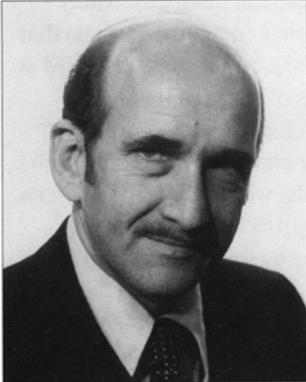


Quality Control! Quality Assurance! Quality Improvement! The Name of the Game



James J. Conway, MD
 Consulting Editor
*Journal of Nuclear Medicine
 Technology*

In the early part of the twentieth century, the medical profession became disenchanted with the quality of medical care that had evolved. In response, physicians developed minimum requirements for medical schools and guidelines for the instruction to be given students in medicine. Gradually, the poor and marginal medical schools fell by the wayside, and a system of organized education for medical students resulted in gradual improvements in the quality of physicians entering the medical profession.

The desire by physicians to improve the quality of medical care led to the formation of the Joint Commission on Accreditation of Hospitals (JCAH). The physician organization was created to govern the quality of facilities in hospitals. This was a voluntary effort, not to regulate but to bring about improvements in the quality of medical care by guidance and example. The initial JCAH efforts turned to the concept of "quality control" within the hospitals. This was relatively easy to accomplish since specific structural standards such as the quality of the physical premises, i.e., width of corridors, presence of fire doors, etc., could be easily monitored. With the gradual improvement in the quality of hospital facilities, the JCAH then began to address the more complex issue of the quality of medical practice. It did so by promoting the concept of "quality assurance." Quality assurance is a system of assessment of the quality and appropriateness of services of which peer review is a major component.

Then came the revolution. Vastly improved technology resulted in technologic innovations whose introduction into medicine after World War II resulted in our ability to care for more complex conditions and sicker patients. This revolution was not without its price. Technology is costly and, now, for the first time, outside parties have entered into the equation determining the *modus operandi* of medical practice. The third-party payers of medical care, business, and particularly the government through its Health Care Financing Administration (HCFA), have become increasingly alarmed at the escalation of expenditures for medical care. Political and business give-aways of health benefits and the belief that there should be unlimited health care for all citizens have contributed to the escalation of costs. These outside interests have demanded some assurance that health care will be economical as well as satisfy the quality demanded by the public.

When the JCAH became the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), it adopted an "agenda for change" in response to these concerns. Few physicians initially understood the rationale for the change. It was difficult to predict the evolving economic influences which have led toward the restriction and regulation of medical practice.

The JCAHO gradually began a process of exerting its influence upon hospitals and physicians in an effort to effect the desired change. Hospital Quality Assurance Committees were formed, medical organizations emphasized quality control and quality assurance in their continuing education efforts, and individual practitioners in spite of their protests, began the complex process of peer review through the process of quality assurance.

More recently, the JCAHO has advanced the concept of "quality improvement" in order to improve the overall outcome of health care. What does it matter if we have the structural elements in hospitals (quality control) to allow quality medical care to occur, or peer review (quality assurance) to monitor physician productivity, if the overall outcome of these activities does not result in an improvement (quality improvement) in the overall quality of the health care?

The practice of nuclear medicine provides a cosmos of the entire process of the "agenda for change" promoted by the JCAHO. In the early years of nuclear medicine, all of us were concerned about the issues of quality control, particularly with our technologically new equipment. We emphasized such activities at meetings and they formulated a great part

of the educational efforts within The Society of Nuclear Medicine (SNM). With the quality control process increasingly understood and practiced, we then turned our efforts toward "quality assurance." The American College of Nuclear Physicians (ACNP) formulated its practice survey program (quality assurance), which is a peer review evaluation of the quality of an individual's practice.

During the last two years, the SNM has become more involved in the development of standards for nuclear medicine practice. These guidelines for practice are predicated upon the recommendations of knowledgeable individuals and ratified by the membership of the profession to assist individuals in achieving quality within their medical practices. Many believe that these guidelines should be based upon scientific evidence (outcome studies) that proves that such efforts do, indeed, affect the quality of medical care. At present, the SNM is exploring the approach that it will assume in developing standards of practice (practice parameters, practice policies). Thus, within the microcosm of nuclear medicine, we have complied with the goals and objectives of the JCAHO "agenda for change." Beginning with the "quality control" of instrumentation and radiopharmaceuticals, we moved into the arena of "quality assurance" in the form of peer review, and now, we approach the concept of "quality improvement" by evaluating the outcome of our practices by scientific research and the development of standards of practice.

The nuclear medicine technologist is a very active participant in all of these activities. The monitoring and tabulation of quality control is under the direction of the nuclear medicine technology staff in consultation with the radiologic physicist and the nuclear medicine physician. The chief technologist is involved in the quality assurance process and assists physicians in the peer review process. The nuclear medicine technologist can become involved in scientific outcome studies, which will help us develop our standards for practice in the future. The nuclear medicine technologist is an integral part of the voluntary professional efforts to develop and maintain quality health care in the United States.