



New Biomedical Imaging Meeting

The inaugural “Frontiers of Biomedical Imaging Science” meeting, held June 27–29 on the campus of Vanderbilt University (Nashville, TN), was a different type of conference, bringing together a broad range of topics in a novel forum. The Frontiers meeting was sponsored by the Vanderbilt University Institute of Imaging Science (VUIIS), with a major objective of identifying imaging science as a coherent discipline, cutting across modalities and applications.

The meeting brought together a faculty of experts whose charge was to review the state-of-the-art within their particular subfields of biomedical imaging science in ways that experts in other areas of the field would find stimulating and enlightening. The idea was to avoid the specialized focus of most professional meetings, in which presentations of detailed research results provide insight only to those already familiar with the subject matter.

The 34 presentations covered a wide range of topics, from recent advances in ultrasound probes to the use of brain atlases from structural MR imaging as tools for

identifying regions of the brain associated with neurologic and psychiatric disorders. Molecular imaging was the focus of several presentations addressing not only target identification and the different types of targeting strategies for molecular imaging but also the application of molecular imaging techniques to cancer, neurodegeneration, addiction, and cardiovascular function. A complete list of presentations is available at www.vuiis.vanderbilt.edu/frontiers.

Attendees identified a critical need for imaging scientists to know something about different techniques as well as the ideas that are common to all imaging as they develop new applications in biology and medicine. These individuals must be able to understand and formulate connections between the technical aspects of imaging by multiple modalities and the information that imaging may



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MAINTENANCE OF CERTIFICATION UPDATE



Part IV of MOC: How Will It Evolve?

As indicated in last month’s Newsline, Part IV of Maintenance of Certification (MOC), as defined by the American Board of Medical Specialties, is poorly understood but likely to be MOC’s most critical component. The periodical testing of cognitive knowledge (Part III of MOC) only measures “Do I know it?”, whereas Part IV of MOC assesses the entire Continuous Quality Improvement (CQI) cycle, which includes “Do I do it?” and “Does it make a difference?”

Although cognitive knowledge is important in the high-quality practice of nuclear medicine, a more direct measure of the quality of nuclear medicine performance would involve metrics on over- and underutilization, accuracy of interpretation, appropriateness of therapy, and clarity and timeliness of communication. No national standards currently offer ways to measure these indices of practice performance. No central database can be used to compare the results from one practice with those of another.

SNM has begun to address the issue of accuracy of interpretation by providing a central database of PET/CT

and CT studies (www.snm.org/llsap> MORE INFORMATION>DIAGNOSTIC CT AND PET/CT CASES). Participants can interpret these studies on their own computers using a workstation emulation program that closely mimics the clinical environment. The participant’s interpretations are compared with those of experts and with those of the participant’s peers.

Feedback on accuracy of interpretation is provided in categories of organ system or tumor type, so that each participant can assess his or her strengths and weaknesses. Based on this new knowledge, physicians can then devise a study plan to address self-identified areas for improvement. The CQI cycle is completed by remeasuring the physician’s accuracy of interpretation after conclusion of the self-improvement study plan. Similar accuracy of interpretation modules are being developed for cardiovascular nuclear



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eluate, processing the eluate with reagent kits to prepare radioactive drugs, and administering radioactive agents;

- Asked for a defined pathway by which a Canadian nuclear medicine physician could meet the new T&E criteria without necessarily being trained by an NRC-licensed authorized user; and
- Suggested that Canadian physicians should have their training verified by an authorized user in the United States and that they should also be required to take a few hours of additional training to confirm they are knowledgeable about NRC regulations.

ACMUI members discussed potential resolutions for the various T&E related concerns brought up by the public but unfortunately needed to adjourn the meeting before the completion of business. This issue was also the subject of a follow-up ACMUI teleconference on August 16, but, again, a portion of the agenda was tabled because of time constraints. SNM anticipates that ACMUI will finish T&E business at its regularly scheduled fall meeting, unless the NRC plans to hold an additional follow-up teleconference in the interim.

NRC NARM Rulemaking Update

As part of the naturally occurring and accelerator-produced radioactive material (NARM) rulemaking effort, the NRC evaluated the need to revise their licensing guidance documents to provide updated information incorporating the newly covered byproduct material. Two NUREG-1556 documents are being revised to provide additional guidance to licensees: NUREG-1556, Volume 13, Revision 1, *Consolidated Guidance About Materials License—Program-Specific Guidance About Commercial Radiopharmacy Licenses*, and

NUREG-1556, Volume 9, Revision 2, *Consolidated Guidance About Materials Licenses—Program-Specific Guidance About Medical Use Licenses*. In addition, a new NUREG-1556 volume was created (as Volume 21) to address production of radioactive material using an accelerator, entitled, *Consolidated Guidance About Materials Licenses—Program-Specific Guidance About Possession Licenses for Production of Radioactive Material Using an Accelerator*.

These guidance documents were announced on the SNM Web site (www.snm.org> GOVERNMENT RELATIONS) and can also be accessed via the “NARM Toolbox” section of the NRC Web site (<http://nrc-stp.ornl.gov/narmtoolbox/narmguidance.html>).

GE Healthcare Ceretec® Supply

GE Healthcare released a letter to customers informing them of an imminent shortage of their Ceretec (^{99m}Tc-exametazime) product. One of their manufacturing sites, located in Gloucester, UK, had to close because of flooding, thus Ceretec will be off the market as soon as current inventory levels have been exhausted.

GE Healthcare has stated that it is committed to restoring operations at the Gloucester manufacturing site as soon as possible and that significant resources have been deployed to assist in the project. However, they expect the interruption to last several months.

The GE Healthcare letter to customers is posted on the SNM Web site at <http://interactive.snm.org/index.cfm?PageID=6666>.

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provide on physiology, biologic structure, metabolism, and cellular and molecular processes. The Frontiers conference was intended to address these needs, and the consensus of the attendees was that the meeting met its

objectives and was a valuable addition to the calendar of meetings.

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medicine, general nuclear medicine, and radionuclide therapy.

Other practice accreditation organizations, such as the Intersocietal Commission for the Accreditation of Nuclear Medicine Laboratories, have begun developing practice performance measures. In the future, it is likely that these organizations will develop standards for physician-level measures of practice performance, such as clarity and

timeliness of reports. An essential component of CQI is to provide feedback on how an individual's practice compares with peers, so that he or she can then develop an improvement plan (as needed) and then remeasure practice performance.

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