



Fall 2002

A medieval traveler once was walking along the road leading out of Old Paris and came upon three men in a line slowly pushing wheelbarrows full of stones back toward the city. A curious individual, he asked each in turn, "What are you doing?" The first man, with a look of disdain, grumbled that he was obviously pushing a

Report from the Chapter President

load of stones. The second shrugged his shoulders and allowed that he was just earning a living to feed his

family. The third man stopped, wiped his brow, and with a smile of pride declared, "I am building a cathedral." Attitude, thought the traveler, is everything.

Whenever you visit another department in our little world of Nuclear Medicine, have you ever noticed how each one of our institutions seems to have a sort of group attitude that reflects the overall outlooks of those who practice their craft together there? Large or small, our approach to our work, our attitude, seems to very much affect the internal vitality and external reputation of our department and our specialty. We are in a time of incredible technical development and clinical prowess in Nuclear Medicine where we no longer are Unclear Medicine using I-suppose-atopes. The potential of physi-



James O'Donnell, M.D.

ologic, functional, molecular imaging is becoming a reality and starting to make a crucial difference in patient management, the true test of any specialty's relevance. » p2

Hello everyone. Hope everyone is doing well and had an enjoyable summer. I want to take the time in this newsletter to talk about a couple of things: getting involved in your profession and the 2002 Road Show.

This year's Road Show is titled *Minding Your P's and Q's: Providing Quality Nuclear Medicine* and includes lectures on a variety of subjects that nuclear medicine technologists face today. Since coincidence imaging will

Report from the Technologist Section President

probably not be reimbursed in the near future, health systems and larger facilities will be investing more and more into PET units. This means that more of us will

need to understand PET and how to properly perform PET imaging. PET 101 is offered at the Road Show and will do just that. The Road Show offers two lectures on quality assurance and improvement and what role the tech-

nologist plays in them. Finally, the Road Show also includes a talk on needless systems. This talk is written specifically from the nuclear medicine perspective: that is, what we can do about recapping and syringe shields and still be compliant with OSHA standards.

The Road Shows rotated throughout five of Central Chapter states from September 28 through October 19.

I also would like to take a moment and ask you to consider getting more involved in your profession. I know how busy we all are. I also understand that we often feel so exhausted and tired af-



Sharon Lafferty, CNMT

ter a long day at work that the last thing we may want to think about is nuclear medicine.

What we must remember, however, is that getting involved doesn't have to mean taking a lot of time or much effort. » p2

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President's Report

«p1 And yet, at a time when Nuclear Medicine's role has never been more accepted and respected, there is also a general sense of frustration. In a recent poll of Nuclear Medicine professionals, 33 percent predict a lack of professional staff will be a major impediment to further growth. Also, 42 percent state that other clinical specialties now perform scintigraphy at their institutions. Fewer of us are on the job and more outsiders want in. Our attitude will determine whether or not Nuclear Medicine is eventually phagocytized as a specialty. What we must do is to keep foremost the patient-centered focus that has always served Nuclear Medicine so well. Our roots were in primary care before we had all these computers. Our product is never a scan, or an image, or a piece of film. It is information that someone needs to manage a patient whose physiology has been disrupted by disease. That implies more than recognition of a scan pattern. It implies correlation with other data; it implies collaboration with other consultants; it implies cooperation among all Nuclear Medicine professionals clinical, technical, basic scientist, researcher, all who are dedicated to more than a job, more than a profession, but to the real calling of our specialty. I have little patience with myself or others when we get in the mood to just pile stones. We have cathedrals to build in the years ahead. This is too important not to get it right.

On another note, nuclear medicine has lost a wonderful cathedral builder with the recent untimely passing of Mark Groch, PhD, shortly after the Spring Central Chapter meeting which he organized so well at Northwestern. Mark's engaging and collegial manner, along with his great contributions to our field, will be greatly missed at the local, regional, and national levels. Rest in peace.



Technologist President's Report

«**p1** It can be just getting involved at a grassroots level; it can mean helping organize a local meeting at your hospital, helping make or distribute flyers for your local grassroots organizations, celebrating nuclear medicine week at your clinic with a luncheon, or attending some CE lectures. The Central Chapter-TS is always looking for people who want to help and get more involved, and perhaps once you try helping out you'll see you enjoy it. If anyone is looking to get more involved, please don't hesitate to contact me, or any of the other Central Chapter-TS officers.

Finally, I would like to take this opportunity to thank everyone for giving me this opportunity to serve as your tech section president this upcoming year. I look forward to the learning experience and growth this will bring to me as well. Please mark your calendars in advance for the following: The Spring Meeting will be in Detroit May 2–4, 2003. I am very excited about this meeting for several reasons: I am from Detroit and I am cochairing this meeting! I invite you all to come to my hometown and see how much fun it can be! You will be hearing much more from me in the near future about the spring meeting. Take care, and happy fall!

Central Chapter Society of Nuclear Medicine

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2004 Spring Meeting May 14th - 16th Chicago, IL

Program Chairs: Stewart Spies, MD, Monica Geyer, and Nancy McDonald, CNMT, Northwestern University

Meeting Focus: PET and Radioimmunotherapy Location: Northwestern Memorial Hospital

See page 12 for further details of the program

Lyn Mehlberg Elected President-Elect of SNM-TS

Greetings to my friends and colleagues in the Central Chapter. It is truly an honor and a privilege to serve as President-Elect of the Society of Nuclear Medicine Technologist Section. I am quite excited to have this incredible opportunity. While I've been in this role for only three months, I can already sense it will be a lifealtering experience.

It has been a busy summer for the SNM and SNMTS leadership. We've been formulating, preparing, and prioritizing for this upcoming year, as committees are about to gear up the tasks at hand. Here are some of the



Lyn Mehlberg, CNMT

projects the leadership has been involved with since the June SNM meeting in LA.

- In July, the SNMTS and ASRT (American Society of Radiologic Technologists) convened a PET/CT Consensus Conference with major stakeholders to discuss issues concerning the training, education, and regulation involved with PET/CT technology and equipment. Invited guests attending the meeting represented the certifying boards (NMTCB and ARRT), accreditation bodies (JRCNMT, JRCERT, ACR), State Regulatory Boards (Florida and Arizona), and Industry (GE Medical Systems, Siemens Medical Solutions, CPS, PetNet, and CTI). As an outcome of this meeting, a consensus white paper was produced and submitted to each state regulatory board in early September. This paper is also posted on the SNM website. Frances Keech, SNMTS President, is establishing a conjoint task force with the ASRT, which will be charged with further defining the training criteria and educational components necessary to move this initiative forward. This task force has clearly defined goals and deadlines, and will meet by conference call initially and break into workgroups at RSNA. As we learn more details, Frances and I will share them in the JNMT and UPTAKE.
- Both the SNM and SNMTS Finance Committees presented balanced budgets for approval. The SNM Board of Directors recently approved the SNM budget. The SNMTS National Council will have an opportunity to approve the budget within the next few weeks.
- The SNMTS will be holding a Strategic Planning Session at the Midwinter Meeting in January. A Technologist Section Needs Assessment Survey will be distributed to Technologist Section members through UPTAKE. Please take a few minutes to submit the survey to assist the SNMTS with this process. Additional corresponding information will be published in that October issue of Uptake.

 The SNM is currently accepting applications for JNM editor. If you or anyone you know is interested, please contact the SNM office. The application deadline is November 1, 2002.

Thank you for your continued support. I look forward to representing the Central Chapter at this level. If you would like to get involved, or would like to share a concern with me, don't hesitate to contact me at lyn.mehlberg@aurora.org.

TECH TIP

Reduction of Extracardiac Activity in Myocardial Perfusion Imaging

Extracardiac activity in 99mTc MPI can be a significant source of artifact when processing scans. In an effort to eliminate this artifact, our lab introduced a simple solution. Immediately prior to imaging the low-dose rest images (rest/stress protocol, 8 mCi/30 mCi 99mTc Sestamibi, single day), our patients are given a mixture of 2.5 oz. of water mixed with a packet of EZ Gas II[®] and instructed to drink the mixture while it is still bubbling. This is the same product our General Diagnostic department uses for double-contrast upper-GI studies. The patients are also instructed to avoid belching after the drink. We then immediately position the patients for imaging and begin the scan. This simple solution has eliminated a large percentage of the stomach and bowel activity that previously appeared in scans in our lab. We tried other means of improving the image quality, such as giving a large glass of water prior to imaging, but the current method employed is better tolerated by our patients, especially those who have GERD. Now, when processing MPI studies, we rarely see extracardiac activity overlying the inferior wall of the heart. We have not needed to implement this technique for stress imaging, as we allow the patients to eat a light snack after stress and prior to imaging.

> Karen Martin, CNMT Northern Michigan Hospital Petoskey, MI

BUSINESS COMMUNICATIONS

Business communications concerning advertising should be sent to Renae Henkin, Executive Director, Central Chapter of SNM, Inc., 875 E. 22nd Street, #202, Lombard, IL 60148-5013.

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Advertising rates for the 2002/2003 calendar year are \$250/half-page and \$500/full-page advertisements.

Update on Prostate Cancer Imaging

Anthony M. Passalagua, MD Associate Professor of Radiology Northeastern Ohio Universities College of Medicine

In the United States there were 180,400 newly diagnosed cases and 31,900 deaths due to prostate cancer in the year 2000 (1). Patients with prostate carcinoma can benefit from the curative local treatment options of prostatectomy or radiotherapy when the tumor is confined to the prostate gland. The patients thought most likely to benefit from a curative procedure are selected on the basis of clinical staging. Clinical staging utilizes the findings on the Digital Rectal Examination (DRE), the level of the serum Prostate Specific Antigen (PSA), and the Gleason Score (GS) from the prostate carcinoma biopsy specimen. With this information the probability of organ-confined disease can be obtained from various statistical tables (2,3). Unfortunately, at surgery only about 50% of the patients believed to have organ-confined disease on clinical staging have organconfined disease on pathological examination. Improvements in clinical staging for categorizing patients for treatment into organ-confined and non organ-confined disease can benefit a large fraction of patients by avoiding the futile attempt of curative surgery or radiotherapy in patients with non-organ-confined disease.

ProstaScint

ProstaScint (capromab pendetide) is an Indium-111-labeled murine monoclonal antibody approved by the FDA for the detection of metastatic prostate carcinoma in soft tissues. The antibody is directed against prostate specific membrane antigen (PSMA), a transmembrane glycoprotein expressed in benign prostatic tissue, primary malignant prostatic tissue, and a very high percentage of lymph node metastases. Imaging experience with ProstaScint has demonstrated that it can detect metastatic prostate carcinoma in lymph nodes and, hence, the antibody offers a new method for the initial staging of patients with prostate carcinoma and for guiding treatment options for post prostatectomy patients with biochemical evidence of recurrence (increasing PSA) since it can frequently discriminate between local and distant disease.

Imaging Protocols for ProstaScint

ProstaScint imaging protocols vary from institution to institution. In a typical protocol, the patient is given 5-6 mCi of Indium-111 capromab pendetide IV on **Day 0**. Following the evening meal on **Day 3** (72 hours), the patient is required to take a cathartic to clear the bowel. The patient returns on Day 4 (96 hours) for an Indium-111 ProstaScint whole-body scan followed by SPECT images of the abdomen/pelvis. The patient's RBC are labeled with Tc99m and the SPECT images of the abdomen/

pelvis are repeated using dual isotope simultaneous acquisition. Some protocols routinely repeat the SPECT imaging of the abdomen/pelvis on Day 5 (120 hours) while others only obtain delayed images of the abdomen/pelvis on **Day 5** (120 hours) to clarify questionable findings.

Image Acquisition **Parameters**

The planar and SPECT images are best obtained with a multihead gamma camera using a medium energy collimator for all imaging. The Indium-111 images are acquired using both Indium-111

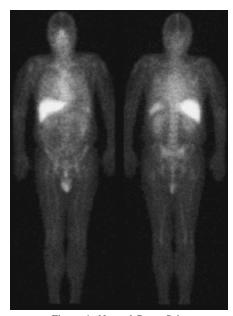


Figure 1. Normal ProstaScint

photopeaks set at 15% energy windows centered on the photopeaks. Tc99m images, with dual isotope simultaneous acquisition, are acquired using a 15% energy window centered on the Tc99m photopeak.

The planar whole body images are usually acquired in a 256 x 1024 or higher matrix size using continuous motion, although a step and shoot protocol will maximize resolution. SPECT images are best acquired in a minimum matrix size of 128 x 128 with a zoom factor that depends on the patient's size. The pixel size for the SPECT images usually ranges from 3 mm to 4 mm. The SPECT projection images are obtained at 3-degree intervals (120 images) for 40 seconds/view or at 6-degree intervals (60 images) for 80 seconds/view.

Normal ProstaScint Distribution

A substantial quantity of the tracer normally concentrates in the liver, spleen, vascular system, bone marrow, small and large bowel, kidneys, genitalia, and normal prostate tissue. The normal whole body tracer distribution is shown in Figure 1.

Abnormal ProstaScint Distribution

ProstaScint accumulates in primary malignant prostate tissue and prostate metastases in soft tissues, predominantly lymph nodes. Visualization of the prostate gland requires SPECT imaging. The radiopharmaceutical uptake in the primary malignant lesion in the prostate gland is not, in general, distinguishable from the radiopharmaceutical uptake in normal prostate





Figure 2a. Supraclavicular Figure 2b. Mediastinal



Figure 2c. Aorto-Caval



Figure 2d. Mesenteric



Figure 2e. Common Iliac

tissue because of limited contrast and spatial resolution. SPECT imaging is also required to visualize disease in the deep pelvic lymph nodes. Most abnormal soft tissue uptake outside of the pelvis can be visualized on planar images: the characteristic patterns and lymph nodes (Figure 2a), midline of the chest in mediastinal lymph nodes (Figure 2b), vertically in the midline of the abdomen in the aorto-caval lymph nodes (Figure 2c), obliquely across the mid abdomen in mesenteric lymph nodes (Figure 2d), and in the lower abdomen lateral to the midline in common iliac lymph nodes (Figure 2e).

Examples of abnormal tracer accumulation in the above nodal groups are illustrated in the subsequent case studies. Locations of nodal metastases on planar images are illustrated below in the supraclavicular. Prostate carcinoma metastases to bone are <u>not</u> commonly visualized as focal areas of increased tracer uptake on ProstaScint scans even when extensive bony metastases are present. Occasionally, focal areas of absent tracer uptake (cold defects) in the bone marrow on ProstaScint images may be seen with bony metastases due to marrow replacement with tumor.

Rationale for Tc99m Blood Pool Imaging

Since extraprostatic disease is frequently found in the lymph nodes located adjacent to the large vessels in the abdomen and pelvis, the location of these vessels in each patient is important information for the interpretations of the scan. The initial recommendation of the manufacturer (Cytogen) was to perform SPECT blood pool images of the pelvis and abdomen at 1/2 hour following the injection of ProstaScint, when the blood pool tracer is maximum, to define the vascular anatomy for comparison with the delayed ProstaScint SPECT images at 96 to 120 hours (4).

Despite meticulous technique, differences in patient positioning on the 1/2-hour ProstaScint SPECT blood pool images and the delayed ProstaScint SPECT images at 96 to 120 hours do not allow for the precise alignment of the vessels on the two image sets. Currently, many centers have opted to forgo the 1/2-hour SPECT blood pool images and, instead, label the patient's RBC with Tc99m on the delayed images. The delayed images are acquired using dual isotope simultaneous acquisition of Tc99m RBC and Indium-111 ProstaScint since the dual isotope images are precisely aligned (5,6).

Rationale for SPECT Imaging

Visualizing the prostate gland and prostate metastases in the regional pelvic lymph nodes with ProstaScint is challenging. The intensity of the tracer accumulation in these structures is not sufficient for visualization on the planar images (7) because of the low tracer accumulation in the normal prostate and primary carcinoma, attenuation of the photon flux since the prostate gland and regional lymph nodes are deep in the pelvis, small volume of disease commonly present in the pelvic lymph nodes, and the tracer uptake in the bone marrow of the pubic bones, which overlies the prostate region on the planar images. As a result, the prostate gland and the regional lymph nodes are only visualized on SPECT images of the pelvis.

Although the deposits of metastatic prostate carcinoma in the aortocaval, mesenteric, mediastinal and supraclavicular lymph nodes can frequently be visualized on planar images, SPECT imaging improves the sensitivity in the abdomen by detecting smaller deposits of metastatic prostate carcinoma in lymph nodes. In addition, the cross-sectional SPECT images of the abdomen localize the deposits adjacent to the great vessels, which helps to avoid false positive studies.

Localizing the Prostate Gland and Fossa on SPECT Images— Conventional Methods

The conventional methods for localizing the prostate gland and prostate fossa in post prostatectomy patients have utilized the vascular structures and the bone marrow activity. One method, as illustrated in Figure 3a, is

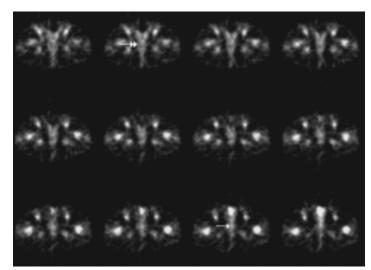


Figure 3a. Penile blood pool (single arrow). Prostate (double arrow).

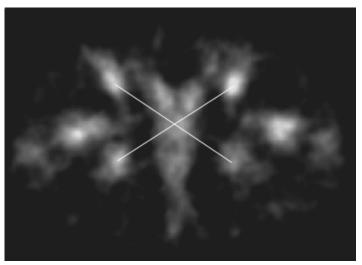


Figure 3b. Ischial bone marrow and femoral vessel method.

to identify the penile blood pool on the transverse SPECT images of the pelvis (single arrow). The prostate gland or fossa is located just cephalad to the penile blood pool (double arrow) and just below the base of the bladder. A second method, as illustrated in Figure 3b, is to choose a transverse pelvic image containing the bone marrow uptake of the pubic bones at the level of the pubic symphysis. Identify the femoral vessels and the bone marrow uptake in the ischial bones and draw a line between each femoral vessel and the contralateral ischial bone marrow uptake. These lines will intersect at the prostate gland.

CT and MRI Correlation or Fusion

At times, the above methods for localizing the prostate gland or fossa can present difficulties because the penile blood pool and the bone marrow uptake in the pelvic bones may not be adequately visualized. As an additional aid, some investigators have utilized CT images for correlation with the ProstaScint images while others have fused the high-quality anatomical CT or MRI images with the SPECT ProstaScint images (8,9). The advantage of these methods is that the bony, vascular, and soft tissue structures of CT and MRI serve as an anatomical framework to aid in the interpretation of the ProstaScint tracer distribution in the pelvis and, in addition, in the abdomen. The disadvantages are that these methods usually require an additional study, CT or MRI; the studies are not precisely aligned since they are not acquired simultaneously; significant physician or technologist time is required to register the image sets to obtain image fusion; and the registration process is operator dependent.

Bone/Blood Pool and ProstaScint Correlation and Fusion

As an alternative to the fusion of ProstaScint images with CT or MRI images, one can use the dual isotope simultaneous acquisition of Tc99m HDP and Tc99m RBC in one image set and Indium-111 ProstaScint in a second image set in the protocol shown below. These image pairs provide a precisely registered framework of the bone and/or bone/blood pool anatomy for correlation with the ProstaScint images.

TABLE 1 ProstaScint and Bone/Blood Pool Imaging Protocol

Day 0	(0 hours)	Tracer injection	
Day 4	(96 hours)	Whole body scan	
		SPECT of abdomen/pelvis	
		Injection of Tc99m HDP	
Day 5	(120 hours)	Whole body scan	Dual Isotope
		SPECT of pelvis	Dual Isotope
	(122 hours)	Injection of Tc99m RBC	
		SPECT of abdomen/pelvis	Dual Isotope

The dual isotope acquisition provides SPECT images of the pelvis that clearly define the pelvic bony anatomy to aid in locating the prostate gland

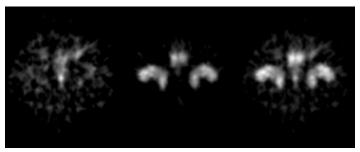


Figure 4a. Poor visualization of the bone marrow of the pelvis on the ProstaScint image due to radiation therapy. Prostate gland or fossa is well localized using the bony pelvic anatomy from the simultaneous bone scan.

or the prostate fossa. These dual images are particularly helpful when the *conventional methods* fail because of poor visualization of the pelvic bone marrow or penile blood pool. An example is illustrated above in Figure 4a. The anatomical structures of the abdomen such as the liver, spleen, kidneys, majors vessels, spine, lower rib cage, and occasionally the renal and portal veins on the combined bone/blood pool images provide an anatomi-

cal framework for localizing abnormal collections of ProstaScint in the abdomen as shown in Figure 4b below.

The main advantages of this method are

- a) The prostate gland and the prostate fossa can be precisely localized on the transverse and coronal images utilizing the anatomical bone images.
- b) The dual set of images, ProstaScint and bone/blood pool, are precisely aligned without operator intervention and are immediately available after reconstruction.
- Simple combinations of the image pairs create precisely aligned fused images.
- d) The bones, liver, spleen, kidneys, and vascular structures provide an anatomical framework that aids image interpretation.

Image Interpretation and Case Studies

The images are best evaluated on the computer display where the brightness, contrast, and other image parameters can be adjusted. The dual isotope image pairs can be viewed with the standard dual tomographic software commonly used to view stress and rest myocardial perfusion studies. No alignment of the dual isotope Indium-111 and Tc99m images is necessary. During interpretation, the identical Indium-111 and Tc99m transverse, coronal, and sagittal slices are displayed side by side.

Below are several case studies. The cases were chosen to illustrate the typical patterns of abnormal tracer accumulation in the various nodal groups as well as illustrate the value of a ProstaScint scan as a guide for the selection of newly diagnosed patients who may benefit from a curative procedure and post prostatectomy patients who may benefit from salvage radiotherapy.

Case 1. A 53-year-old male post radical prostatectomy 4 years ago. Gleason score of 7. Radiotherapy of the prostate bed 1 year ago because of an increasing PSA. Current PSA of 3.5 ng/ml. A ProstaScint study was obtained to evaluate for metastatic disease. The scan in Figure 5 illustrates focal tracer uptake in metastatic prostate carcinoma in lymph nodes in the central abdomen. The oblique pattern of nodal tracer uptake is typical for involvement of the mesenteric lymph nodes. Several of the lower midline collections are in aorto-caval lymph nodes, which was confirmed on cross-sectional images.

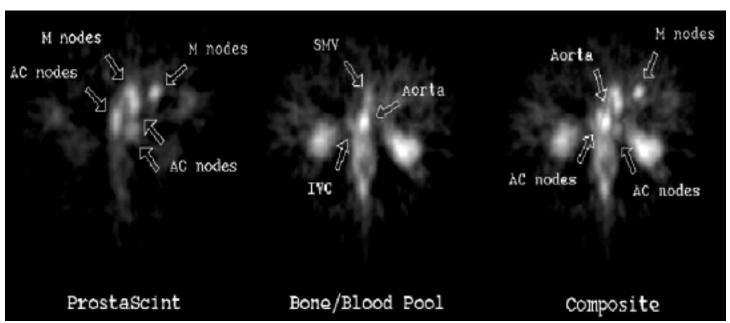


Figure 4b. Fusion of dual isotope ProstaScint and bone/blood pool images of the mid abdomen reveals metastatic prostate carcinoma in aorto-caval (AC) and mesenteric (M) lymph nodes.

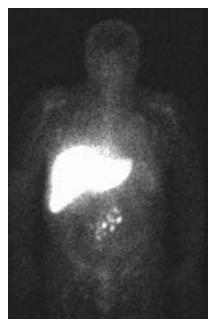
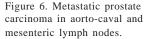
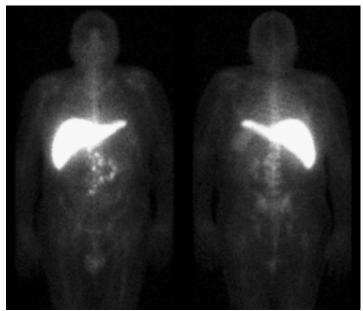


Figure 5. Metastatic prostate carcinoma in mesenteric and several aorto-caval lymph nodes <-----

Figure 8. Widespread metastatic prostate carcinoma in multiple aorto-caval lymph nodes, two left supraclavicular lymph nodes, and a posterior mediastinal lymph node.





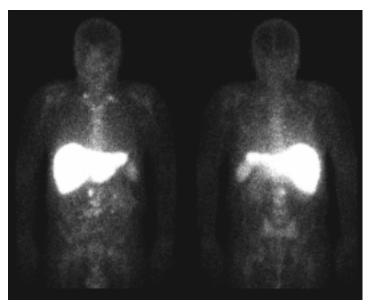
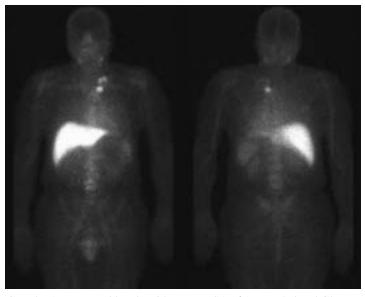


Figure 7. Metastatic prostate carcinoma in right and left supraclavicular lymph nodes in addition to aorto-caval and mesenteric nodes.



Case 2. A 69-year-old male with serum PSA of 17.9 ng/ml and Gleason score of 6. A pre-treatment ProstaScint scan was performed (Fig 6). The scan shows the classical vertical midline collection of focal areas of tracer uptake in aorto-caval lymph nodes. In addition, the central, obliquely lying foci extending toward the left side form the classical pattern of metastatic disease in mesenteric lymph nodes.

Case 3. A 64-year-old male with a serum PSA of 41.6 ng/ml and a Gleason score of 7. The pre-treatment ProstaScint scan in Figure 7 shows wide-spread lymph node metastases.

In addition to the central abdominal uptake in the aorto-caval and mesenteric lymph nodes, uptake is demonstrated in left and right supraclavicular nodes.

In the above two patients (Case 2 and Case 3), the findings on the ProstaScint studies "up staged" the disease extent and both patients were spared the futile attempt of a curative prostatectomy or radiotherapy.

Case 4. A 59-year-old male 6 years post prostatectomy with an increasing serum PSA indicating recurrence in the pelvis or metastasis. A ProstaScint scan was performed to localize disease to determine if he could benefit from salvage radiotherapy of the pelvis. The scan in Figure 8 shows widespread lymph node metastases involving multiple aorto-caval lymph nodes in the central abdomen and two small adjacent left supraclavicular lymph nodes. The larger collection of tracer projecting just below the medial end of the left clavicle on the anterior view is well visualized on the posterior view of the chest and is in a posterior mediastinal lymph node.

Case 5. A 67-year-old male 6 years post prostatectomy with an increasing PSA. Current PSA of 0.3 ng/ml. The dual isotope transverse images of the mid abdomen (Figure 9) show the nodal uptake on the ProstaScint image is in a para-aortic node on the "Fusion" image.

Case 6. A 58-year-old male 8 years post prostatectomy with an increasing serum PSA (3.6 ng/ml). The ProstaScint scan was performed to localize disease and determine if he might be a candidate for salvage radiotherapy. The ProstaScint scan (Figure 10) shows metastatic prostate carcinoma in the aorto-caval and mesenteric lymph nodes. In addition, the simultaneously acquired bone images demonstrate foci of metastatic disease in bone in the roof of the left acetabulum, sacrum, and right iliac bone. The metastatic bone lesions are not visualized on the ProstaScint images. Non-visualization of prostate metastases in bone on ProstaScint images is the rule, not the exception.

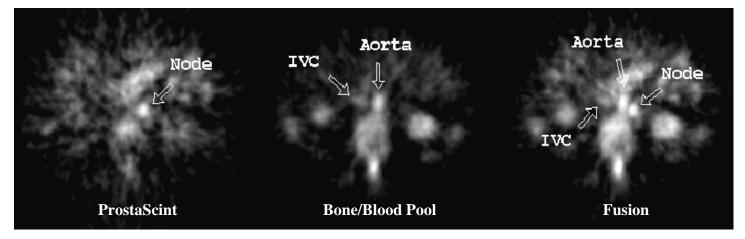


Figure 9. Metastatic prostate carcinoma in a para aortic lymph node.

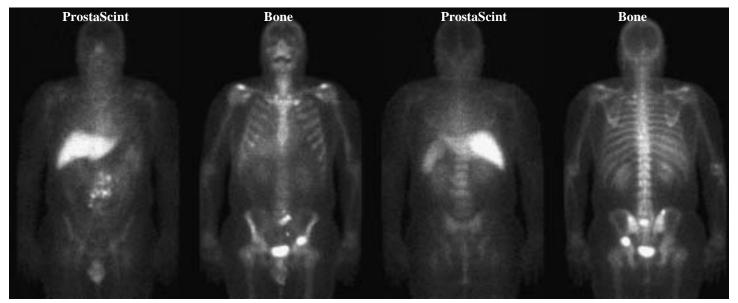


Figure 10. Metastatic disease in aorto-caval and mesenteric lymph nodes. Bone metastases in the pelvis on the dual isotope simultaneously acquired bone scan not visualized on the ProstaScint scan.

Summary

newly diagnosed prostate cancer, the ProstaScint scan is an important addition to the initial standard staging using the serum PSA, the DRE findings, and the Gleason score in men with clinically localized prostate 5. Sychra JJ, Lin KQ and Blend MJ. Detection of metastatic prostate carcinoma who are thought at high risk for regional disease. The scan is effective in localizing recurrence in the pelvis or distant lymph node metastases in post prostatectomy patients with biochemical evidence (in- 6. Quintana JC and Blend MJ. The dual-isotope ProstaScint imaging creasing PSA) of recurrence or metastases. The scan findings are useful in the decision process for the selection of newly diagnosed patients who may benefit from the curative procedures of prostatectomy or radiotherapy and for post prostatectomy patients who may benefit from salvage radiotherapy of the pelvis.

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Contact Information

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Central Chapter of the Society of Nuclear Medicine

Annual Meeting





May 2-4, 2003





COBO Conference Center Detroit, Michigan



Nuclear Medicine in Today's Clinical Practice

FRIDAY, MAY 2, 2003 Before You Begin

- The Impact of CT/PET Image Fusion in Oncology
- Keeping Your Camera Upto Date
- Staying Current: The New Part 35
- Proffered Papers

Cardiovascular Nuclear Medicine

- Current Status of Attenuation Correction in Myocardial Perfusion
- The Role of the Chest Pain Clinic in Nuclear Imaging
- PET Assessment of Myocardial Perfusion
- Assessment of Anti-Ischemic Therapy
- Optimizing EKG Set-up and Basic Interpretation
- Determining LVEF: Planar vs SPECT
- MUGA vs GatedMPI
- What the Cardiologist Needs to Know

SATURDAY, MAY 3, 2003 Inflammatory Disease and Tumor Detection

- Osteomyelitis Evaluation in the Diabetic Patient
- Staging Colorectal Cancer with OncoScint, CEA, and PET
- Lymphoscintigraphy's Role in Breast Cancer and Melanoma Staging
- Using the Surgical Probe: Surgeon's View

Clinical Appropriateness

- · Radionuclide Evaluation of the Painful Prosthesis
- The Latest Imaging Techniques for Detecting Pulmonary Embolism
- New Approaches in Thyroid Cancer Diagnosis and Therapy
- Tailoring the Renal Scan to the Clinical Question
- Technical Considerations of the Renal Scan

SATURDAY, MAY 3, 2003 The Latest in Nuclear Medicine Instrumentation

SUNDAY, MAY 4, 2003

Other Considerations in Nuclear Medicine

- Radioimmunotherapy 101
- Eliminating Imaging Artifacts: The Importance of QA and Proper Patient Prep
- Revisiting APCs, Billing and Reimbursement
- Nuclear Medicine and Pregnancy

Hotel reservations can be made by calling the Hotel Pontchartrain at (313) 965-0200. Hotel Pontchartrain, Two Washington Boulevard, Detroit, Michigan 48226. Rates start at \$125.00 sing/double. Mention Central Chapter Society of Nuclear Medicine.

AMA CME credit in application VOICE and IDNS credit in application

Deadline for submission is Friday, February 7, 2003

Policies and Instructions

Please review this form thoroughly before preparing your abstract. Because of time constraints, abstracts that do not comply with these policies and instructions must be rejected.

Who May Submit Abstracts

The Program Committee invites original contributions in nuclear medicine from both members and nonmembers of the Society of Nuclear Medicine.

Supporting Data

Supporting data are not required, but may be submitted (**one page only**) if the reviewer's understanding will be enhanced.

Abstracts with Similar Topics

Whenever possible, multiple contributions on the same subject from the same institution should be merged into a single abstract.

Abstract Publication

Abstracts accepted for oral presentation will be published in *Clinical Nuclear Medicine*.

Projection Requirements

Dual 35-mm and computer projection will be available for presenting scientific papers.

Changes after Submission

Abstracts are submitted in final format. No changes will be made to the form at any time after receipt by the Central Chapter.

Awards

Abstracts can be considered for 3 awards.

- Best Technologist Papers (oral presentation only) \$250. Senior author must be a technologist SNM member. One \$500 educational grant may be awarded to the top-scoring author if this abstract was also submitted to the SNM-TS for presentation at the SNM June meeting.
- W. H. Beierwaltes Award (oral presentation only) \$250. Senior author must be a resident or basic scientist trainee.

Central Chapter, SNM Abstract Form

For the May 2–4, 2003 Spring Meeting Detroit, Michigan

Please Print or Type

Name	City
Position/title	
Credential(CNMT, MD, MS, PhD)	
SNM Member	Consider this abstract for: ☐ Best Technologist Paper-CCSNM
SNM Number	☐ Best Technologist Paper-CCSNM-TS
Phone	☐ W. H. Beierwaltes Award
Fax	
E-mail	
Institution	
Address	

TYPE ABSTRACT HERE — STAY WITHIN BORDERS

Go to www.ccsnm.org to download abstract

Deadline for submission is Friday, February 7, 2003

Word™ File

Please go to www.ccsnm.org and download the Word file. Stay within the text block area. Use 12 pt Times New Roman font.

Erasures, Corrections, etc.

Abstracts with errors, misspellings, poor grammar, or incorrect abbreviations, may be rejected.

Format

Use all capitals for the title, followed by the author's initials, last name, and institutional affiliation. Underline the name of the presenting author. Single-space all typing. Leave one line space between the title/ author section and the body of the abstract.

Central Chapter, SNM Abstract Instructions

Indent each paragraph three spaces. Do not include author's degrees, titles, institutional appointments, street addresses, or zip codes.

Organization of Abstract

The body of the abstract should include a statement of the purpose of the study, a statement of the methods used, a summary of the results presented in sufficient detail to support the conclusions, and a statement of the conclusions reached. It is not satisfactory to use phrases such as "the results will be discussed" or "other data will be presented." Use the following headlines to clearly identify each element of content:

Go to ww.ccsnm.org to download abstract

For the May 2–4, 2003 Spring Meeting Detroit, Michigan

Objectives, Methods, Results and Discussion.

Example

BONE IMAGING WITH Tc-99m R.A. Berger, D.K. Grahm, and N.A. Lucas. Methodist Hospital, Indianapolis, IN.

The various factors contributing to the proper diagnosis of...

Abbreviations

Abbreviations and style should follow the Style Manual for the *Journal of Nuclear Medicine*. The chemical identity of radiopharmaceuticals must be specified as accurately and completely as possible.

Superscripts and Subscripts

The mass number of an element should follow the elemental abbreviation on the same line and be separated by a hyphen, e.g., Tc-99m. Do not use superscripts or subscripts to identify radionuclides.

Acknowledgment

Please make sure your e-mail address is clearly identified to receive confirmation of receipt of your abstract.

Where to Send Abstract

Mail the original abstract form on a floppy disk to:

John E. Freitas, M.D. Huron Valley Radiology 5333 McAuley Drive, Suite #4106 Ypsilanti, MI 48197

or

email the Word Document to: ccsnm@mindspring.com

In 2004, the Central Chapter Annual Meeting moves back to Chicago to Northwestern Memorial Hospital. This meeting will host the first Mark Groch Memorial Lecture in tribute to much of the work that Dr. Groch did for the Central Chapter over the last 10 years.



2004 Spring Meeting May 14th - May 16th



Central Chapter of the Society of Nuclear Medicine and Northwestern Memorial Hospital Department of Nuclear Medicine

Preliminary Program

Friday 14th Emerging Trends in Radiotherapy James Quinn, MD, Memorial Lecture

- 1. Basic Science Tutorial
 - a) Immunology
 - b) Molecular Biology
 - c) Genetics
- 2. Radioimmunotherapy
 - a) Zevalin Imaging
 - b) Zevalin Therapy
- 3. Radiolabeled Peptide Therapy
 - a) Octreoscan Imaging
 - b) Octreotherapy
- 4. Radiotherapy for Nueroblastoma
- 5. Radiotherapy for Palliation

Saturday 15th Emerging Trends in PET Imaging Mark Groch, PhD, Memorial Lecture

- 1. Basic Science Tutorial
 - a) PET Instrumentation
 -) Biodistribution of FDG
- 2. Expanding Indications for Patient Evaluation
- 3. Use of PET in Monitoring and Guiding Chemotherapy and Radiation Therapy
- 4. PET Imaging for Dementia Evaluation
- 5. PET Imaging: Surprise Findings and New Diagnostic Insights
- 6. Expanding Role of PET/CT in Clinical Practice (i.e., Radiation Oncology Treatment Planning)

Saturday 15th Future Direction of Nuclear Medicine

- 1. Emerging Technology
- 2. Emerging Radioisotopes
- 3. New Applications for Old Tracers

Editors' Desk

Those of you who attended the recent Central Chapter meeting in Chicago will remember it as one of the best meetings in recent memory. It had everything—great speakers, great location, and a general ambiance that has been missing from many of our meetings over the last 5–10 years. It was also one of the largest and best-attended meetings in the last 10 years. All of the thanks for the success of this meeting go to Mark Groch and Monica Geyer. It is therefore with a sense of great loss that we mourn Mark's death last May. Over the years Mark has been a very active member of our chapter. He served on our Board of Governors and chaired the Publications and Program committees. He was about to take office as our Vice-President and would have become President of the Central Chapter in 2004. He was also a candidate for President of the SNM.

His drive to make the Chapter a stronger organization and instill a more collegial atmosphere was very evident from the Chicago meeting. As Vice-President and Chair of the Program Committee, he had numerous plans on how to continue with these goals and it is our great misfortune that his drive and determination have been taken from us. His absence leaves a hole not only in our Chapter, but also in our hearts. He will be sadly missed.

Editors: Michael O'Connor (mkoconnor@mayo.edu) and Susan Weiss (sweiss@nwu.edu)



Dr. Mark Groch (1949-2002)

Award Winners: WH Beierwalters Award and CCSNM-TS Best Technologist Paper—CCSNM Meeting—Chicago, IL, April 2002



Subha Raman, MD, William Beaumont Hospital

WH Beierwaltes Award winner.

Her paper was entitled, "Reproducibility (REP) of Dual Energy X-ray Absorptiometry (DEXA) in the Clinical Setting."



Rebecca A. Sajdak, CNMT, Loyola University Medical Center

CCSNM Best Technologist Paper.

Her paper was entitled "Techniques and Pitfalls in Fusing PET and CT in Radiation Oncology."



Thomas P. Owens, CNMT, Mayo Clinic

CCSNM-TS Best Technologist Paper (co-winner).

His paper was entitled "Analysis of Gated SPECT Blood-Pool Imaging to Evaluate Right Ventricle Function and Volume."



Alberto J. Arroyo, CNMT, St. Vincent Mercy, Toledo, OH.

CCSNM-TS Best Technologist Paper (co-winner).

His paper was entitled "The Effects of Sinclaide (CCK-8) Infusion During Hepatobiliary Imaging in Patients with Diagnosed Cholelithiasis."

Spring Meeting—Chicago, IL, April 2002



The largest attendance at any recent Chapter meeting was on hand to hear Dr. Coleman's keynote presentation on PET scanning.





The incoming president (Dr. Jim O'Donnell) presenting the closing remarks at the business luncheon.



Outgoing president of the Central Chapter, Dr. O'Connor, presenting Dr. Steward Spies with a plaque for his presentation of the James Quinn III Memorial Lecture.



Derek Fuerbringer (outgoing president) and Sharon Lafferty (incoming president) of the Technologist Section share their views of the future of the Central Chapter at the business luncheon.

Constitution and By-Laws

THE CENTRAL CHAPTER OF THE SOCIETY OF NUCLEAR MEDICINE

April 2002

The constitution and bylaws underwent significant changes over the last year, particularly with the change in the tax status of the SNM to a 501(c)(3) organization. As a consequence there have been numerous changes to our constitution. The revised constitution is printed in its entirety here. This have been reviewed and approved at the Board of Governors Meeting in Chicago last April. You will find a ballot to accept or not accept the revised constitution on the last page of this newsletter (page 20). Please complete this ballot and fax back to the Central Chapter.

Constitution and By-Laws

THE CENTRAL CHAPTER OF THE SOCIETY OF NUCLEAR MEDICINE

April 2002

ARTICLE 1. NAME

This organization is and shall be known as the CENTRAL CHAPTER OF THE SOCIETY OF NUCLEAR MEDICINE, INC., hereinafter referred to as the Chapter.

ARTICLE 2. ORGANIZATION

The Chapter is and shall be an autonomous organization having its own officers, dues, constitution and bylaws, while at the same time being a chartered Chapter of the Society of Nuclear Medicine, hereinafter referred to as the Society. No portion of this Constitution shall in any event be in contradiction to the Constitution or Bylaws of the Society, individual States or the United States.

ARTICLE 3. PURPOSE

The purpose of this Chapter shall be to promote the advancement and dissemination of the knowledge of radioactive substances, particularly as they relate to the diagnosis and treatment of disease; to cooperate with its sister Chapters and other societies with like purpose; and to strive to better the welfare of mankind by maintaining and advancing the highest possible standards of education, research and practice of nuclear medicine, and to educate the public about the medical uses of radioactive substances in medicine.

BYLAWS

ARTICLE 1. STRUCTURE

Section 1.1

The Chapter shall be an autonomous organization with its own officers, constitution, bylaws and dues, and shall also be a chartered Chapter of the Society.

Section 1.2

Matters of primary concern to the Society shall be governed by the Constitution and Bylaws of the Society.

Section 1.3

Matters of primary concern to the Chapter shall be governed by the Constitution and Bylaws of the Chapter.

Section 1.4

Matters of primary concern to both the Society and the Chapter shall be governed by their appropriate Constitution and Bylaws upon the recommendations or decision of the Board of Governors of the Chapter, after consultations with the appropriate officers of the Society. The Chapter shall undertake no action contrary to the Constitution or Bylaws of the Society.

Section 1.5

Reciprocity may be established with other Chapters with regard to the status of members.

Section 1.6

Within the Chapter, organizations may exist, composed of any class or classes of members who may wish to assemble because of their common interest in Nuclear Medicine, the Chapter, the Society, and their objectives. Proponents of these organizations may petition any member of the Board of Governors on behalf of their group for the purpose of forming and implementing such organizations.

These organizations are to remain under the jurisdiction of the Chapter. They may have their own subordinate constitution and bylaws, may elect their own officers, assess their own dues, and determine the time, place and scope of their own meetings. These organizations may not obligate the Chapter in any way, and may not speak for the Chapter. They shall not include in their active membership individuals who are not members in good standing in the Chapter.

These organizations will submit to the President of the Chapter copies of any written minutes of their meetings, any proposed constitution and bylaws, or amendments to, or changes in either. Annually, they will submit current rosters of membership and financial statements.

Such an organization shall have no right or status in the Chapter until it has obtained written approval of its affiliation from the Board of Governors of the Chapter. Its privilege to be affiliated with the Chapter may be withdrawn by a vote of two-thirds of the entire Board of Governors, whether taken in executive session or by mail. An advisor will be appointed by the President from the membership of the Chapter, after said advisor shall have been nominated by the organization.

Section 1.7

As defined by the Society members may belong to a Technologist Section. A Technologist Section of the Central Chapter is recognized with the same status as the National Technologist Section and is governed by the conditions of Section 1.6 with the exception that it need not apply for recognition and need not have an advisor.

ARTICLE 2. MEMBERSHIP

Section 2.1

Categories of membership have been and are established by the Society. Membership in the Chapter shall be divided into classes as provided for in the Bylaws of the Society and shall be open to all persons who, by virtue of residence or occupation in the territory embraced by the Chapter, or are otherwise eligible for membership in one of the categories described in the Bylaws of the Society, provided that they are found acceptable by the Society. A member shall be in good standing if he/she is a member in good standing of the Society of Nuclear Medicine.

ARTICLE 3. OFFICERS AND DUTIES OF OFFICERS Section 3.1

The officers of the Chapter shall be a President, a Vice-President, a Secretary-Treasurer, such officers as may be elected by the Technologist Section and a Board of Governors. The President shall serve for a term of one year or until a duly elected successor shall be able to assume the office.

The terms of office for the President, Vice-President, Secretary-Treasurer, and all members of the Board of Governors shall begin at the conclusion of the Annual Meeting of the Central Chapter, Society of Nuclear Medicine.

The Vice-President and Secretary-Treasurer shall each serve for a term of two years, and shall alternately succeed to the Presidency. In the year before coming President, the officer who is to succeed to the presidency shall assume the duties of President-Elect.

A vote shall be taken each year to elect a Vice-President or, alternately, a Secretary-Treasurer. Voting and nonvoting members of the Board of Governors are eligible for nomination for Vice-President or Secretary-Treasurer as long as they satisfy the one-year service criterion and are members in good standing. The first and second immediate past Presidents shall not be eligible for nomination.

Section 3.2 (a)

The voting members of the Board of Governors shall consist of the President; the Vice-President; the Secretary-Treasurer; the last two past Presidents, each serving for a term of two years after their presidency; the President and the President-elect of the Technologist Section; and six Chapter members, two of whom shall be elected each year for a term of three years by a plurality of those voting in a mail ballot.

Two Technologist Section members are to be elected by the Technologist Section, each serving a term of three years. Balloting for position of technologist members of the Board of Governors will be fully detailed in the Technologist Section Bylaws.

Section 3.2 (b)

Nonvoting members of the Board of Governors shall consist of all past Presidents who are not members of the Board of Governors, all Chapter members who are officers or delegates of the Society, and the Chairpersons of the standing committees.

Section 3.3 (a) Duties of the President

The President shall preside at meetings of the Chapter and of the Board of Governors. The President shall appoint all ad hoc committees, and shall designate chairpersons for such committees. The President shall appoint one member each year to each of the standing committees except the Nominating Committee. The President, or an appointed delegate shall, when necessary, appoint auditors, tellers, a parliamentarian, and other persons authorized to conduct the business of the Chapter. The President, when necessary, may seek and appoint legal counsel for the Chapter after consultation with the chairperson of the Finance Committee. The President, or an appointed delegate, shall represent the Chapter at meetings of the Society. The President is an ex-officio member of all committees, except the Nominating Committee.

Section 3.3 (b) Duties of the Vice-President

The Vice-President shall act as President in any meeting, process or deliberation of the Chapter at which the President is either absent or unable to act as President, except in an action for the removal from office of the President, in which case the first immediate Past-President shall preside. If the first immediate Past-President is unable to preside, then either the second, the third, or the fourth immediate Past-President, in the order named herein, shall preside. The Vice-President and Secretary-Treasurer shall have no vote in a procedure for the removal from office of the President.

Section 3.3 (c) Duties of the Secretary-Treasurer

The Secretary-Treasurer shall keep, or cause to be kept, a record of the minutes of all meetings of the Chapter, including a record of the reports of all committees. The Secretary-Treasurer shall oversee the deposit and disburse all monies of the Chapter, and may request an audit of the same, unless an external audit be voted by the Chapter, or in an emergency, by the vote of the Board of Governors. The Secretary-Treasurer shall collect, or cause to be collected, assessments when they are authorized by the Chapter or the Board of Governors. At the completion of the term of office as Secretary-Treasurer, he/she shall deliver all records of the Chapter in his/her keeping to the new Secretary-Treasurer.

Section 3.3 (d) Duties of the Board of Governors

The Board of Governors shall facilitate the business of the Chapter and shall conduct all business of the Chapter, except when the Chapter is in plenary session. It shall initiate any action for the removal from office or from membership of any member. The President shall preside in any such action unless it is for his/her removal or dismissal.

Emergency balloting or polling of the members of the Board of Governors by telephone by the President, or by the President's appointed alternate, shall have full force and effect provided that no member of the

Board of Governors shall willfully be denied the opportunity to vote in any matter so treated.

The Board shall review the budget and the audit of the books of the Treasurer and shall approve or disapprove any dues or assessments or any recommended changes in either. It should review the action of all committees for approval or disapproval. A quorum of the Board of Governors for any meeting shall consist of one-half the current membership plus one in addition to the President or acting President.

Service as an elected member of the Board of Governors for more than six months will count as a full year of service.

Section 3.4 Emergency Succession to the Presidency

If, before the completion of his/her term of office to which he/she was elected, the President dies, resigns, is removed from office, or becomes disqualified, he/she shall be succeeded by the Vice-President, or Secretary-Treasurer, depending upon the predetermined order of succession. (Art. 3, Section 3.1). The officer succeeding to the presidency shall complete the unexpired term as well as his/her own designated term.

Section 3.5 Vacancies in Other Offices

Vacancies in other offices by the death, resignation, removal from office or disqualification of other officers, and vacancies caused by contingencies not herein provided for, shall be filled by appointment by the President until the next regular meeting of the Chapter or until the end of the term in which the vacancy occurred, whichever comes first. If a portion of the term is unexpired at the time of the next regular meeting of the Chapter, nominations may be made to fill the vacancy for the unexpired term by the Nominating Committee or from the floor. The elections shall be conducted under the same rules as for all other elections.

Should a vacancy be created on the Board of Governors, the President shall immediately appoint a member of like membership status to fill the position on an interim basis. At the next regular election, the membership will vote on three positions on the Board of Governors. The person receiving the third highest vote will be designated to fill the unexpired term of the vacated position. This term of office shall begin immediately following the counting of the ballots. If two positions are vacant, the persons with the third and fourth highest votes shall be considered elected to the vacated slots. These terms shall also begin immediately following the counting of the ballots.

If vacancies should occur on the Society House of Delegates which shall be filled by members of the Central Chapter, then these shall be filled as follows: the Nominating Committee shall propose at least one candidate per position from persons who have served at least one year on the Board of Governors. The candidates will be voted upon by the Board of Governors, with the candidate receiving the highest votes to be elected to the position. If more than one vacancy needs to be filled, then persons in the order of highest to lowest votes shall be considered elected for the vacated slots.

Section 3.6 Absences of Officers

In the event of the absence of all officers from a properly designated meeting of the Chapter, the members present shall elect a President protempore.

ARTICLE 4. COMMITTEES

The committees of this Chapter shall consist of the following standing committees, and of such other Ad Hoc committees, as the President shall direct. All committee meetings are open to all members in good standing. Closed committee meetings can be held with written permission of the President of the Chapter. Only committee members can participate in discussion unless open discussion is allowed by the chairperson of the meeting. All committee members must be members of the SNM or SNM-TS.

The chairperson of each standing committee is appointed annually by the President except the Nominating Committee. Any member of the Chapter, who is in good standing, shall be eligible for membership on standing committees. The number of members on each committee is defined under the committee section. Each standing committee shall have at least one technologist member.

In the case of resignation, death, disqualification, or other contingency which prohibits the fulfillment of the member's term on a standing committee the President shall appoint an individual of the same category of membership to complete the vacated term of office. The technologist appointee, whether to full or partial term, must be acceptable to the Technologist Section President as a representative of the Technologist Section.

Section 4.1 Nominating Committee

The Nominating Committee shall consist of four members. The membership of this committee shall consist of the four most immediate past presidents, with the immediate past president serving as Chair. This Committee shall seek suggestions from the voting membership for all elective offices to be filled by the annual balloting or for officers to be elected to unexpired terms as provided in Article 3. Section 3.5

Section 4.2 Membership Committee

The Membership Committee shall consist of four members, one to be appointed each year by the President. They shall each serve for a term of four years, one retiring each year. The President shall annually designate the Chairperson of the Committee. This Committee shall be responsible for all matters pertaining to membership. This committee may meet jointly with the Technologist Section membership committee, and in that event the Co-Chair is the Chair of the Technologist Membership Committee.

Section 4.3 Constitution and Bylaws Committee

The Constitution and Bylaws Committee shall consist of four members, one to be appointed each year by the President. They shall serve for a term of four years, one retiring each year. The President shall annually designate the Chairperson of the Committee. This Committee shall maintain a study of the Constitution and Bylaws and shall recommend to the Board of Governors such changes, additions, or amendments as it finds necessary to the structure and content of either. The Chairperson of the Constitution and Bylaws Committee shall serve as parliamentarian of the Chapter.

Section 4.4 Finance Committee

The Finance Committee shall consist of five members, one of whom shall be the Secretary-Treasurer of the Chapter and at least one technologist member. Of the remaining three, each shall serve for a term of three years, one retiring each year. The President shall annually designate the Chairperson of this Committee. The Technologist member to the Finance Committee is an ex-officio nonvoting member and shall be the Chairperson of Technologist Section's Finance Committee.

The Finance Committee shall review the annual budget and recommend dues and assessments to the Board of Governors. It may audit the books of the Treasurer, and shall submit a written report to the Board of Governors at each meeting.

Section 4.5 Program Committee

The Program Committee shall consist of four members, one of whom shall be the Vice-President of the Chapter, who shall serve as its Chairperson. This Committee shall be responsible for the Scientific Program at the Chapter meetings. The Chairperson of this Committee is a voting ex-officio member of the Continuing Education Committee and of the

Publications Committee. Each appointed member shall serve for a term of three years, one retiring each year.

Section 4.6 Committee on Continuing Education

The Committee on Continuing Education shall consist of at least four members, one to be appointed each year by the President. At least two members shall be technologist members. They shall each serve for a term of four years, one retiring each year. The President shall annually designate the Chairperson of this Committee, who may be a technologist.

The function of this Committee shall be to facilitate the educational efforts of the Chapter aside from educational events at Chapter meetings. Its operation shall be governed by policies and guidelines established by the Board of Governors. It shall submit a report of its activities at each meeting of the Chapter.

The Chairperson of this Committee is a voting ex-officio member of the Program Committee and of the Publications Committee.

Section 4.7 Publications Committee

The Publications Committee shall consist of four members, one to be appointed each year by the President. There may be one or more members from the technologist section on this committee. All members shall serve for a term of four years, one retiring each year. The President shall annually designate the Chairperson of this Committee. In addition, the Editor and Co-Editor of the Chapter's Newsletter are ex-officio members of this Committee.

The function of this Committee shall be the supervision of all publications of the Chapter; including the selection, with the advice and consent of the Board of Governors, of any editor or editors chosen for the management of such publications.

The Chairperson of this Committee is a voting ex-officio member of the Program and Continuing Education Committee.

Section 4.8 Ad Hoc Committees

The President shall appoint Ad Hoc committees as needed. The Ad Hoc committee is in existence for the duration of the term of the President who formed the committee unless extended by the subsequent President.

Article 5. DUES AND ASSESSMENTS

Section 5.1

The dues of the Chapter shall vary according to the category of membership. Changes in the dues of the Chapter shall be recommended by the Board of Governors and adopted by a simple majority of those present and voting at a Business Meeting of the Chapter.

Section 5.2

In the event of emergency or extraordinary need, assessments may be levied upon the approval of a two-thirds majority of the entire Board of Governors.

ARTICLE 6. MEETINGS

Section 6.1

Regular meetings of the Chapter shall be called by the Board of Governors. The announcement of the time and place of the meetings shall be made to the membership at least sixty days before the meeting date. Meetings shall include a meeting of the Board of Governors, a Business Meeting of the voting members (at the Annual Meeting), a meeting of all Standing Committees, and a Scientific Program.

Each Committee Chairperson shall give a report of the activities of his/her Committee to the Board of Governors at its meetings.

Section 6.2

Other meetings may be called by the President. No business may be transacted at a Chapter meeting unless there has been sixty days prior notice of such meeting.

Section 6.3

At a duly called Business Meeting, a quorum shall consist of not less than ten voting members.

ARTICLE 7. ELECTIONS

Section 7.1

Nominations for election to the Board of Governors may be made in writing prior to January 1. The Nominating Committee shall announce its nominations for election for all vacant offices and to the Board of Governors. Nominees accepted by the Nominating Committee shall be included on a ballot. Those ballots returned on or before thirty days after the postmark or posting date of the ballot shall be counted. Those received after thirty days shall not be counted. The two candidates for Board of Governors having a plurality of the vote shall be declared elected. Those candidates for each office receiving the greatest number of votes shall be declared elected. A simple majority of votes counted shall be necessary for election. If no one receives a majority of votes cast, the candidate with the highest number of votes will be elected.

Section 7.2

All members entitled to vote in Society elections shall have the right to vote in Chapter elections, as well as in Business Meetings of the Chapter.

Section 7.3

The terms of the office for the President, Vice-President, Secretary-Treasurer, and all members of the Board of Governors shall begin at the conclusion of the Annual Meeting of the Central Chapter of the Society of Nuclear Medicine.

Section 7.4

In the case of a tie, the Board of Governors, acting as a group, shall cast one tie-breaking vote.

ARTICLE 8. ETHICS

Section 8.1

The Board of Governors of the Chapter shall have authority to transmit information concerning ethical issues to the Ethics Committee of the Society for further evaluation.

ARTICLE 9. TERMINATION

Section 9.1

Should the Central Chapter of the Society of Nuclear Medicine be disbanded, or should it otherwise cease to exist, its official records, minutes, books, any other pertinent documents, and any real properties and assets which the Chapter may then possess, shall be delivered to the then current President of the Society of Nuclear Medicine or its successor, or to an appropriate officer designated by him/her, for filing, storage, or other disposition at the discretion of the House of Delegates of the Society.

Section 9.2

Monies and other financial assets, wherever or however held, remaining to the credit of the Chapter after the settlement of all outstanding financial obligations of the Chapter, and if the Society of Nuclear Medicine shall not then exist, shall be donated to one or more nonprofit, tax-exempt organizations engaged, directly or indirectly, in some aspect of nuclear medicine. Such recipient organizations shall be selected, opportunity permitting, by the Board of Governors of the Chapter at either a regular or special meeting of the Board of Governors. If feasible, the Board shall, in making its choice, give careful consideration to the wishes

of a majority of the members of the Chapter. If such formal meeting of the Board shall not be possible, the Chapter's then President or successor (Article 3, Sections 3.4 and 3.5) shall designate the recipients, being guided by whatever opinion the President may be able to obtain from other members of the Board of Governors. The Chapter's Treasurer shall preferably carry out this transfer of financial assets.

ARTICLE 10. AMENDMENTS

Section 10.1

An amendment to the Constitution or Bylaws of the Central Chapter of the Society of Nuclear Medicine may be initiated either by the petition of twenty-five or more voting members in good standing or by the Constitution and Bylaws Committee, or by the Board of Governors sending a proposal for amendment to the President, who shall, within thirty days, consult by mail, e-mail, or by telephone with the Board of Governors, and the Constitution and Bylaws Committee, following which, within thirty days, the proposal shall be voted upon by the Board of Governors. Unless the Board of Governors disapprove, by a three-fourths majority, the proposed amendment shall be made available to each member who is qualified to vote. The members shall then indicate their consent or displeasure by marking ballots of the proposed amendment, and returning them to the President or designate. Ballots received on or before thirty days after the postmark or posting date of the submitted proposal shall be counted. Those ballots received after thirty days shall not be counted. A two-thirds majority of those counted shall be necessary for amendment. If a proposed amendment is rejected by the Board of Governors, the group proposing the amendment shall have the right to appeal the decision by introducing the proposed amendment for discussion at the next Business Meeting of the Chapter, providing they make the request to do so in writing to the President at least thirty days before the meeting.

Bylaws shall not in any event be contradictory to the Constitution. It is the sense of the members of the Chapter that the Bylaws should be more readily proposed, more easily passed, and more freely changed than the Articles of Constitution.

A Bylaw or any change in any Bylaw may be proposed by any voting member of the Chapter in good standing at any plenary session of the Chapter. A Bylaw shall be passed if, after it has been so proposed, it receives the affirmative vote of the majority of those present and voting. A Bylaw shall be changed either in whole or in part, after such change has been properly proposed, by an affirmative vote of the majority of those present and voting.

ARTICLE 11. PARLIAMENTARY PROCEDURE Section 11.1

All questions of parliamentary procedure will be determined at all meetings of the Chapter and of the Board of Governors by the provisions of the Laws of the State in which such meeting takes place, the Bylaws of the Society of Nuclear Medicine, this Constitution, and *Robert's Rules of Order, Newly Revised*. In the event of any inconsistency in the foregoing, they shall take precedence in the order set forth.

Presented to the Board of Governors by Robert E Henkin, MD, Chair, Constitution and Bylaws Committee, April 11, 2002.

The Board of Governors approved these minutes on April 11, 2002.

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