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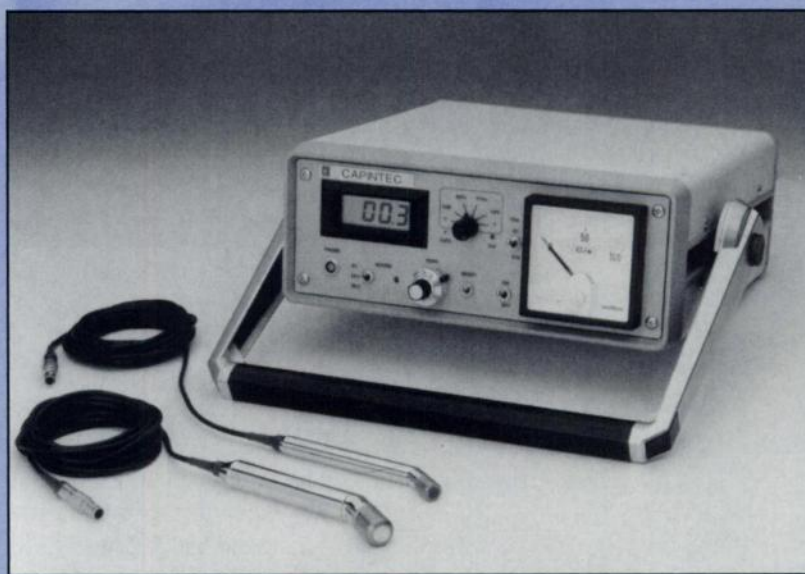
# The Gammed Surgical Probe

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With high differentiation of target to background counting ratio, the **Gammed II B** is a reliable guide for finding tissues containing radioactivity. This affords the surgeon a method of fast identification and localization, reducing the patient's time under anesthesia and avoiding unnecessary removal of healthy tissue.

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Highly efficient and versatile, the **Capintec Gammed II B Surgical Probe System** has been designed to detect localized radioactivity in tissue. The **Gammed II B** has proven to be a valuable tool for surgical excisions of malignant tissues and for identification of "hot" lymph nodes close to the surface of the body. The system is versatile because it offers two probes, one for low energy nuclide detection and one used to detect higher energy ranges.



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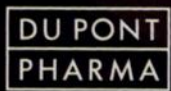




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**Solutions** that help



Radiopharmaceuticals

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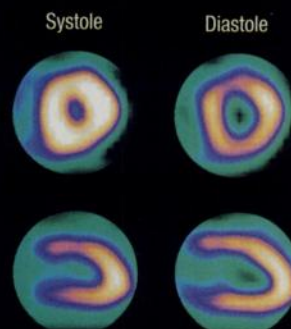


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LVEF=51%

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For more information, contact DuPont Pharma at 1-800-362-2668 or [www.radiopharm.com](http://www.radiopharm.com)

There have been infrequent reports of signs and symptoms consistent with seizure and severe hypersensitivity after administration of Tc99m Sestamibi. Please see brief summary of prescribing information on adjacent page.

## Cardiolite®

Kit for the preparation of Technetium Tc99m Sestamibi

**The Confidence You Want—The Information You Need**

## Brief Summary

# Cardiolite®

Kit for the preparation of Technetium Tc99m Sestamibi

## FOR DIAGNOSTIC USE

**INDICATIONS AND USAGE:** CARDIOLITE®, Kit for the preparation of Technetium Tc99m Sestamibi, is a myocardial perfusion agent that is indicated for detecting coronary artery disease by localizing myocardial ischemia (reversible defects) and infarction (non-reversible defects), in evaluating myocardial function and developing information for use in patient management decisions. CARDIOLITE® evaluation of myocardial ischemia can be accomplished with rest and cardiovascular stress techniques (e.g., exercise or pharmacologic stress in accordance with the pharmacologic stress agent's labeling).

It is usually not possible to determine the age of a myocardial infarction or to differentiate a recent myocardial infarction from ischemia.

**CONTRAINDICATIONS:** None known.

**WARNINGS:** In studying patients in whom cardiac disease is known or suspected, care should be taken to assure continuous monitoring and treatment in accordance with safe, accepted clinical procedure. Infrequently, death has occurred 4 to 24 hours after Tc99m Sestamibi use and is usually associated with exercise stress testing (See PRECAUTIONS).

Pharmacologic induction of cardiovascular stress may be associated with serious adverse events such as myocardial infarction, arrhythmias, hypotension, bronchoconstriction and cerebrovascular events. Caution should be used when pharmacologic stress is selected as an alternative to exercise; it should be used when indicated and in accordance with the pharmacologic stress agent's labeling.

### PRECAUTIONS:

#### GENERAL

The contents of the vial are intended only for use in the preparation of Technetium Tc99m Sestamibi and are not to be administered directly to the patient without first undergoing the preparative procedure.

Radioactive drugs must be handled with care and appropriate safety measures should be used to minimize radiation exposure to clinical personnel. Also, care should be taken to minimize radiation exposure to the patients consistent with proper patient management.

Contents of the kit before preparation are not radioactive. However, after the Sodium Pertechnetate Tc99m Injection is added, adequate shielding of the final preparation must be maintained.

The components of the kit are sterile and non-pyrogenic. It is essential to follow directions carefully and to adhere to strict aseptic procedures during preparation.

Technetium Tc99m labeling reactions involved depend on maintaining the stannous ion in the reduced state. Hence, Sodium Pertechnetate Tc99m Injection containing oxidants should not be used.

Technetium Tc99m Sestamibi should not be used more than six hours after preparation.

Radiopharmaceuticals should be used only by physicians who are qualified by training and experience in the safe use and handling of radionuclides and whose experience and training have been approved by the appropriate government agency authorized to license the use of radionuclides.

Stress testing should be performed only under the supervision of a qualified physician and in a laboratory equipped with appropriate resuscitation and support apparatus.

The most frequent exercise stress test endpoints, which resulted in termination of the test during controlled Tc99m Sestamibi studies (two-thirds were cardiac patients) were:

Fatigue	35%
Dyspnea	17%
Chest Pain	16%
ST-depression	7%
Arrhythmia	1%

#### Carcinogenesis, Mutagenesis, Impairment of Fertility

In comparison with most other diagnostic technetium labeled radiopharmaceuticals, the radiation dose to the ovaries (1.5rads/30mCi at rest, 1.2 rads/30mCi at exercise) is high. Minimal exposure (ALARA) is necessary in women of childbearing capability. (See Dosimetry subsection in DOSAGE AND ADMINISTRATION section.)

The active intermediate,  $[\text{Cu}(\text{MIBI})_4]\text{BF}_4$ , was evaluated for genotoxic potential in a battery of five tests. No genotoxic activity was observed in the Ames, CHO/HPRT and sister chromatid exchange tests (all *in vitro*). At cytotoxic concentrations ( $\geq 20\mu\text{g/ml}$ ), an increase in cells with chromosome aberrations was observed in the *in vitro* human lymphocyte assay.  $[\text{Cu}(\text{MIBI})_4]\text{BF}_4$  did not show genotoxic effects in the *in vivo* mouse micronucleus test at a dose which caused systemic and bone marrow toxicity (9mg/kg,  $> 600 \times$  maximal human dose).

#### Pregnancy Category C

Animal reproduction and teratogenicity studies have not been conducted with Technetium Tc99m Sestamibi. It is also not known whether Technetium Tc99m Sestamibi can cause fetal harm when administered to a pregnant woman or can affect reproductive capacity. There have been no studies in pregnant women. Technetium Tc99m Sestamibi should be given to a pregnant woman only if clearly needed.

#### Nursing Mothers

Technetium Tc99m Pertechnetate is excreted in human milk during lactation. It is not known whether Technetium Tc99m Sestamibi is excreted in human milk. Therefore, formula feedings should be substituted for breast feedings.

#### Pediatric Use

Safety and effectiveness in children below the age of 18 have not been established.

**ADVERSE REACTIONS:** During clinical trials, approximately 8% of patients experienced a transient parosmia and/or taste perversion (metallic or bitter taste) immediately after the injection of Technetium Tc99m Sestamibi. A few cases of transient headache, flushing, edema, injection site inflammation, dyspepsia, nausea, vomiting, pruritus, rash, urticaria, dry mouth, fever, dizziness, fatigue, dyspnea, and hypotension also have been attributed to administration of the agent. Cases of angina, chest pain, and death have occurred (see WARNINGS and PRECAUTIONS). The following adverse reactions have been rarely reported: signs and symptoms consistent with seizure occurring shortly after administration of the agent; transient arthritis in a wrist joint; and severe hypersensitivity, which was characterized by dyspnea, hypotension, bradycardia, asthenia and vomiting within two hours after a second injection of Technetium Tc99m Sestamibi.

**DOSAGE AND ADMINISTRATION:** The suggested dose range for I.V. administration in a single dose to be employed in the average patient (70kg) is:

370-1110MBq (10-30mCi)

The dose administered should be the lowest required to provide an adequate study consistent with ALARA principles (see also PRECAUTIONS).

When used in the diagnosis of myocardial infarction, imaging should be completed within four hours after administration (see also CLINICAL PHARMACOLOGY).

The patient dose should be measured by a suitable radioactivity calibration system immediately prior to patient administration. Radiochemical purity should be checked prior to patient administration.

Parenteral drug products should be inspected visually for particulate matter and discoloration prior to administration whenever solution and container permit.

Store at 15-25°C before and after reconstitution.

**RADIATION DOSIMETRY:** The radiation doses to organs and tissues of an average patient (70kg) per 1110MBq (30mCi) of Technetium Tc99m Sestamibi injected intravenously are shown in Table 4.

Table 4. Radiation Absorbed Doses from Tc99m Sestamibi

Organ	Estimated Radiation Absorbed Dose			
	REST		STRESS	
	2.0 hour void rads/ 30mCi	mGy/ 1110MBq	2.0 hour void rads/ 30mCi	mGy/ 1110MBq
Breasts	0.2	2.0	0.2	1.8
Gallbladder Wall	2.0	20.0	2.8	27.8
Small Intestine	3.0	30.0	2.4	24.4
Upper Large Intestine Wall	5.4	55.5	4.5	44.4
Lower Large Intestine Wall	3.9	40.0	3.3	32.2
Stomach Wall	0.6	6.1	0.5	5.2
Heart Wall	0.5	5.1	0.5	5.3
Kidneys	2.0	20.0	1.7	16.7
Liver	0.6	5.8	0.4	4.1
Lungs	0.3	2.8	0.3	2.4
Bone Surfaces	0.7	6.8	0.6	6.0
Thyroid	0.7	7.0	0.2	2.4
Ovaries	1.5	15.5	1.3	13.3
Testes	0.3	3.4	0.3	3.4
Red Marrow	0.5	5.1	0.5	4.4
Urinary Bladder Wall	2.0	20.0	3.0	30.0
Total Body	0.5	4.8	0.4	4.2

Radiopharmaceutical Internal Dose Information Center, July, 1990, Oak Ridge Associated Universities, P.O. Box 117, Oak Ridge, TN 37831, (615) 576-3449.

**HOW SUPPLIED:** Du Pont Radiopharmaceutical's CARDIOLITE®, Kit for the Preparation of Technetium Tc99m Sestamibi is supplied as a 5ml vial in kits of two (2), five (5) and thirty (30) vials, sterile and non-pyrogenic.

Prior to lyophilization the pH is between 5.3-5.9. The contents of the vials are lyophilized and stored under nitrogen. Store at 15-25°C before and after reconstitution. Technetium Tc99m Sestamibi contains no preservatives. Included in each two (2) vial kit are one (1) package insert, six (6) vial shield labels and six (6) radiation warning labels. Included in each five (5) vial kit are one (1) package insert, six (6) vial shield labels and six (6) radiation warning labels. Included in each thirty (30) vial kit are one (1) package insert, thirty (30) vial shield labels and thirty (30) radiation warning labels.

The U.S. Nuclear Regulatory Commission has approved this reagent kit for distribution to persons licensed to use byproduct material pursuant to section 35.11 and section 35.200 of Title 10 CFR Part 35, to persons who hold an equivalent license issued by an Agreement State, and, outside the United States, to persons authorized by the appropriate authority.



### Radiopharmaceuticals

Marketed by

DuPont Radiopharmaceutical Division

The DuPont Merck Pharmaceutical Co.

331 Treble Cove Road

Billerica, Massachusetts, USA 01862

For ordering Tel. Toll Free: 800-225-1572

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(For Massachusetts and International, call 508-667-9531)

513121-0296

Printed in U.S.A.

2/96

**REFERENCES:** 1. Nichols K, DePuey EG, Rozanski A. Automation of gated tomographic left ventricular ejection fraction. *J Nucl Cardiol.* 1996;3:475-482. 2. Chua T, Kiat H, Germano G, et al. Gated technetium-99m sestamibi for simultaneous assessment of stress myocardial perfusion, post-exercise regional ventricular function and myocardial viability. *J Am Coll Cardiol.* 1994;23:1107-1114. 3. Strattmann HG, Williams GA, Wittry MD, et al. Exercise technetium-99m sestamibi tomography for cardiac risk stratification of patients with stable chest pain. *Circulation.* 1994;89:615-622. 4. Berman DS, Hachamovitch R, Kiat H, et al. Incremental value of prognostic testing in patients with known or suspected ischemic heart disease: a basis for optimal utilization of exercise technetium-99m sestamibi myocardial perfusion single-photon emission computed tomography. *J Am Coll Cardiol.* 1995;26:639-647. 5. Hachamovitch R, Berman DS, Kiat H, et al. Exercise myocardial perfusion SPECT in patients without known coronary artery disease. *Circulation.* 1996;93:905-914.

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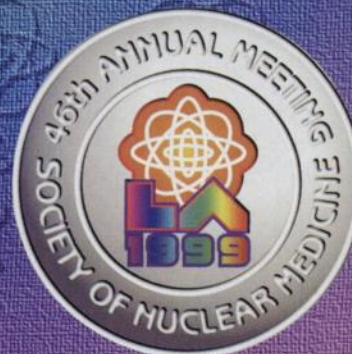


SOCIETY OF NUCLEAR MEDICINE

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Meeting  
Los Angeles,  
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June 6-10, 1999





# DO WHAT YOU DO BEST...

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The **SNM Physician Evaluation Program** is a self-assessment program for physicians. Each **organ specific** CD-ROM contains patient histories and nuclear medicine **images**. Program participants review clinical information, interpret images and submit **written reports** of their findings.

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For more information or to purchase the Bone Module CD-ROM, please contact the SNM PEP Coordinator at (703) 708-9000.

SNM PEP is sponsored by an educational grant from



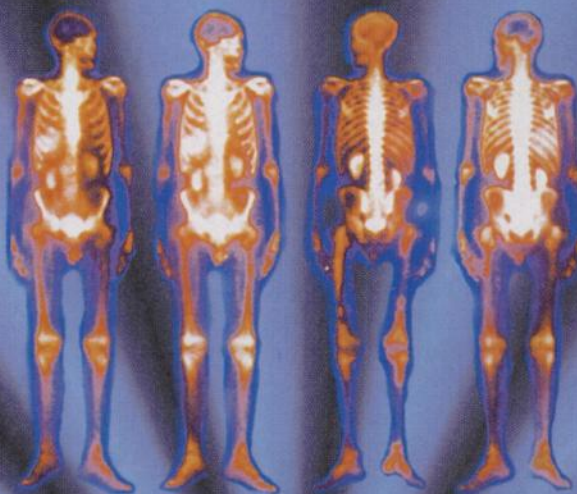
Radiopharmaceuticals

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### BONE IMAGING

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Complete 15 bone case reports and receive up to **10 hours** of CME.





# WHERE DO **YOU** FIT IN?



## **WHAT IS THE UA DATA BASE?**

The Commission on Health Care Policy and Practice in conjunction with the SNM Technologist Task Force on Utilization Data, has developed a quarterly survey on SNM's website. Participants enter data quarterly.

The website's data entry form will collect information from nuclear medicine practitioners to compile a utilization analysis database.

The database contains information on:

- Facility type and location
- Active general medicine and surgical beds
- Outpatient encounters (visits)
- Physician, technologist and clerical FTEs
- Planar, SPECT, PET Hybrid gamma cameras and PET scanners
- Inpatient and outpatient procedures for a selected set of commonly used nuclear medicine CPT-4 codes

## **WHY SHOULD YOU PARTICIPATE?**

Participants receive standard reports on utilization by procedure, place of service, type of patient, etc.

Participants will be able to compare their facility data with others in the region and with the national (global) averages.

Subscribers may query reports on-line or receive printed reports quarterly via mail.

This is a free service. As long as you input your data quarterly, you will be able to obtain data and reports.

## **All information is confidential.**

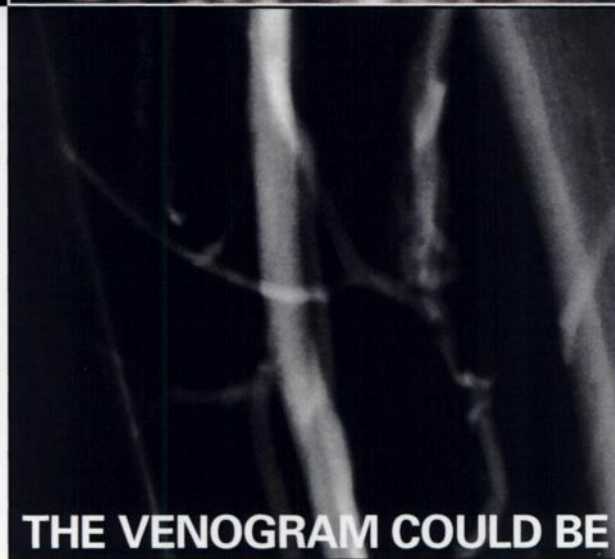
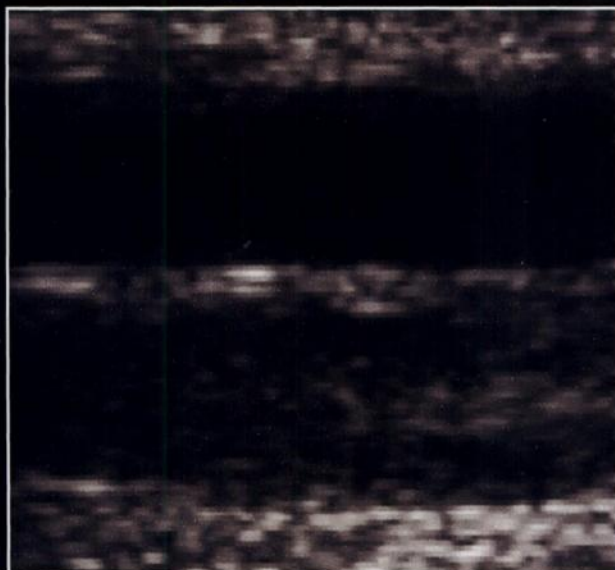
For more information or to participate in this program, contact UA Project Coordinator at (703) 708-9000 x255 or e-mail: [wsmith@snm.org](mailto:wsmith@snm.org).





# ACUTE CLOT?

THE ULTRASOUND COULD BE  
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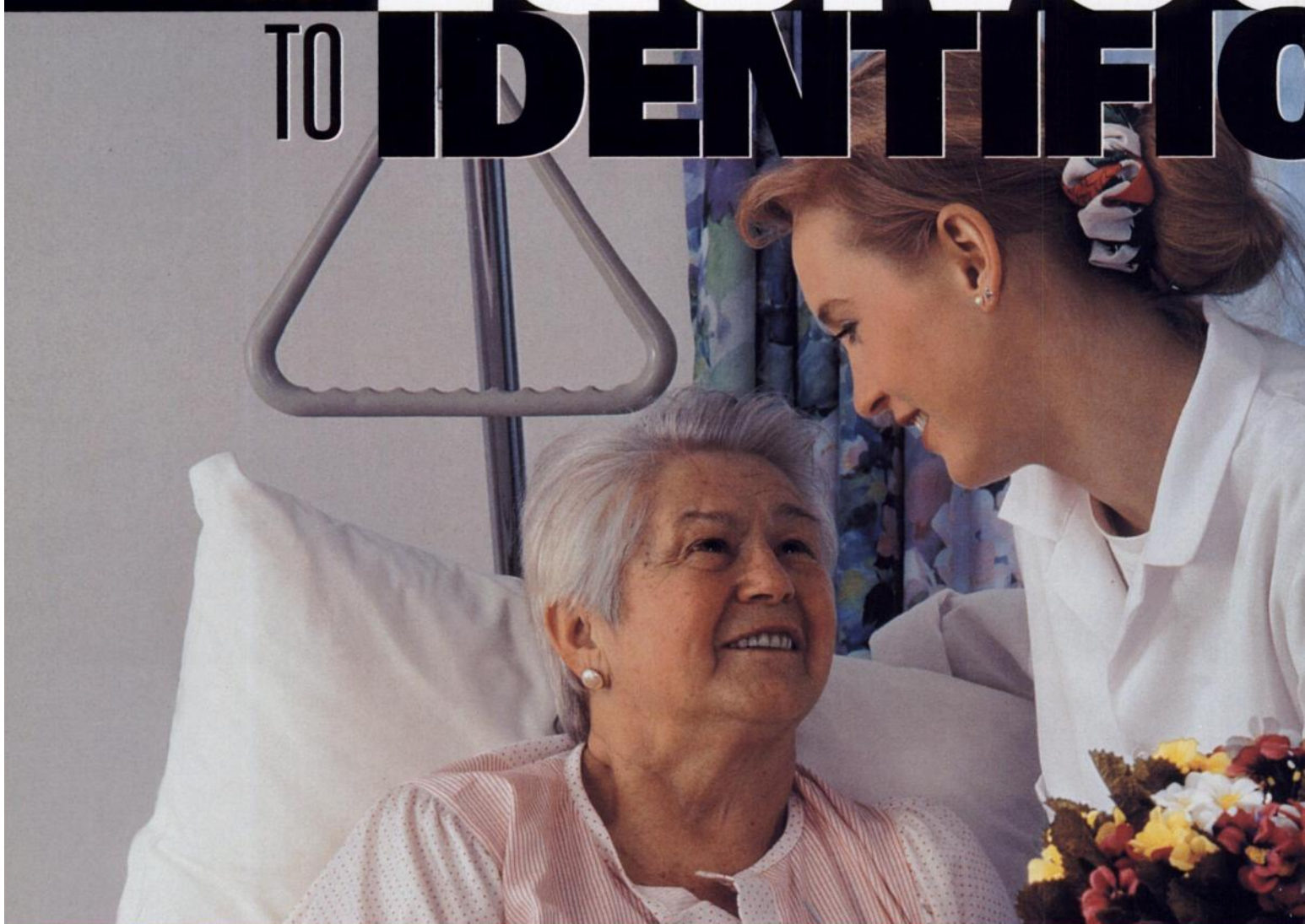


THE VENOGRAM COULD BE  
**POSITIVE.**

**NOW...**



# FROM **EQUIVOCAL** TO **IDENTIFIC**



Clinical follow-up studies of patients with negative AcuTect scans have not been performed to determine if negative image findings mean the absence of acute venous thrombosis. If a patient has clinical signs and symptoms of acute venous thrombosis, a clinical management decision to withhold treatment with anticoagulants should not be based on a negative AcuTect study alone.

After administration of AcuTect, as with the administration of other intravenous drugs, patients with a history of drug reactions, other allergies, or immune system disorders should be observed for several hours.

**References:** 1. AcuTect™ Prescribing Information. 2. Becker RC. Antiplatelet therapy. *Science & Medicine*. July/August 1996;12-21. 3. Hirsh J, Hull R. Comparative value of tests for the diagnosis of venous thrombosis. *World J Surg*. 1978;2:27-38. 4. Bauer G. A venographic study of thrombo-embolic problems. *Acta Chir Scand*. Stockholm 1940;84(suppl 61):17.

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# ATION ATION

**The first imaging  
modality to target  
acute DVT**

AcuTest™—a unique, radiolabeled synthetic peptide<sup>1</sup>—is the first to offer you the ability to clearly, safely, and comfortably target *acute* clots. AcuTest is indicated for scintigraphic imaging of acute venous thrombosis in the lower extremities of patients who have signs and symptoms of acute venous thrombosis.<sup>1</sup>

AcuTest binds preferentially to the glycoprotein (GP) IIb/IIIa receptors found on activated platelets.<sup>1,2</sup> The result is a sensitivity that challenges the "gold standard."

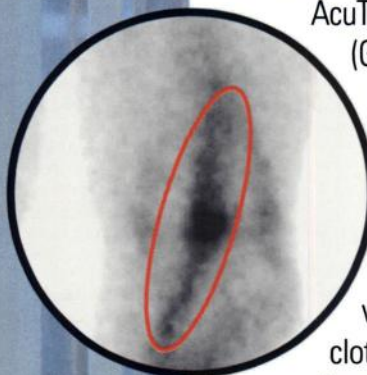
In clinical studies, blindly read AcuTest demonstrated 56-73% agreement with blindly read venography.<sup>1</sup> While venography detects the presence of any clot,<sup>3,4</sup> AcuTest appears to detect acute and not chronic venous thrombosis. (This is based on in vivo and ex vivo animal data; not confirmed clinically.<sup>1</sup>) Therefore, 100% agreement between AcuTest and venography is not expected.

AcuTest is easily administered in a single, upper extremity peripheral IV injection. Imaging can begin quickly, between 10 and 60 minutes after injection.

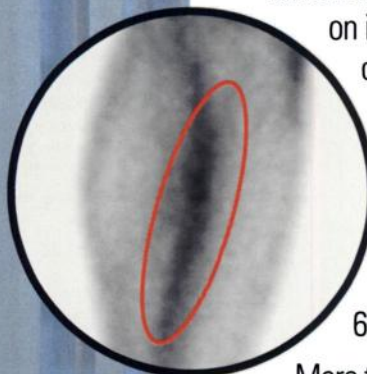
More than just another diagnostic option—AcuTest is designed for a more confident course of treatment in a potentially life-threatening condition.

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Increased tracer uptake  
at knee/popliteal vein



Increased tracer uptake in left calf



**NEW**

# ACUTECT™

(Kit for the Preparation of Technetium Tc 99m Apcitide Injection)

**The difference is acute.**

**Diatide, Inc.**

Please see brief summary of prescribing information on following page.

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SOLUTIONS.** **Nycomed  
Amersham**

NEW

# ACUTECT™

(Kit for the Preparation of Technetium Tc 99m Apticide Injection)

## BRIEF SUMMARY OF PRESCRIBING INFORMATION

Please consult Full Product Information before using.

### DESCRIPTION

AcuTect™ Kit for the Preparation of Technetium Tc 99m Apticide Injection, is intended for use in the preparation of technetium Tc 99m apticide, a diagnostic radiopharmaceutical to be used by intravenous injection. Each vial contains a sterile, nonpyrogenic lyophilized mixture which is formulated with 100 µg of bipapitide, 75 mg of sodium glucoheptonate dihydrate, 89 µg of stannous chloride dihydrate, and sufficient sodium hydroxide or hydrochloric acid to adjust the pH to 7.4 prior to lyophilization. The lyophilized powder is sealed under a nitrogen atmosphere with a rubber closure. The product does not contain an antimicrobial preservative.

Bipapitide is composed of two apticide monomers. When sterile, nonpyrogenic Sodium Pertechnetate Tc 99m Injection in 0.9% Sodium Chloride Injection, U.S.P., is added to the vial and heated, the bipapitide is split and forms a technetium-99m complex of apticide.

**INDICATIONS AND USAGE:** AcuTect™ is indicated for scintigraphic imaging of acute venous thrombosis in the lower extremities of patients who have signs and symptoms of acute venous thrombosis.

**CONTRAINDICATIONS:** None known.

**WARNINGS:** Clinical follow-up studies of patients with negative AcuTect™ scans have not been performed to determine if negative image findings mean the absence of acute venous thrombosis. If a patient has clinical signs and symptoms of acute venous thrombosis, a clinical management decision to withhold treatment with anticoagulants should not be based on a negative AcuTect™ study alone.

After administration of AcuTect™ as with the administration of other intravenous drugs, patients with a history of drug reactions, other allergies, or immune system disorders should be observed for several hours. A fully equipped emergency cart, or equivalent supplies and equipment, and personnel competent in recognizing and treating anaphylactic reactions should be available. (See Adverse Reactions Section.)

### PRECAUTIONS

#### General

The contents of AcuTect™ Kit are intended only for use in the preparation of technetium Tc 99m apticide, and are not to be administered to the patient without reconstitution.

**Hypersensitivity:** Small peptides may be immunogenic. Of 642 patients observed for 3 hours after AcuTect™ injection and of whom 169 were monitored for 24 hours, one patient had acute hypotension that began within 10 minutes of injection and, over 60 minutes, progressed to a systolic pressure of 70 mm Hg.

In preliminary studies of IgG binding to apticide by ELISA assay, IgG binding was not detected. Other measures of immune function (e.g., complement, immune complexes, lymphokines) have not been studied. In preclinical animal models, there was a reduction in the absolute or relative weight of the spleen. The clinical significance of the reduced splenic weight to immune function is not known.

Technetium Tc 99m apticide, like other radioactive drugs, must be handled with care and appropriate safety measures should be taken to minimize radiation exposure to clinical personnel. Care should also be taken to minimize radiation exposure to the patient consistent with appropriate patient management.

Radiopharmaceutical agents should be used only by physicians who are qualified by training and experience in the safe use and handling of radionuclides, and whose experience and training have been approved by the appropriate governmental agency authorized to license the use of radionuclides.

Urinary excretion of radioactivity occurs over about 24 hours (with 75% occurring during the first 8 hours). Special precautions, such as bladder catheterization, should be taken with incontinent patients to minimize the risk of radioactive contamination of clothing, bed linen, and the patient's environment. Studies have not been done to evaluate the need to adjust the dose of AcuTect™ in patients with renal impairment.

#### Information for Patients

To minimize the absorbed radiation dose to the bladder, adequate hydration should be encouraged to ensure frequent voiding during the first few hours after AcuTect™ injection. To help protect themselves and others in their environment, patients need to take the following precautions for 12 hours following injection. Whenever possible, a toilet should be used, rather than a urinal, and the toilet should be flushed several times after each use. Spilled urine should be cleaned up completely. Patients should wash their hands thoroughly after each voiding. If blood or urine gets onto clothing, the clothing should be washed separately.

#### Laboratory Tests

AcuTect™ has been shown to inhibit platelet aggregation. The effect of AcuTect™ on bleeding time in humans has not been studied.

Moderate elevations in liver enzymes were noted in rare cases at three hours and persisted to at least 24 hours following administration of AcuTect™.

#### Drug Interactions

Clinically detectable drug interactions were not seen or explicitly studied in patients who received technetium Tc 99m apticide and other concomitant medications. The effect of drugs that increase or decrease prothrombin time on the binding of AcuTect™ to activated platelets has not been studied.

The effect of heparin, warfarin, or aspirin on apticide binding has not been studied in humans. In animal in vitro and ex vivo models, heparin or aspirin did not change the inhibition of platelet aggregation caused by apticide. Whether heparin or aspirin change the ability of apticide to bind to GPIIb/IIIa receptors on activated platelets was not studied. The effect of the duration of anticoagulation on apticide binding was not studied.

#### Carcinogenesis, Mutagenesis, Impairment of Fertility

Studies have not been conducted to evaluate carcinogenic potential or effects on fertility. AcuTect™ was not mutagenic in the Ames test or mouse lymphoma test, and it was not clastogenic in the mouse micronucleus test.

#### Pregnancy

Pregnancy Category C. Animal reproduction studies have not been conducted with technetium Tc 99m apticide. It is not known whether technetium Tc 99m apticide or the other peptide components of the formulation can cause fetal harm when administered to a pregnant woman or can affect reproductive capacity. Technetium Tc 99m apticide should be given to a pregnant woman only if clearly needed. Studies in pregnant women have not been conducted.

#### Nursing Mothers

Technetium Tc 99m pertechnetate is excreted in human milk. It is not known whether technetium Tc 99m apticide is excreted in human milk. Caution should be exercised when technetium Tc 99m apticide is administered to nursing women. Wherever possible, infant formula should be substituted for breast milk until the technetium has been eliminated.

#### Pediatric Use

Safety and effectiveness in pediatric patients have not been established.

### ADVERSE REACTIONS

Adverse events were evaluated in clinical studies of 642 adults who received technetium Tc 99m 20.0 mCi labeled to approximately 70 - 100 µg of bipapitide. Of these adults, 46% were women and 54% men. The mean age was 57.0 years (17 to 95 years). In all patients, adverse events were monitored for at least 3 hours. In a subset of 169 patients, adverse events were monitored for 24 hours. Deaths did not occur during the clinical study period. Following injection of technetium Tc 99m apticide, a serious episode of hypotension occurred in one patient who had acute hypotension that began within 10 minutes of injection and, over 60 minutes, progressed to a systolic pressure of 70 mm Hg.

At least one adverse event occurred in 29/642 (4.5%) of patients after technetium Tc 99m apticide injection. Pain was the most commonly reported adverse event (1.7% of patients or healthy volunteers). Table 1 lists adverse events reported in 0.5% or more of patients who received technetium Tc 99m apticide.

Table 1: Adverse Events Reported in ≥0.5 % of Patients Following AcuTect™ Injection in Clinical Studies	
Number of Patients Exposed to AcuTect™	642
Number of Patients with at Least One Adverse Event	29 (4.5%)
Body as a Whole	21 (3.3%)
Pain (back, leg, chest)	11 (1.7%)
Headache	5 (0.8%)
Cardiovascular System	13 (2.0%)
Hypotension	5 (0.8%)
Hypertension	3 (0.5%)

Other adverse events which occurred in <0.5% of patients following receipt of AcuTect™ included: agitation, asthenia, bradycardia, cardiovascular disorder, chills, convulsions, dizziness, fever, hypertonia, injection site reaction, liver enzyme elevation, nausea, pallor, paresthesia, pruritus, sweat, tachycardia, twitch, urticaria, and vomiting.

**OVERDOSAGE:** Clinical consequences of overdosage with technetium Tc 99m apticide have not been studied.

**DOSAGE AND ADMINISTRATION:** To detect acute venous thrombosis in a lower extremity, reconstituted AcuTect™ should be administered as a peripheral intravenous injection in an upper extremity, at a dose of approximately 100 µg of bipapitide radiolabeled with 20 mCi of technetium 99m.

Technetium Tc 99m apticide should be drawn into the syringe and administered using sterile technique. If nondisposable equipment is used, scrupulous care should be taken to prevent residual contamination with traces of cleansing agents. Unused portions of the drug must be discarded appropriately. (See Instructions for Preparation Section of Full Product Information.)

#### Lower Extremity Imaging

AcuTect™ imaging should begin between 10 and 60 minutes after injection. Patients should void just before imaging in order to limit the influence of urinary bladder radioactivity since technetium Tc 99m apticide is cleared from the blood by the kidneys. If it is determined that imaging needs to be repeated, additional images may be obtained up to 180 minutes without reinjection. The safety of more than one dose has not been studied.

Positive AcuTect™ uptake in the deep venous structures is defined as asymmetric vascular uptake (with or without superimposed diffuse uptake) in contrast enhanced images, and asymmetry in both anterior and posterior projections. If asymmetry appears only after extreme contrast enhancement, then diffuse asymmetry must also be present for scoring an image as positive.

Superficial increased uptake is not to be interpreted as acute deep venous thrombosis.

### RADIATION DOSIMETRY

Based on human data, the absorbed radiation doses to an average adult (70 kg) from an intravenous injection of technetium Tc 99m apticide are listed in Table 2. The values are listed in descending order as rad/mCi and mGy/MBq and assume urinary bladder emptying at 4.8 hours.

Table 2: Radiation Absorbed Doses for a 70kg Adult		
Target Organ	rad/mCi	mGy/MBq
Urinary Bladder Wall	0.22	0.060
Kidneys	0.050	0.014
Upper Large Intestine Wall	0.039	0.010
Lower Large Intestine Wall	0.037	0.010
Uterus	0.034	0.0092
Thyroid Gland	0.022	0.0060
Testes/Ovaries	0.020/0.023	0.0053/0.0063
Lungs	0.016	0.0043
Red Marrow	0.0091	0.0025
Breasts	0.0050	0.0013

Dose calculations were performed using the standard MIRD method (MIRD Pamphlet No. 1 rev, Soc. Nucl. Med., 1976). Effective dose equivalent was calculated in accordance with ICRP 53 (Ann. ICRP 18, 1-4, 1988) and gave a value of 0.0093mSv/MBq (0.0034 rem/mCi).

### HOW SUPPLIED

Each kit contains one vial containing a sterile, nonpyrogenic, freeze-dried mixture of bipapitide, stannous chloride dihydrate and sodium glucoheptonate dihydrate, together with a package insert and adverse event reporting cards. Kits are available in packs of 5 vials.

#### Storage

Store the kit in a refrigerator at 2 to 8 °C, (36 to 46 °F). Store the reconstituted injection solution at 20 to 25 °C (68 to 77 °F), using appropriate radiation shielding, for up to 6 hours.

The kit should be protected from light.

#### Rx only

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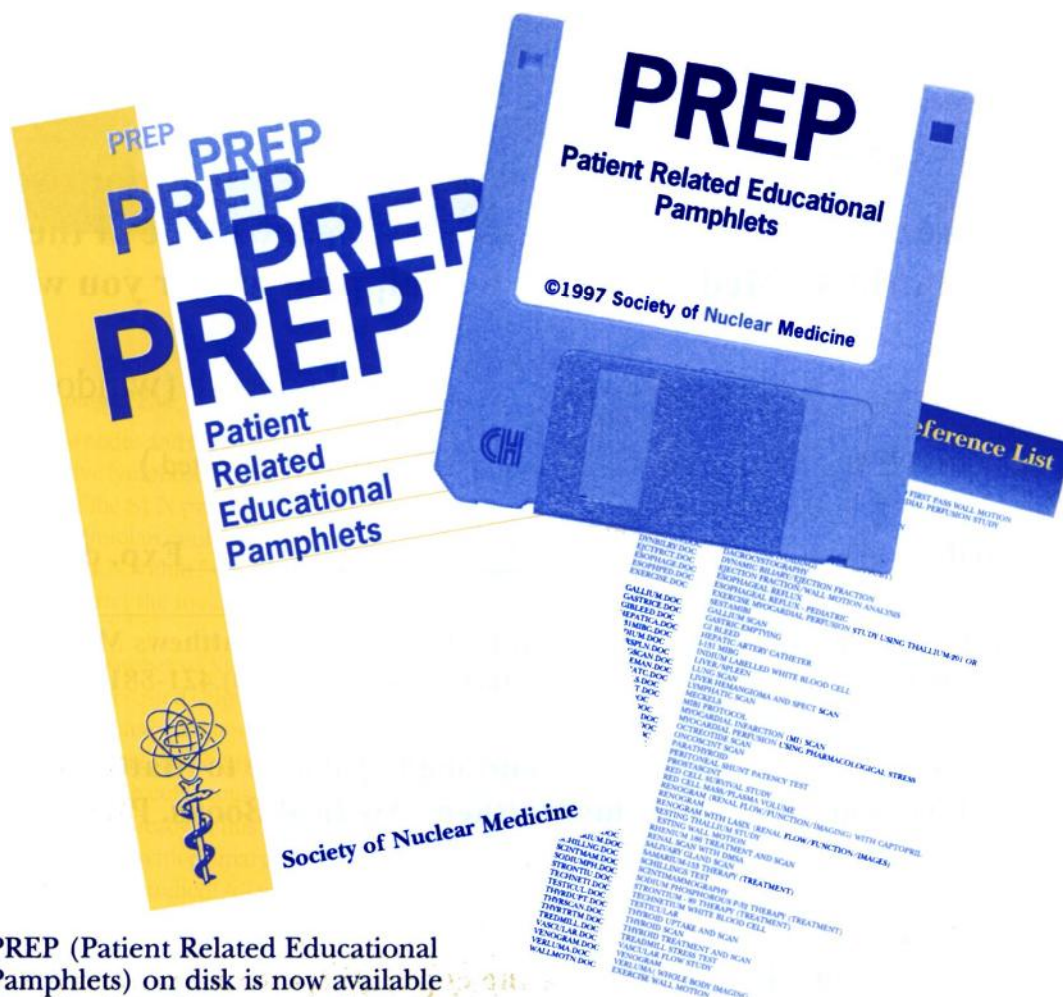
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The Society of Nuclear Medicine

**46th Annual Meeting**

June 6-10, 1999

Los Angeles, California



The 1999 Scientific Program Committee and the Scientific & Teaching Committee solicit the submission of abstracts from members and non-members of the Society of Nuclear Medicine for the 46th Annual Meeting in Los Angeles, California. Accepted Scientific Paper and Computer Exhibit abstracts will be published in a special supplement to the May issue of *The Journal of Nuclear Medicine* (JNM) and accepted Technologist Section abstracts will be published in the June issue of the *Journal of Nuclear Medicine Technology* (JNMT). Original contributions on a variety of topics related to nuclear medicine will be considered, including:

### For Society Abstracts:

Basic Science/Clinical Applications

- Cardiology
- Neurosciences
- General Clinical Specialties
- Oncology/Hematology
- Instrumentation and Data Analysis
- Radiopharmaceutical Chemistry

(In total, 29 Society abstract categories are offered)

### For Technologist Abstracts:

Topics similar to Society topics listed above, but 16 specifically tailored for the Technologist Section

(In total, 16 Technologist abstract categories are offered)

**Authors seeking publication for the full text of their papers are strongly encouraged to submit their work for immediate review to JNM, and for the Technologist Section, to JNMT.**

### Deadline for

receipt of

abstracts for

Scientific

Papers and

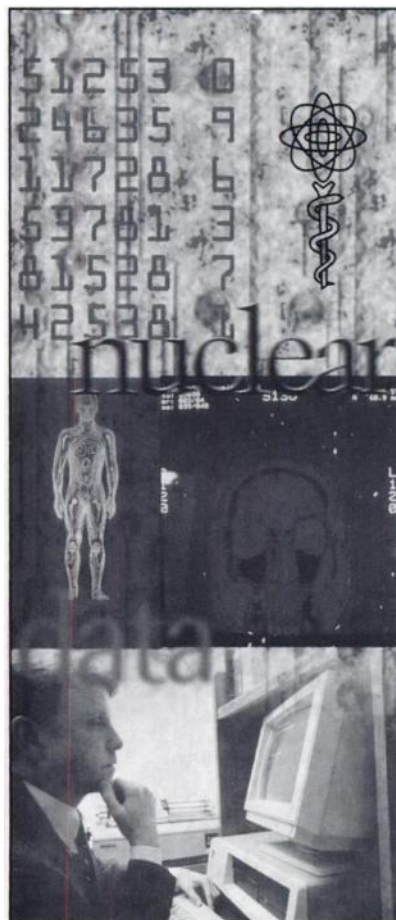
Computer

Exhibits is

Friday,

January 8,

1999.



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# NUCLEAR MEDICINE IN THE 21st CENTURY

LOCATION AND DATES

**Fort Lauderdale Marina Marriott, Fort Lauderdale, Florida**

Monday, February 8 and Tuesday, February 9, 1999

### For More Information...

Please visit the Society of Nuclear Medicine Home Page at [www.snm.org](http://www.snm.org) or call SNM Department: Meeting Services (703) 708-9000, ext. 229

**W**hat does the future hold for the practice of nuclear medicine? Where will today's technical advances take the field in the next five to ten years? Learn about the history of nuclear medicine instrumentation, its recent advances and its future directions. Also learn about the recent advances and future directions in the field of radiotracer development. Evaluate how recent technical developments will impact the future of clinical nuclear medicine. Presentations will be given from the perspectives of clinical and physical scientists with an eye on the current state-of-the-art and a vision of the future.

Rates	Before 1/8/99	On/After 1/8/99
<b>Physicians/Scientists</b>		
Members	\$195.00	\$245.00
Nonmembers	\$260.00	\$305.00
<b>Technologists</b>		
Members	\$100.00	\$135.00
Nonmembers	\$135.00	\$165.00
Students	\$75.00	\$75.00

**SOCIETY OF NUCLEAR MEDICINE**  
**46th Annual Meeting**

**LOS ANGELES, CALIFORNIA**

**June 6 -10, 1999**



**INQUIRIES:**

**Society of Nuclear Medicine**

Department: Meeting Services

1850 Samuel Morse Drive

Reston, VA 20190

Phone: (703) 708-9000 x229

Fax: (703) 709-9274

[www.snm.org](http://www.snm.org)

**LOCATION:**

Los Angeles Convention Center

1201 South Figueroa Street

Los Angeles, CA 90015

**DEADLINES:**

Pre-Registration Ends:

April 29, 1999

Last Day for Housing Reservations:

April 29, 1999

Abstract Submission Deadline:

January 8, 1999

**REGISTRATION FEES:**

**Categorical**

<b>Saturday, June 5, 1999</b>	<b>Pre-Registration</b>	<b>On-Site</b>
Member	\$115	\$135
Non-Member	\$145	\$165

*(Boxed lunch is provided for the Saturday Categorical only, the cost of which is included in the fee)*

**Categoricals**

<b>Sunday, June 6, 1999</b>	<b>Pre-Registration</b>	<b>On-Site</b>
Member	\$100	\$120
Non-Member	\$130	\$150

**Continuing Education**

**Monday, June 7, 1999 through Thursday, June 10, 1999**

<b>Member</b>	<b>Pre-Registration</b>	<b>On-Site</b>
Physician/Scientist/Pharmacist	\$335	\$395
Technologist	\$205	\$255

**Non-Member**

Physician/Scientist/Pharmacist	\$530	\$590
Technologist	\$395	\$450

Companion	\$55	\$55
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**EXHIBITS:**

Monday, June 7, 1999 through Thursday, June 10, 1999

Exhibit space is \$21.50 per square foot.

Contact Jane Day at [jday@snm.org](mailto:jday@snm.org) for further information.

**HOW TO OBTAIN PRE-REGISTRATION AND HOUSING FORMS:**

1. The SNM Web Site, [www.snm.org](http://www.snm.org), starting January
2. Fax-On-Demand\*, starting January
3. The Journal of Nuclear Medicine, February Issue
4. The Journal of Nuclear Medicine Technology, March Issue

**HOW TO OBTAIN A FREE COPY OF THE SOFTWARE THAT YOU WILL NEED TO SUBMIT YOUR ABSTRACT:**

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# Paul C. Aebersold Award

Applications are invited for the 1999 Paul C. Aebersold Award for outstanding achievement in basic science applied to Nuclear Medicine. This award commemorates the contributions of Dr. Paul Clarence Aebersold to the applications of nuclear physics to Nuclear Medicine and radiation biology, as well as his contributions to the Society of Nuclear Medicine (SNM). Dr. Aebersold contributed greatly to the emergence of Nuclear Medicine as a discipline by his energetic leadership in the provision of cyclotron-generated and reactor-produced radionuclides, and by his numerous publications and lectures. In giving this award, the Society thus symbolically signifies its appreciation of the warm and vital person who became the Society's first Honorary Member.

Nominations should be supported by the nominee's curriculum vitae and at least two letters supporting the nomination. These letters should briefly describe the contributions in basic science for which the nominee is proposed. The nominee does not need to be a SNM member.

Nominations deadline: December 31, 1998. Please submit nominations and supporting documents to William J. MacIntyre, Ph.D., c/o Society of Nuclear Medicine, 1850 Samuel Morse Drive, Reston, Virginia 20190-5316.



## Positions Needed

### Chief of Nuclear Medicine

UCSD School of Medicine—The Department of Radiology is seeking a Chief of Nuclear Medicine to direct clinical care, medical student and resident teaching, and research projects. Qualifications required: Board eligibility/certification; California medical license. Rank, series and salary to be determined based on qualifications and experience in accordance with UC policy. The University of California, San Diego is an Equal Opportunity/Affirmative Action Employer. All curricula vitae received prior to January 31, 1999 or thereafter until position is filled will be given full consideration. Send to George R. Leopold, MD, Professor and Chairman, Department of Radiology, UCSD Medical Center, 200 W. Arbor Dr., San Diego, CA 92103-8756.

### Assistant Professor of Radiology/University of Washington School of Medicine #092198

The Radiology Department, University of Washington, invites applications for a faculty radiochemist for teaching, research and administration of radiochemistry core, including cyclotron targetry, robotics and a GLP qual-

ity control program. The individual will be responsible for development and production of positron radiopharmaceuticals. The successful candidate must have a record of published research in nuclear medicine and chemistry and a record of teaching. The faculty rank is Assistant Professor WOT; salary is commensurate with experience. Address inquiries and CV with three letters by 12/31/98 (refer #092198) to Prof. Janet Eary, Division of Nuclear Medicine, Box 356113, University of Washington, Seattle, WA 98195. The University of Washington is building a culturally diverse faculty and strongly encourages applications from female and minority candidates. The University of Washington is an Affirmative Action, Equal Opportunity Employer.

### Nuclear Medicine Physician

The Department of Radiological Sciences of the University of Oklahoma Health Sciences Center has an opening for a staff radiologist with specialization in nuclear medicine. Faculty rank and remuneration will depend on credentials and experience. Members of the nuclear medicine section provide coverage for the University Hospital (adult), Children's Hospital of Oklahoma, and the DVA Medical Center in Oklahoma City. The section is well equipped and performs approximately 10,000 stud-

ies/yr in aggregate. The individual selected will have primary responsibilities in one of the adult units, but will be expected to provide cross coverage within the other units. In addition, the individual will spend at least one day a week covering other areas of radiology and will be included in radiology on-call coverage. If interested, please contact: Joe C. Leonard, MD, Chief, Pediatric Imaging Service, Children's Hospital of Oklahoma, P.O. Box 26307, Oklahoma City, OK 73126.

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# ASSISTANT PROFESSOR UNIVERSITY OF WASHINGTON NUCLEAR MEDICINE #100198

The Department of Radiology, University of Washington, is seeking an attending physician for an academic appointments in its Division of Nuclear Medicine. The successful candidate must be able to work at a supervisory level in the areas of: Nuclear Cardiology, including stress testing; general clinical Nuclear Medicine; Clinical PET including oncologic, cardiac and neurologic applications; and diagnosis and management of thyroid diseases including thyroid cancer. In addition, the candidate will perform independent research in Nuclear Medicine, designing and coordinating clinical imaging research protocols, and possess a working knowledge and understanding of quantitative imaging techniques and modeling. This individual must have a proven record of being a team player, capable of interfacing with patients, clinicians, basic scientists, and staff. Candidates for this position must be board certified or the equivalent in Nuclear Medicine, have a current Wash-

ington State Medical License or be qualified to obtain one, have teaching experience in both Nuclear Medicine and the basic sciences associated with Nuclear Medicine, and have two years of experience in an academic radiology department. Responsibilities include the clinical practice, instruction of medical students, residents and fellows in Nuclear Medicine, and conduct fundable research projects. The position carries a faculty appointment at the rank of Assistant Professor, WOT, with salary commensurate with qualifications and experience. When communicating please refer to #100198. Address inquiries and current curriculum vitae to:

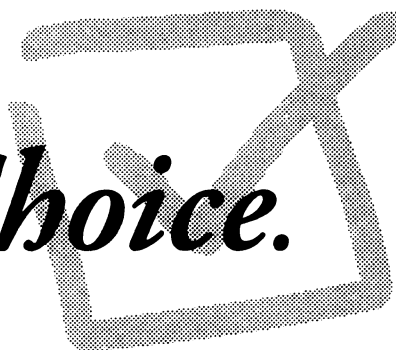
**Janet Eary, MD, Director**  
**Division of Nuclear Medicine/ Department of Radiology**  
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You must provide your 11-digit medical education (ME) number to vote. To obtain your ME number, refer to your AMA membership card or call 800 262-3211.

**Strengthen Your Voice in  
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920

Society of Nuclear  
Medicine

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(REQUIRED BY 39 U.S.C. 3685)

- A.** Title of Publication: The Journal of Nuclear Medicine.  
**B.** Publication Number: 2811560.
- Date of filing: September 29, 1998.
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- The purpose, function and nonprofit status of this organization and the exempt status for federal income tax purposes have not changed during the preceding 12 months.
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- I certify that the statements made by me are correct and complete; (signed) John S. Childs, Managing Director of Communications.

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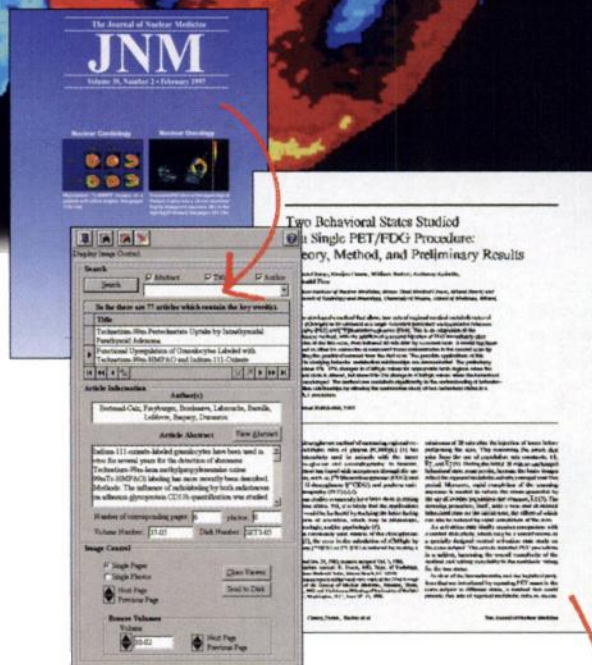


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ISBN 0-932004-50-4

### THE NUCLEAR MEDICINE Handbook FOR ACHIEVING COMPLIANCE WITH NRC REGULATIONS

Jeffrey S. Mason  
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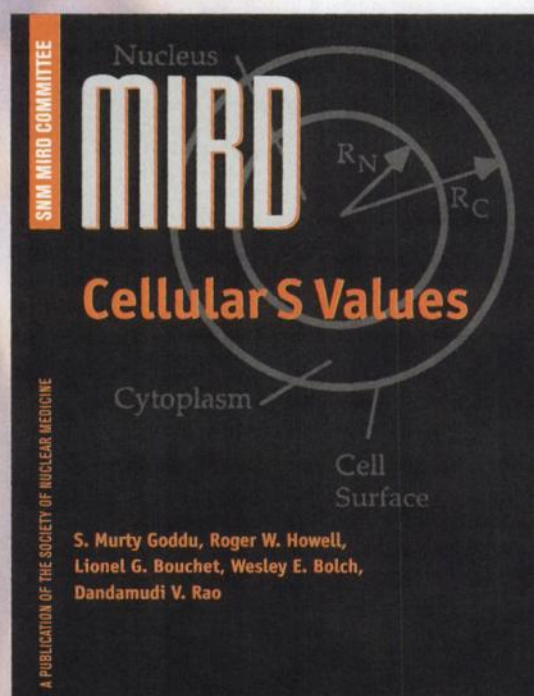
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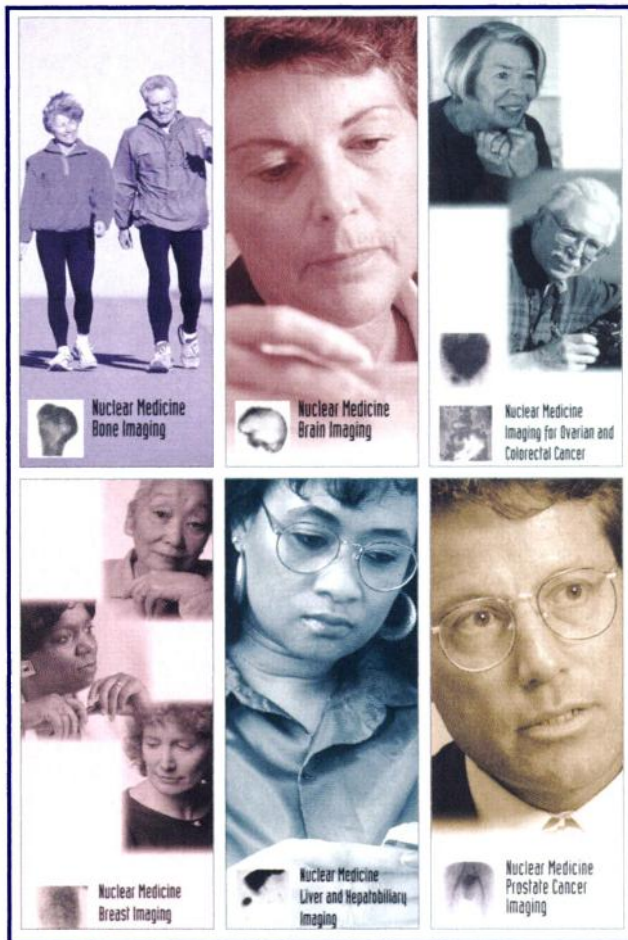
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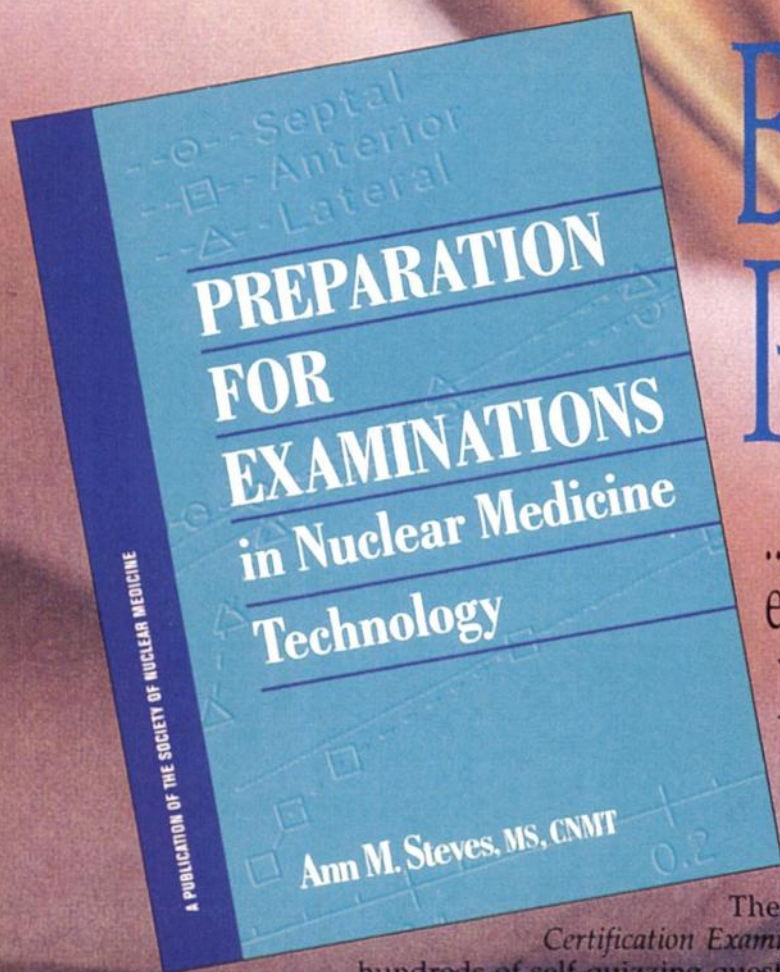
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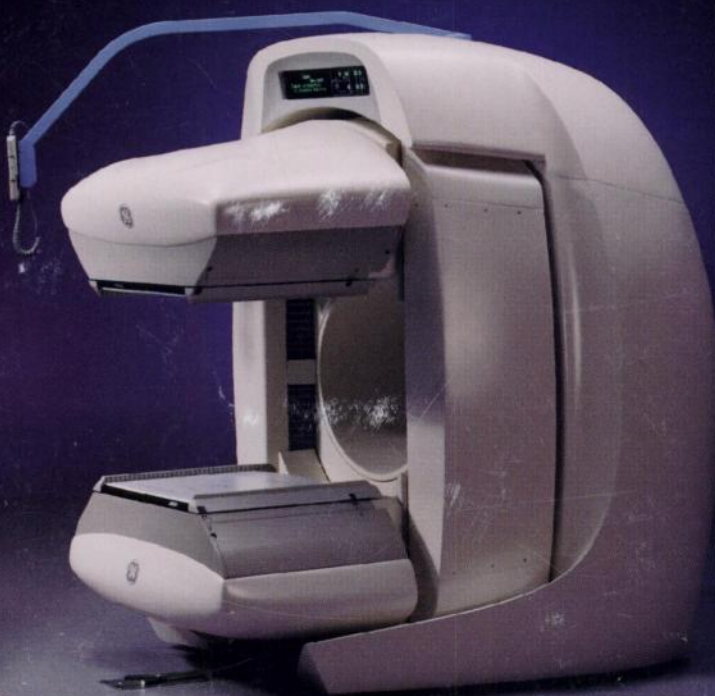
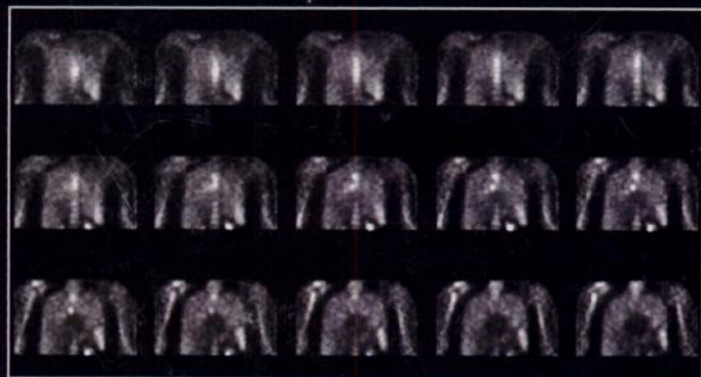
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