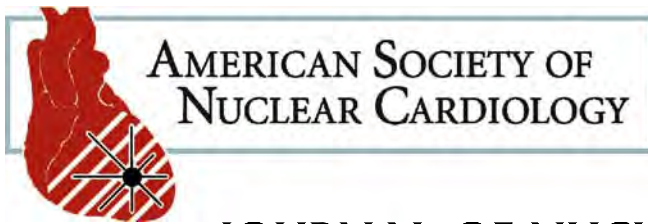

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NEWS UPDATE

The Scrutiny of Cardiac Imaging and the Need to Restore Patient Trust

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A TIME TO FOCUS ON PATIENT OUTCOMES

Within the past decade, cardiac imaging has occupied a central role in the diagnosis, risk assessment, and management of patients with known or suspected ischemic heart disease. Rapid advances in imaging and technology have opened up a new world of clinical applications and algorithms for patient testing. Cardiac computed tomography (CT) and magnetic resonance imaging (MRI) have complemented the more established techniques of single-photon emission computed tomography (SPECT) myocardial perfusion imaging (MPI), positron emission tomography (PET), and stress echocardiography. There is great promise with the emerging technologies of hybrid imaging with PET/CT and SPECT/CT.

It is indeed an exciting time in the world of imaging and in the field of nuclear cardiology. Innovative techniques in hardware and software offer advantages for enhanced accuracy as well as improvement in patient care and comfort. Emerging and innovative protocols, which offer shorter acquisition times will result in improved patient comfort leading to less patient motion and enhanced image quality. These new protocols also have the potential to decrease radiation exposure.

These are unprecedented times for health care. Health care spending is at an all time high and taking care of patients is more challenging. With more than 7 million nuclear cardiology studies performed in the United States each year accounting for 1.6 billion dollars in Medicare cost in 2003, nuclear cardiology and all of cardiac imaging are under great scrutiny! Despite the fact that our imaging techniques play a crucial role in guiding diagnostic, prognostic, and treatment and management strategies for patients with known or suspected ischemic heart disease, we as imagers are at great risk of losing our autonomy to make imaging decisions for our patients.

A *New York Times* article published 29 June 2008 signaled a need for us to continue to be responsible imagers. The article, ''Weighing the Costs of a CT Scan's Look Inside the Heart'', was rather disturbing. The article implied that our financial needs played a role in the prescription of imaging studies for our patients and specifically stated ''Cardiologists simply practice medicine the way the health system rewards them to. Given the opportunity to recommend a test for which they will make money, the doctors will. This is not greed…This is normal economic behavior.''

Our patients are informed consumers. Their trust in the health care system and in imaging has been shaken. With imaging under great scrutiny, it is important that we continue to be responsible imagers, restore patient trust in the world of cardiac imaging, focus on making the right choices in imaging, practice ''appropriate testing'', and provide data to document the impact of our imaging techniques on patient outcomes. By adhering to these ideals, we can continue to ensure access to imaging for all patients at risk for ischemic heart disease.

MAKING THE RIGHT CHOICES: APPROPRIATE TESTING FOR EXCELLENT PATIENT OUTCOMES

I believe that following five parameters are important in 2009 as we focus on patient outcomes in the world of nuclear cardiology and integrated imaging: (1) patient care, (2) responsible imaging, (3) patient advocacy, (4) clinical outcomes-based research, and in order to accomplish these goals, (5) collaboration with other societies and organizations. These five major components when unified represent a comprehensive approach

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to the individual patient and the approach to imaging on a global scale.

Patient Care

Collaboration with industry to continue the development of innovative technologies and protocols is of great importance to ensure patient safety, especially protocols that reduce ionizing radiation exposure. The ASNC Quality Assurance Committee will continue to use evidence-based data to validate and optimize protocols, which will maintain quality and ensure reduced imaging time and radiation exposure for patients.

New radiotracers and pharmacologic stress agents will offer new algorithms to investigate additional patient subsets with cardiovascular disease and will expand the existing armamentarium of nuclear cardiology studies. Emerging techniques in the area of hybrid imaging promise new protocols with PET/CT and SPECT/CT, which will further enhance the diagnostic accuracy of MPI, facilitate the quantitation of myocardial blood flow, improve estimation of atherosclerotic plaque burden, and increase the potential for detection and further risk stratification of the vulnerable patient. As ASNC president, I will continue to work with its members to foster quality imaging by supporting improved laboratory accreditation and physician certification.

Responsible Imaging

As cardiac imaging and nuclear cardiology techniques are closely analyzed and are at risk for significant reductions in reimbursement, it is critical that we continue to be responsible imagers and follow the American College of Cardiology (ACC)/ASNC appropriateness criteria for SPECT, PET, CT, echocardiography, and MRI. Our focus should continue to be ''choosing the right test for the right patient'' given the specific clinical scenario. As we enter the health care era of ''pay-for-performance'', we must be vigilant and follow the clinical guidelines of when to do a specific imaging test and why it should be performed.

Patient Advocacy

As clinicians, we are in jeopardy of losing our autonomy to select the imaging test which will help with the diagnosis, evaluation of prognosis, and treatment strategies for our patients. Every day, ASNC members face huge challenges and obstacles in order to provide access to imaging studies for our patients with known or suspected ischemic heart disease.

The era of radiology benefits managers has indeed placed our patients in jeopardy as non-clinicians place a myriad of roadblocks to testing for those at risk. We will continue to collaborate with the ACC to provide evidence-based data to government agencies and private payers to improve the pre-certification process. ASNC will continue to promote reimbursement based upon clinical evidence and patient quality of care.

Clinical Outcomes

Recently, the Centers for Medicare & Medicaid Services issued a call for data focusing on patient outcomes. To date, a large body of literature provides evidence for the diagnostic, prognostic, and incremental value of stress MPI. MPI continues to be clinically important given the recent shift in the cardiovascular clinical paradigm from a model based on the detection of coronary artery disease to one with a focus on risk assessment. However, the unknown and looming unanswered question with stress MPI remains, ''Are patients 'better off' because they have had a nuclear cardiology procedure?'' In my role as ASNC president, I will work with our members and industry representatives to foster and support clinical research protocols related to patient outcomes after nuclear cardiology procedures. This is of critical importance and a high priority if we are to continue to be an integral part of the cardiac imaging world.

Collaboration

Collaboration with national and international societies and organizations is essential for the accomplishment of our goals as we focus on patient outcomes and ensure patient access to all cardiac imaging studies. Therefore, on a national level ASNC will work closely with and appoint liaisons to the ACC, American College of Radiology, American Society of Echocardiography, Society of Cardiovascular Computed Tomography, and SNM. On an international level, ASNC will continue to support programs of the International Council, which comprises nearly 70 members from around the world. In addition, ASNC will collaborate with the European Society of Cardiology, the European Association of Nuclear Medicine, the International Atomic Energy Agency, and Asian and South American nuclear societies. This is especially important as dramatic growth in the area of nuclear cardiology is occurring in many facilities in South America, Asia, and the Middle East. ASNC can be and should be seen as the world leader and can help ensure quality imaging on a worldwide basis.

It is indeed a great honor and privilege to serve as ASNC President. With the beginning of my year as president, I hope that the leadership and members of ASNC can work together to focus on patient outcomes. To reach the 2009 goals that I outlined above, we will need broad participation, and I encourage members to become active on committees and task forces. I look forward to working with our great volunteers during the year.

''Teamwork is the ability to work together toward a common vision. The ability to direct individual accomplishments toward organizational objectives.'' Andrew Carnegie, Scottish-born American industrialist and philanthropist (1835–1919)

CALENDAR

Please note that the programs listed below are sponsored or cosponsored by the American Society of Nuclear Cardiology (ASNC). For more information, visit the ASNC Web site (http://www.asnc.org/education/calendar.cfm).

January 30-February 1, 2009. Advances in Nuclear Cardiology and Cardiac CT: 23rd Annual Case Review with the Experts. Los Angeles, Ca.

February 21-28, 2009. ASNC Radiation Safety Course: Becoming an Authorized User. Newark, NJ.

March 28, 2009. Nuclear Cardiology for Fellows in Training. Orlando, Fl.

April 17-18, 2009. CT Board Exam Preparation Course. Philadelphia, Pa.

April 17-18, 2009. Nuclear Cardiology for the Office-Based Practice. Philadelphia, Pa.

April 25-26, 2009. Nuclear Cardiology for the Technologist. Ft. Lauderdale, Fl.

May 2-10, 2009. ASNC Radiation Safety Course: Becoming an Authorized User. Kansas City, Mo.

May 10-13, 2009. ICNC9—Nuclear Cardiology and Cardiac CT. Madrid, Spain.