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\[ Tc99m = 0.0027, \ I-131 = 0.039, \ I-123 = 0.023. \])
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INDICATIONS AND USAGE
Technetium Tc 99m meriatide is a renal imaging agent. In addition, it is a diagnostic aid in providing renal function, split function, renal angiograms and renogram curves for whole kidney and renal cortex.

CONTRAINDICATIONS None known.

WARNINGS None known.

PRECAUTIONS General
The contents of this kit are not radioactive. However, after sodium pertechnetate Tc 99m is added, adequate shielding of the final preparation must be maintained. Contents of the reaction vial are intended only for use in the preparation of technetium Tc 99m meriatide and are NOT to be administered directly to the patient. To help reduce the radiation dose to the bladder, as well as other target organs, the patient should increase his or her fluid intake (unless medically contraindicated) and void as often as possible after the injection of technetium Tc 99m meriatide for six hours after the imaging procedure.

Technetium Tc 99m meriatide should not be used more than six hours after preparation.

The components of the kit are sterile and nonpyrogenic. It is essential that the user follow the directions carefully and use aseptic procedures normally employed in making additions and withdrawals from sterile, nonpyrogenic containers during the addition of pertechnetate solution and the withdrawal of doses for patient administration.

The technetium Tc 99m labeling reactions involved in preparing Technescan MAG3SM depend on maintaining the stannous ion in the reduced state. Any oxidant present in the sodium pertechnetate Tc 99m may adversely affect the quality of the radiopharmaceutical. Therefore, sodium pertechnetate Tc 99m containing oxidants should not be employed.

All in the use of any other radioactive material, care should be taken to ensure minimum radiation exposure to the patient and to occupational workers.

Radiopharmaceuticals should be used only by physicians who are qualified by specific training in the safe use and handling of radionuclides produced by nuclear reactor or particle accelerator and who have experience and training have been approved by the appropriate government agency authorized to license the use of radionuclides.

Cardiogenic, Myogenic, Impairment of Fertility No long term animal studies have been performed to evaluate carcinogenic or mutagenic potential, or whether this drug affects fertility in males or females.

Pregnancy Category C Animal reproduction studies have not been conducted with technetium Tc 99m meriatide. It is also not known whether the drug can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Technetium Tc 99m meriatide should be given to a pregnant woman only if clearly needed.

Ideally, examinations using radiopharmaceuticals, especially those elective in nature, of a woman of childbearing capability should be performed during the first few (approximately 10) days following the onset of menopause.

Mammals Technetium Tc 99m is excreted in human milk during lactation, therefore, formula feedings should be substituted for breast feeding.

Pediatric Use Safety and effectiveness in children have not been established.

ADVERSE REACTIONS None known.

RADIATION DOSIMETRY The estimated radiation doses1 to the average adult (70 kg) from an intravenous administration of 185 MBq (5 mCi) and 370 MBq (10 mCi) technetium Tc 99m meriatide are presented in Table 1. These radiation absorbed dose values were calculated using the Medical Internal Radiation Dose Committee (MIRD) Schema.

Table 1

<table>
<thead>
<tr>
<th>Organ</th>
<th>mGy/185 MBq</th>
<th>mGy/370 MBq (5 mCi)</th>
<th>mGy/370 MBq (10 mCi)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urinary Bladder Wall</td>
<td>24</td>
<td>4</td>
<td>48</td>
</tr>
<tr>
<td>Upper Large Intestine Wall</td>
<td>0.94</td>
<td>0.094</td>
<td>1.9</td>
</tr>
<tr>
<td>Gallbladder Wall</td>
<td>0.81</td>
<td>0.081</td>
<td>1.6</td>
</tr>
<tr>
<td>Lower Large Intestine Wall</td>
<td>1.6</td>
<td>0.16</td>
<td>3.3</td>
</tr>
<tr>
<td>Kidneys</td>
<td>0.72</td>
<td>0.072</td>
<td>1.4</td>
</tr>
<tr>
<td>Small Intestine</td>
<td>0.61</td>
<td>0.061</td>
<td>1.6</td>
</tr>
<tr>
<td>Ovaries</td>
<td>1.3</td>
<td>0.13</td>
<td>2.6</td>
</tr>
<tr>
<td>Liver</td>
<td>0.18</td>
<td>0.018</td>
<td>0.36</td>
</tr>
<tr>
<td>Red Marrow</td>
<td>0.24</td>
<td>0.024</td>
<td>0.46</td>
</tr>
<tr>
<td>Testes</td>
<td>0.81</td>
<td>0.081</td>
<td>1.6</td>
</tr>
<tr>
<td>Total Body</td>
<td>0.33</td>
<td>0.033</td>
<td>0.67</td>
</tr>
</tbody>
</table>

*Assuming patient voids at 4.8 hour intervals

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PET NUCLEAR MEDICINE TECHNOLOGIST. The University of Michigan Medical Center, Ann Arbor, MI 48104, offers a non-discriminatory, affirmative action employer.

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Positions Wanted

Attending physician, BE in NUCLEAR MEDICINE and PATHOLOGY seeks position. Reply to: H. Garcia, 261 Corbin Place, Brooklyn, NY 11235.

ABNM, IM BACKGROUND. Young male seeks relocation. Has thriving, proven private practice experience, providing totally committed care in nuclear medical services (including SPECT). Special interest in cardiology and Medicine. All offers and letters considered. Prefer best working conditions. In strictest confidence: Box 70, The Society of Nuclear Medicine, 136 Madison Ave., NY, NY 10016.
ABNM Certified MD seeks clinical Nuclear Medicine position. Reply to: The Society of Nuclear Medicine, Box 702, 136 Madison Ave., New York, NY 10016.

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Diagnostic Photon Corp. RADIOPHARMACY LIQUIDATION. Must sell Building, Equipment, Inventory, and Supplies—$1.5 million. Call Mrs. Levine at (305) 972-5006.

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For sale: Technicare 420/550, ADAC’s vertical CDS system I, system III, DPS 2800. We offer the highest prices for all types of nuclear medicine cameras & computers. Call Franklin at Imaging Solutions (415) 924-9055.

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CTI is located in Knoxville, Tennessee—an area with extensive educational, cultural, and recreational opportunities; a low cost-of-living; and high-quality, affordable housing. We offer a competitive compensation, benefits, and relocation package. Please send a current resume to: Jack Kreyling, Recruiting Specialist, CTI, 810 Innovation Drive, Box 22999, Knoxville, TN 37933. An Equal Opportunity Employer.

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We are seeking a Creative Director to assume the position of Director of Nuclear Medicine at the Queen Elizabeth Hospital in Adelaide. The Director is responsible and accountable for the nuclear medicine program and staff, the nuclear medicine imaging equipment, research and education programs, and for the day to day running of the NUC MED service.

We are looking for a Director with a proven record of achievement in Nuclear Medicine with an understanding of the role of Nuclear Medicine in modern medical care. The successful candidate will have experience in Nuclear Medicine Planning and Project Management, have a proven record of achievement in Nuclear Medicine with an understanding of the needs of the clinical user, have experience in nuclear medicine and be an expert in the provision of Nuclear Medicine services. The Director will be expected to provide leadership, direction and guidance to staff members, and provide advice and guidance to other clinicians in the Hospital.

Applications are invited from suitably qualified and experienced medical physicists or experienced medical technologists with a background in Nuclear Medicine. Applications from suitably qualified and experienced medical physicists or experienced medical technologists with a background in Nuclear Medicine will also be considered.

Applications should be addressed to the Senior Director, Queen Elizabeth Hospital, Woodville SA 5011. The closing date for applications is 30th April 1990.

Yale New Haven Hospital

Nuclear Medicine Technologist/Cardiology

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Yale New Haven Hospital

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The nuclear medicine research involves quantitative SPECT, whole body imaging and quantitative autoradiography for the development of new imaging procedures, radiopharmaceuticals and imaging technology. The BNL Medical Department has a strong radiopharmaceutical research program. An adjunct appointment in the School of Medicine, State University of New York at Stony Brook (SUNY/ SB), is possible. A joint BNL/SUNY/ SB Radiation Therapy Facility, located in the Clinical Research Center of the BNL Medical Department, will be operational in 1991.

Interested candidates should submit a curriculum vitae, a list of at least three professional references, and a statement of research interests to: Dr. A.D. Chanaana, Medical Department, Brookhaven National Laboratory, Associated Universities, Inc., Upton, L.I., New York 11973. Equal opportunity employer M/F.

The Patrick Grove Memorial Fellowship

For research into clinical diagnostic and therapeutic work with radionuclides. Amersham International has funded this Fellowship to encourage young men and women to pursue original work in the United Kingdom. Applications are invited from heads of departments and others in appropriate administrative positions in the United Kingdom or from individuals worldwide (who should enclose a supporting letter from the United Kingdom department in which they wish to work).

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This Fellowship is for three years and will cover salary and "on costs" in the region of £20,000 pa together with modest departmental expenses.


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NOTE: SNM chapters are invited to submit job referral service listings for publication. Pertinent information—name and brief description of the service, telephone number and/or address, name or number of contact person for inquiries—should be sent to: Joan Hiram, Section Editor, JNM

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The University of Virginia Medical Center, a 750-bed teaching facility, is currently seeking a dynamic technologist for the Nuclear Cardiology Lab. The selected applicant will also gain unparalleled experience in clinical research and computer applications. In a recent nationally known publication, UVA Health Sciences Center was rated as one of the best hospitals in America. Our staff technologists can fully express and expand their professional skills in many different areas and work with a group of internationally known physicians who are constantly developing new procedures, some of which are used only in a few hospitals today.

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Ductless Fume Hood

Germfree Laboratories, Inc. introduces the “Alchemist,” a ductless fume hood that removes airborne pollutants and irritants. The hood provides wide spectrum filtration for finite quantities of nonexplosive solids, liquids, and gases. It can be used with acid gases; formaldehyde and other aldehydes; ammonia, amines, and other bases; and most hydrocarbons. The hood uses a five stage progressive filtration system to return purified air to the room. The unit is constructed of heavy gauge steel with a chemically resistant epoxy coating. It is self-contained and requires no special installation procedures.

Woodie Cantor, Germfree Laboratories, Inc., 7435 NW 41st Street, Miami, FL 33166. (305) 591-7280.

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Margaret Meek, Marketing Services Manager, Victoreen, Inc., 6000 Cochran Road, Cleveland, OH 44139. (216) 248-9300.

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Circle Reader Service No. 104
This new revised edition of the popular SPECT Primer integrates the newest SPECT techniques with the fundamental concepts and procedures presented in the first edition. The addition of clinical studies greatly enhances the value of this edition. The authors present procedures for routine and initial evaluation of a SPECT system as well as protocols for commonly imaged organ systems.

The protocols and procedures are deliberately presented in a generic fashion to offer the greatest flexibility to both the novice and the more experienced practitioner. Each chapter contains a summary of the covered topic, study questions, and a recommended reading list. This format ensures a thorough exposure to each topic and allows the reader to focus on areas of special interest.

Part I of the text gives the technologist a solid grounding in SPECT theory and protocols. Part II builds on this knowledge and introduces the reader to SPECT studies of various organs. The brain is discussed first because it is by far the most technically difficult organ to image. The reader will see realistic clinical images of acceptable and flawed transaxial slices for each study. The Appendix has been updated to include a discussion on Ramp filters and their correlation with additional filters such as Shepp, Logan, Hamming, Hann, and Butterworth.

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2nd Edition
Edited by Naomi P. Alazraki, MD and Fred S. Mishkin, MD

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