Registry

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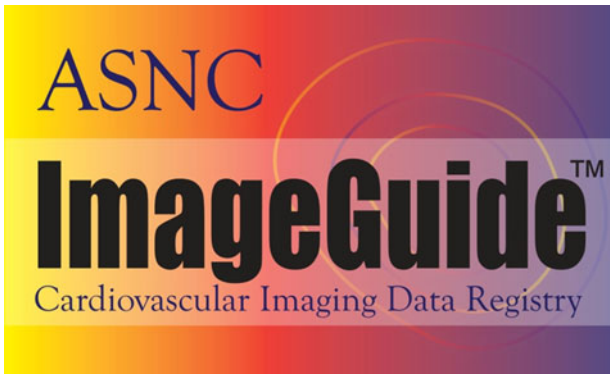

These are historic times for ASNC with the introduction of new isotopes, camera technology, and ongoing clinical trials aimed to demonstrate effective use of myocardial perfusion imaging. These groundbreaking developments in the field of nuclear cardiology provide hope and promise for the field. Yet, more is needed to create a pathway of sustainability for all nuclear laboratories in this country and around the world. Over the past 5 years, ASNC leadership has held ongoing discussions with regards to the development of nuclear cardiology registries that would provide a means to demonstrate high quality imaging that is safely practiced and consistent with guideline-accepted best practices.

In 2013, leadership within ASNC in collaboration with leading registry experts decided to embark on a bold, new initiative entitled ImageGuide™—A Cardiovascular Imaging Data Registry. This registry will be the first of its kind in cardiovascular imaging and will seek to provide a fully integrated platform seamlessly collecting data within an imaging laboratory so as to document numerous measures of quality, safety, and efficiency. Initial goals of the registry are to document timely reporting, radiation safety practices, and appropriate use of myocardial perfusion imaging. Pilot registry activities will be ongoing in 2013-2014. A leadership team, led by Dr Peter Tilkemeier, is currently developing the organizational structure and processes in collaboration with the Duke Clinical Research Institute registry experts including Drs Tracy Wang and Pam Douglas. The core of these activities has dovetailed off of ASNC's participation in an informatics projects through the FDA where critical research data elements have been defined in the area of myocardial perfusion imaging. Also working on this registry are the many software developers who will provide the analytical programming to seamlessly link the perfusion data from the camera workstations to the exported data elements for the registry. As well, start-up support is being provided by our many equipment manufacturers and pharmaceutical companies in the field of nuclear cardiology. As part of this, a summit meeting was held at the end of May that brought stakeholders together for strategic planning for the ImageGuide™ registry.

This emphasis on imaging quality, both technical and effectiveness-based, has a longstanding tradition within ASNC. In 2000, there was an ASNC-based initiative, led by Dr Ami Iskandrian, to develop clinical trials and registries relying largely on academic centers to demonstrate effective risk stratification of stress myocardial perfusion imaging. From these early efforts, several multicenter and large registry-based efforts were initiated in the field of nuclear cardiology. Examples of multicenter registries include the Economics of Noninvasive Diagnosis (END) multicenter,[1] the Prognosis Myoview,[2] and, more recently, the PET Prognosis[3] and Study of Myocardial Perfusion and Coronary Anatomy Imaging Roles in Coronary Artery Disease (SPARC)[4] registries. The actual list is much more substantial than this sample and reflects the magnitude of efforts and strength of evidence which now supports numerous guideline indications[5] and appropriate use criteria[6] for myocardial perfusion imaging.

Yet, this evidence is insufficient to drive local practices and we have seen examples of inappropriate use[7] and unexpectedly high utilization of dual isotope imaging,[8] suggesting that a more focused program tailored to the individual laboratory needs may provide an opportunity to improved imaging quality. Moreover, it is time for the field of nuclear cardiology to establish, measure, and drive quality imaging practices and to encumber this responsibility from within the field and not as a byproduct of external policies. The practice of

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nuclear cardiology has been the focus of numerous policy initiatives including procedural reimbursement cuts and prior authorization practices which have placed a substantive burden on each imaging laboratory. The development of a nationwide registry provides the opportunity for a nuclear cardiology laboratory to have their data benchmarked to national standards of safety, efficiency, and appropriate use. This further provides the backbone on which medical educational programs can be tailored to the needs of the physicians and staff within the laboratory. Participation in this registry and the ensuing continuous quality initiative efforts for a laboratory provide additional opportunities to meet the needs of maintenance of certification and laboratory accreditation requirements. This also provides information to payers and patients as to the level of quality services that they can expect from a participating laboratory.

The first steps in the process have begun. Partnerships with vendors are being formed, governance structure has been created, and the hard work has started to develop the registry collaboratively with our partners in myocardial perfusion imaging. This includes camera and imaging software vendors, Duke Clinical Research Institute staff and ASNC leadership and occurred during a recent meeting in late May with an aggressive timeline for trial implementation. Updates from this effort will appear in future issues of the Journal.

The future of nuclear cardiology is in the hands of each ASNC member to embrace our new role as quality imaging experts. As we lead the field of cardiovascular imaging with the ImageGuide^{TM} registry, we can set the standard for performance-based imaging and create a pathway for data-driven utilization practices. These practices will not only assure the ongoing and sustainable practice of the field of nuclear cardiology but most importantly create a venue for patient-centered imaging that will be a standard for noninvasive procedures to be emulated across medicine.

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