Money and Manpower in Graduate Medical Education

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The United States spends approximately $425 billion on health care annually (1). The direct cost of graduate medical education is estimated to be $3 billion (2), which includes salaries and benefits for housestaff, faculty teaching time, medical libraries, and other overhead associated with housestaff. Given that $3 billion is a substantial amount of money, graduate medical education has received an inordinate amount of attention in recent months, and its funding has been challenged by a variety of payors (3,4). The reasons for this extend beyond the direct cost of graduate medical education and include issues of physician manpower (are we training too many specialists?) and the established observation that teaching hospitals are costlier places to do business than nonteaching hospitals.

This article will make four points. First, only a fraction of the additional costs of operating a teaching hospital is attributable to teaching, and elimination of teaching programs will not eliminate those costs. Second, the accrediting bodies charged with defining the uniform requirements of specialty certification are completely dissociated from the funding mechanisms supporting those educational programs. This results in hospitals being required to do more with fewer resources. Third, politicizing the graduate medical education process is hazardous because it generates an urgency for short-term solutions which in the long run may prove to be both costly and detrimental to the alleviation of human suffering. Fourth, the manpower issues bantered about by politicians and physicians alike may actually be pseudo-issues. A physician surplus will exist when one position in any US medical school goes unfilled for lack of interest.

The Cost of Teaching Hospitals

In 1983 the Commonwealth Fund convened a task force that examined the financing of graduate medical education (2). A comparison of the operating costs of 115 major teaching hospitals with those of 4,726 nonteaching hospitals disclosed that teaching hospitals are much more costly places to do business. The cost per discharged patient in nonteaching versus teaching hospitals was $1,865 versus $4,221, a $2,356 difference. Only $637 or 27% of this difference was due to the direct and indirect costs of education; $1,719 or 73% of the difference was due to other factors such as the cost of an urban location, higher wages, severity of illness, complexity of illness, need for technological support, larger percentage of indigent care and poor payors (such as Medicaid), and greater social severity (destitute people stay in hospitals longer because they have no place else to go). These factors, which legitimately increase costs in teaching hospitals, traditionally have been recognized by most payors. In the days of cost-reimbursement, these costs were considered part of the general cost of doing business. However, with the adoption of the principal of prospective payment for diagnostic related groups (DRGs), Medicare reimburses these costs in a much less precise way through a vehicle known as the indirect teaching allowance. Under this DRG system, Medicare reimburses the hospital for its direct educational expenses in proportion to the percentage of its patients supported by Medicare. Moreover, each DRG payment is increased by a percentage figure which is calculated from the number of residents and the number of beds. In a large hospital with a large teaching program, this enhancement approximated 50% in 1985. In other words, if a given DRG warranted payment of $2,000, a large teaching hospital will receive $3,000. This is known as the indirect teaching allowance, although all parties acknowledge that it has nothing to do with teaching. It is a means to reimburse teaching hospitals for the ill-defined but additional cost of doing business in an urban location, which requires higher wages for employees and caring for more complexly ill patients. Moreover, it is designed to cross-subsidize the care of indigent patients. Having established this principle, the federal government adopted the Consolidated Omnibus Reconciliation Act (COBRA) of 1986, and began to ratchet down the indirect teaching allowance. Continuing to employ the resident-to-bed ratio, the constant multiplier of 11.59% has been reduced to 8.1%. Hospitals with more than 15% Medicaid patients as their clientele may receive a bonus payment intended to compensate for the reduction of indirect teaching reimbursements. However, the important factors such as severity and complexity of illness, higher wages, social severity, urban location, and need for technological support have not been addressed.

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Under this system of reimbursement, hospitals have had an incentive to maintain large teaching programs. This will not be true for long, however. In addition to reducing the indirect reimbursements, the COBRA legislation gives authority to the Health Care Finance Administration (HCFA) to define the cost-per-resident that will be directly reimbursed. Furthermore, other payors are examining educational costs, questioning the appropriateness of reimbursing them. Most health maintenance organizations (HMOs) associated with teaching hospitals introduce a small teaching component into the capitation rate. As these prepaid programs come under the pressure of competition, that component is at risk for reduction and elimination. Ultimately, one can imagine a scenario in which teaching hospitals receive only a fraction of current teaching reimbursements. Their fixed costs, which have nothing to do with teaching and yet are characteristic of a teaching hospital, will remain high.

It is an act of faith to assume that the large urban teaching hospitals now dominating graduate medical education will be preserved despite their inherent inefficiencies. That care for the indigent, the complex, and the urban patient will not be continued is unimaginable, but the mechanism of support remains uncertain at this time. The policy that is adopted must recognize that most of the high costs characteristic of great teaching hospitals have little to do with teaching and that elimination of teaching programs can have little impact on reducing these costs.

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**The Dissociation of Accrediting Bodies from the Funding Mechanism**

The Accreditation Council for Graduate Medical Education (ACGME), composed of representatives of the American Hospital Association, the Council of Medical Specialty Societies, the American Board of Medical Specialties, the Association of American Medical Colleges, and the American Medical Association, oversees graduate medical education in the United States and issues general statements for the guidelines for residency programs. Their residency review committee (RRC) defines the particular requirements by specialty, the length of the program, and may further indicate the number of residents allowed in each training program. The RRC is composed of representatives of the American Medical Association, relevant specialty boards, and on some occasions specialty societies. Residency review committees have substantial authority. The ACGME and specialty boards may review rules established by the RRC but cannot modify or veto them. Only after completion of an approved training program may a resident sit for a certification examination within his or her specialty. Occasionally, differences develop between the specialty boards, who are charged with certifying specialists, and the RRC, who approve the training program. In such instances the specialty boards usually prevail.

Neither the specialty boards nor the RRC have any input into the funding mechanism for education. At times their decisions will result in significantly increased costs to the hospital when the education reimbursements are declining. Examples of this include 1) extending the training period for certification, 2) requiring more and more faculty subspecialists to train residents, and 3) increasing the time spent in the ambulatory clinics relative to inpatient time (a recent development in Internal Medicine training).

Given the seemingly irresistible force of declining reimbursement and the seemingly immovable object of ever more stringent residency review requirements, what is the likely outcome? To survive the residency review process, teaching institutions must have adequate patient volume, variety of pathology, available ambulatory facilities in which to teach outpatient medicine and surgery, technology sufficient to cover the depth and breadth of the specialty taught, and commitment by the institution and faculty to educational objectives independent of other institutional manpower needs. Institutions with marginal patient volume for teaching purposes, inferior facilities, or uncommitted faculty are not likely to survive the residency review process. It is possible for the collision of the irresistible force with the immovable object to create a new entity, a quality educational program (as defined by the residency review committees) funded by educational monies from all payors but excluding completely the indirect cost of teaching. After all, those costs really address a much larger societal issue: what standard of care for the indigent and the complexly ill do the people of the United States accept? Unfortunately, the shift to prospective payment and DRGs has resulted in the federal government paying most of indirect teaching costs which, as stated, have little to do with the real costs of teaching programs. Private payors and capitated programs accept proportionately less of the burden and will undoubtedly continue this practice given the competition for subscribers. Accordingly, the fate of teaching hospitals rests increasingly with an unpredictable political process over which they have relatively little control.
Physician Manpower Issues or Pseudo-Issues

Virtually every article in the lay and professional literature about physician manpower in the United States accepts that there are too many physicians, particularly too many specialists. In 1959 there were about 140 physicians per 100,000 population; currently there are 200 physicians per 100,000. It is anticipated that at the turn of the century there will be 280 physicians per 100,000 population. The number of active physicians (MD and DO) in the continental United States was 326,200 in 1970, 467,000 in 1981, and is projected to rise to 594,600 by 2000. The Bureau of Health Professions (5) projects that the ratio of primary care physicians to the population will increase from 84 per 100,000 population in 1981 to 115 per 100,000 population in the year 2000. Clearly, the number of doctors is increasing. Less clear is whether a physician surplus exists. One could define a physician surplus as existing only when an available first-year position in any US medical school remains unfilled for lack of interest. That act will incorporate all of the financial and professional implications of competition and opportunity. Other definitions of physician surplus are at best speculative. Furthermore, these speculations are limited in several ways. For example, any body appointed by a state to examine the problem of physician surplus tends to deal with issues within that state. A council convened by the federal government tends to limit its considerations to our country, yet the United States represents a world resource for medical care. Almost certainly the world needs either more physicians or a more equitable distribution of physicians. What should be the role of the United States in addressing issues of health care in the third world? Consider the hazards of attempting to project manpower needs. How many infectious disease specialists were needed before 1981? Did this change after 1981, the year that AIDS was first described by the Centers for Disease Control? What medical resources will be needed to handle this 20th century plague? What types of physicians are needed to treat these patients? Although virtually everyone agrees that there are now too many cardiologists, if the intracoronary use of thrombolytic agents should become the standard of care for every myocardial infarction in the United States, will there be a surplus? The free

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market alternative to regulation is most attractive. Young physicians can best define what type of physician they want to become, primary versus specialist; and if specialist, what type of specialist? They will incorporate economic and professional realities into their decision. Any regulatory process could impede and almost certainly not improve that mechanism for regulation of physician manpower.

I acknowledge that this article expresses opinions more than facts. My wish is to focus attention on some current issues in graduate medical education. As society, the government, the payors, and the profession scrutinize funding for graduate medical education, they must also address the issues of care for the poor and severely ill. As training programs attempt to do more with less, many fine institutions may decide to get out of the education business completely. History’s lessons about the hazards of manpower regulation in medicine should not be ignored.

References