

Fulfilling a Need for Evidence-Based Medicine

One of the most significant challenges in medicine is striking a balance between what is best for the patient's well-being and what is most cost effective. The bottom line remains that patients deserve the best health care possible—but how do we know which procedure, treatment, or medication is best for an individual patient? Where is the information that supports these important decisions that physicians must make every day? As the leading organization setting standards for molecular and nuclear imaging practice, SNM recognizes the importance of providing patients and physicians with the most current and useful information concerning comparative effectiveness. Molecular and nuclear imaging can bring value to patients' lives by eliminating the need for exploratory surgery or leading to more timely and more effective treatment; however, little consistent and reliable data are currently available to support these conclusions. Therefore, one of the key initiatives of SNM is identifying gaps in evidence and determining the best methodology to address these gaps to facilitate comparative effectiveness research (CER) for molecular and nuclear imaging.

In light of health care reform and the government's current focus on reducing spending—especially for advanced medical imaging—CER has gained more prominence in the scientific health community. For many indications, most of the published literature supports “class II level B” evidence that molecular and nuclear imaging adds valuable incremental information to a patient's diagnosis and therapy. Class II evidence includes conditions for which there is conflicting evidence and/or a divergence of opinion about the usefulness/efficacy of a procedure or treatment. Level B means that the data are derived from a single randomized trial or from nonrandomized studies. At the plenary session at SNM's recent 57th Annual Meeting, in Salt Lake City, UT, Larry Kessler, ScD, delivered the Henry N. Wagner, Jr., Lecture, “Strange Bedfellows? Comparative Effectiveness Research, Molecular Imaging Medical Practice, and Health Policy.” Dr. Kessler discussed the pitfalls and promise of evidence-based medicine with respect to molecular imaging and ways in which the health policy and decision-making landscape may change. He then described CER issues for molecular and nuclear imaging and ways in which SNM should take leadership in resolving those issues to move the field forward and provide optimal care for patients.

We could not agree more with Dr. Kessler. CER presents an opportunity for SNM to demonstrate leadership and collaborate with decision makers to broaden our knowledge and understanding of CER—and it is critically important to the future of our field. SNM is rising to the challenge and developing CER that provides evidence that characterizes ¹⁸F-

FDG PET/CT as delivering optimal patient care with improved outcomes.

In July SNM held a workshop, funded by the Agency for Healthcare Research and Quality (AHRQ), that brought together representatives from government agencies—including AHRQ, the U.S. Food and Drug Administration, National Institutes of Health, and Centers for Medicare & Medicaid Services—along with representatives from the health technology assessment community, patient advocates, private payers, and members of the molecular and nuclear imaging community to understand the methodologies behind comparative effectiveness. Facilitating discussion among these groups is important because of the numerous elements involved in research, including patient registries, analysis methodology, and clinical trials.

The objectives of the workshop were 3-fold: to understand the need for more CER in molecular imaging; to determine the appropriate research methods to address various molecular imaging evidence gaps; and to prioritize future CER in molecular imaging. By the end of the workshop, several priority initiatives were identified. At the same time, the PET Utilization Task Force has been systematically collecting, tracking, and analyzing comparative effectiveness studies. These are important first steps—and SNM will continue to lead the process forward.

Advanced imaging tools hold great promise for the personalized medicine revolution, with enormous potential for improving patient care and outcomes. Comparative effectiveness studies, well-designed clinical trials, and clinical acceptance of hybrid imaging procedures such as PET/CT and SPECT/CT, especially with new tracers, are necessary for a sound scientific foundation. Faced with declining reimbursement, our community needs to continually remind decision makers that molecular and nuclear imaging procedures are essential components of the diagnosis and treatment of diseases and disorders, can decrease the cost of health care by guiding physicians to the most appropriate therapies, and will spare patients from unnecessary treatment, especially unnecessary invasive procedures.

We look forward to keeping you apprised as SNM moves forward with this critical initiative—and to continuing to provide value to the society's members and the patients we serve.



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