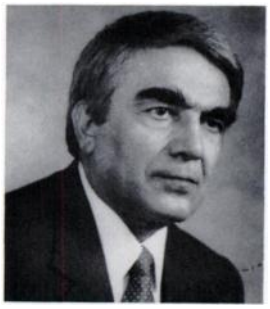
COMMENTARY

NUCLEAR MEDICINE IN A PPO AND HMO ERA

The professional relationship between nuclear medicine practitioners and patients tends to be episodic rather than continuous. Our role in the management of illnesses is of a consultative nature. The very focused nature of our clinical services, most of which are diagnostic rather than therapeutic, dictates that our participation in patient care be similarly focused. Unlike the broader participation of other clinicians, our services are discrete and well-defined, fitting well into the currently prevailing mode of physician compensation—the fee-for-service model.



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We in the United States are in the throes, however, of a revolution in health care delivery. This revolution encompasses not only the enormous progress in medical technology and the methods of diagnosis and treatment, but also in the financing of health care. These changes are bound to affect the relationship of nuclear physicians and health care underwriters, a relationship that is important since the cost of medical care (except for deductibles and copayments) rarely is paid for directly by the patient.

Health maintenance organizations (HMOs) and preferred provider organizations (PPOs) are the two most important manifestations of these radical changes.

In 1985, more than 4.3 million new enrollees joined HMOs, raising the total membership to about 21.1 million. The 1985 rate of growth was 25.7%, exceeding the 1984 rate of 22.4%. This trend was accompanied by an increase in the number of HMOs from 337 plans in 1984 to 408 in 1985. For the last 10 years, the pattern of growth of HMOs has been one of steady rise not only in absolute number of enrollees, but also one of an ever-rising rate of growth.

PPOs have also sustained a rapid growth. In 1984, it was estimated that there were 1.3 million eligible PPO users; in 1985, that number had climbed to 5.7 million. The American Medical Association's (AMA) Periodic Survey of Physicians reported in the spring of 1985 that 28% of all physicians had a contract with one or more PPOs. In the last quarter of 1985, PPOs had 2,900 contracts with hospitals and 260,000 contracts with physicians; a typical provider had contracts with three or four PPOs.

To reduce the cost of medical care, both HMOs and PPOs emphasize outpatient rather than inpatient management. The mechanisms usually combine preadmission review, concurrent and/or retrospective review of hospital stays, and mandatory surgical second opinions. Because of this involvement, HMOs and PPOs have been christened "managed care systems."

At a recent meeting of the Group Health Association Institute in Minneapolis, speakers addressed the future of health care delivery systems. While the conventional fee-for-service mode applies today to 72% of the medical services rendered, it was predicted that by 1990 that figure would be reduced to about 5%. The other 95% are expected to fall in the "managed care" mode, with 25% in a "managed fee-for-service" environment and the remainder divided between HMOs and PPOs.

PPOs offer the closest approximation to the fee-for-service mode (the next-best thing to being there). About 69% of PPOs compensate physicians according to a fee schedule; 20% use a discounted charge, usually a reduction of 9–15% of the normal charge; 9% currently pay full charges; and 3% use a variety of hybrid methods. Physician revenue in a PPO increases with increased workload.

HMOs, on the other hand, use a capitation method. They tend to deal directly with individual providers or groups of providers and pay a fixed monthly capitation to each member regardless of whether medical services are rendered. In general, HMO enrollees select their primary care physician from among the HMO providers. That primary care physician is financially responsible for the cost of certain services, such as outpatient diagnostic services (including nuclear medicine procedures), and all physician charges.

The second feature of physician compensation in HMOs revolves around the concept of "risk sharing." If the primary care physician can prudently manage the expenditure of the capitation payments, he or she will be left with an operating surplus which is retained as compensation. The current litigious nature of our society serves as a disincentive for primary care physicians to underserve HMO enrollees in an effort to increase that compensation. In addition, if the judicious use of outpatient resources decreases the inpatient expenditures below the level of projected hospital utilization, the savings are divided between the HMO and the primary care physicians according to a mutually agreeable formula. (This sharing of savings does not apply to each hospitalization, but is calculated usually

on an annual basis.) On the other hand, if the primary care physicians generate hospital expenses in excess of the budgeted amounts, they will reimburse the HMO for a percentage of the losses out of their retained capitation payments—hence the "risk sharing."

If the provider group is multidisciplinary and large enough to support a sufficient number of enrollees, it will provide specialty services such as nuclear medicine. The compensation of the nuclear physician becomes then a matter of a provider group agreement similar to that of all other physician members. In reality, however, few provider groups are large enough to be able to provide specialty services from within their own ranks.

Primary care physicians in these organizations then must enter into agreements with various specialists to provide services to their enrollees—in essence, creating their own small preferred provider network. In general, these specialists will adjust their charges because of the reduced administrative work involved in billing and collection, and because of preferential or exclusive referral.

HMOs and their providers, though, are shifting to capitation arrangements with their referral specialists. The nuclear medicine community must examine the frequency of use of nuclear medicine services in an ambulatory population. It must develop the database necessary to allow its practitioners to project utilization of nuclear medicine resources and establish methods of calculating capitation payments which will allow for the fiscal solvency of their practices and the adequate compensation of nuclear medicine physicians.

The nuclear medicine community must also face the challenge of devising innovative ways to share its resources with managed care systems. Alan B. Ashare, MD, of St. Elizabeth's Hospital in Boston, is a pioneer in this respect. Building on a project initiated by Gerald M. Kolodny, MD, of Beth Israel Hospital in Boston, Dr. Ashare provides a digital nuclear medicine data teletransmission service. It allows his group to provide realtime supervision of services and technologists at remote sites in hospitals and managed care systems which cannot support their own nuclear medicine services.

The future is here today. As a profession, we have the obligation to meet the challenges posed by these revolutionary health care delivery systems in a manner that preserves our professional integrity and our commitment to quality care for patients.

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Private Sector Plans to Set Standards for Radiopharmaceutical Calibration

A program to have Corporate Standards Laboratories (CSLs) produce and distribute radiopharmaceutical standards in the United States for the calibration and evaluation of dose calibrators in the field is being established by the Imaging Resource Committee of the College of American Pathologists (CAP).

The CSLs are operated by the private sector (radiopharmaceutical manufacturers or large nuclear pharmacies). The surveys of dose calibrator performance are being performed by the CSLs under the auspices of the CAP Imaging Resource Committee. The committee has recently been reorganized to include the participation of The Society of Nuclear Medicine (SNM) and the American College of Nuclear Physicians (ACNP) on an equal basis with the CAP.

These secondary standards are traceable to the National Bureau of Standards (NBS). Primary calibrations of CSL equipment are performed by NBS. The Food and Drug Administration (FDA), through an interagency agreement with NBS, is cosponsoring the primary calibration of equipment for the first three CSLs to assist in establishing the program.

The first CSL has been established by the Syncor International Corp. in Sylmar, CA, for technetium-99m pertechnetate measurements. Syncor completed a pilot survey in the summer of 1985. The data from 172 dose calibrators indicate that the measurement of technetium-99m is in general satisfactory for the majority of dose calibrators in this survey. The percent deviation of the measured activity from the certified value was within ±5% for 141 dose calibrators (or 82%), ±10% for 164 (or 95%), and ±20% for 169 (or 98%).

The Nuclear Regulatory Commission (NRC) accepts a maximum percent deviation of ±10%. The data base is not adequate to differentiate between models older or newer than 1980, or between those performing regularly the quality control tests and those neglecting or not reporting them.

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