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We are pleased to announce the extension of our Trade-In Program. By popular demand this special offer will remain open to our customers through October 31, 1997.

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Inside Information.

Perfusion and function in one test: clinically relevant information.

Cardiolite® provides:

- Both stress perfusion and resting function (wall motion, wall thickening, a quantifiable and reproducible measure of ejection fraction)\(^1\,^2\)
- Enhanced diagnostic confidence with a high negative predictive value: A normal stress test correlates with a <1% annualized cardiac event rate\(^3\,^5\)
- Clinically relevant information in a range of situations—such as risk assessment, evaluation post-MI, and for chest pain management

For more information, contact DuPont Pharma at 1-800-362-2668 or 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

F O R  D I A G N O S T I C  U S E

INDICATIONS AND USAGE: CARDIOPILE® 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. CARDIOPILE® kit is not known to 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.

ADVERSE REACTIONS: During clinical trials, approximately 8% of patients experienced a transient paroxysm and/or loss of consciousness (metabolic or better test) immediately after the injection of Technetium Tc99m Sestamibi. A few cases of transient headache, flushing, edema, injection site inflammation, dyspnea, nausea, vomiting, pruritus, rash, urticaria, dry mouth, fever, dizziness, fatigue, dyspepsia, 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 a witness agent; transient atrioventricular block by which was characterized by dyspnea, hypotension, bradycardia, asthma and vomiting within two hours after a second injection of Technetium Tc99m Sestamibi. DOSAGE AND ADMINISTRATION: The suggested dose range for IV administration in a single dose to be employed in the average patient (70kg) is:

- 370-1110MBq (10-30mCi)
- 0.2-2.0 mCi/kg

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 dose to organs and tissues of an average patient (70kg) per 1110MBq (30mCi) of Technetium Tc99m Sestamibi injected intravenously are shown in Table 4.

<table>
<thead>
<tr>
<th>Organ</th>
<th>2.0 hour void</th>
<th>4.8 hour void</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Body</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Urinary Bladder Wall</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Kidneys</td>
<td>1.7</td>
<td>1.7</td>
</tr>
<tr>
<td>Liver</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Sestamibi</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Small Intestine</td>
<td>2.4</td>
<td>2.4</td>
</tr>
<tr>
<td>Upper Large Intestine</td>
<td>3.3</td>
<td>3.3</td>
</tr>
<tr>
<td>Liver</td>
<td>0.6</td>
<td>0.6</td>
</tr>
<tr>
<td>Ovaries</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Stomach</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Kidneys</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Liver</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Bone Glands</td>
<td>0.6</td>
<td>0.6</td>
</tr>
<tr>
<td>Thyroid</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td>Ovaries</td>
<td>1.2</td>
<td>1.2</td>
</tr>
<tr>
<td>Kidneys</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td>Liver</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Urinary Bladder Wall</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Total Body</td>
<td>0.4</td>
<td>0.4</td>
</tr>
</tbody>
</table>


HOW SUPPLIED: Du Pont Radiopharmaceutical's CARDIOPILE® 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 hyphostation the pH is between 3.5-3.9. 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 labels and six (6) radiation warning labels. Included in each five (5) vial kit is one (1) package insert, six (6) vial labels and six (6) radiation warning labels. Included in each thirty (30) vial kit are one (1) package insert, thirty (30) vial 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 56.11 and section 56.50 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 Du Pont Radiopharmaceuticals Division The Du Pont Merck Pharmaceutical Co. 331 Treble Cove Road Billerica, Massachusetts, USA 01821 For ordering Tel: Toll Free: 800-222-1276 All other business: 800-362-2668 (For Massachusetts and International, call 508-667-9531)

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Coming Soon

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PYtest incorporates accuracy and cost containment in one test.

Patient Swallows Capsule

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Breath is Analyzed

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Step 2

Step 3

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is Coming to...
PYtest® (¹³C-urea Capsules)

Description

PYtest (¹³C-urea capsules) is intended for use in the detection of gastric urease as an aid in the diagnosis of Helicobacter pylori (H. pylori) infection in the human stomach. The test utilizes a liquid scintillation counter for the measurement of ¹³CO₂ in breath samples. The capsules are to be used when analysis is planned at the site where the sample is taken.

PYtest capsule is a gelatin capsule for oral administration containing 1µCi of ¹³C labeled urea. The urea is adsorbed on sugar spheres and colored yellow with fluorescein.

Data on ¹³C-urea:

Structural Formula: (¹³C-urea): NH₂ ¹³CONH₂
Radiation emission: beta-emission, 49 keVmean, 156 keVmax, no other emissions
External emission: No external radiation hazard. Low-energy beta emissions only. Maximum range of 0.3 mm in water.
Radiological half-life: 5730 years
Maximum effective dose equivalent (EDE): 0.3 mrem/µCi

Clinical Pharmacology

The urease enzyme is not present in mammalian cells, so the presence of urease in the stomach is evidence that bacteria are present. The presence of urease is not specific for H. pylori, but other bacteria are not usually found in the stomach.

To detect H. pylori, urea labeled with ¹³C is swallowed by the patient. If gastric urease from H. pylori is present, urea is split to form CO₂ and NH₃ at the interface between the gastric epithelium and lumen, and the ¹³CO₂ is absorbed into the blood and exhaled in the breath.

Following ingestion of the capsule by a patient with H. pylori, ¹³CO₂ excretion in the breath peaks between 10 and 15 minutes and declines thereafter with a biological half-life of about 15 minutes. ¹³C-urea that is not hydrolyzed by H. pylori is excreted in the urine with a half-life of approximately 12 hours. About 10% of the ¹³C remains in the body at 72 hours and is gradually excreted with a biological half-life of 40 days.

Clinical Studies

Two studies were performed. In both studies, patients with gastrointestinal symptoms underwent the breath test and an endoscopy. During the endoscopy, biopsy samples were taken from antral gastric mucosa for histological analysis (2 samples, Giemsa stain) and rapid urease test (1 sample, CLOtest®). Breath samples were mailed to the TRI-MED lab where they were read in a liquid scintillation counter. Results were reported as disintegrations per minute (DPM). Analysis for accuracy used the ten minute breath sample. A breath sample DPM <50 was defined as a negative result. DPM 2200 was defined as a positive result. DPM in the range of 50-199 was classified as indeterminate.

Indications and Usage

PYtest (¹³C-urea breath test) is indicated for use in the detection of gastric urease as an aid in the diagnosis of H pylori infection in the human stomach. The test utilizes a liquid scintillation counter for the measurement of ¹³CO₂ in breath samples.

Contraindications

None

Warnings

None

Precautions

General: After the patient ingests the ¹³C urea capsule, the sample collected for test purposes is for in vitro diagnostic use only.

A false positive test could occur in patients who have achlorhydria. Very rarely, a false positive test may occur due to urease associated with Helicobacters other than H. pylori (i.e. Helicobacter heilmannii).

Limitations of the Test:

- The test has been evaluated in outpatients attending for elective endoscopy.
- Test results should be evaluated with clinical signs and patient history when diagnosing H. pylori infection.
- The performance characteristics of the test have not been established for monitoring the efficacy of antimicrobial therapies for the treatment of H. pylori infection.
- A negative result does not completely rule out the possibility of H. pylori infection. If clinical signs and patient history suggest H. pylori infection, repeat the PYtest or use an alternative diagnostic method.

Radioactivity: Persons concerned about very low doses of radioactivity may postpone the test or may decide to use an alternative means of diagnosis. The test produces radiation exposure equal to 24 hours of normal background. In animal experiments, such low doses of radiation do not carry measurable risk.

Preclinical studies were not conducted on ¹³C-urea. The estimated dose equivalent received from a single administration of PYtest (1µ, ¹³C-urea) is about 0.3 mrem. An individual radiation dose of 5-10 mrem is below regulatory concern as recommended by the Nuclear Regulatory Commission.

Information for Patients: It is necessary for the patient to fast for 6 hours before the test. The patient should also be off antibiotics and bismuth for 1 month, and proton pump inhibitors and sucralfate for 2 weeks prior to the test. Instruct the patient not to handle the capsule directly as this may interfere with the test result. The capsule should be swallowed intact. Do not chew the capsule.

Carcinogenesis, mutagenesis, impairment of fertility:

No studies have been conducted with ¹³C-urea to evaluate its potential for carcinogenicity, impairment of fertility, or mutagenicity.

Drug Interactions: Antibiotics, proton pump inhibitors, sucralfate, and bismuth preparations are known to suppress H. pylori. Ingestion of antibiotics or bismuth within 4 weeks and proton pump inhibitors or sucralfate within 2 weeks prior to performing the test may give false negative results.

Pregnancy: Pregnancy category C. Animal reproduction studies have not been conducted with PYtest (¹³C-urea). It is also not known whether PYtest can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. PYtest should be given to a pregnant woman only if clearly needed.

Nursing mothers: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when PYtest is administered to a nursing woman.

Pediatric use: Clinical studies in children have not been conducted. However, PYtest is expected to work the same in children as in adults. While the dose (1 capsule) does not need to be adjusted, the child must be able to swallow the intact capsule and blow into a straw.

Adverse Reactions

No adverse reactions were reported in clinical trials.

Overdosage

Risk from radiation is negligible even with a 1000 capsule overdose (0.3 rem). If overdose occurs the patient may drink one glass of water (150 mL) every hour to hasten excretion of the isotope. Maximum excretion of urea is achieved at a urine output of ≥ 2.0 mL/min.
She's 47. She's been here before. But her mammogram is no easier to read—even with spot compression. And now she's getting anxious. Cancer is hard to find in this breast tissue type. It's hard to be sure if it's there...
New Miraluma™—the next step toward an answer when confronted with a difficult mammogram. Miraluma™ is an effective adjunct to mammography that can detect lesions even in dense breast tissue.

The diagnostic sensitivity of Miraluma™ is decreased in tumors <1 cm in largest dimension. There have been rare reports of signs and symptoms consistent with severe hypersensitivity and seizure after administration of Technetium Tc 99m Sestamibi.

For more information, call Technical Services at 1-800-635-2683 or access the DuPont Radiopharmaceuticals Web site at www.radiopharm.com

NEW miraluma™
Kit for the preparation of Technetium Tc 99m Sestamibi
The next step toward an answer
INDICATIONS AND USAGE: Breast Imaging: MIRALUMA™. Kit for the Preparation of Technetium Tc 99m Sestamibi, is indicated for planar imaging as a second line diagnostic drug after mammography to assist in the evaluation of breast lesions in women with an abnormal mammogram or a palpable breast mass.

MIRALUMA™ is not indicated for breast cancer screening, to confirm the presence or absence of malignancy, and it is not an alternative to biopsy.

Myocardial Imaging: CARDIOLITE®. Kit for the preparation of Technetium Tc 99m 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. Intraarterial, death has occurred 4-24 hours after Tc 99m 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, arrhythmia, 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.

Technetium Tc 99m Sestamibi has been rarely associated with acute severe allergic and anaphylactic events of angioedema and generalized urticaria. In some patients the allergic symptoms developed on the second injection during CARDIOLITE® imaging. Patients who receive CARDIOLITE® or MIRALUMA™ imaging are receiving the same drug. Caution should be exercised and emergency equipment should be available when administering Technetium Tc 99m Sestamibi. Also, before administering either CARDIOLITE® or MIRALUMA™, patients should be asked about the possibility of allergic reactions to either drug.

PRECAUTIONS: GENERAL
The contents of the vial are intended only for use in the preparation of Technetium Tc 99m Sestamibi and are not to be administered directly to the patient without first undergoing the preparatory procedure. Radiographic 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 Tc 99m 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 Tc 99m labeling reactions involved depend on maintaining the stannous ion in the reduced state. Hence, Sodium Pertechnetate Tc 99m Injection containing oxidants should not be used.

Technetium Tc 99m Sestamibi should not be used more than 6 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 sufficient to stop the test reported during controlled studies (two-thirds were cardiac patients) were:

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

Information for Patients
CARDIOLITE® and MIRALUMA™ are different names for the same drug. Patients should be advised to inform their health care provider if they had an allergic reaction to either drug or if they had an imaging study with either drug.

Carcinogenesis, Mutagenesis, Impairment of Fertility
In comparison with most other diagnostic technetium labeled radiopharmaceuticals, the radiation dose to the ovaries (1.5 rads/20 MCI at rest, 1.2 rads/50 MCI 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, Cu(MIBI)BF₄, was evaluated for genotoxic potential in a battery of five tests. No genotoxic activity was observed in the Ames, CHO/HMPRT and sister chromatid exchange tests (all in vitro).

At cytotoxic concentrations (≥ 20 μg/ml), an increase in cells with chromosome aberrations was observed in the in vitro human lymphocyte assay. Cu(MIBI)BF₄ did not show genotoxic effects in the in vivo mouse micronucleus test at a dose which caused systemic and bone marrow toxicity (9 mg/kg, > 600 × maximal human dose).

Pregnancy Category C
Animal reproduction and teratogenicity studies have not been conducted with Technetium Tc 99m Sestamibi. It is also not known whether Technetium Tc 99m 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 Tc 99m Sestamibi should be given to a pregnant woman only if clearly needed.

Nursing Mothers
Technetium Tc 99m Pertechnetate is excreted in human milk during lactation. It is not known whether Technetium Tc 99m Sestamibi is excreted in human milk. Therefore, formula feedings should be substituted for breast feedings.

Pediatric Use
Safety and effectiveness in the pediatric population have not been established.

ADVERSE REACTIONS: Adverse events were evaluated in 3741 adults who were evaluated in clinical studies. Of these patients, 3068 (77% men, 22% women, and 0.7% of the patients' genders were not recorded) were in cardiac clinical trials and 673 (100% women) in breast imaging trials. Cases of angina, chest pain, and death have occurred (see Warnings and Precautions). Adverse events reported at a rate of 0.5% or greater reported after receiving Technetium Tc 99m Sestamibi administration are shown in the following table:

<table>
<thead>
<tr>
<th>Table 9</th>
<th>Selected Adverse Events Reported In &gt; 0.5% Of Patients Who Received Technetium Tc 99m Sestamibi in Either Breast or Cardiac Clinical Studies*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body System</td>
<td>Breast Studies</td>
</tr>
<tr>
<td>------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Women</td>
<td>Men</td>
</tr>
<tr>
<td>Women</td>
<td>n = 673</td>
</tr>
<tr>
<td>Body as a Whole</td>
<td>21 (3.1%)</td>
</tr>
<tr>
<td>Headache</td>
<td>11 (1.6%)</td>
</tr>
<tr>
<td>Cardiovascular</td>
<td>9 (1.3%)</td>
</tr>
<tr>
<td>Chest Pain/Angina</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>ST segment changes</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Nausea</td>
<td>4 (0.6%)</td>
</tr>
<tr>
<td>Special Senses</td>
<td>132 (19.0%)</td>
</tr>
<tr>
<td>Taste Pernicence</td>
<td>129 (19.2%)</td>
</tr>
<tr>
<td>Parosmia</td>
<td>81 (1.2%)</td>
</tr>
</tbody>
</table>

* Excludes the 22 patients whose gender were not recorded.

In the clinical studies for breast imaging, breast pain was reported in 12 (1.7%) of patients. In 10 of these patients the pain appears to be associated with biopsy/surgical procedures.

The following adverse reactions have been reported in ≤0.5% of patients: signs and symptoms consistent with seizure occurring shortly after administration of the agent; transitory arthritis, angioedema, arthralgia, dizziness, syncope, and severe hypersensitivity characterized by dyspnea, hypotension, bradycardia, asthema, abdominal pain, vomiting, pruritis, rash, and urticaria within two hours after a second injection of Technetium Tc 99m Sestamibi. A few cases of flushing, edema, injection site inflammation, dry mouth, fever, and fatigue have also been attributed to administration of the agent.

DOSEAGE AND ADMINISTRATION: For Breast Imaging: The recommended dose range for I.V. administration of MIRALUMA™ is a single dose of 740-1110 MBq (20 - 30 mCi).

For Myocardial Imaging: The suggested dose range for I.V. administration of CARDIOLITE® in a single dose to be employed in the average patient (70kg) is 370-1110MBq (10-30mCi).

Manufactured by DuPont Radiopharmaceutical Division The DuPont Merck Pharmaceutical Company 331 Treble Cove Road Billerica, Massachusetts USA 01821 For Ordering Tel: Toll Free 800-225-1572 All Other Business: 800-362-9368 (For Massachusetts and International, call 508-667-9531)
INTRODUCING
A NEW STRESS AGENT AND ITS AUTOMATED DELIVERY DEVICE

FOR USE WITH BOTH
ECHOCARDIOGRAPHY
MYOCARDIAL PERFUSION IMAGING
FOR USE WITH ECHOCARDIOGRAPHY AND MYOCARDIAL PERFUSION

Introducing the GenESA®

AN ADVANCE THAT SIMPLIFIES PHARMACOLOGIC STRESS TESTING

Easy setup and preparation
Arbutamine HCl is supplied in a convenient, ready-to-use syringe—no mixing or dilution required

Flexibility to customize stress protocols
You select a maximum heart rate limit (HR Target) and rate of heart rate increase (HR Slope) appropriate for each patient

GenESA® (arbutamine HCl)—A new β-agonist
- Simulates the cardiac effects of exercise—without atropine
- Short pharmacokinetic half-life—approximately 8 minutes
- Diagnostic accuracy—with both echocardiography and myocardial perfusion imaging

Hemodynamic profile comparable to exercise

![Graph showing hemodynamic changes with GenESA and exercise](image)
IMAGING IN PATIENTS UNABLE TO EXERCISE ADEQUATELY

System

Automated drug titration eliminates dosing calculations

Unique closed-loop feedback system automatically titrates infusion according to each patient’s heart rate response

Monitoring features enhance your control of patient safety

Automatically monitors heart rate and blood pressure
Useful alerts warn of potential problems
STOP button discontinues drug delivery immediately

Printed report simplifies record keeping

During clinical trials involving 2082 patients with known or suspected CAD, the most frequently reported adverse events were tremor (15%), angina pectoris (12%), nonserious cardiac arrhythmias (12%), headache (9%), and hypotension (6%). Overall incidence of serious adverse events considered related to arbutamine infusion was <0.5% and included 3 episodes of ventricular fibrillation, 1 episode of sustained ventricular tachycardia, 3 episodes of atrial fibrillation, 1 myocardial infarction, and 2 cases of severe angina. Majority of events were mild and all resolved without sequelae.

FOR MORE INFORMATION, CALL 1-800-788-7999

NEW GenESA®
arbutamine HCl injection 0.05 mg/mL
Simplifies pharmacologic stress testing

© 1997 Gensia Automedics, Inc.
Please see brief summary of important Prescribing Information on adjacent pages.
GenESA® (arbutamine HCl Injection 0.05 mg/mL)

GenESA® is an echocardiographic test used to evaluate the presence of coronary artery disease. It is a highly sensitive and specific test that can detect small changes in cardiac function, which may not be apparent on other tests. The test is performed using a device called the GenESA® System, which is a combination of an ultrasonic scanner and image processing software.

### Study

<table>
<thead>
<tr>
<th>Test</th>
<th>Sensitivity</th>
<th>Specificity</th>
<th>Positive Predictive Fraction</th>
<th>Negative Predictive Fraction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>95%</td>
<td>92%</td>
<td>94%</td>
<td>90%</td>
</tr>
<tr>
<td>Low Risk</td>
<td>90%</td>
<td>95%</td>
<td>93%</td>
<td>91%</td>
</tr>
<tr>
<td>Moderate Risk</td>
<td>80%</td>
<td>97%</td>
<td>91%</td>
<td>89%</td>
</tr>
<tr>
<td>High Risk</td>
<td>60%</td>
<td>99%</td>
<td>89%</td>
<td>92%</td>
</tr>
</tbody>
</table>

### Indicators and Usage

The GenESA® System is used to assess the presence of coronary artery disease in patients who have chest pain or other symptoms suggestive of heart disease. The test can be performed in a variety of settings, including hospitals, clinics, and primary care offices. The results of the test can help guide decisions about further diagnostic tests and treatment options.

### Conclusion

In summary, the GenESA® System is a valuable tool for assessing the presence of coronary artery disease. Its high sensitivity and specificity make it an ideal test for detecting early stages of disease, which can be crucial for improving outcomes. Further research is needed to determine the long-term effects of using GenESA® in clinical practice.
GenESA® (arbutamine HCl injection 0.05 mg/mL)

**Dosing Information**

Setsolicorticosteroids may attenuate the response to arbutamine and should be withdrawn, as recommended in the product labeling, at least 48 hours before initiating a GenESA® system. There was no evidence of drug drug interactions in clinical studies in which arbutamine was administered concurrently with other drugs, including plethysmographic oropharyngeal infusions, nitroprusside, and calcium channel blockers.

**Adverse Reactions**

Adverse events were recorded during controlled clinical trials in 2002 patients with known or suspected coronary artery disease. Serious adverse events (ventricular and/or atrial fibrillation and severe cardiac arrhythmia) were described (see WARNINGS). The most frequently reported adverse events in the 2002 patients were tachycardia (10%), arrhythmia (10%), non-sustained cardiac arrhythmia (12%), headache (6%), and hypotension (6%). Adverse events occurring in >1% of the 2002 patients are shown in Table 5.

### Table 5

<table>
<thead>
<tr>
<th>Incidence of Most Frequent (≥1%) Adverse Events with Arbutamine</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Incidence (%) of Adverse Events</strong></td>
</tr>
<tr>
<td>Pruritus</td>
</tr>
<tr>
<td>Headache</td>
</tr>
<tr>
<td>Cardiac arrhythmias</td>
</tr>
<tr>
<td>Pericarditis</td>
</tr>
<tr>
<td>Supraventricular</td>
</tr>
<tr>
<td>Arrhythmia</td>
</tr>
<tr>
<td>Hypertension</td>
</tr>
<tr>
<td>Shortness of breath</td>
</tr>
<tr>
<td>Nausea</td>
</tr>
<tr>
<td>Flushing</td>
</tr>
</tbody>
</table>

Other adverse events, considered at least possibly related to arbutamine administration and occurring in <1% of the 2002 patients, and seen at least twice, are listed by body system:

- **Cardiovascular**: myocardial ischemia (10%); see WARNINGS. ST segment depression (0.1%), hypertensive (0.1%).
- **Body as a Whole**: anticholinergic (0.1%), rigors (0.1%), back pain (0.1%).
- **Central and Peripheral Nervous System Disorders**: fatigue (0.3%), headache (0.3%), myalgia (0.1%).
- **Dermatologic System**: allergic (0.2%), dermatitis (0.2%), rash (0.1%).
- **Gastrointestinal System**: abdominal pain (0.1%).
- **Genitourinary System**: cystitis (0.1%), urinary incontinence (0.1%).
- **Hypersensitivity**: urticaria (0.1%), angioedema (0.1%).
- **Musculoskeletal System**: myalgia (0.1%), arthritis (0.1%).

Cardiac arrhythmias were reported as adverse events if symptomatic or considered clinically significant, by the physician supervising the stress test. Overall cardiac arrhythmias, as identified by the investigator as adverse events, are shown in Table 6.

### Table 6

<table>
<thead>
<tr>
<th>Incidence of Arrhythmias Reported as Adverse Events (N = 2002)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total number of patients</strong></td>
</tr>
<tr>
<td>Pruritus</td>
</tr>
<tr>
<td>Headache</td>
</tr>
<tr>
<td>Pericarditis</td>
</tr>
</tbody>
</table>
- **Supraventricular** | 37 (1.8%) |
| Other arrhythmias** | 106 (5.3%) |
| Supraventricular tachycardia | 79 (3.9%) |
| Atrial fibrillation | 82 (0.4%) |
| Other supraventricular arrhythmias** | 24 (1.2%) |
| Functional | 15 (0.8%) |
| Bradycardia | 23 (1.1%) |
| Sinus tachycardia | 18 (0.9%) |
| Heart block | 3 (0.1%) |
| Sinus arrhythmias | 1 (0.0%) |

*Includes premature ventricular contractions (PVCs), couplets, triads (≥100 bpm), multifocal PVCs, ventricular tachycardia, premature atrial or ventricular rhythm.

**Includes atrial flutter and atrial arrhythmia.

**NOTE**: Patients may have experienced more than one arrhythmia.

**OVERDOSE** - (See **WARNINGS**)

Because arbutamine delivery is controlled by the GenESA® Device to give a defined increase in heart rate, overdose is unlikely to occur. The maximum total dose permitted by the GenESA Device is 10 µg/kg. If overdose occurs it should be treated as a drug overdose. The symptoms of toxicity due to overdose are those of catecholamine excess: tachycardia, flushing, hypertension, dizziness, parasystole, nausea, hot flushes, anxiety, increased sweating and anxiety. The therapeutic and toxic effects of arbutamine are the same as those for other catecholamines. The symptoms of overdose may be reversed by reversing the effects of the drug. If an overdose occurs, it is recommended to discontinue the drug, if possible. If the patient is in a coma or convulsing, it is recommended to discontinue the drug and discontinue the overdose.

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<table>
<thead>
<tr>
<th>Topic</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Antibody Tumor Imaging”</td>
<td>Feb. 1998</td>
</tr>
<tr>
<td>“PET Tumor Imaging”</td>
<td>June 1998</td>
</tr>
<tr>
<td>“Non-Antibody Cancer Therapy”</td>
<td>Sept. 1998</td>
</tr>
<tr>
<td>“Antibody Cancer Therapy”</td>
<td>Dec. 1998</td>
</tr>
<tr>
<td>“Bone Cancer Therapy”</td>
<td>March 1998</td>
</tr>
<tr>
<td>“The Future of Nuclear Medicine Oncology”</td>
<td>June 1999</td>
</tr>
</tbody>
</table>

Self-Study III: Nuclear Medicine Cardiology (Elias H. Botvinick, Senior Editor), will commence its series in September with “Physical and Technical Aspects of Nuclear Cardiology.” Following booklets in the quarterly series will include:

<table>
<thead>
<tr>
<th>Topic</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>“Radionuclide Assessment of Congenital Heart Disease”</td>
<td></td>
</tr>
<tr>
<td>“Myocardial Perfusion Imaging by Single Photon Radionuclides I”</td>
<td></td>
</tr>
<tr>
<td>“Myocardial Perfusion Imaging by Single Photon Radionuclides II”</td>
<td></td>
</tr>
<tr>
<td>“Radionuclide Ventriculography” “Imaging Acute Myocardial Infarction”</td>
<td></td>
</tr>
<tr>
<td>“Cardiac Positron Imaging” “Scintigraphy with Pharmacologic Stress.”</td>
<td></td>
</tr>
</tbody>
</table>

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CLINICAL PHARMACOLOGY

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When technetium Tc99m pertechnetate is added to tetrofosmin in the presence of stannous reductant, a lipophilic, cationic technetium Tc99m complex is formed, Tc99m tetrofosmin. This complex is the active ingredient in the reconstituted drug product, on whose biodistribution and pharmacokinetic properties the indications for use depend.

Clinical Trials

A total of 252 patients with ischemic heart disease or atypical chest pain who had a reason for exercise stress imaging were studied in two open-label, multi-center, clinical trials of Tc99m tetrofosmin (see Phase III study b). Of these 252 patients, there were 212 (83%) males and 40 (17%) females with a mean age of 60.5 years (range 33.7 to 82.4 years). At peak exercise, maximum heart rate achieved and peak systolic blood pressure were comparable after Myoview and thallium-201 exercise studies.

All patients had exercise and rest planar imaging with Myoview and thallium-201; 191 (76%) patients also had SPECT imaging. The Myoview and thallium-201 images were acquired by a mean of 5.1 days (1-14 days before or 2-14 days after Myoview). For Myoview imaging, each patient received 185-296 MBq (5-8 mCi) Tc99m tetrofosmin at peak exercise and 555-888 MBq (15-24 mCi) Tc99m tetrofosmin at rest approximately 4 hours later. For thallium-201 imaging, patients received thallium-201 55.5-74 MBq (1.5-2.0 mCi) at peak exercise.

The images were evaluated for the quality of the image (excellent, good or poor) and the diagnosis (with scores of 0 = normal, 1 = ischemia, 2 = infarct, 3 = mixed infarct and ischemia). The primary outcome variable was the percentage of correct diagnoses in comparison to the final clinical diagnosis. All planar images were blindly read; SPECT images were evaluated by the unblinded investigator. A subset of 181/252 (71%) patients had coronary angiography comparisons to the planar images of Myoview or thallium-201.

INDICATIONS AND USAGE

Myoview is indicated for scintigraphic imaging of the myocardium following separate administrations under exercise and resting conditions. It is useful in the delineation of regions of reversible myocardial ischemia in the presence or absence of infarcted myocardium.

CONTRAINDICATIONS

None known.

WARNINGS

In studying patients with known or suspected coronary artery disease, care should be taken to ensure continuous cardiac monitoring and the availability of emergency cardiac treatment.

PRECAUTIONS

General

To minimize radiation dose to the bladder, the patient should be encouraged to void when the examination is completed and as often thereafter as possible. Adequate hydration should be encouraged to permit frequent voiding.

The contents of the Myoview vial are intended only for use in the preparation of technetium Tc99m tetrofosmin injection and are NOT to be administered directly to the patient.

As with all injectable drug products, allergic reactions and anaphylaxis may occur.

Sometimes Tc99m labeled myocardial imaging agents may produce planar and SPECT images with different imaging information.

Technetium Tc99m tetrofosmin injection, like other radioactive drugs must be handled with care and appropriate safety measures should be used to minimize radiation exposure to clinical personnel. Care should also be taken to minimize radiation exposure to the patient consistent with proper patient management.

Radiotherapists should be used by or under the control of physicians who are qualified by specific 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.

Drug Interactions: Drug interactions were not noted and were not studied in clinical studies in which Myoview was administered to patients receiving concomitant medication. Drugs such as beta blockers, calcium blockers and nitrates may influence myocardial function and blood flow. The effects of such drugs on imaging results are not known.

Carcinogenesis, Mutagenesis, Impairment of Fertility

Studies have not been conducted to evaluate carcinogenic potential or effects on fertility. Tetrofosmin phosphosulfate was not mutagenic in vitro in the Ames test, mouse lymphoma, or human lymphocyte tests, nor was it clastogenic in vivo in the mouse micronucleus test.

Pregnancy Category C

Animal reproduction studies have not been conducted with Myoview. It is not known whether Myoview can cause fetal harm when administered to a pregnant woman or can affect reproductive capacity. Therefore, Myoview should not be administered to a pregnant woman unless the potential benefit justifies the potential risk to the fetus.

Nursing Mothers

Technetium Tc99m Pertechnetate can be excreted in human milk. Therefore, formula should be substituted for breast milk until the technetium has cleared from the body of the nursing woman.

Pediatric Use

Safety and effectiveness in pediatric patients have not been established.

ADVERSE REACTIONS

Adverse events were evaluated in clinical trials of 764 adults (511 men and 253 women) with a mean age of 58.7 years (range 26-94 years). The subjects received a mean dose of 7.67 mCi on the first injection and 22.4 mCi on the second injection of Myoview.

Deaths did not occur during the clinical study period of 2 days. Six cardiac deaths occurred 3 days to 6 months after injection and were thought to be related to the underlying disease or cardiac surgery. After Myoview injection, serious episodes of angina occurred in 3 patients. Overall cardiac adverse events occurred in 5/764 (less than 1%) of patients after Myoview injection.

The following events were noted in less than 1% of patients:

- Cardiovascular: angina, hypertension, Torsades de Pointes
- Gastrointestinal: vomiting, abdominal discomfort
- Hypersensitivity: cutaneous allergy, hypotension, dyspnea
- Special Senses: metallic taste, burning of the mouth, smelling something

There was a low incidence (less than 4%) of a transient and clinically insignificant rise in white blood cell counts following administration of the agent.

DOSEAGE AND ADMINISTRATION

For exercise and rest imaging, Myoview is administered in two doses:

- The first dose of 5-8 mCi (185-296 MBq) is given at peak exercise.
- The second dose of 15-24 mCi (555-888 MBq) is given approximately 4 hours later, at rest.

Imaging may begin 15 minutes following administration of the agent.

Dose adjustment has not been established in renally or liver impaired, pediatric or geriatric patients.

RADIATION DOSIMETRY

Based on human data, the absorbed radiation doses to an average human adult (70 kg) from intravenous injections of the agent under exercise and resting conditions are listed in Table 1. The values are listed in descending order as mrad/mCi and µGy/MBq and assume urinary bladder emptying at 3.5 hours.

Table 1

<table>
<thead>
<tr>
<th>Target Organ</th>
<th>Exercise Absorbed Radiation Dose (mrad/mCi)</th>
<th>Rest Absorbed Radiation Dose (µGy/MBq)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gail bladder wall</td>
<td>0.123</td>
<td>0.180</td>
</tr>
<tr>
<td>Upper large intestine</td>
<td>0.075</td>
<td>0.113</td>
</tr>
<tr>
<td>Bladder wall</td>
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<td>0.071</td>
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<td>Lower large intestine</td>
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<td>Small intestine</td>
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<td>Kidney</td>
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<td>Breast</td>
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Dose calculations were performed using the standard MIRD method (MIRD Pamphlet No.1 (rev). Society of Nuclear Medicine, 1976. Effective dose equivalents (EDE) were calculated in accordance with ICRP 53 (Ann. ICRP 18 (1-4), 1988) and gave values of 8.61 x 10^2 mrad/MCi and 1.12 x 10^2 mGy/MBq after exercise and rest respectively.

Manufactured by Amersham International plc – Amersham, United Kingdom
Patent No. 5,045,302 (r)

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Celebrate Nuclear Medicine Week
October 5 - 11, 1997

...by spotlighting your facility and demonstrating your enthusiasm, devotion and pride in your profession.

Nuclear Medicine Week gives you the opportunity to educate potential patients, referring physicians and your community about the history, value and safety of nuclear medicine.

Nuclear Medicine Week is sponsored by the Society of Nuclear Medicine and the Technologist Section.

Keep the celebration alive all year long!
Promoting your profession does not need to be limited to Nuclear Medicine Week. Take advantage of every opportunity throughout the year to increase the understanding and utilization of Nuclear Medicine.

Don't forget the annual PR Stars Contest! Be a Public Relations star and win prizes for yourself and your institution. Look for details and entry forms in JNM and JNMT.

This year's Nuclear Medicine Week merchandise entitled, "Nuclear Medicine: For The Whole Picture" was designed by the Technologist Section and will add to your festivities and enhance the visibility of nuclear medicine.

Poster: This eye-catching full-color illustrated poster chronicles a patient through a nuclear medicine procedure. Display the poster prominently, use it as a teaching tool or give it to referring physicians to promote nuclear medicine. $5.00 each.

Party Pack for 10 people: Open-houses are popular events designed to educate and encourage understanding. Add to your festivities by serving your guests treats on plates, cups and napkins adorned with the Nuclear Medicine Week message. $10.00 for supplies for 10 people.

Balloons: Put the celebration back in Nuclear Medicine Week by decorating your facility with these colorful balloons. Perfect for open-houses, job fairs or any activity throughout the year. $1.00 for 4.

Buttons & Stickers: Get the nuclear medicine message out by wearing the buttons and using the stickers on all your correspondence. A perfect, inexpensive give-away.
Buttons are $1.00 each.
Stickers are $1.00 for 4.

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<td>Party Pack (plates, napkins, cups) for 10</td>
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<td>Guidelines: For Promoting Nuclear Medicine</td>
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Shipping: (please allow 2-4 weeks for delivery) $ 

If your merchandise total is: 
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Express Delivery & Foreign Orders: $25.00 $ 

Delivery Time: 1-2 Days. Express charge in addition to the regular shipping price. $ 

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1st Place:
$600 for the Institution and $600 for the Individual. Plus up to $600 in airfare to the 1998 SNM Annual Meeting in Toronto.

2nd Place:
$400 for the Institution and $400 for the Individual.

3rd Place:
$250 for the Institution and $250 for the Individual.

Mail or fax your entry information by December 1, 1997 to:

Society of Nuclear Medicine
1997 PR Stars Contest
1850 Samuel Morse Dr.
Reston, VA 20190-5316

Fax: 703-708-9018
Telephone: 703-708-9000

One of the goals of the Society of Nuclear Medicine Technologist Section (SNM-TS) has been to take an active role in educating the public and the medical community about nuclear medicine procedures and the benefits of this functional imaging modality.

This is the official entry for the 1997 PR Stars Contest sponsored by the SNM-TS and Technology Imaging Services. Please fill out the entry form and complete the requested information on the reverse side. Based on the information you provide, a panel of judges will evaluate the entries using the point system outlined on the reverse side of this page and select a winner. All entrants must be a Nuclear Medicine Technologist and staff members of a hospital or nuclear medicine facility. Entries must be postmarked no later than December 1, 1997.

Entrant Information:

Your Name:
Hospital/Facility:
Address:
City:
State:
Zip:
Telephone:
Fax:

Please provide the information requested on the reverse side
Please describe and document your promotional activities and results. All original materials will be returned upon completion of the contest. The following point systems will be used for judging.

Please use the check list to assure all questions are answered.

1. Please compose a detailed description, including the goals and objectives, of your nuclear medicine PR activities. (7 points)

2. Did the goals and objectives you set reflect those of the PR Stars Contest to:
   a. Reinforce nuclear medicine to referring physicians? (10 points)
   b. Promote nuclear medicine to healthcare workers? (5 points)
   c. Increase community awareness? (5 points)
   d. Encourage career paths? (5 points)

3. How effective were you in reaching the goals of the PR Stars Contest?
   a. Increasing physician referrals? (10 points)
   b. Increasing awareness among healthcare workers? (5 points)
   c. Increasing community awareness? (5 points)
   d. Encouraging career paths? (5 points)
   e. Showing pride in your profession. (5 points)

4. What available resources did you use? (budget, manpower, media, etc...) (3 points)

5. How effectively did you use the available resources? (10 points)

6. How practical was your program?
   a. Can it be easily used by others? (5 points)
   b. Was it cost effective? (5 points)

7. When did your PR activity take place?

8. Please provide a detailed time-line of the planning and implementation of your program. (10 points)
   For Example:
   August 1 Strategic planning session with staff technologists.
   August 15 Drafted text regarding nuclear medicine for publication in facility newsletter.

9. Are you a current member of the SNM-TS? (5 points)
   Yes .......... No ..........

Thank you for your entry!

Good Luck!

Val Cronin, CNMT
Nuclear Medicine Week Chairperson
Do you know the most effective and efficient way to perform a myocardial perfusion study?

How does your procedure for performing renal studies for renovascular hypertension compare with the procedure recommended by leading nuclear medicine experts?

How should you modify your procedures for adult patients when they are performed in pediatric patients?

The answers to these questions and more may be found in the 1997 Society of Nuclear Medicine Procedure Guidelines Manual. This publication will help you achieve high quality nuclear medicine studies to insure that your patients get the treatment they deserve. This informative and useful reference tool is now available for only $20.00. To order your copy, contact Olivia Wong at (703)708-9000 x250 or via e-mail at owong@snm.org

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- Guideline for Gated Equilibrium Radionuclide Ventriculography

ENDOCRINE GUIDELINES
- Guideline for Thyroid Uptake Measurement
- Guideline for Thyroid Scintigraphy
- Guideline for Extended Scintigraphy for Differentiated Thyroid Cancer
- Guideline for Parathyroid Scintigraphy

GASTROINTESTINAL GUIDELINES
- Guideline for Hepatobiliary Scintigraphy
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GENERAL GUIDELINES
- Guidelines for Guideline Development
- Guideline for General Imaging
- Guideline for Imaging With Radiopharmaceuticals

GENITOURINARY GUIDELINES
- Guideline for Diagnosis of Renovascular Hypertension

INFECTION GUIDELINES
- Guideline for Gallium Scintigraphy in Inflammation
- Guideline for In-111 Leukocyte Scintigraphy for Suspected Infection/Inflammation
- Guideline for Tc-99m Exemestane (HMPAO) Labeled Leukocyte Scintigraphy for Suspected Infection/Inflammation

NEUROLOGY GUIDELINES
- Guideline for Brain Perfusion Single Photon Emission Computed Tomography (SPECT) Using Tc-99m Radiopharmaceuticals

ONCOLOGY GUIDELINES
- Guideline for Gallium Scintigraphy in the Evaluation of Malignant Disease
- Guideline for Tumor Imaging Using F-18 FDG
- Guideline for Bone Pain Treatment

PEDIATRIC GUIDELINES
- Guideline for Pediatric Sedation in Nuclear Medicine
- Guideline for Radionuclide Cystography in Children
- Guideline for Diuretic Renography in Children
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45th Annual Meeting
Critical Dates

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<td>Housing Form</td>
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Don’t forget the Mid-Winter Meeting in Las Vegas, Nevada

Date: January 24 – February 3, 1998

Location: The Alexis Park Resort

Education Program Sponsor: The Computer and Instrumentation Council

For the most current meeting information, please visit our web site at www.snm.org

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GENERAL POLICIES:

PREVIOUSLY PUBLISHED OR PRESENTED MATERIALS
Materials that have been accepted or published as full papers prior to its submission to the SNM Annual Meeting should not be submitted as an abstract of a scientific paper. Abstracts appearing elsewhere in identical or similar form will be rejected.

PUBLICATION OF ACCEPTED ABSTRACTS
Abstracts accepted for presentation will be published in a special supplement of the May 1998 issue of The Journal of Nuclear Medicine and the accepted Technologist Section abstracts in the June 1998 issue of the Journal of Nuclear Medicine Technology.

CHANGES AFTER SUBMISSION
Abstracts are to be submitted in final format. NO changes can be made after receipt at the Central Office.

EDITING
On all accepted abstracts, the Scientific Program Committee reserves the right to edit those not submitted in the proper format for publication in the Journal and to recategorize submitted abstracts where appropriate.

1. Multiple contributions on a similar topic
Whenever possible, multiple contributions on the same or a similar subject from the same institution should be merged into a single abstract.

The Committee may merge similar subject abstracts from the same group into a single presentation.

PUBLICATION OF FULL TEXT
Authors seeking publication for the full text of their papers are strongly encouraged to submit their work to The Journal of Nuclear Medicine for immediate review.

Day and time assignments for oral presentation cannot be changed.

Please refer to the "Meeting Memo" in the October 1997 issue of The Journal of Nuclear Medicine for further information on the Scientific Program Committee policies and objectives.

2. Awards Criteria
Society Program Awards
(Oral Presentation Only)

a. Cardiovascular Young Investigator Award
i) All applicants must be currently enrolled or within 5 years of completing a certified training program (there is no age limit).
ii) No separate submission is necessary.
iii) All former first prize winners are ineligible.

b. Computer and Instrumentation Young Investigator Award
i) Only medical students, residents, fellows, graduate students, post-doctoral fellows and those with less than two (2) years experience as faculty member may apply.
ii) All former first prize winners are ineligible.
iii) The abstract must be submitted to one of the Instrumentation and Data Analysis categories.
c. Berson-Yalow Award
All research making use of the indicator-dilution method will be considered for this award. Abstracts which summarize research on receptor-based radiopharmaceuticals, for example, will be judged for the Berson-Yalow award.

d. Pediatric Imaging Council Award
The award will be given by the Pediatric Imaging Council to the first author of the best scientific paper or poster submitted to that category (PED).

3. Organization of body of abstract
Organize the body of the abstract as follows:
• A statement of the purpose of the study (preferably one sentence).
• A statement of the methods used.
• A summary of the results presented in sufficient detail to support the conclusions.
• A statement of the conclusions reached. It is not satisfactory to state “the results will be discussed” or “other data will be presented.”

4. Abbreviations
Use only standard abbreviations. Abbreviations used in The Journal of Nuclear Medicine are preferred. No abstract will be accepted unless the chemical identity of the radiopharmaceutical involved in the study is specified as accurately and completely as possible (for well-established radiopharmaceuticals, standard abbreviations such as MDP, DTPA, etc., are acceptable). Abstracts in which radiopharmaceuticals are identified only by code numbers will be automatically rejected.

5. Superscripts and subscripts
The mass number of an element should follow the elemental abbreviation on the same line and be separated by a hyphen (Tc-99m). DO NOT USE SUPERSCRIPTS OR SUBSCRIPTS to identify isotopes.

6. Correspondence Instructions
Be sure to list the name, address and telephone number of the individual who should receive all correspondence. ALSO, list the name and degree of the presenting author.

7. Font Size
The font typing size should be no smaller than 10 pt.

8. Technologist Students ONLY
Abstracts must be received (not postmarked) by February 27, 1998.

9. Clarification of Categories
A description of each category is available on the SNM Home Page (www.snm.org) under “Abstract Information.”

---

**EXAMPLE**

TECHNETIUM-99m POLYPHOSPHATE BONE IMAGING IN LEGG-PERTHES DISEASE. J.A. Danigelis, R.L. Fisher, and M.B. Ozonoff. Newington Children's Hospital, Newington, CT.

This investigation was undertaken to compare the diagnostic usefulness of radionuclide bone imaging techniques to standard radiographic…
Boxes 1, 2 and 4 MUST be completed

1 Fill in only ONE letter in box below.
   A Technologist program
   B Technologist student submission
   C Society program
   D Scientific exhibit

2 Check only ONE box below.
   I am willing to present this paper:
   □ by posterboard only
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3 Eligibility for Special Awards
   (Oral Only)
   □ Cardiovascular Young Investigators
   □ Computer and Instrumentation Young Investigators
   □ Benson-Yalow
   □ Pediatric Imaging
   □ Technologist Cardiology
   □ Technologist Brain Imaging

4 Write only ONE category's abbreviation in the space below:
   CLINICAL SCIENCE/APPLICATIONS:
   Bone/Joint (BJ)
   Cardiovascular-Basic (CVB)
   Cardiovascular-Clinical (CVC)
   Cardiovascular-PET (CVP)
   Endocrine (END)
   Gastroenterology (GAS)
   Hematology/Infectious Disease (HID)
   Neurosciences:
   Basic (NSB)
   Neurology (NSN)
   Psychiatry (NSP)
   Oncology Diagnosis
   FDG (FDG)
   Antibody (ODA)
   Non-Antibody (ODO)
   Oncology Therapy (OT)
   Pediatrics (PED)
   Pulmonary (PUL)
   Renal/Electrolyte/Hypertension (REH)
   INSTRUMENTATION & DATA ANALYSIS
   Data Analysis & Management (ANA)
   Image Generation (IMG)
   Instrumentation (INS)
   DOSIMETRY/RADIOLOGY (DOS)
   RADIOMMUNOASSAY (RSY)
   RADIOPHARMACEUTICAL CHEMISTRY:
   Technetium (TPC)
   Fluorine-18 (FPC)
   Other Positrons (OPC)
   Therapy (YPC)
   Radiopharmacy (RPC)
   Proteins/Peptides (PPC)
   Halogens (HPC)
   Radiometals (MPC)

   Write only ONE category in this space

List the name, address, telephone number and e-mail address of the individual who should receive all correspondence:

List the name and degree of presenting author:

List two keywords for Subject Index (See Meeting Memo for details):

(Digitally transmitted facsimiles will NOT be accepted)

DEADLINES
For Scientific Papers and Exhibits: Abstracts must be received (not postmarked) by Tuesday, January 6, 1998.
Please note: Acceptance or non-acceptance letters will be mailed March, 1998.
Mail Original Forms to:
THE SOCIETY OF NUCLEAR MEDICINE
Attn: Abstracts
1850 Samuel Morse Drive
Reston, VA 20190-5316
(703) 708-9000 ext. 228

PLEASE NOTE: Be sure you have:

☑ Enclosed the original abstract plus nine (9) photocopies of the official abstract form (page 1 only).

☑ Enclosed one self-addressed, stamped postcard with title and authors if receipt is to be acknowledged (optional). Note: Overseas or non-U.S. abstracts do not require return postage.

DO NOT FOLD abstract form; please mail in a large envelope using a cardboard backing. Abstracts received after the deadline will not be reviewed.

DEADLINE: THURSDAY, JANUARY 6, 1998 FOR RECEIPT OF ABSTRACTS.
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GENERAL POLICIES:

PREVIOUSLY PUBLISHED OR PRESENTED MATERIALS
Materials that have been accepted or published as full papers prior to its submission to the SNM Annual Meeting should not be submitted as an abstract of a scientific paper. Abstracts appearing elsewhere in identical or similar form will be rejected.

PUBLICATION OF ACCEPTED ABSTRACTS
Abstracts accepted for presentation will be published in a special supplement of the May 1998 issue of The Journal of Nuclear Medicine and the accepted Technologist Section abstracts in the June 1998 issue of the Journal of Nuclear Medicine Technology.

CHANGES AFTER SUBMISSION
Abstracts are to be submitted in final format. No changes can be made after receipt at the Central Office.

EDITING
On all accepted abstracts, the Scientific Program Committee reserves the right to edit those not submitted in the proper format for publication in the Journal and to recategorize submitted abstracts where appropriate.

1. Multiple contributions on a similar topic
Whenever possible, multiple contributions on the same or a similar subject from the same institution should be merged into a single abstract. The Committee may merge similar subject abstracts from the same group into a single presentation.

PUBLICATION OF FULL TEXT
Authors seeking publication for the full text of their papers are strongly encouraged to submit their work to The Journal of Nuclear Medicine for immediate review.

Day and time assignments for oral presentation cannot be changed.

Please refer to the “Meeting Memo” in the October 1997 issue of The Journal of Nuclear Medicine for further information on the Scientific Program Committee policies and objectives.

2. Awards Criteria
Society Program Awards (Oral Presentation Only)

a. Cardiovascular Young Investigator Award
i) All applicants must be currently enrolled or within 5 years of completing a certified training program (there is no age limit).
ii) No separate submission is necessary.
iii) All former first prize winners are ineligible.

b. Computer and Instrumentation Young Investigator Award
i) Only medical students, residents, fellows, graduate students, post-doctoral fellows and those with less than two (2) years experience as faculty member may apply.
ii) All former first prize winners are ineligible.
iii) The abstract must be submitted to one of the Instrumentation and Data Analysis categories.
c. **Berson-Yalow Award**

All research making use of the indicator-dilution method will be considered for this award. Abstracts which summarize research on receptor-based radiopharmaceuticals, for example, will be judged for the Berson-Yalow award.

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**d. Pediatric Imaging Council Award**

The award will be given by the Pediatric Imaging Council to the first author of the best scientific paper or poster submitted to that category (PED).

---

**3. Organization of body of abstract**

Organize the body of the abstract as follows:

- A statement of the purpose of the study (preferably one sentence).
- A statement of the methods used.
- A summary of the results presented in sufficient detail to support the conclusions.
- A statement of the conclusions reached. It is not satisfactory to state “the results will be discussed” or “other data will be presented.”

---

**4. Abbreviations**

Use only standard abbreviations. Abbreviations used in The Journal of Nuclear Medicine are preferred. *No abstract will be accepted unless the chemical identity of the radiopharmaceutical involved in the study is specified as accurately and completely as possible* (for well-established radiopharmaceuticals, standard abbreviations such as MDP, DTPA, etc., are acceptable). Abstracts in which radiopharmaceuticals are identified only by code numbers will be automatically rejected.

---

**5. Superscripts and subscripts**

The mass number of an element should follow the elemental abbreviation on the same line and be separated by a hyphen (Tc-99m). DO NOT USE SUPERSCRIPTS OR SUBSCRIPTS to identify isotopes.

---

**6. Correspondence Instructions**

Be sure to list the name, address and telephone number of the individual who should receive all correspondence. ALSO, list the name and degree of the presenting author.

---

**7. Font Size**

The font typing size should be no smaller than 10 pt.

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**8. Technologist Students ONLY**

Abstracts must be received (not postmarked) by February 27, 1998.

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**9. Clarification of Categories**

A description of each category is available on the SNM Home Page (www.snm.org) under “Abstract Information.”

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**EXAMPLE**

TECHNETIUM-99m POLYPHOSPHATE BONE IMAGING IN LEGG-PERTHES DISEASE. J.A. Danigelis, R.L. Fisher, and M.B. Ozonoff. Newington Children’s Hospital, Newington, CT.

This investigation was undertaken to compare the diagnostic usefulness of radionuclide bone imaging techniques to standard radiographic…
### Boxes 1, 2 and 4 MUST be completed

1. Fill in only ONE letter in box below.
   - This abstract is intended for:
     - A Technologist program
     - B Technologist student submission
     - C Society program
     - D Scientific exhibit

2. Check only ONE box below.
   - I am willing to present this paper:
     - □ by posterboard only
     - □ either oral or posterboard

3. Eligibility for Special Awards (Oral Only)
   - □ Cardiovascular Young Investigators
   - □ Computer and Instrumentation Young Investigators
   - □ Berson-Yalow
   - □ Pediatric Imaging
   - □ Technologist Cardiology
   - □ Technologist Brain Imaging

4. Write only ONE category's abbreviation in the space below:
   - CLINICAL SCIENCE/APPLICATIONS:
     - Bone/Joint (B/J)
     - Cardiovascular-Basic (CVB)
     - Cardiovascular-Clinical (CVC)
     - Cardiovascular-PET (CVP)
     - Endocrine (END)
     - Gastroenterology (GAS)
     - Hematology/Infectious Disease (HID)
   - Neurosciences:
     - Basic (NSB)
     - Neurology (NSN)
     - Psychiatry (NSP)
   - Oncology Diagnosis
     - FDG (FDG)
     - Antibody (ODA)
     - Non-Antibody (ODO)
   - Oncology Therapy (OT)
   - Pediatrics (PED)
   - Pulmonary (PUL)
   - Renal/Electrolyte/Hypertension (REH)
   - INSTRUMENTATION & DATA ANALYSIS
     - Data Analysis & Management (ANA)
     - Image Generation (IMG)
     - Instrumentation (INS)
   - DOSIMETRY/RADIOLOGY (DOS)
   - RADIOIMMUNOASSAY (RSY)
   - RADIONUCLIDIC CHEMISTRY:
     - Technetium (TPC)
     - Flourine-18 (FPC)
     - Other Positrons (OPC)
     - Therapy (YPG)
     - Radiopharmacy (RPC)
     - Proteins/Peptides (PPC)
     - Halogens (HPC)
     - Radiometals (MPC)

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1998 ABSTRACT FORM FOR BOTH SCIENTIFIC PAPERS AND SCIENTIFIC EXHIBITS

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Metro Toronto Convention Center
Sunday, June 7—Thursday, June 11, 1998

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List the name, address, telephone number and e-mail address of the individual who should receive all correspondence:

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For Scientific Papers and Exhibits: Abstracts must be received (not postmarked) by Tuesday, January 6, 1998.

Please note: Acceptance or non-acceptance letters will be mailed March, 1998.
Mall Original Forms to:

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PLEASE NOTE: Be sure you have:

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