital duty. Potential problems with the transfer of care between the outpatient and inpatient settings are prevented by meticulous communication between office and hospital.

Despite this optimistic vision, objections to the hospitalist model, not surprisingly, come from both generalists and specialists. To preserve continuity and maintain their acute care skills, some primary care physicians clearly prefer to manage their patients' care during hospitalization, even when there is no economic incentive to do so (Aronowitz P: personal communication). Specialists fear that skilled hospitalists may order fewer consultations than primary care physicians. But flexibility in the implementation of the hospitalist model may allay some of these fears. To date, most systems employing hospitalists have not required that inpatient physicians manage the care of all hospitalized patients. This flexibility has satisfied primary care physicians who worried that a hospitalist model would block their access to inpatient medicine. The fears of specialists — fewer consultations and lower income — are more difficult to address. In fact, objections raised by specialists have impeded the implementation of the model in some nonteaching hospitals in southern California (Chandler W: personal communication).

The hospitalist model of inpatient care challenges many of the basic assumptions of generalists, specialists, academic medical centers, and managed-care organizations. Nevertheless, we believe that the forces promoting the use of the model are sufficiently compelling that it will continue to be adopted in both teaching and nonteaching settings. As with any major transition, the medical community must continually reevaluate the new approach to ensure that any possible discontinuity in care is outweighed by improved clinical outcomes, lower costs, better education for physicians, and greater satisfaction on the part of patients.

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