healthcare institutions should merge with medical school-based programs when possible. Programs should limit the number of fellows who are international medical graduates, and they should aim for high pass rates on board examinations and a high percentage of graduates entering academic careers. Subspecialty faculty should assist department chairmen in recruiting and training generalists, since the number of subspecialty slots may depend on the number of generalists trained.

As subspecialty training slots decrease, so will the need for subspecialty faculty. With elimination of patient care funds for faculty salaries, and increasing competition for limited research dollars, available sources of faculty salaries will decrease. Remaining faculty members will assume additional roles, and academic pulmonologists will probably be required to assist in the training of general internists and in the retraining of subspecialists for primary care. The traditional researcher-educator cannot rely on practice income for a salary but will need grant funds or foundation support. Clinical faculty will be required to provide more primary care, possibly in an HMO setting, to survive.

The recent demise of healthcare reform legislation in Congress should give only passing reassurance to those who resist changes in medical education. Market forces are at work throughout the country, aimed at limiting the cost of medical coverage. Over 50 million Americans now belong to HMOs; in the first quarter of 1994, new HMOs were started at the rate of almost one a week. In fact, managed care has become a major growth industry in our society. However, medicine has encountered drastic changes in the past, and physicians have rapidly adapted to these changes and prospered. Hopefully, the current reforms will result in a more effective system of delivering healthcare, without sacrificing the excellent treatment that Americans have come to expect.

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Pulmonary-Critical Care Medicine in the Era of Healthcare Reform

During the past four decades, American medicine became the world leader in education, medical scientific discovery, and healthcare advances. Academic departments of medicine were more often than not the driving force behind this, and within these departments, it was the subspeciality divisions which accounted for increased research and clinical dollars, improved quality of medical care, and the majority of scientific advances. A consequence of this was a shift from generalist to subspecialty training. Now, partially because of this success, the leadership role of American medicine and the essential role of the subspecialties are at stake. Within the past 2 years and driven by the rising cost of medical care as well as a perceived maldistribution favoring subspecialization, there has been a call for physician workforce and medical education reform. On the other hand, issues which directly impact healthcare costs, such as tobacco and alcohol consumption, illicit drug abuse, and an increase in our population, to name a few, are not receiving their appropriate share of attention.

Two of the proposed changes recommended by the Council of Graduate Medical Education are, first, a 50/50 distribution between generalist and subspecialist physicians which is to be accomplished within 5 years. The second is that the number of first year postgraduate positions should not exceed 110% of the total number of United States medical and osteopathic school graduates.1 The data upon which these recommendations are based are limited at best, often not relevant to practice patterns in the United States, and the conclusions drawn from the available data are questionable.2 In fact, there are excellent data which suggest that there is an adequate supply of generalists in the United States.3 In spite of this, these recommendations were seconded by the Association of American Medical Colleges, the American Medical Association, and the Association of Professors of Medicine. Many departments of medicine are already in the process of changing their curricula to expand generalist and reduce subspecialist training. For this reason, the Association of Subspecialty Professors was born, and I urge all medical subspecialty program directors to join.4 Academic medical institutions stand to lose the most if the aforementioned recommendations are adopted without further work-
force analysis pertinent to practice patterns in the United States.

The 110% solution would effectively decrease the available number of first-year residency slots by 4,000 to 5,000 yearly and eventually reduce the physician workforce. Its greatest effect would be a reduction of the number of international medical graduates (IMG) who would ordinarily train in the United States. While this represents a solution to the perceived doctor surplus in this country, it would prove disastrous for the inner-city academic medical centers which rely to a great extent on the service of IMG for the delivery of healthcare. It has been suggested that others could function in this role, ie, nurse practitioners, medical assistants, displaced subspecialty faculty, and private subspecialty attendings. However, the cost of this “replacement housestaff” could exceed that of the traditional housestaff. This introduces another pertinent issue: that the perceived excess of physicians is exaggerated by geographic maldistribution which does not favor the inner cities and rural areas.

To reach the recommended 50/50 level by the turn of the century, it has been suggested that the number of internal medical subspecialists trained each year should be reduced and generalist training slots increased. If this occurs, between 1,400 and 2,000 first-year medical subspecialty positions would remain, representing a 40 to 60% decrease from present levels. Certainly, all subspecialties would not be cut equally. According to workforce patterns of health maintenance organizations (HMOs), the pulmonary physician workforce should be between 0.9 and 1.4 physicians/100,000 population. The nationwide figure is 1.8/100,000. Since it is estimated that by the turn of century, 40 to 65% of the population will be receiving their healthcare from managed care organizations, this has been put forth as a benchmark. The problem with this analysis is that presently, HMOs treat a younger healthier population with a small number of Medicare or Medicaid patients and no uninsured patients. This type of methodology also does not address the important issues of quality of care, patient access to subspecialty physicians, patient satisfaction, and diagnostic delays. Furthermore, HMOs are not centers for teaching and research.

Another major point of contention is the failure to consider the specialty of critical care medicine as part of the professional activity of the pulmonary physician. Within the internal medicine community, 70 to 80% of critical care physicians are pulmonologists. Because of this important dual role as well as the fact that there are about 33,000 medical ICU beds in this country, it can be argued fairly effectively that there is an actual shortage of pulmonary and critical care medicine physicians. Such an argument was put forth by Spencer Koenner and Edward Crandall to the Association of Pulmonary and Critical Care Program Directors at the most recent American Thoracic Society Meeting. At present, 70 to 75% of a full-time practicing physician’s time is spent in the outpatient setting. While pulmonary-critical care physicians have outpatient responsibilities which also include general internal medicine, one of their primary roles is to serve as the hospital-based generalist for sick patients. As the gatekeeper role for the generalist increases, and the maintenance of high medical standards hopefully remains of primary concern in this country, the inpatient activity of the pulmonary-critical care specialist will increase. Moreover, there are also about 33,000 surgical ICU beds nationwide. In academic medical centers, anesthesia and surgical intensivists provide for care of these patients, but most of these beds are in private medical centers where there is a paucity of these specialists. The private pulmonary-critical care physician’s role extends into this arena as well.

Recently, the American Thoracic Society and the American College of Chest Physicians have established a task force to determine the workforce needs as well as the current workforce activities of practicing pulmonary-critical care physicians. Only data of this type should serve as the basis for decision making when the distribution and numbers of subspecialty training positions are eventually decided.

Each year, 350 pulmonary-critical care trainees are accepted into 140 programs across the country. In 1994, the National Residents Matching program indicated that of the 463 applicants for these positions, 307 matched, and of these, 56% were IMGs. In 1991, this figure was 37%. Furthermore, of the 33 positions which went unmatched, it is likely that the great majority were eventually filled by IMGs. I have alluded to the 110% solution and the untoward affect it would have on inner-city medicine. However, if the federal government is willing to support a replacement housestaff and if new specialty-directed workforce analyses supports a reduction in the number of pulmonary-critical care physicians, some modification of the 110% solution is a possibility.

Kimball and Bennett have recommended an additional year of training for all subspecialty programs. This would extend pulmonary-critical care training to 4 years and act as a disincentive for some applicants, especially those not interested in medical scientific investigation and the pursuit of an academic career. One purpose of this is to maintain the same number of trainees, but by lengthening the training, there will be a reduction in the yearly graduation rate. The academic programs which for the most part are already 4 or more years in length,
and often supported by NIH training grants, cannot reduce the trainee time devoted to research training. For other programs, the issue will be funding of the fourth year.

If a reduction of pulmonary-critical care medicine training positions is mandated by new workforce analyses and the reality of funding, how will they be distributed? I do not support uniform reductions of all medical subspecialty programs, nor uniform reductions within subspecialties. It has been proposed that a national workforce commission assign training slots based on prior training records, academic strength, and academic performance of the trainees of the various programs, as well as on geographic needs. A political solution to the workforce issue seems a bit draconian and is not supported by leading academicians. The quality of the educational and scientific training should be the primary reason for program retention. Centers of academic excellence should be established, where both the best clinical and scientific training can be obtained. When acceptable to both parties, community programs should consider affiliating with academic medical centers. The academic centers must be receptive to these affiliations and capitalize on the strengths of community programs. The character of the community program must be maintained. When it is feasible due to geographic proximity, academic medical centers should consider merging and thereby strengthening their subspecialty programs.

If there really is an increased need for generalists, can pulmonary-critical care medicine specialists pick up the slack, particularly in underserved areas? I suggest that the pulmonary-critical care division directors in concert with department heads establish programs whose purpose is primarily subspecialty training but with a component of continued generalist training in the form of outpatient clinics, etc. This would be ideal for those pulmonary-critical care medicine trainees who wish to enter the private sector or for those who prefer to be clinician-teachers. The issue of retraining established practicing pulmonary-critical care physicians is a viable one for our specialty and one which has been addressed by others.

The United States must maintain its role as the world leader in medicine. Academic medical institutions must remain the focal points for education and research training. The biotechnology revolution must not stop, and similarly, the quality and access to medical care afforded to our population cannot diminish. I hope the day never comes when we are compelled to send our trainees abroad for advanced research training or American citizens feel compelled to seek medical care overseas. Regardless of what workforce changes are dictated after more specific specialty-directed workforce analyses, it will fall upon the federal government as well as the public recipients of healthcare dollars to support graduate medical education and continued scientific investigation.

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Myocardial Sarcoidosis

A Wolf in Sheep’s Clothing

Pulmonary sarcoidosis is relatively easy to diagnose, follows mostly a benign and predictable course, and when treated responds satisfactorily to treatment with corticosteroids and other anti-inflammatory drugs. Myocardial sarcoidosis, however, is difficult to diagnose, follows a treacherous course that may lead to death, and responds poorly and randomly to treatment. The occurrence of myocardial sarcoidosis is generally accepted, but its true incidence is not known, and the accompanying grave consequences are not fully appreciated.

How Common Is Myocardial Sarcoidosis?

In 1929, Bernstein and associates first described sarcoidosis of the heart. More than four decades had