

for] Germany's amount or even less." But, in turn, the U.S. has a high technological sophistication in health care that both decreases costs through efficiency yet also increases costs by keeping certain patients alive longer and using health care dollars. He cited, for example, that Canada has only 10% of the U.S. per capita of MRIs. Understanding exactly how U.S. health care dollars are appropriated and

how such appropriation maintains our quality of care can only assist when making health management decisions.

"California is way ahead of the nation in managed care," Dr. Powell said. "Maybe the mistakes made here will modulate what happens in the rest of the country."

Lantz Miller

COMMENTARY

QUALITY ASSURANCE UNDER HEALTH CARE REFORM



Henry N. Wagner, Jr., MD

AS IN OTHER SPECIALTIES, we in Nuclear Medicine have a choice: we can survive or not. We also have the opportunity not only to survive but to prosper, if we face up to new problems and solve old problems that have existed for decades. Public and political interest in the health care system have accelerated the changes that are already taking place in the American health care system. A major change is a decrease in fee-for-service practice and growth of managed

care and capitation. By the year 2000, half of the American population will be covered by managed care and capitation. What do we face and how should we respond? First, the workforce in nuclear medicine—both physicians and technologists—will continue to diminish as managed care becomes more widespread. The response is to increase expertise and educate physicians, administrators and the public. Second, the focus on cost containment will result in decreased payment for individual medical services. The response is to market nuclear medicine studies and expand volume.

The great strength of nuclear medicine is the quality of its science and technology. Nuclear medicine could be in the forefront of the new molecular medicine, and be a major factor in a "new era of certainty."

Progress depends on problems. The greatest obstacle to progress is satisfaction with the status quo. It is clear that the public and most of the medical profession believe that the status quo is not satisfactory. Regardless of what happens in Washington, DC, this year or next, changes in the American health care system are already being played out in most states and in private industry.

Nuclear medicine procedures are under- rather than over-utilized. Nuclear medicine can benefit greatly from cost-effectiveness research. The quality of nuclear medicine practiced in the United States can be improved if it is practiced by fully

trained expert physicians working with fully trained expert technologists.

Technology assessment is a major opportunity for nuclear medicine. Technical assessment should not be limited to the technical performance of nuclear medicine procedures, but should also include clinical assessment of how the entire encounter of the patient with nuclear medicine benefits the patient. It is essential to document how nuclear medicine helps solve patients' problems. We must begin to assess the effects of nuclear medicine procedures on patient care and clinical outcomes.

Such documentation of efficacy and relevance to patient problems can be carried out locally and nationally, by individual nuclear medicine departments and multi-institutional studies.

Outcomes research must document the value added by nuclear medicine to patient care. When Congress created the Agency for Health Care Policy and Research (AHCPR) in 1989, \$200 million was budgeted to carry out studies which would consist of a review of the available literature, analysis of patient records and the data stored by HCFA and insurance companies. Patient Outcome Research Teams (PORTS) were funded for cost-effectiveness studies of ischemic heart disease, acute myocardial infarction, diabetes mellitus, prostate disease, cataracts and back pain.

Some have criticized outcomes research studies as diverting money from relatively cost-effective trials to uninformative analyses of databases which can do more harm than good. They have criticized this approach, preferring the use of large, multi-institutional randomized clinical trials.

Prospective clinical trials are needed to measure efficacy, to determine whether a procedure can be helpful under controlled conditions of practice. But we need to examine effectiveness as well as efficacy, and such studies could be made in every nuclear medicine department in the country. We need to determine at the local level how helpful procedures are in practice, and after we have documented cost-effectiveness, we need to communicate this information to other physicians, administrators and the public.

Henry N. Wagner, Jr., MD