Promoting Radiation Dose Optimization

One of my top initiatives as president of the Society of Nuclear Medicine and Molecular Imaging (SNMMI) is to advance a better understanding of radiation dose and risk and promote dose optimization in nuclear medicine and molecular imaging. At the Annual Meeting in June, SNMMI kicked off this initiative by issuing a position statement on dose optimization, stating that radiation dose for all nuclear medicine and molecular imaging procedures should be optimized by ensuring that the patient receives the minimum radiation dose necessary to provide useful diagnostic information.

The position statement recognizes that the use of low levels of radiation in nuclear medicine procedures carries some possible risk. However, if an appropriate procedure—one that can provide the physician with clinical information essential to the patient's treatment—is not performed when necessary because of fear of radiation, it can be detrimental to the patient. The society stresses that the "right test with the right dose should be given to the right patient at the right time." When that is done, nuclear medicine scans can eliminate the need for invasive surgery, along with its associated risks. It can also help doctors tailor treatment of disease for that particular patient, bypassing what could have been months of ineffective, costly, and perhaps painful treatment.

Moving forward, dose optimization will become a part of SNMMI's communications, outreach, advocacy, and education efforts. This integrated approach will help to provide information and guidance on dose optimization to imaging professionals, referring physicians, policymakers, and the public.

To consolidate SNMMI resources on dose optimization in one place, a microsite is being created as part of the SNMMI Web site. The microsite will include dose optimization guidelines and recommendations, access to SNMMI education sessions, journal and newsletter articles, fact sheets and white papers on dose optimization, and a bibliography of dose optimization articles from non-SNMMI publications. The site will also provide links to information from the SNMMI RAdiation Dose Assessment Resource Task Force, Medical Internal Radiation Dose Committee, and discoverMI.org.

To further communicate our messages, position papers on the benefits and risks of nuclear medicine and molecular imaging, presentation materials, and other resources will be developed. SNMMI will also respond to any inaccurate portrayals in the media regarding the risks and benefits of nuclear medicine and molecular imaging.

Frederic H. Fahey, DSc

Meetings with several key government agencies—including the Nuclear Regulatory Commission, Food and Drug Administration, Conference of Radiation Control Program Directors, the Centers for Medicare and Medicaid Services—and Capitol Hill staff will be arranged in the coming months to discuss dose optimization. SNMMI will maintain a lead role in the Alliance for Quality Medical Imaging and Radiation Therapy by promoting the Consistency, Accuracy, Responsibility, and Excellence in Medical Imaging and Radiation Therapy bill on Capitol Hill and will be responsive to inaccurate portrayals of radiation dose by Medicare, third-party payers, and others. Discussions are also underway to consider the development of a national dose index registry for nuclear medicine and molecular imaging.

To educate nuclear medicine and molecular imaging professionals about dose optimization, the society will develop courses on the topic and will offer them at the Mid-Winter Meeting, at the Annual Meeting, and at chapter meetings. Webinars, online lectures, and sample cases will also be created, as well as self-assessment programs and a Part IV Maintenance of Certification program.

In addition to these activities, SNMMI will continue to actively participate in Image Gently and Image Wisely. SNMMI and the SNMMI Technologist Section provided major support to the Image Gently "Go with the Guidelines" campaign. We are actively working on the development of the nuclear medicine section of Image Wisely, which should be launched this fall. SNMMI will also work with other groups, including the Medical Imaging and Technology Alliance and the American College of Cardiology, to help advance understanding of dose optimization.

Radiation dose for all nuclear medicine and molecular imaging procedures should be optimized by ensuring that the patient receives the smallest possible amount of radiopharmaceutical that will provide the necessary diagnostic information. I would like to thank Adam Alessio, PhD, my co-chair for the SNMMI Dose Optimization Working Group, for his enthusiasm and leadership and encourage members to contact me with comments and ideas on SNMMI's dose optimization initiative.

Frederic H. Fahey, DSc
SNMMI President