

Figure 24. Patients with idiopathic dilated cardiomyopathy who have defects in the sympathetic innervation of the myocardium when imaged with ^{123}I MIBG are more likely to develop ventricular tachycardia and sudden death (318).

such as cardiologists and neuroscientists, and other holistic specialists, such as nuclear oncologists and infectious disease specialists. This consonance with other fields of medicine resembles the smooth growth of healthy branches from a common vine (Figure 25).

One mainstay of U.S. medicine—as crucial as recognizing the relation of clinical manifestations of disease to specific organs or to histopathological abnormalities of cells—has been peer review, a major quality-control mechanism, ensuring consonance in scientific findings. Now peer review must be extended

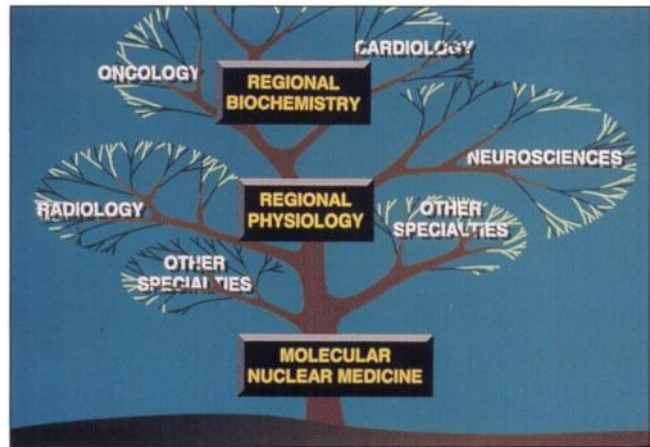


Figure 25. Molecular nuclear medicine, regional physiology, and regional biochemistry are the vine from which other medical specialties branch.

to public view. Members of professional societies must work with persons in industry to perform and document cost-effectiveness studies and preach what we practice. The effectiveness of nuclear medicine procedures is among the best kept secrets in medicine. We must educate decision-makers, not just physicians, but also patients and third party payers.

Henry N. Wagner, Jr. M.D.

Part 3: The Physician Workforce

VISIONS AND REVISIONS: VIEWPOINTS OF NUCLEAR MEDICINE AND HEALTH CARE REFORM

As reformers push for specialist rationing, a leveling-off of nuclear medicine workforce may mean decreases in training slots—or the specialty may define a new identity

A CENTRAL TENET IN THE MAJOR health care reform measures now emerging in Washington is that every citizen has the right to basic health care. An adjunct assumption holds that general practitioners offer the best route to such universal access. Not only are generalists supposedly less costly on average than specialists, reformers hold them up as symbols of the sort of back-to-basics approach that health care allegedly needs. Basing its numbers on Council

of Graduate Medical Education (COGME) recommendations, proposed Congressional legislation has set a goal for the generalist/specialist ratio that varies from 50/50 to 55/45. Major reform measures, notably the Clinton plan, would achieve this goal through regulation—through COGME's limiting the number of annual residency positions in each medical field. The prospect of a government agency thus regulating nuclear medicine as just one of a set of specialties has practitioners in the field alarmed.

"A decrease of 51% in Nuclear Medicine residency positions would result in serious shortages of nuclear physicians by preventing the training of new practitioners that are needed to replenish the aging cadre in the field," wrote William H. McCartney, MD, ACNP president, and Richard C. Reba, MD, SNM president (at that time), in a March 29 letter to COGME. Though the number of physicians in the "other specialties" grew variously between 10% and 37.2% from 1985-1992,

the number of nuclear medicine physicians grew by only 1.5%. Thus Drs. Reba and McCartney argued that COGME should grant nuclear medicine protected status as a specialty.

Market Forces versus Regulation

The COGME itself probably best expresses the sentiment for containing the proportion of specialists to generalists. A May 18, 1994 special communication to JAMA, "Defining the Generalist Physician's Training," co-authored by a COGME member and distributed by COGME, stated that "the shortage of generalist physicians and the plethora of specialists are widely seen as hindering the efforts to provide universal access and control costs." The authors state the virtually symbolic means by which generalists may achieve this health care reform goal:

The unique contribution of generalists to health system reform goals is their ability to use a biopsychosocial model to provide comprehensive, high-quality care in a variety of settings to people with a broad array of health related conditions.... Although other physicians provide elements of primary care, COGME concludes that physicians who are broadly educated as generalist physicians provide more comprehensive and cost-effective care than other specialists and subspecialists. (JAMA. 1994; 271:1499-1500.)

COGME's 1992 report to Congress speculated that market forces created by the RBRVS fee schedule and a health care system moving toward managed care would help bring about their proposed 50/50 generalist/specialist ratio—yet that such market forces would not be sufficient to do this.

Alarm over potential regulation still may be premature: according to some observers, market forces will alter the generalist/specialist ratio if the supply of physicians does not meet demand. Jordan J. Cohen, MD, president of the American Association of Medical Colleges (AAMC), said, "Speaking from the Association, I think that market forces will kick in and prevent the need for regulation." AAMC advocates the creation of a committee to study this issue before any regulation is made. Dr. Cohen cited his reason for optimism in the "increase in the number of students going into internal medicine and family practice"—due to the students' apparent awareness of current socioeconomic trends. "I'm not saying the problem is solved, but this is an apparent market affect. Some specialties and subspecialties are finding difficulties recruiting trainees. Still, it's hard to predict whether we'll see some need for regulatory intervention."

Considering the sort of activity currently on Capitol Hill, the regulatory faction is not waiting around for market forces to alter physician ratios. The Clinton plan proposes that a national council base the number of positions for each specialty upon the prevalence of particular disease disorders and on the current (and projected) number of physicians; the council would distribute positions to accredited residency programs according to historical patterns and the quality of the program. This bill sets the generalist/specialist ratio at 55/45 by academic year 1998-1999. The Kennedy bill (sponsored by the Labor and Human Resources Committee), aiming for the same split by academic year 2000-2001, proposes that a national council base the number of specialties on demand and health conditions and allocate slots to eligible institutions according to historical distribution and program quality. The bill proposed by Pete Stark (D-CA), from the House Health Subcommittee of Ways and Means, varies more from the others. Aiming for a 53/47 generalist/specialist split, the Health and Human Services Secretary would make the specialty allocations to institutions, according to need, historical pattern, and the recommendations of the accrediting bodies.

Although the major legislative issues are universal coverage, mandatory health alliances, employer mandates for insurance, and cost containment, the physician workforce and graduate medical education are intertwined with the philosophy of reform, with inevitable repercussions for nuclear medicine. In light of these trends, nuclear medicine has already taken steps toward clarifying its special position among specialties. The March 29 letter by Drs. McCartney and Reba suggested that, since nuclear medicine grew nowhere near the tremendous amount of other specialties, this discipline should be placed under the "protected" status that COGME had established, for other reasons, for psychiatry, geriatrics, surgery, and preventative medicine. COGME discussed this letter at its April meeting and concluded that the council had not adequately analyzed whether *any* specialty should receive protected status. "Instead of recommending for us the protected status we requested, they essentially abolished the category altogether," said Mike Hall, director of legislative affairs at the SNM/ACNP Joint Washington Office, during the Administrator's Day Program, June 5, at the 1994 SNM annual meeting.

The Joint Office, along with 17 other medical specialty groups (known as the Graduate Medical Education Coalition), has been making a concerted effort on Capitol Hill. The group argues that the

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generalist/specialist ratio should not be written into law; that an independent national commission should administer the graduate medical education program *only* if market forces prove inadequate; and that institutions that lose residency positions should be adequately compensated.

Beyond Regulation

Although no one has espoused that nuclear medicine should take an ostrich-in-the-sand approach, several observers have expressed that market forces, particularly the specialty’s cost-effectiveness, will help nuclear medicine weather the storm of reform. Nuclear medicine offers the potential of streamlining health care costs by offering new types of diagnoses that may prevent unnecessary and more costly procedures (see “Nuclear Medicine Practitioners Evaluate Their Cost-Effectiveness,” *Newsline*, February 1994, p. 13N). Henry N. Wagner, MD, professor of radiology and chair of SNM’s Health Care Reform Committee, has exhorted the nuclear medicine community to advertise its cost-effectiveness for the entirety of medical practice (see *Newsline*, July 1994, p. 22N, and p. 13N, this issue). If it is apparent that nuclear medicine is saving millions of health care dollars, putting restraints on it would be suicidal, so lawmakers would be less tempted to regulate numbers of its trainees.

But despite nuclear medicine’s cost-effectiveness, some practitioners see an inevitable change occurring in the field. Robert E. Sonnemaker, MD, nuclear medicine radiologist, Ochsner Foundation Hospital (New Orleans, LA), described an overall shift from full-time to part-time nuclear physicians over the last few years (while the number of nuclear medicine procedures has increased). “The concern has been to justify producing more physicians, but it appears to me and others that there’s not a demand for fully trained nukes, thus supply diminishes with demand.” He noted that the SNM Manpower Committee is trying to document just who is practicing nuclear medicine by looking at the graduates of two-year nuclear medicine programs over the last five years and seeing if they are practicing full-time nuclear medicine. Such splintering of “nukes” among part-time practitioners is apparently due to the very success of nuclear medicine procedures: cardiologists, oncologists, neurologists, among others, have found how useful these procedures are and are incorporating them into daily practice. (This trend has also caused leaders in the field concern—over the problem of certifying that all the part-timers are carrying out nuclear medicine procedures safely and competently—the subject of a December 29, 1993 letter by Drs.

Reba and Conrad Nagle to the NRC.)

M. Donald Blaurox, MD, PhD, chair, Department of Nuclear Medicine, Albert Einstein College of Medicine (Bronx, NY), has developed a residency program that may provide an answer to this postulated demographic trend. Essentially, the program, which the first student is due to enter in June 1995, couples training in nuclear medicine with either radiology or internal medicine, so the graduate can be board-certified in both nuclear medicine and either radiology or internal medicine and enter the working world as, in fact, a dual physician. Dr. Blaurox noted that, “Though there are several programs in existence that offer the opportunity to become board-certified in nuclear medicine and radiology, we’re the first or only to combine nuclear medicine and internal medicine.” He describes the motivations for this program: “A lot of medical school graduates have anxieties about doing only nuclear medicine and nothing else. I think this is unfounded, but until certain problems are resolved [in the entirety of health care], an impediment can be removed to reduce fear—thus the double certification.” Furthermore, “I think the Board requirements of two years plus one year of nuclear medicine is inadequate (I was adamantly against this when I was [a member of] the Board). Our four-year program now provides the incentive to get that fourth year.

Dr. Sonnemaker concurs that the nature of nuclear medicine’s workforce is changing, that the field is moving more toward “incorporation into the general practice of medicine,” and that the role of the full-timer is shifting (toward education and research). The Society is scheduling a Summit (Dr. Sonnemaker chairs the steering committee for the Summit meeting) to discuss how it can meet the needs of the discipline’s postulated new demography—to satisfy the needs of the providers, who are increasingly part-timers, and of the full-timers, who are increasingly concentrating on research and education. Both groups depend on one another, he pointed out, but have different needs that must be met to keep this discipline intact. “We need data [on who is doing what] to gain the support of medicine as a whole, to show we’re in tune with health care reform,” he said. “We want to be so compelling that medicine as a whole will come knocking down our doors.” If the Society can adjust to all these changes of reform, recognize the shifting roles of all categories of its members, and meet their new needs, then it should be able to usher them successfully into the new era and retain the discipline’s integrity.

Lantz Miller