

PROFILE

Howard J. Dworkin, MD: Raising Expectations for Continuing Education

Howard J. Dworkin, MD, has worked for more than 3 decades to enhance nuclear medicine education and, in so doing, has become a trusted and respected figure in the wider world of continuing medical education (CME) and certification. Today, as a practicing nuclear medicine physician in his 35th year at William Beaumont Hospital (Royal Oak, MI) and an adjunct professor of radiology at the University of Michigan, this past president of the SNM (1986–1987) continues to expand on a remarkable record of accomplishment and innovation in medical education. He talked with Newsline in May about his career and about changing trends in both nuclear medicine training and continuing medical certification in general.

Advancing Medical Education

In 1986 when Dworkin was elected as president of the SNM, he already had considerable national experience working with educational issues in nuclear medicine. He had served as president of the American College of Nuclear Physicians (1978 and 1979), as chair of the American Board of Nuclear Medicine (ABNM) Committee on Certifying Examinations (1983), as ABNM representative to the American Board of Medical Specialties Committee



Howard J. Dworkin, MD



From Internal Medicine to Nuclear Imaging and Therapy

Dworkin was born in Brooklyn, NY. He received an undergraduate degree in chemical engineering from Worcester Polytechnic Institute (MA) in 1955 and his medical degree from Albany Medical College (NY) in 1959. During his internship at Albany Hospital (1959–1960) and residency at Rochester General Hospital (NY; 1960–1962), he enjoyed training in his chosen field: internal medicine. “I really liked the patient contact,” he said. “This was what medicine was supposed to be. On the other hand, I missed the opportunity to apply the basic scientific background that I had learned as an undergraduate.” It was during his time at Rochester that he saw a notice on a bulletin board about a research fellowship at the University of Michigan (UM). It was at Michigan that William Beierwaltes, MD (SNM president, 1965–1966), was heading up an active group of nuclear medicine physicians. His book (coauthored with Johnson and Solari), *Clinical Use of Radioisotopes* (1957), was the first textbook of nuclear medicine practice. “I was familiar with Beierwaltes’ book,” said Dworkin. “And when I saw the notice, I thought this would be a very interesting field to pursue.”

Dworkin went to UM in 1962 and, although his teaching associate and third-year residency positions were nominally in internal medicine, he pursued his interests in nuclear medicine. From 1963 to 1965 he held a fellowship in cancer research at the UM Medical Center, earning a masters degree in radiation biology during the same period. He also served as the assistant coordinator of the nuclear medicine unit (1963–1966) and an instructor in the Department of Medicine (1965–1966). During this period, he published a number of papers with Beierwaltes and other UM researchers. After a year in Toronto, Canada, as head of nuclear medicine and associate professor at the Princess Margaret Hospital, Dworkin was drafted in 1967 during the Viet Nam war.

As a naval commander, he served as head of nuclear medicine in the Department of Radiology at the National Naval Medical Center in Bethesda, MD, from 1967 to 1969. “We did the routine sorts of nuclear medicine imaging that were done in most other hospitals at that time,” he said. “What was unusual (and perhaps prophetic for nuclear medicine in general) was the discovery that the military was extremely short on trained nuclear medicine technologists. I participated in a program designed to train technologists who would be able to work effectively and sometimes independently.” The program would evolve into the Nuclear Medicine Technologist Training Program at Portsmouth, VA, and would encourage the establishment of a number of other military educational efforts in nuclear medicine.

on Study of Evaluation Procedures (1983), and in a number of committee and council positions with the SNM.

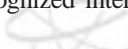
“After my tenure as president, I served in several capacities with the SNM Education and Research Foundation,” said Dworkin. “In 1991, the SNM asked if I would serve as a representative to the American Medical Association Section Council on Nuclear Medicine. This was a period when the hottest topic in organized medicine was the coming requirements for recertification and continuing education. Many physicians simply couldn’t believe that this was going to become an ongoing part of their practice lives. Organizations like the SNM understood what was coming but were scrambling to identify appropriate ways to identify and serve their members’ CME needs.” At the same time, the SNM asked Dworkin to use his growing body of knowledge about recertification and education processes as a representative on the Council of Medical Specialty Societies (CMSS).

CMSS, in turn, needed a representative to the Accreditation Council for Continuing Medical Education (ACCME), the national collaborative body that was assuming increasing responsibility and oversight for the many disparate efforts to meet CME needs. As the ACCME grew, Dworkin was called upon to participate in roles of increasing responsibility. He has served as a member of the ACCME appeals panel since its inception, as a full member of the ACCME since 1995, as vice chair in 1997, and as chair in 1998. Today he is a recognized international authority on

quality and planning issues associated with the CME process across the spectrum of medicine disciplines. In addition to continued work with the ACCME, including site visits to training centers, he is a member of the board of directors of the Alliance for Continuing Medical Education. He is also chair of the Michigan State Medical Society’s Committee on CME Accreditation.

“Time and money are the two biggest challenges we see to the development and maintenance of CME programs in any discipline,” he said. “Developing the test instruments, administering the examinations, maintaining a valid certification program—all of these are very costly, and much of that cost is passed on.” Moreover, the time it takes to develop a CME course and test in a rapidly changing discipline may make the knowledge outdated in a short time. “The biggest time issue, however, is the sticky question of whether even the best practitioners can master new techniques in the very short amounts of time allotted by many CME courses,” said Dworkin. Increasingly, practitioners, professional organizations, and, in some cases, even regulatory bodies are asking for measurable outcomes of CME testing. “One of the real problems right now is that no one has produced evidence that CMEs and the recertification process actually make better physicians,” he said. “It’s an urgent task that the ACCME and other groups have now taken on—to bring valid outcomes measures that assess what is and is not being

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 advancing molecular imaging

After leaving the military, Dworkin went to the William Beaumont Hospital, where he chaired the Department of Nuclear Medicine at the Royal Oak, MI, facility from 1969 to 2002 and at the Troy, MI, location from 1981 to 2001. His interest in educational efforts continued. With colleagues, he started the hospital’s school of nuclear medicine technology in 1970 and has served as its director throughout its history. The school has trained more than 200 technologists.

He also has served as director of the hospital’s nuclear medicine resident training program for more than 30 years. He noted that a number of qualitative aspects have affected the typical nuclear medicine residency over this period. “Nuclear medicine, at least up until now, has not been perceived as among the highest paid or the most highly esteemed, especially compared with radiology,” he said. “I think we’d be more attractive to the best students if we could mix nuclear medicine more effectively with radiology and with internal medicine—both for the benefits that more patient contact brings to any trainee and for the advantages in broader education.” He also noted that nuclear medicine continues to require a somewhat more solid grounding in the basic sciences than do many other disciplines, “This may scare off some trainees,” he said. “And while some of this can be acquired ‘on the job,’ nuclear medicine residents certainly need to be receptive to understanding a range of basic sciences. In the past, I would have said the emphasis needed to be on physics, but today’s practicing nuclear medicine physician needs to be prepared and ready to learn more about immunology, biochemistry, and a host of other subjects that underpin molecular imaging. This is a real challenge.”

In addition to his duties in a teaching hospital, Dworkin has extensive experience in the formal medical school environment, holding appointments as an adjunct professor at UM, a clinical professor at Wayne State University Medical School (Detroit, MI; 1970–present), Michigan State University (East Lansing, MI; 1976–present); and Oakland University (Rochester, MI; 1977–present). He has published or presented more than 100 papers, lectures, posters, and invited talks on a wide range of nuclear medicine practice and clinical experience. “Throughout my career, I’ve enjoyed drawing on my experience as an internist to get to know patients,” he said. “I still believe that there’s much that the nuclear medicine physician can bring to interactions with patients—combining our observations with those of the referring physician often brings new insights into imaging or therapy results. And, over all, this leads to a level of integrated care that can only improve relations with referring physicians and outcomes for patients.”

Focus on PET at Madrid Symposium

On May 12 and 13, an international symposium on PET in neurology was held in Madrid, Spain, under the sponsorship of the Ramón Areces Foundation, the Complutense University of Madrid, and the Centro PET Complutense. The symposium was coordinated by Francisco J. Rubia and Miguel A. Pozo (Universidad Complutense, Madrid), who welcomed attendees at the beginning of the first day. At the first session, moderated by Rubia, presenters included Hugo Liaño (Hospital Puerta de Hierro, Madrid) on ^{18}F -FDG PET in clinical practice, and Pozo on metabolic neuroimaging in the presurgical evaluation of epilepsy. All sessions included time for general discussion and exchanges of viewpoints and experience among the attendees, who came from across Europe and North America. The second session, moderated by Liaño, included presentations by Antonio Maldonado (Centro PET Complutense, Madrid) on PET in brain tumors, and Javier Arbizu (Clínica Universitaria de Navarra, Pamplona, Spain) on clinical applications of PET in Parkinson's disease. An evening roundtable discussion was moderated by Jorge Barrio (University of California at Los Angeles [UCLA]), Maldonado, and Arbizu. The next day, a session moderated by Pozo opened with a presentation by Barrio on "A Revolution at Work. Monitoring Brain Pathology in Alzheimer's Disease with PET: Diagnostic and Therapeutic Implications." Barrio's UCLA colleague, Daniel H.S. Silverman then spoke on the role of ^{18}F -FDG PET in the early diagnosis of Alzheimer's disease. Both Barrio and Silverman discussed PET tracer binding of β amy-



At the International Symposium on PET in Neurology (left to right): Antonio Maldonado, Jorge Barrio, Mrs. Barrio, Javier Arbizu, Miguel Pozo, André Luxen, and Daniel Silverman.

loid and analyzed ^{18}F -FDG detection of early, presymptomatic changes that accompany Alzheimer disease. The final presentation was made by André Luxen, who focused on PET radiopharmaceuticals for brain serotonergic system studies (University of Liège, Belgium).

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and/or pain, or the need for intraarticular glucocorticoid injection within 3 months or arthrodesis of the treated joint within 6 months); (2) moderate effect (12 joints; significant reduction of swelling, pain, and improvement of function); and (3) good effect (30 joints;

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accomplished in terms of actual knowledge gained and whether or not that knowledge is making its way into practice."

He praised the CME efforts of the SNM, noting that with projects like the PET Learning Center and the PET Center of Excellence, the Society has "risen to the challenge" of providing quality educational benefits for its members and others. "As CMEs and standards of practice have become even more important, the SNM has developed a forward-thinking policy to synchronize its educational efforts with ACCME guidelines and to make CMEs an integral part of the recertification process," he said.

"Unclear" No More

Both nuclear medicine practice and education have grown exponentially since Dworkin entered the field in the

complete or almost complete remission of synovitis). The authors concluded that "radiation synovectomy of the ankle is a safe and effective treatment in persistent synovitis, although all patients eventually experienced recurrence of arthritis."

Journal of Rheumatology

1960s. "When I first began practice, the old scintillation scans were so sketchy that many other practitioners referred to our specialty as 'unclear medicine,'" he said. "Not only did the field change rapidly over the years, but now we stand on the brink of an entirely new era, where molecular imaging will combine with our other time-proven techniques to radically expand the range and scope of nuclear medicine applications. Our trainees and colleagues in the discipline will need entirely new sets of skills and a well-planned system for continuing education that is ready to present evolving knowledge and techniques. It's an exciting time for nuclear medicine." Nuclear medicine physicians and, indeed, all medical specialists, owe a debt of gratitude to Dr. Dworkin for his contributions to the foundations of 21st-century medical training and certification. ✿