Interim Final Rule on Self-Referral

On March 25 the Centers for Medicare & Medicaid Services (CMS) issued the second phase of its final regulations addressing physician referrals to entities with which they have financial relationships. Nuclear medicine procedures were exempted from the original regulations, and this exemption was reaffirmed in the interim final regulations.

The physician self-referral law prohibits a physician from referring Medicare and Medicaid patients for certain designated health services to entities with which the physician (or a member of the physician's immediate family) has a financial relationship, unless an exception applies. The law also prohibits an entity from billing for services provided as a result of a prohibited referral. There are 11 designated health services to which the prohibition applies. Among these are clinical laboratory services; radiology and certain other imaging services; radiation therapy services and supplies; inpatient and outpatient hospital services; and others. A financial relationship can be either a compensation arrangement or an ownership or investment interest, and it can be either direct or indirect.

The law was passed after studies conducted by the Department of Health and Human Services Office of the Inspector General and other agencies showed that excessive use of some services was encouraged when physicians had financial relationships with the entities to which they referred patients.

This second phase of regulations responds to comments CMS received on the first phase of the regulations, covers the remaining statutory exceptions not covered in the first phase, and creates several new regulatory exceptions for nonabusive financial relationships. The new regulations were published in the *Federal Register* on March 26, and will be effective on July 24.

In responding to comments on the first phase of the regulation, CMS protected legitimate arrangements involving certain specialty groups that primarily furnish oncology and radiology services, including a "consultation" exemption for diagnostic radiologists and radiation oncologists.

Although the statute requires entities that provide designated health services to report information concerning their financial relationships with physicians, the new regulations specify that such information need not be reported on a regular or periodic basis. Instead, the new regulations require providers to make the information available only upon CMS's request.

Department of Health and Human Services

NIH Panel on Conflict of Interest Policies

The National Institutes of Health (NIH) Blue Ribbon Panel on Conflict of Interest Policies held its third meeting on the Bethesda, MD, campus of NIH on April 5 and 6. The charge of the panel is to review and make recommendations for improving existing rules and procedures under which NIH currently operates regarding real and apparent financial conflict of interest of NIH staff and requirements and policies for the reporting of NIH staff's financial interests. The panel is a working group of the Advisory Committee to the Director (ACD), NIH. The panel will provide recommendations to the ACD for deliberation and final recommendations to the NIH director. The panel is cochaired by Bruce Alberts, PhD, President of the National Academy of Sciences, and Norman R. Augustine, Chair of the Executive Committee of the Lockheed Martin Corporation. The Conflict of Interest Information and Resources Web site is available online at www.nih.gov/about/ethics_COI.htm and in May will include minutes from the open portions of the meeting.

National Institutes of Health

New Human Gene Transfer Research Data System

On March 26 the FDA and the National Institutes of Health (NIH) announced the launch of the Genetic Modification Clinical Research Information System (GeMCRIS), a Web-accessible database designed to facilitate faster reporting of adverse events in human gene transfer trials. NIH Director Elias A. Zerhouni, MD, said, "GeMCRIS is an important achievement and a unique resource for scientists, patients, and the public. GeMCRIS will help advance gene therapy, while allowing NIH, FDA, and the research community to maintain appropriate oversight."

GeMCRIS will enable patients, research participants, scientists, sponsors, and the public to access drop-down menus and preformatted reports that allow them to navigate the site and view information on specific characteristics of clinical gene transfer trials, including where trials are under way, which diseases or health conditions are being studied, what investigational approaches are being taken, and other topics.

Investigators and sponsors conducting human gene transfer trials will now be able to report adverse events immediately using a secure electronic interface on the GeMCRIS system. The public GeMCRIS site is available at www.gemcris.od.nih.gov/. Investigators and sponsors who wish to have access to the system to report adverse events occurring in human gene transfer trials should send a written request on institutional letterhead by U.S. mail or fax to: GeMCRIS Systems Administrator, NIH Office of Biotechnology Activities, 6705 Rockledge Drive, Suite 750, Bethesda, Maryland 20892; fax: 301-496-9839.

National Institutes of Health

2DG in Phase 1 Clinical Trial

Threshold Pharmaceuticals (South San Francisco, CA) announced on

March 8 that it had initiated a phase 1 clinical trial for 2-deoxy-D-glucose (2DG) as an adjunct to chemotherapy in the treatment of several cancers. The announcement followed studies published earlier this year (Maschek et al., *Cancer Res.* 2004;64:31–34) indicating that administration of 2DG significantly increased the efficacy of adriamycin and paclitaxel in nude mouse xenograft models of osteosarcoma and non-small cell lung cancer and resulted in a significant reduction in solid tumor growth when compared with treatment with either chemotherapeutic agent alone.

"Promising preclinical results for 2DG facilitated an unusually rapid development cycle," said George Tidmarsh, MD, PhD, president of Threshold. "We completed 5 animal studies, 4 toxicology studies, GMP-certified manufacturing, and an investigational new drug application in less than 1 year. Our hope is to continue that rapid progress as we move through the human clinical trials process."

The phase 1 study, to be carried out at the University of Miami's Sylvester Comprehensive Cancer Center, will evaluate daily oral doses of 2DG with and without weekly doses of taxotere docetaxel in up to 30 adult enrollees with previously treated, advanced solid malignancies. Tumor progression will be assessed by PET and CT.

Major Imaging Center Slated for London

The Imperial College of London and GlaxoSmithKline (GSK) announced on March 16 plans to build a £76-million clinical imaging center to focus on research into cancer, strokes, and neurological diseases such as Parkinson's. The center will be built next to Hammersmith Hospital in west London. In what is one of the world's largest industry–university collaborations, Imperial and GSK signed a 10-year research agreement for medical imaging.

Code of Ethics for Manufacturers, Companies

The Advanced Medical Technology Association (AdvaMed) announced in March that it has updated its ethical code to help medical technology companies and physicians identify appropriate hospitality, gifts, charitable contributions, and reimbursement practices. AdvaMed, which represents more than 1,100 medical technology firms and their subsidiaries that produce 90% of the medical products sold annually in the United States, has updated its "Code of Ethics on Interactions with Health Care Professionals." The new code sets expectations for ethical interactions between health care providers and companies that produce medical devices, diagnostic products, and medical information systems.

The code was prompted, in part, by recent criminal and civil investigations and by allegations that grants and donations have been used as bribes and that the pharmaceutical industry has used improper means to promote off-label uses of drugs.

The AdvaMed code distinguishes legitimate interactions from potential abuses, recognizing a number of ways in which the medical technology industry and physicians routinely interact for the enhancement of training, growth of medical knowledge, and benefit of patient care.

The code provides guidance in 7 categories of typical company/health care professional interactions, including: member-sponsored product training and education, supporting third-party educational conferences, sales and promotional meetings, arrangements with consultants, gifts, provision of reimbursement and other economic information, and grants and other charitable donations.

Some of the key areas addressed in detail are hospitality, meals, receptions, travel and hospitality for spouses, and remuneration for attendance at or participation in conferences.

Advanced Medical Technology Association

Telehealth Project Links NCI, Jordan, Ireland

U.S. Secretary of Health and Human Services (HHS) Tommy Thompson joined officials from the King Hussein Cancer Center (KHCC; Amman, Jordan) on February 28 to launch a state-of-the-art, broadcast-quality telemedicine system. Secretary Thompson and Andrew C. von Eschenbach, MD, director of the National Cancer Institute (NCI), witnessed the demonstration of the new system, along with representatives of cancer services in Amman. The demonstration involved a link to St. Luke's Hospital in Dublin, Ireland, for a consultation on a patient at KHCC. The system will promote collaboration between cancer specialists, facilitate professional education and training, and permit consultation in cancer research protocols and patient care throughout Jordan and the Middle East and at selected sites in the United States as well as in the Republic of Ireland and Northern Ireland. Other sites around the globe are planned.

NCI and the National Institutes of Health Center for Information Technology developed the telemedicine system, which is called TELESYNERGY. It combines cameras, microscopes, audio equipment, and a variety of peripheral devices to provide high-resolution display of images from multiple medical modalities, including nuclear medicine scans, in both real-time and store-and-forward modes. It enables scientists and clinicians at multiple laboratories and hospitals to interact simultaneously with one another.

National Cancer Institute

Literature Briefs

Each month the editor of Newsline selects articles on therapeutic, diagnostic, research, and practice issues in nuclear medicine from a range of international publi-

cations. Most selections come from outside the standard canon of nuclear medicine and radiology publications. These briefs are offered as a monthly window on the broad arena of medical and scientific endeavor in which nuclear medicine now plays an essential role.

Therapy

PET/CT-Guided IMRT

In the March issue of the *International Journal of Radiation Oncology, Biology, Physics* (2004;58:1289–1297), Esthappan et al. from the Mallinckrodt Institute of Radiology (St. Louis, MO) reported on experience-based treatment planning guidelines for PET/CT–guided intensity-modulated radiotherapy (IMRT) of the paraaortic lymph nodes in patients with cervical carcinoma and paraaortic metastases. The authors evaluated a number of treatment plans in each patient, using various beam geometries and planning parameters with goal doses of 50.4 Gy to the clinical target volume and 59.4 Gy to the gross tumor volume. They achieved these goal doses with acceptable sparing of the stomach, liver, and colon, regardless of the number of beams used (although sparing of the spinal cord was dependent on the number and angle of the beams). They concluded that PET/CT-guided IMRT provides advantages in its ability to locate precise anatomical features at the same time that metastases are clearly delineated.

International Journal of Radiation Oncology, Biology, Physics

Durable Response to RIT in NHL

Evidence of durable responses among patients with non-Hodgkin's lymphoma (NHL) who have undergone ^{90}Y-ibritumomab tiuxetan radioimmunotherapy (RIT) continues to appear in the literature. In a study e-published ahead of print on March 11 in *Blood*, Gordon and a group of researchers from the Northwestern University Feinberg School of Medicine and the Robert H. Lurie Comprehensive Cancer Center (Chicago, IL) reported long-term follow-up data on a group of patients in treatment for more than 3 years. (See previous article, Wiseman et al. *Blood.* 2002;99:4336–4342). Responders were classified as complete (29%), complete unconfirmed (22%), and partial (22%), for an overall response rate of 73%. The mean time to progression and duration of response in responders were 12.6 and 11.7 months, respectively. Nine patients (24% of responders) had times to progression greater than 3 years. The authors noted that some individuals with durations of response greater than 5 years have been identified and concluded that "^{90}Y-ibritumomab tiuxetan RIT produces durable responses in patients with indolent and diffuse large B-cell lymphoma."

Blood

^{90}Y-Labeled Nanoparticles in Antiangiogenesis Therapy

Increasing evidence points to the potential value of radiolabeled antiangiogenesis tumor therapy, opening up new frontiers for nuclear medicine in partnership with a range of other disciplines. Li et al. from Stanford University, reported in the March issue of the *International Journal of Radiation Oncology, Biology, Physics* (2004;58:1215–1227) on investigation of the potential therapeutic efficacy of two 3-component treatment regimens with ^{90}Y-labeled nanoparticle (NP)-based targeting agents in murine tumor models for melanoma and colon adenocarcinoma. A small-molecule integrin antagonist (IA) 4-[2-(3,4,5,6-tetrahydropyrimidin-2-ylamino)ethoxy]-benzoyl-2-(5)-aminoethylsulfonylamino-β-alanine, which binds to the integrin α(v)β(3), and a monoclonal antibody against murine vascular endothelial growth factor receptor Flk-1 (anti-Flk-1 mAb) were used to target the NPs. The authors found that in both tumor models, a single treatment with ^{90}Y-labeled IA NP caused significant tumor growth delay compared with untreated control tumors and to tumors treated with IA alone, IA NP, or ^{90}Y-labeled NP alone. A high level of apoptotic death was also identified in the ^{90}Y-labeled IA NP-treated tumors. The authors concluded that their results provided "proof of principle that targeted radiotherapy works using different targeting agents on a nanoparticle, to target both the integrin α(v)β(3) and the vascular endothelial growth factor receptor" and suggested that the ^{90}Y-labeled NP complexes have promise as novel therapeutic agents for the treatment of a variety of tumor types.

International Journal of Radiation Oncology, Biology, Physics

Preclinical Breast Cancer RIT with Radiolabeled mAbs

In the March issue of *Breast Cancer Research and Treatment* (2004; 84:173–182), Govindan et al. from Immunomedics, Inc. (Morris Plains, NJ) reported on the potential of a humanized monoclonal antibody (mAb; hRS7) labeled with ^{131}I-N-isopropyl-p-iodoamphetamine R-4 (IMP R-4) for preclinical radioimmunotherapy (RIT) of breast cancer. ^{131}I-IMP-R4 carries advantages over previous short tumor residence times with radioiodinated mAbs. The authors conducted experiments in mice bearing subcutaneous MDA-MB-468 human breast cancer xenografts, comparing the results of single injections of the ^{131}I-IMP-R4-hRS7 with those from injections of ^{131}I-hRS7 and with controls. Complete remissions were seen in 5 of 11 mice treated with ^{131}I-IMP-R4-hRS7, with much greater decreases in tumor volumes seen in the remaining 6 mice. Complete remission was seen in only 1 of 11 mice

treated with ^{131}I-hRS7. The authors concluded that ^{131}I-IMP-R4-hRS7 is a promising new agent for RIT, "providing significant therapeutic advantage in comparison to the conventionally ^{131}I-labeled antibody."

Breast Cancer Research and Treatment

Novel Pretargeted RIT for B-Cell NHL

Forero et al. from the University of Alabama at Birmingham e-published a report on March 2, ahead of print in *Blood*, on a phase I trial to assess the pharmacokinetics and immunogenicity of a novel tetrameric single-chain anti-CD20/streptavidin fusion protein (B9E9FP) used as the targeting moiety in a multistep approach to pretargeted radioimmunotherapy (PRIT) in patients with non-Hodgkin's lymphoma. A total of 15 patients were enrolled in the study, and all patients received B9E9FP, followed 48 or 72 hours later by injection of a synthetic clearing agent to remove circulating unbound B9E9FP, and 24 additional hours later by ^{90}Y/^{111}In-dodecanetetraacetic acid (DOTA)-biotin. The radiolabeled infusion produced rapid tumor localization and >95% plasma clearance within 6 hours of injection of the clearing agent. Hematologic toxicities were observed in 3 patients, in 2 of whom the toxicities were related to progressive disease. No toxicities were observed in the remaining 12 patients, in whom 2 complete remissions and 1 partial response were seen. The authors concluded that, "B9E9FP performs well as the targeting component of PRIT with encouraging dosimetry, safety, and efficacy" and called for a dose escalation trial of ^{90}Y-DOTA-biotin.

Blood

Nursing Safety Guidelines for ^{90}Y-Ibritumomab Tiuxetan RIT

An article published in the February issue of the *Clinical Journal of Oncology Nursing* (2004;8:31–34) by Hendrix, of Hoag Memorial Hospital Presbyterian (Newport Beach, CA), emphasized the importance of educating both nursing staff and patients about safety issues associated with new radioimmunotherapy (RIT) regimens. The article addressed specific nursing and patient care guidelines for RIT with ^{90}Y-ibritumomab tiuxetan in patients with relapsed or refractory low-grade, follicular, or transformed B-cell non-Hodgkin's lymphoma (NHL) (including patients with rituximab-refractory follicular NHL) for which only universal safety precautions are necessary. The author cautioned, however, that, "Nurses should become familiar with the necessary precautions in caring for patients treated with ^{90}Y-ibritumomab tiuxetan, both to educate patients about safety issues and to minimize the risk of radiation exposure to staff and others."

Clinical Journal of Oncology Nursing

Comparison of RIT Therapies in NHL

Silverman et al. from the University of California at Los Angeles undertook a rigorous comparison of findings on radiation protection, effectiveness, and quality of life issues reported in patients undergoing radiolabeled anti-CD20 antibody therapy with ^{131}I-tositumomab (Bexxar) or ^{90}Y-ibritumomab tiuxetan (Zevalin). The review article appeared in the April issue of *Cancer Treatment Reviews* (2004;2:165–172). The authors discussed the relative merits of both regimens and addressed important practical considerations that may influence patient and physician choices regarding treatment plans with these agents.

Cancer Treatment Reviews

Diagnosis

^{111}In-Octreotide Scintigraphy in Thyroid Carcinoma

Giammarile et al. from the Centre Leon Berard (Lyon, France) reported in the March issue of the *European Journal of Endocrinology* (2004;150: 277–283) on a study investigating the potential of ^{111}In-octreotide somatostatin receptor scintigraphy (SRS) as a tool for the detection of recurrent or metastatic differentiated thyroid cancer when no radioiodine uptake is detected at the site of tumors. The study included 43 patients with papillary (20), follicular (9), insular (6), and oncocytic (8) thyroid carcinomas showing elevated serum thyroglobulin (Tg) levels but no detected radioiodine uptake. They found that the sensitivity of SRS (51%) was lower than conventional imaging and than comparative PET images made in a subset of patients. Sensitivity was higher in patients with Tg levels >50 μg/L (76%), in the detection of mediastinal lesions (93%), and in patients with oncocytic cancer (88%). The use of SRS changed management plans in 4 patients. The authors concluded that "SRS is a moderately sensitive method for the detection of lesions unable to concentrate iodine" but appears useful only in patients with very high Tg levels or in oncocytic cancer.

European Journal of Endocrinology

Routine PET Before Surgery for Colorectal Liver Metastases

A study designed to assess the utility of routine whole-body ^{18}F-FDG PET imaging in preoperative staging of patients with colorectal liver metastases was reported by Arulampalam et al., from the Royal Free and University College Medical School (London, UK) in the April issue of the *European Journal of Surgical Oncology* (2004;30:286–291). The study included 28 patients referred for hepatic resection for confirmed colorectal liver metastases. Patients underwent independent staging with spiral CT and ^{18}F-FDG PET imaging. ^{18}F-FDG PET detected all lesions (sensitivity 100%; specificity 91%), whereas CT incorrectly diag-

nosed solitary metastases in 5 patients with multiple sites and failed to detect extrahepatic disease in 4 patients (sensitivity 47%; specificity 91%). The use of PET resulted in changed management strategies for 12 (44%) patients, 7 of whom were spared inappropriate surgery. The authors concluded that ^{18}F-FDG PET imaging offers clear clinical benefits as a routine tool for preoperative staging of colorectal liver metastases.

European Journal of Surgical Oncology

Glucose Metabolism as a Biomarker in Ovarian Cancer

In a report published in the May 10 issue of the *International Journal of Cancer* (2004;109:926–932), Kurokawa et al. from Fukui Medical University (Fukui-ken, Japan) evaluated whether ^{18}F-FDG uptake by ovarian epithelial tumors as measured with PET correlates with clinical stage, tumor grade, cell proliferation, or glucose metabolism—each of which, the authors noted, is a biomarker for response to chemotherapy, prognosis, and overall survival in the disease. The study included 17 patients suspected of having ovarian cancer. All underwent whole-body ^{18}F-FDG PET imaging 2 weeks before surgery. Imaging results were compared with histopathologic and immunochemistry results after surgery. Although no correlation between tracer uptake and clinical stage was observed, a positive correlation was observed between ^{18}F-FDG uptake and glucose transfer (GLUT-1) expression, proliferation index marker, and histologic grading score. Of these, the GLUT-1 expression had the highest correlation. The authors concluded that glucose consumption, as determined by analysis of standard uptake values in ^{18}F-FDG PET, may be a noninvasive biomarker for ovarian epithelial tumors.

International Journal of Cancer

PET/CT in Ovarian Cancer Recurrence

Pannu et al. from the Johns Hopkins Hospital (Baltimore, MD) reported on March 18 ahead of print in *Abdominal Imaging* on the sensitivity, specificity, and accuracy of PET/CT in the diagnosis of recurrent ovarian cancer. The study included 16 women who had been treated previously for ovarian cancer and who were scheduled for surgery to assess for possible recurrent disease. All underwent PET/CT imaging before surgery. The results were compared with the surgical reports, where 11 of 16 patients were found to have recurrent disease. The average sensitivity, specificity, and accuracy of PET/CT for disease detection were 72.7%, 40%, and 62.5%, respectively. PET/CT detected all 7 cases of malignant adenopathy (100%), 13% of peritoneal lesions <1 cm, and 50% of lesions >1 cm. The authors concluded that the sensitivity of PET/CT for recurrent ovarian cancer is "moderate in patients with low volume disease" and noted that a larger trial involving patients with a spectrum of disease volumes is needed to determine the potential value of PET/CT in these applications.

Abdominal Imaging

^{11}C-MET PET in Carbon Ion Radiotherapy

In a study published in the March 1 issue of *Clinical Cancer Research* (2004;10:1764–1772), Zhang et al. from the National Institute of Radiological Sciences (Chiba, Japan) reported on the use of ^{11}C-methionine (MET) PET in predicting survival in patients with unresectable bone and soft tissue sarcomas undergoing treatment with novel carbon ion radiotherapy (CIRT). The study included 62 patients who underwent ^{11}C-MET PET imaging before and 1 month after CIRT. Tracer uptake was quantified as tumor-to-nontumor ratios (T/Ns). Overall median survival time was 20 months. The authors found that a baseline (presurgical) T/N ≤ 6 predicted significantly better survival than a baseline T/N > 6 (2-year survival rates of 69.4% and 32.3%, respectively). Both baseline and post-CIRT T/Ns were statistically significant independent predictors of patient survival.

Clinical Cancer Research

^{18}F-FLT in Detection and Grading of Soft Tissue Sarcomas

Also in the March 1 issue of *Clinical Cancer Research* (2004;10:1685–1690), Cobben et al. from Groningen University Hospital (The Netherlands) reported on a study designed to investigate the feasibility of ^{18}F-3′-fluoro-3′-deoxy-L-thymidine (FLT) PET for the detection and grading of soft tissue sarcoma (STS) of the extremities. The study included 19 patients who were scanned using attenuation-corrected whole-body ^{18}F-FLT PET. The authors found that standardized uptake values and tumor-to-nontumor ratios (TNTs) correlated well with histopathologic grading parameters. They concluded that ^{18}F-FLT PET is able to visualize STS and differentiate between low- and high-grade STS and that the uptake of the tracer correlates well with STS proliferation.

Clinical Cancer Research

PET in Alcoholism

PET continues to hold great promise for the evaluation not only of the mechanisms of addiction but of the assessment of neurological changes associated with substance abuse. Szabo et al., from the Johns Hopkins Medical Institutions, reported in the April issue of *Biological Psychiatry* (2004;55:766–771) on a study using ^{11}C-McN5652 PET to investigate serotonin transporter mechanisms in brain regions of alcoholics. The study included 32 adults, 15 of whom were abstinent or recovering alcoholics and 17 of whom were "social drinkers." The latter group served as controls. All underwent ^{11}C-McN5652 PET imaging. In par-

ticipants with a history of alcoholism, tracer distribution volume was lower than that in controls in all brain regions, with significant differences in the midbrain, thalamus, amygdala, pons, cingulate gyrus, frontal cortex, and cerebellum. The distribution volumes of specific binding were also lower in all brain regions in these individuals but only significantly so in the midbrain.

Biological Psychiatry

PET as a Predictor After Chemotherapy for Seminoma

In the March 15 issue of *Clinical Oncology* (2004;22:1034–1039), De Santis et al. from the Kaiser Franz Josef Hospital (Vienna, Austria) reported on the results of a multicenter trial designed to define the clinical value of ^{18}F-FDG PET as a predictor for viable residual tumor in postchemotherapy seminoma. The study included ^{18}F-FDG PET studies from 51 patients with metastatic pure seminoma who, after chemotherapy, were found to have radiographically defined postchemotherapy residual masses. PET results were correlated with histologic results of the resected lesion or with clinical outcome documented by CT, tumor markers, and/or physical examination at follow-up. The authors found that all 19 (100%) residual lesions $>$3 cm and 35 of 37 (95%) residual lesions $\leq$3 cm were correctly identified by ^{18}F-FDG PET. The specificity, sensitivity, positive predictive value, and negative predictive value of PET imaging were 100%, 80%, 100%, and 96%, respectively, whereas the corresponding values for CT were 74%, 70%, 37%, and 92%, respectively. The authors concluded that the study provides confirmation that ^{18}F-FDG PET "is the best predictor of viable residual tumor in postchemotherapy seminoma residuals and should be used as a standard tool for clinical decision making in this patient group."

Clinical Oncology

PET in Axillary Staging in Breast Cancer

Fehr et al. from University Hospital (Zurich, Switzerland) and State Hospital (Winterthur, Switzerland) reported in the March/April issue of *Breast Journal* (2004;10:89–93) on a study evaluating the clinical usefulness of axillary lymph node (ALN) staging with ^{18}F-FDG PET in breast cancer patients qualifying for sentinel lymph node (SLN) biopsy. The study included 24 clinically node-negative breast cancer patients who underwent ^{18}F-FDG PET imaging before SLN biopsy. After biopsy, a conventional ALN dissection was performed and the results compared with imaging. PET was accurate in staging only 15 of 24 patients (62.5%) and produced false-negative findings in 8 of 10 node-positive patients and false-positive findings in 1 patient. The sensitivity, specificity, positive predictive value, and negative predictive value of ^{18}F-FDG PET for nodal status were 20%, 93%, 67%, and 62%, respectively. The authors concluded that ALN staging using ^{18}F-FDG PET is "not accurate enough in clinically node-negative patients with breast cancer qualifying for SLN biopsy and should not be used for this purpose."

Breast Journal

New UICC TNM Edition Assessed in Thyroid Cancer Staging

In a study reported in the January edition of *Thyroid* (2004;14:65–70), Dobert et al. from the University of Frankfurt (Germany) compared staging of differentiated thyroid cancer according to the classifications of the new 6th edition of the International Union Against Cancer (UICC) *TNM Classification of Malignant Tumours* with the previous edition. New and old TNM classification systems for differentiated thyroid carcinoma were applied in a retrospective analysis of 169 patients who underwent ^{131}I therapy. Differences were noted. Patients were classified and reclassified as follows: T1: 54 patients (32%) under the previous classification, 83 (49%) under the new; T2: 61 (36%) under the previous classification), 32 (19%) under the new. Forty-four patients formerly classified as T4 were changed in the new staging to T3. The authors concluded that although the new TNM classification caused a significant change in staging, the altered criteria have had only a minor impact on disease management.

Thyroid

Gated SPECT in Patients with Low EF

Bestetti et al. from the Universuta degli Studi di Milano (Italy) reported in the February issue of *Acta Cardiologica* (2004;59:17–23) on a study assessing whether poststress and rest functional parameters as measured by ^{99m}Tc-tetrofosmin gated SPECT provide predictive value for long-term prognosis in patients with low left ventricular ejection fraction (LVEF). The study included 497 patients who underwent stress/rest gated SPECT and were followed for varying periods of up to 2 years. Of these patients, 84 had EF $<$40%, and 15 of these went on to experience cardiac events. The author found that poststress end-systolic volume was the only index significantly higher in patients with low EF and events than in patients with low EF and no events. Stress end-systolic volume was the only independent predictor of long-term outcome.

Acta Cardiologica

Stress MPI in End-Stage Renal Disease

In an article e-published ahead of print on February 19 in *Nephrology, Dialysis, Transplantation,* Hase et al. from Toho University Ohashi Hospital (Tokyo, Japan) reported on a prospective study to evaluate the ability of pharmacologic stress ^{201}Tl SPECT to predict cardiac events in patients with end-stage renal disease (ESRD). The study included 49 patients who underwent high-dose adenosine

IN MEMORIAM

Steven M. Pinsky, MD 1941–2004

Steven M. Pinsky, MD, a nuclear medicine physician who had served as president of the medical staff at Michael Reese Hospital and Medical Center and as former head of radiology at Michael Reese, the University of Illinois Medical Center, and the University of Illinois at Chicago (UIC), died on April 1, in his Highland Park, IL, home.

Pinsky was born in 1941 in Milwaukee, WI, where his father was a practicing dentist and professor of dentistry. After attending the University of Wisconsin, Pinsky graduated from Loyola University's Stritch School of Medicine. He served as chief resident in diagnostic radiology at the University of Chicago Hospitals. During military service in the early 1970s, he was stationed at Walter Reed Army Medical Center in Washington, DC.

He moved back to Chicago, where he became chief of nuclear medicine at Michael Reese and professor of radiology at the University of Chicago. In 1987, he was appointed chair of radiology at Michael Reese, where he was elected president of the medical staff in 1988. In 1989, he became chair of the radiology department at the UIC College of Medicine and chief of radiology at the University of Illinois Medical Center.

Steven M. Pinsky, MD

Pinsky served as president of the Central Chapter of the SNM and president of the Illinois Radiological Society and was a fellow of both the American College of Nuclear Physicians and the American College of Radiology. In 1999, the Chicago Radiological Society awarded Pinsky its gold medal. He retired from practice in 2000.

He was devoted to education in both radiology and nuclear medicine. He also was generous with his time and funds, donating a room at Michael Reese, a conference room at the University of Chicago Hospitals, and a children's library at the Jewish Community Center in Northbrook.

Funeral services were held in Northfield, IL, on April 5. In addition to his wife, Sue, Pinsky is survived by 2 children and 4 grandchildren.

(Continued from page 28N)

The PET COE is breaking ground, but it will not be unique. We envision other centers coming on board. For example, there is tremendous interest among our members in molecular imaging, so perhaps a molecular imaging center of excellence will be next. With our core of physicians and scientists experienced in molecular imaging, the Society is perfectly positioned to take a world leadership role in this rapidly growing new research and diagnostic specialty.

(Continued from page 37N)

triphosphate (ATP) ^{201}Tl SPECT within 1 month of beginning dialysis. The end-point was a cardiac event or follow-up at 1 year after imaging. Twenty-four patients were found to have myocardial perfusion defects at imaging. During the ensuing year, 15 of these patients experienced nonfatal cardiac events and underwent revascularization and 2 died of cardiac causes.The remaining 25 patients had normal perfusion images. At 1 year, 34% of patients with perfusion defects were cardiac event free, a percentage that rose to 96% among patients with no perfusion defects. The authors concluded that "normal myocardial perfusion imaging by stress ^{201}Tl SPECT using high-dose ATP performed within 1 month after the beginning of hemodialysis treatment is a powerful predictor of cardiac event-free survival in patients with ESRD."

Nephrology, Dialysis, Transplantation