

NMTCB: Ten Years of Services to the Nuclear Medicine Profession

The assessment of knowledge and skills necessary for a nuclear medicine technologist to perform competently is a challenging and critical activity. The necessity for nuclear medicine technologists to show evidence of their competence upon career entry and during the remainder of their professional lifetimes is critical as increasing demands are placed on the health care system. Determining the competency of a practitioner is the primary responsibility of the profession being certified. The Nuclear Medicine Technology Certification Board, Inc., was incorporated in 1977 under the initial sponsorship of the Technologist Section of the Society of Nuclear Medicine in response to the desire of nuclear medicine technologists to establish their own certification standards for an independent certification agency of, by, and for the profession of nuclear medicine technology.

The primary purpose of the NMTCB is to assess a variety of relevant behavior, and to ensure the administration of an examination totally relevant to the competent practice of nuclear medicine technology. To identify and validate the knowledge and skills to be assessed, three critical task surveys (in 1977, 1983, and 1987) have been conducted and analyzed. The knowledge needed for competent daily job performance as a nuclear medicine technologist is assessed through this written examination.

Federal legislation enacted in the early 1980s encourages the licensing of nuclear medicine technologists by all states. Several states had requested that the NMTCB prepare a handbook that details the services the NMTCB will provide for state agencies involved with licensure for nuclear medicine technologists. This handbook, *Examination Services for State Licensing Agencies*, was subsequently developed to introduce state licensing agencies to the services available through the NMTCB.

Historical Overview

A new era in nuclear medicine technologist certification began September 15, 1978 with the administration of the first NMTCB examination to 652 candidates at 24 sites across the United States. All NMTCB examinations have been designed to test the application of knowledge necessary for preparedness to practice at entry-level in nuclear medicine technology. The fact that application, not just factual recall, was tested created a new and unique experience for nuclear medicine technologists.

In 1977, the NMTCB was established and incorporated as an independent certifying board primarily because two important needs were not satisfied by the credentialing mechanisms then available to nuclear medicine technologists.

The first need was one of identity. Nuclear medicine technology was not recognized as a separate and distinct professional entity, partly because nuclear medicine credentials were offered by other professional organizations whose focus was on another specialty. Thus, nuclear medicine technology was considered a subspecialty of radiologic technology or medical laboratory technology. While many pioneer technologists did come from one of these two specialties, it soon became apparent that the knowledge and skills necessary in the new field required a different background and training than in either of the two "parent" specialties. Nuclear medicine technology schools soon followed.

Unfortunately, the process of certification does not always keep step with training and accreditation. The second need was for an examination which truly reflected both current practice and the entire scope of practice for nuclear medicine technology.

Charged to satisfy these two very real needs of our profession, the NMTCB was founded and dedicated to the development and administration of a certification examination. Recognizing the need

for professional psychometric expertise, the NMTCB contracted with the American College Testing Program (ACT) for examination development and administration services.

Since the formation of the Technologist Section—Society of Nuclear Medicine, in 1970, technologists have wanted to be involved in their certification activities and to establish a professional identity separate from any other allied health profession. Technologists strongly believed that they should control their professional identity by being involved in developing their own standards for education and certification.

Discussion with the American Registry of Radiologic Technologists (ARRT) and the Board of Registry of the American Society of Clinical Pathologists (ASCP) in 1972–1974, in particular, concerned the possibility of formation of a conjoint registry. Finally, in 1974, the National Council of the Technologist Section mandated that, should a conjoint registry not materialize, the Section was to finalize plans for a separate, independent nuclear medicine certifying board sponsored by the Section.

Outside influences were also bringing pressures to resolve the nuclear medicine technologist certification issue. For example, most technologists found it necessary to take both the ARRT and ASCP examinations to be assured of their ability to practice both in vivo and in vitro studies. Also, a need was generally felt for one credential which clearly indicated competency throughout the entire scope of practice. Additionally, once the Joint Review Committee on Education Programs in Nuclear Medicine Technology (JRCNMT) began approving technologist educational programs in 1972, graduates of these programs began to demand a strong, separate professional identity as nuclear medicine technologists.

At this time, on both the state and the national level, technologists were facing

licensure without a clear professional identity or a clearly defined scope of practice. These lacks led to such problems as nuclear medicine technologists being identified as radiologic technologists or medical laboratory technologists in proposed licensure legislation.

The spark came in an editorial in the June 1976 *Journal of Nuclear Medicine Technology* concerning establishment of a "third registry." Technologist response was overwhelming; technologists began to realize that unless action was taken immediately, formation of a true nuclear medicine technology certifying board would be further delayed, perhaps forever.

Several SNM chapters came to the SNM Annual Meeting in Dallas in 1976 with written resolutions calling for the formation of a certifying board for technologists.

In response, the National Council passed these resolutions:

RESOLVED that we are in support of the concept of an independent nuclear medicine technology examination board established under the auspices of the Technologist Section, SNM.

RESOLVED that a committee be appointed to explore in full the implementation of an independent nuclear medicine technology examination board, and that the committee report its findings to the National Council at its next meeting.

These resolutions were unanimously approved, and a Task Force was established.

The Task Force met in September 1976 to investigate the feasibility of a certifying board, review proposals from testing services, and estimate costs. After much work, the Task Force decided that the concept was viable and proceeded to determine the future structure and functions of the NMTCB. The NMTCB was

incorporated in Delaware in January 1977, with the support of the Technologist Section—SNM, the Society of Nuclear Medicine and the American College of Nuclear Physicians.

Beside the certification examination, a second certification route was made available to selected technologists: recognition of other certification. Between 1977 and 1980, any technologist certified in nuclear medicine by the ARRT and/or the ASCP could become certified by the NMTCB through recognition of other certification.

In June 1980, the NMTCB signed a reciprocity agreement with the Canadian Association of Medical Radiation Technologists allowing certified Canadian and American technologists to remain certified while working in either nation. This agreement represented the first international reciprocity established in nuclear medicine technology. In 1983, the Board of Registry of the ASCP merged with the NMTCB in order to eliminate duplicate examinations. Since 1983, any nuclear medicine technologist certified by the Board of Registry may become certified by the NMTCB without taking the examination by paying a \$40 fee. In 1985, the NMTCB began offering the examination twice annually, in June and September.

National and state recognition of nuclear medicine technologists has been gained by the active role taken by the NMTCB in the promulgation of certification standards by nuclear medicine technologists. For example the NMTCB has had several of its certification standards and eligibility criteria incorporated directly into the national standards declared by the Health Resources Administration under the authority of the Consumer-Patient Radiation Health and Safety Act of 1981.

The table below charts the development of the NMTCB examination.

Future Plans

In the next decade, the NMTCB will work hard to maintain its place in the nuclear medicine and allied health care communities. Among other projects, the NMTCB will offer widespread examination services for states, conduct more surveys of manpower and developing trends in nuclear medicine, increase services for certificants, and maintain better communication with the allied health care fields.

I hope you will be here with us to celebrate on our 20th anniversary. Thanks to all of you who have made the NMTCB such a tremendous success during our first ten years.

Examinee Statistics: 1978-1987

Year	No. Tested	Min	Max	Mean	% Pass
1978	652	56	174	119.3	64.0
1979	780	28	180	130.8	70.0
1980	822	42	184	128.7	60.0
1981	848	48	184	129.8	57.0
1982	951	48	187	129.3	57.0
1983	935	7	186	124.3	60.2
1984	947	59	177	120.6	55.3
1985J	375	55	178	125.3	62.1
1985S	554	51	181	130.2	80.9
1986J	301	63	174	126.8	75.4
1986S	418	78	179	135.7	83.7
1987J	223	56	175	126.6	70.0
1987S	394	56	179	130.7	73.9

J = June examination; S = September examination.