

Technologists Explore New Career Directions

The image of a nuclear medicine technologist ushering in patients, operating gamma cameras and processing images is a far cry from what many in the field are doing today. A growing number of certified nuclear medicine technologists are using their training to expand beyond their traditional roles: Some are managing radiology departments, while others have become executives in the nuclear medicine industry. Regardless of their professional choices, virtually all technologists have been affected to some degree by managed care, either through hospital cutbacks or pressure to be cross-trained in other imaging modalities. Many technologists have chosen to return to school to earn a bachelor's degree (since many certified technologists have only a two-year associate degree) or to earn a master's in either business administration or public health. Some have decided to pursue a medical degree, and still others have left the medical field altogether.

To track trends in the technologist workforce, the Society of Nuclear Medicine-Technologist Section (SNM-TS) conducted a manpower survey in 1995 and received responses from about 1500 technologists. (SNM-TS conducted a follow-up survey in 1997 and expects to publish results in 1998.) According to the 1995 survey, more than 46% of technologists held a bachelor's degree, and more than 11% held a master's degree or doctorate. About 20% of technologists said they split their time between nuclear medicine and another department, and 23% said they began cross-training in other fields.

In a more recent survey of 416 technologists conducted in 1996 by the Technology Marketing Group, technologists reported a broadening of their responsibilities, with 74% reporting that they perform stress testing, 49% reporting that they do intervention and drug administration and 26% reporting that they perform EKGs. Of these, 54% reported an increase in stress testing in the last three years, 43% reported an increase in drug administration and 25% reported an increase in EKGs. Only a small percentage of technologists reported a decrease in any of these responsibilities. Illustrating a possible increase in splitting time and cross-training, one-third of respondents in the 1995 SNM-TS survey indicated they split their time between nuclear medicine and other areas, and one-third said they were undertaking cross-training or edu-

cation outside of nuclear medicine.

To identify some immediate changes taking place in the field of nuclear medicine technology, *Newsline* interviewed leaders in the field on their own career experiences. Their array of career choices illustrates the options open to technologists throughout the country.

From Imagers to Managers

Of the 85% of technologists who work at hospitals or imaging centers, many choose career changes that do not require them to leave their hospital or facility; rather, they step into the role of administrator. Lynne T. Roy, CNMT, FSNMTS, president-elect of SNM-TS, currently manages 262 employees and a \$19 million annual expense budget as the director of imaging at Cedars/Sinai Medical Center in Los Angeles. Roy entered the field of nuclear medicine technology after earning a master's in biology in the 1970s. After being promoted to head of imaging, Roy went back to school and earned a dual master's degree in business administration and health administration. "I needed a formal education in accounting, finance and other business practices. Although I no longer use my technical skills, my past experience has been invaluable in understanding our busy imaging department's operation," she said. "Our volume has increased in recent years to 2800 procedures per month. As a result of being so busy, our technologists do not have the time to cross-train in other areas; therefore, they remain dedicated to nuclear medicine," said Roy.

While Roy has remained in imaging, others have opted to leave nuclear medicine to pursue a career in hospital administration. Denise Merlino, CNMT, FSNMTS, is the administrative director of the anesthesiology department at Lahey Hitchcock Clinic in Burlington, MA. After working as a nuclear medicine technologist for a year



Many technologists are successfully bridging the gap between clinic and administrative office settings.



Lynne T. Roy, CNMT, FSNMTS, president-elect, SNM-Technologist Section

after she graduated in 1983, Merlino began a transition to less clinical work and more managerial tasks. "I realized I liked that level of responsibility," she said. Merlino went on to earn a master's in business administration and became the radiology business manager before beginning her position in anesthesiology eight months ago. "I love the challenge of working in a totally new department with some similarities to my old position but enough differences to make it interesting," she said. Although Merlino misses the patient contact, she relishes being in charge of budgets, policies and procedures for such a large department.

Other technologist leaders opt against leaving behind the clinical world for a management job. Kathy Thomas, CNMT, the current president

of SNM-TS, has worked as a clinical technologist for 23 years at the City of Hope, a national cancer institute in Duarte, CA. Although she earned a master's degree in health care administration to support her administrative responsibilities at the medical center, Thomas said she continues to prefer hands-on clinical work and patient care as her primary responsibilities. As supervisor for the department of nuclear medicine, Thomas finds that her administrative duties include budget preparation, equipment acquisition and cost analysis.

In responding to managed care, City of Hope has found itself shuffling staff responsibilities. For example, the division of diagnostic radiology, for which Thomas is the quality assessment coordinator, has required its technologists to sharpen long-unused skills or to acquire new ones. As a registered x-ray technologist, Thomas has found that she is able to fill in where needed. "I am currently expanding my clinical radiology skills to include mammography and hope to add CT and possibly MRI in the future," she said. "I can see the writing on the wall. There is a possibility that technologists will face unemployment if they are unwilling to add additional imaging skills." She has found that more technologists are becoming multiskilled, paying \$1000 or more out of their own pockets to obtain additional licenses. "I would rather see a specialized technologist performing a nuclear medicine procedure rather than a multiskilled technologist who works in nuclear medicine for just a few hours a week," said Thomas. "However, we have to face reality. As hospitals merge and downsize, they will favor keeping those technologists who are adaptable to the needs of the imaging department rather than individuals who are specialized in a single modality."

The Appeal of Industry

After 17 years of working as a technologist in a St. Louis hospital, Mary Jo Struttman, CNMT, felt her career had come to a standstill. She went back to school to earn her bachelor's degree and wanted to obtain a position with more responsibility. A DuPont Pharma Radiopharmaceuticals representative in St. Louis looking to recruit technologists who were familiar with cardiac imaging approached Struttman about a job. Five years later, she is the associate director of medical marketing at DuPont Pharma and manages all clinical specialists in the western half of the U.S. The position, which involves a lot of travel, is demanding. "I spend at least three nights a week away from home, which requires a great deal of organization with three teenagers at home," she said. "Still, I have grown and matured profes-

SNM-TS Efforts to Advance Profession

SNM-TS is working on several fronts to address the latest issues in health care. Here is a summary of initiatives that are in the works:

• Health Professions Network

SNM-TS is working with other allied health professional organizations through the Health Professions Network, a group that represents health professional associations interested in interdisciplinary communication, discussion and collaboration. Participants in the network meet at least annually to discuss issues relating to health care and to serve as a conduit for interdisciplinary problem solving and preparation for future health care delivery.

• Career Pathways Task Force

Using the template of Great Britain's physician assistant program, SNM-TS has organized a committee (with two nuclear physician members) to examine ways to train technologists in advanced skills such as reading bone scans and injecting pharmaceuticals used in nuclear medicine procedures. It is estimated that the nuclear medicine physician assistant program will require an additional two years of training.

• Accreditation of Nuclear Medicine Facilities

SNM-TS, in conjunction with other nuclear medicine organizations (such as SNM and the American Society of Nuclear Cardiology), is attempting to establish a voluntary accreditation program similar to the accreditation program for mammography facilities (which has become federal law). This would accredit facilities based on their equipment, staff and interpretation of images.

• Membership Task Force

SNM-TS is conducting surveys of section members and nonmembers to identify their needs and career interests. Currently the section represents approximately 6000 of the 15,000 nuclear medicine technologists in the U.S. Information collected from this survey will help to identify value-added member benefits necessary to bring the remaining technologists within SNM-TS.

sionally with my career advancement at DuPont Pharma, and I find the company very supportive.”

Struttmann’s responsibilities have expanded considerably since she arrived at DuPont. She was hired in 1992 as a clinical specialist to educate nuclear technologists and physicians on the uses of DuPont’s ^{99m}Tc-sestamibi (Cardiolite and intravenous Persantine) as a cardiac imaging agent. After two years, she was given a new position promoting nuclear medicine to managed care executives. “We saw that managed care organizations were shying away from nuclear cardiac imaging in favor of the less expensive echocardiography,” Struttmann said. She convinced Columbia-HCA (one of the largest managed care organizations) to put nuclear imaging with ^{99m}Tc-sestamibi for acute cardiac events on its “best practice” guidelines, which are followed by most of Columbia’s satellite sites.

In her current position, Struttmann travels with colleagues to various hospitals and meets with cardiologists, oncologists and hospital administrators, as well as nuclear physicians and technologists, to lobby for nuclear medicine procedures to be included in practice guidelines. “There is a need for this,” she said. “One hospital in Kansas City developed a guideline for the detection of coronary artery disease, and nuclear medicine was completely written out of it because no one in the department was aware the guideline was being developed.” Participation in guideline development is also being promoted by SNM-TS. As chair of the SNM-TS public education and professional enhancement committee, Struttmann is developing material that will educate technologists on how to become involved in the development of guidelines at their hospitals. “We want to develop this material into a roadshow where technologists in different areas teach about such things as disease management, guidelines and technology assessment—information they can use when approaching their institutions about inclusion in guidelines,” Struttmann said.

Dealing with Downsizing in the Academic World

Martha Pickett, CNMT, chair of the department of nuclear medicine technology at the University of Arkansas Medical Science Center in Little Rock, is responsible for organizing the educational program and training of technologist students. Within the academic world Pickett has seen the effects of managed care even earlier than hospitals. During the past few years, educational programs for technologists have downsized in anticipation of a decreased need for technologists in the workforce. “My colleagues throughout the

country and I have seen our programs being downsized and even closed entirely due to budgetary forces,” said Pickett. Her institution currently has 7 to 10 graduates a year from its nuclear medicine technologist program, whereas until three years ago it had 14 to 15 graduates annually. Sending fewer students into the workforce has its payoffs, however, in that students are finding it easier to obtain jobs after graduation. According to Pickett, “The market has picked up considerably in the past year because of the smaller graduate pool. If students are willing to move to different parts of the country, they will have no trouble finding a job, and many will find jobs in the area they currently live in.”

Technologist training programs are also moving away from the standard courses that test a student’s ability to memorize facts and procedures. Instead, students are required to participate in team projects that test their ability to solve case studies using reference materials available to technologists who work in the field. “As an educator, I’m trying to be more of a facilitator of a student’s learning experience and less like a sage on a stage,” said Pickett.

Another major change in technologist education programs has been the adoption of additional months of training to teach nontraditional skills in areas such as stress testing, community health and supervisory management. The University of Arkansas, for example, is planning to initiate a 2+2 baccalaureate program, in which students will have two years of general undergraduate courses and two years of technologist courses. This is a shift from the traditional program in which students took three years of general courses and only one year of technologist training. Pickett said her institution would like to have the new curriculum implemented by the 1999–2000 school year.

“Many programs throughout the country are considering extensions in training to offer students more options when they graduate,” said Pickett. Some nuclear medicine technologist programs have also set a long-term goal to establish a core curriculum with other allied health professionals that would give technologists training in other fields, such as radiology. Innovations in education coupled with an open job market may provide newly trained technologists with even more opportunities than in the past.

—Deborah Kotz

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