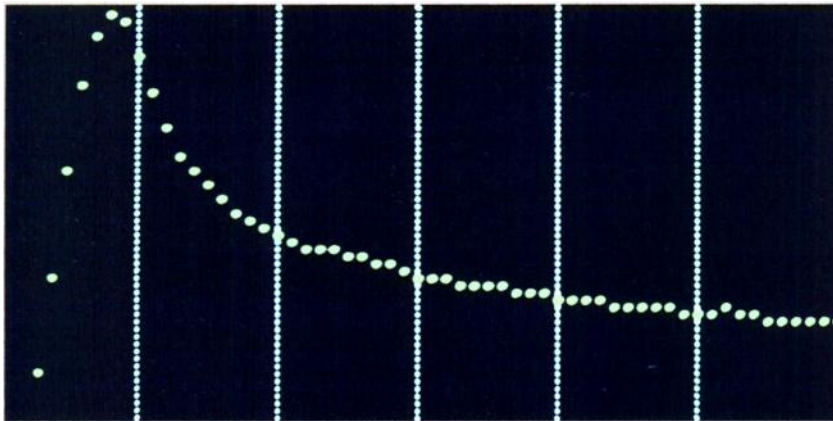


Introducing

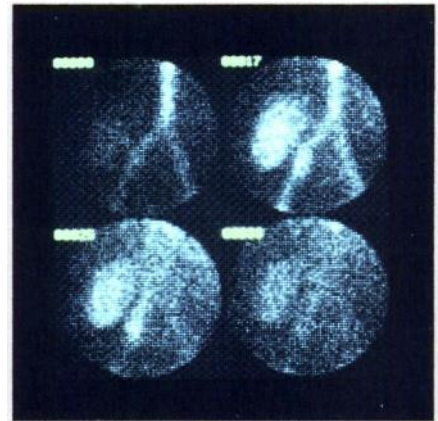
TM

IODOHIPPURATE SODIUM I 123 INJECTION

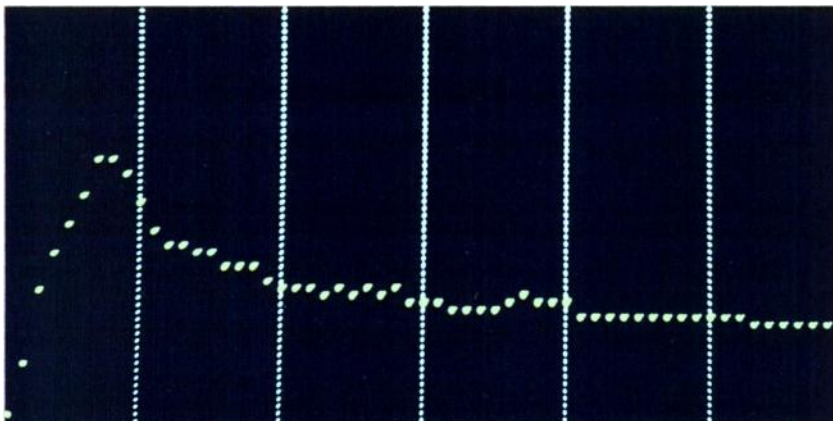
Normal Transplant Renogram¹



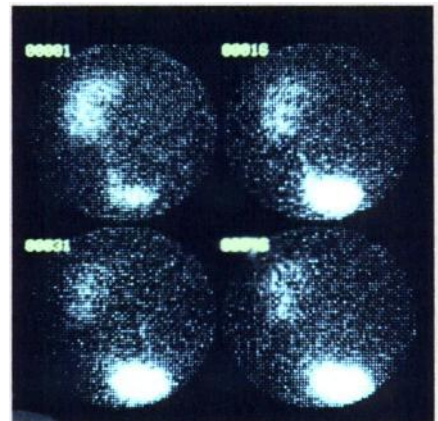
NEPHROFLOW, Iodohippurate Sodium I 123 Injection, 1.0 mCi



High Count Rate
High Detector Efficiency



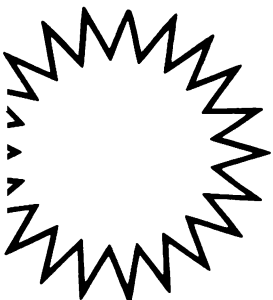
Iodohippurate Sodium I 131 Injection, 0.15 mCi



Low Count Rate
Low Detector Efficiency

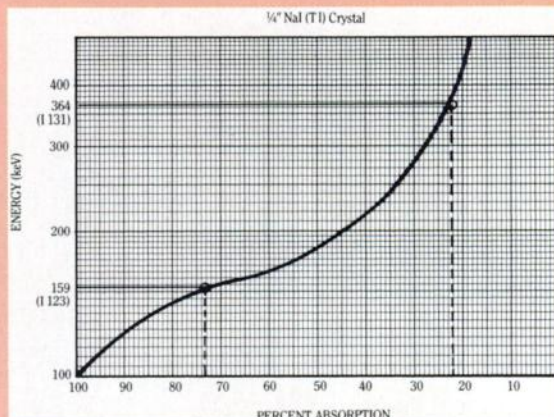
NEPHROFLOW provides better counting statistics and higher data density.

¹Reference: Data on file, Medi-Physics, Inc., Richmond, CA



Nephroflow™

- Particularly useful in obstructed patients
- Slight advantage in photon intensity
- Major advantage in 1/4 inch crystal efficiency
- Imaging should be performed as close to calibration time as possible



Comparison of I 123 and I 131

Characteristic	I 123	I 131
Mode of Decay	Electron capture	Beta
Half-Life	13.2 hours	193 hours
Principal Gamma Energy (keV)	159	364
Intensity	84%	82%
Half-Value layer, lead, cm	0.037	0.24
Detection Efficiency: 1/4" NaI (Tl) crystal	74.5%	22.5%



medi+physics®
MEDI-PHYSICS, INC., RICHMOND, CALIF. 94806
SUBSIDIARY OF HOFFMANN-LA ROCHE INC.

4050 Lakeside Drive, Richmond, CA 94806, (415) 222-8006

NEPHROFLOW™ IODOHIPPURATE SODIUM I 123 INJECTION

For complete prescribing information consult package insert, a brief summary of which follows:

DESCRIPTION: Iodohippurate Sodium I 123 Injection is supplied as a sterile, apyrogenic, aqueous, isotonic saline solution for intravenous administration. Each milliliter of the solution contains 37 megabecquerels (1 millicurie) iodohippurate Sodium I 123 at calibration time, 2 milligrams iodohippurate Sodium, 1 percent benzyl alcohol (as a preservative), 9 milligrams per milliliter sodium chloride for isotonicity, and up to 0.1 percent ethanol. The solution is buffered with sodium phosphate and the pH is adjusted to 7.0-8.5 with sodium hydroxide or hydrochloric acid. The radionuclidic composition at calibration time is not less than 94.7 percent I 123, not more than 4.8 percent I 124, and not more than 0.5 percent all others (I 125, I 126, I 130, Na 24, Te 121). The radionuclidic composition at expiration time is not less than 85.5 percent I 123, not more than 12.9 percent I 124, and not more than 1.6 percent all others.

INDICATIONS AND USAGE: Iodohippurate Sodium I 123 Injection is a diagnostic aid in determining renal function, renal blood flow, and urinary tract obstruction, and as a renal imaging agent.

CONTRAINDICATIONS: None Known.

WARNINGS: None Known.

PRECAUTIONS:

General

The contents of the vial are radioactive. Adequate shielding of the preparation must be maintained at all times.

Do not use after the expiration time and date (24 hours after calibration time) stated on the label.

The prescribed Iodohippurate Sodium I 123 dose should be administered as soon as practical from the time of receipt of the product (i.e., as close to calibration time as possible) in order to minimize the fraction of radiation exposure due to relative increase of radionuclidic contaminants with time.

Iodohippurate Sodium I 123, as well as 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.

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.

Carcinogenesis, Mutagenesis, Impairment of Fertility

No long term animal studies have been performed to evaluate carcinogenic potential, mutagenicity potential, or whether Iodohippurate Sodium I 123 affects fertility in males or females.

Pregnancy Category C

Animal reproduction studies have not been conducted with this drug. It is also not known whether Iodohippurate Sodium I 123 can cause fetal harm when administered to a pregnant woman, or can affect reproductive capacity. Iodohippurate Sodium I 123 should be given to a pregnant woman only if clearly needed.

Ideally, examinations using radiopharmaceuticals, especially those elective in nature, in women of childbearing capability should be performed during the first few (approximately ten) days following the onset of menses.

Nursing Mothers

Since Iodine-123 is excreted in human milk, formula-feeding should be substituted for breast feeding if the agent must be administered to the mother during lactation.

Pediatric Use

Safety and effectiveness in children have not been established.

ADVERSE REACTIONS: As with all organic iodine containing compounds, the possibility of allergic reactions must be kept in mind. Nausea, vomiting, and fainting have been reported in conjunction with the administration of Iodohippurate Sodium I 123.

HOW SUPPLIED: Iodohippurate Sodium I 123 Injection is supplied in nominal 3.5 ml vials as a sterile, nonpyrogenic, aqueous, isotonic saline solution for intravenous injection. Each milliliter contains 37 megabecquerels (1 millicurie) of Iodohippurate Sodium I 123 at calibration time.

It is available, in individual vials, in the following sizes:
MPI Catalog No. 2041; 1 ml and 37 megabecquerels (1 mCi) per vial
MPI Catalog No. 2042; 2 ml and 74 megabecquerels (2 mCi) per vial

Vials are packaged in individual lead shields with plastic outer container.

MORE FOR LESS!



RADIOISOTOPE RECORD
 Date: Jul 16, 1984
 Time: 8:11 A.M.
 Isotope: Tc-99m
 Sample # 1
 Activity: 798. mCi
 Volume: 20.0 ml
 Conc: 39.9 mCi/ml
 99Mo: 27.8 uCi
 Mo/Tc: .034 uCi/mCi

RADIOISOTOPE RECORD
 Date: Jul 16, 1984
 Time: 8:12 A.M.
 Isotope: Tc-99m
 Sample # 1
 Dose: 5.00 mCi

Isotope Decay Chart

8:30 A.M.
 38.5 mCi/ml
 .13 ml
 Mo: .036 uCi/mCi

9:00 A.M.
 36.3 mCi/ml
 .14 ml
 Mo: .038 uCi/mCi

9:30 A.M.
 34.3 mCi/ml
 .15 ml
 Mo: .040 uCi/mCi

COMP-U-CAL™

A Fully-Computerized Radioisotope Calibrator That You and Your Budget Will Appreciate!

COMP-U-CAL™ GIVES YOU **MORE**

- Provides a printed record of date, time, isotope activity, concentration, syringe volume and assay results.
- Calculates and prints out the concentration and volume for any desired dose, corrected for decay for a whole day, or for a single dose, as desired.
- Performs complete ⁹⁹Mo assay on ^{99m}Tc samples.

COMP-U-CAL™ GIVES YOU MORE FOR **LESS**... ONLY **\$4,900**



Other Price/Performance Values

DELUXE ISOTOPE CALIBRATOR

Offers a fast, accurate means of measuring the activity of radioisotope doses.

ONLY \$3,975

CAL/RAD™ II

Provides the budget-conscious lab with an economical calibrator system that's reliable, too.

ONLY \$1,495



TM Victoreen, Inc.

To find out how to get more for less, call or write for details. Request Bulletin 3541-B.

100% SATISFACTION GUARANTEED!

If for any reason you are not completely satisfied with a Nuclear Associates product, it may be returned within 30 days of shipment for full credit.

NUCLEAR ASSOCIATES



A Division of VICTOREEN, INC.
 100 VOICE ROAD
 CARLE PLACE, NY 11514-1593
 (516) 741-6360
 A Subsidiary of Sheller-Globe **SG**

THE PRICE/PERFORMANCE LEADER IN RADIOISOTOPE CALIBRATORS

npi npi npi npi npi npi npi npi npi npi npi npi npi npi npi npi npi npi npi n

UNIDOSE™

the future of radiopharmaceuticals.

Now there is a practical and economical way to meet your nuclear medicine requirements. NPI, the originator of Unidose pioneered the way with individual dosages of prescribed radiopharmaceuticals supplied only when you need them.

Unidose is only one NPI innovation with the future in mind. No longer must you worry about handling and storing large inventories of radioactive materials and waste. You can meet today's demands for cost containment with Unidose. And its safety factor goes a long way towards meeting ALARA goals.

NPI service centers supply your diagnostic imaging needs on demand, 24 hours a day from 47 centralized radiopharmacies nationwide. Quality radiopharmaceuticals coupled with NPI's radiation safety services and accessory products ensure that future advances in nuclear medicine reach the world of practical application.

Meeting your requirements now and for the future,
Nuclear Pharmacy
Incorporated.

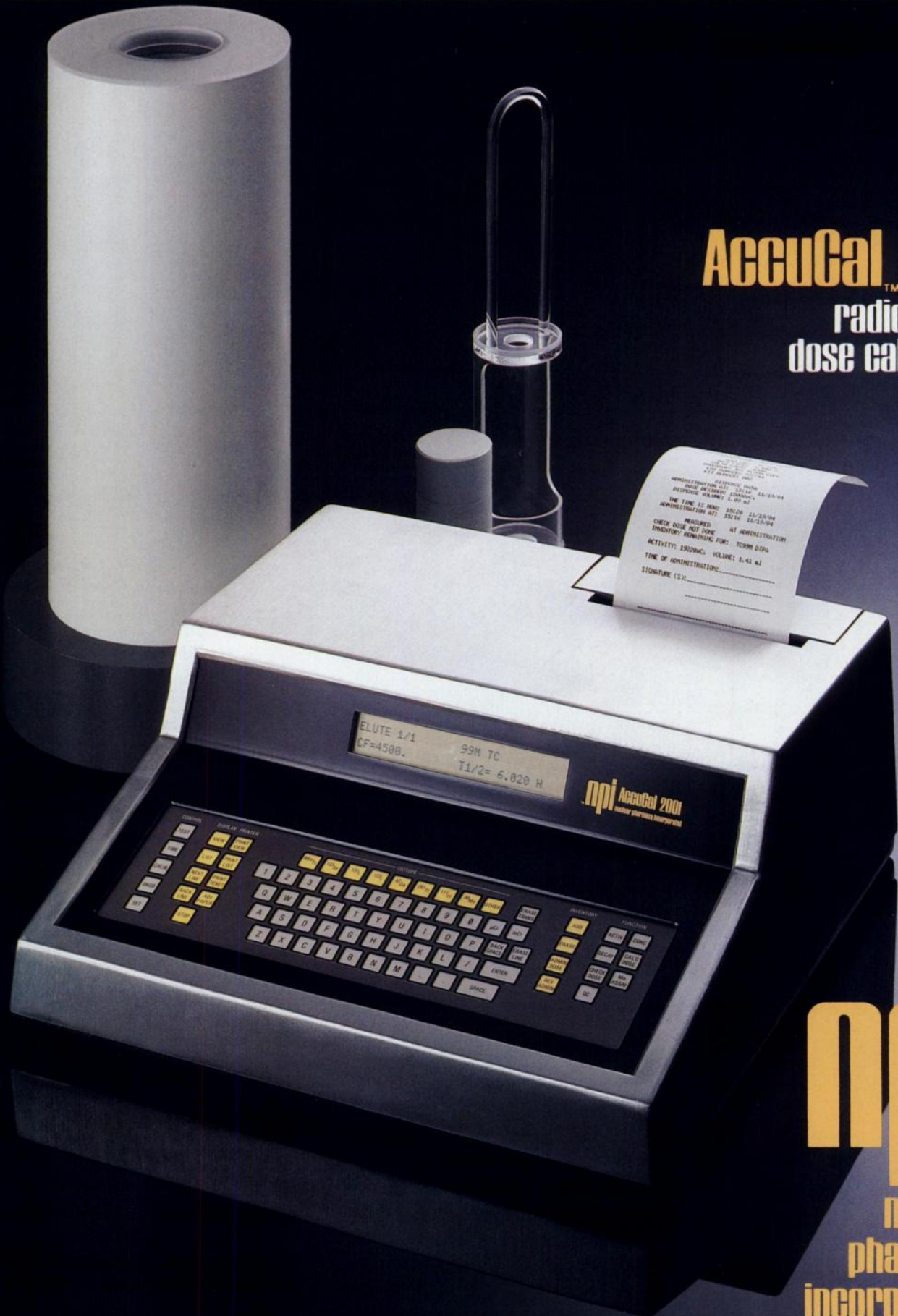
npi™

1-800-821-0547



AccuCal™ 2001

radionuclide
dose calibrator



REPORT FROM THE ACCUCAL 2001
DATE: 11/20/04
TIME: 11:00 AM
ACTIVITY: 1.41 MBq
TIME OF ADMINISTRATION: 11:20 AM
SIGNATURE (S):

ELUTE 1/1
CF=4588.
99M TC
T1/2= 6.020 H

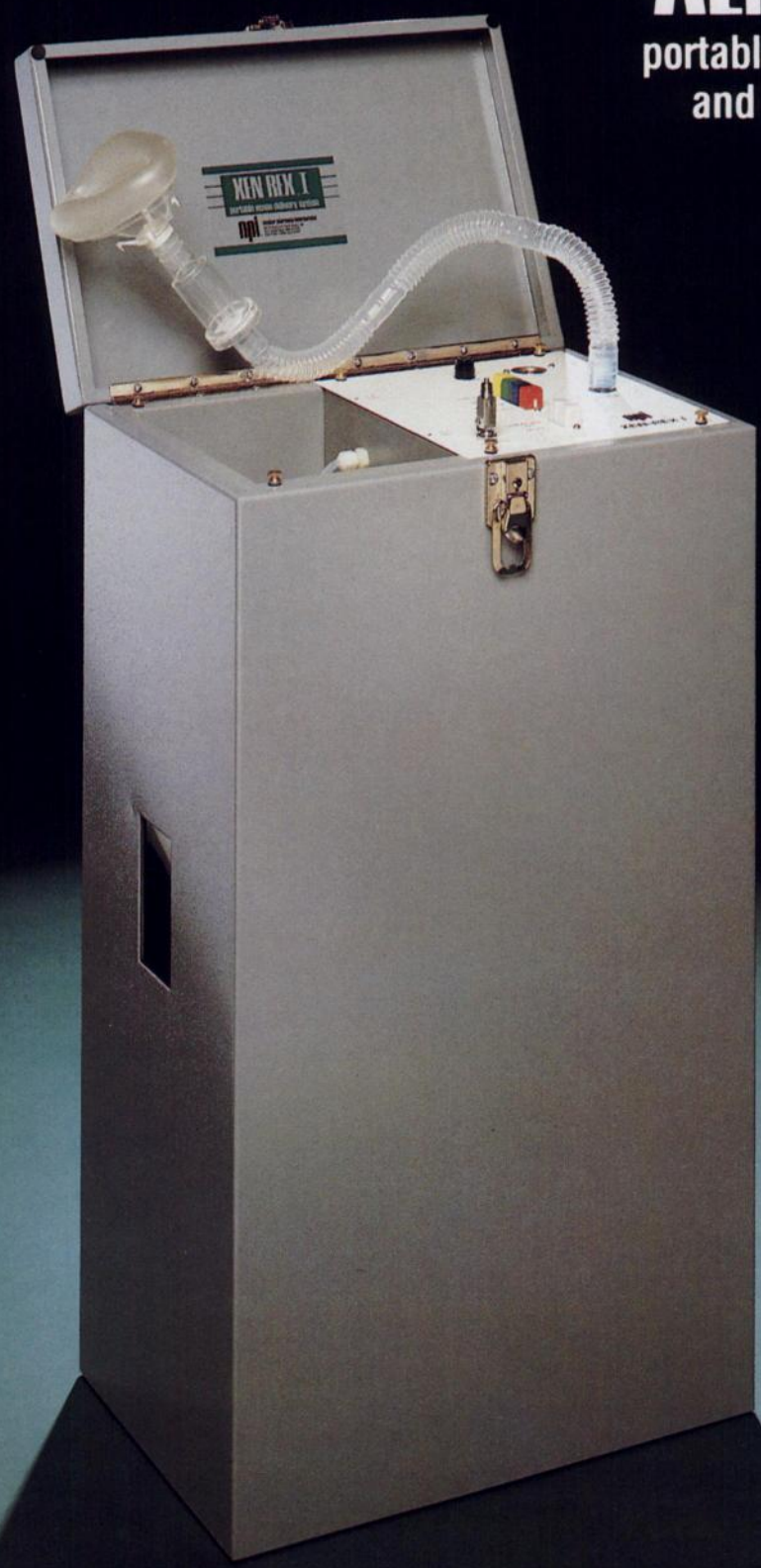
npi AccuCal 2001
Nuclear Pharmacy Incorporated

npiTM
nuclear
pharmacy
incorporated



XEN REX™ I

portable Xenon delivery
and trapping system



for use in
lung ventilation
studies involving
Xenon 133 and
Xenon 127

npi™

nuclear
pharmacy
incorporated

npiTM

**nuclear
pharmacy
incorporated**



**Offering a complete line of
radiation monitoring devices
and sensors.**

Circle Reader Service No. 6

AN OPEN AND SHUT CASE!



The ESP-1 Ready To Travel For Emergency Preparedness Or For Health Physicists On the Go

**Radiation Exposure Surveys • Contamination Surveys
Nuclear Medicine Applications • Radioactive Package Surveys
Radioactive Waste Monitoring**

The case above can be outfitted with seven possible detectors for the following applications:

- beta detection and contamination surveys
- low energy gamma detection
- medium/high gamma energy detection
- energy compensated gamma/X-ray detection for measuring exposure rate

We will customize your case to accommodate specific detector assemblies and detectors of your choice.

P.O. Box 2108
Santa Fe, New Mexico 87504-2108
(505) 471-3232 TWX: 910-985-0678

Represented in Canada by:
Safety Supply Canada
214 King Street East
Toronto, Ontario M5A 1J8
(416) 364-3234 TELEX 065-24390

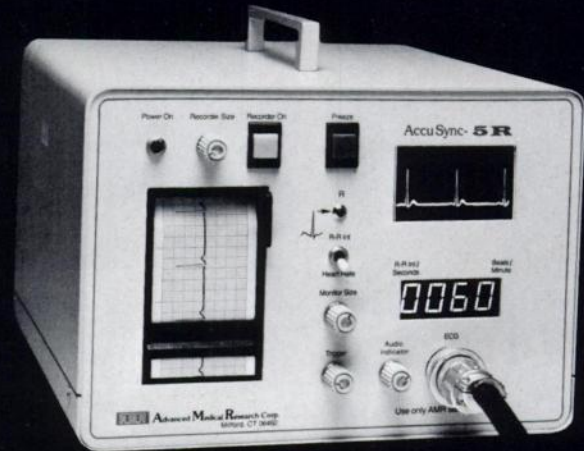
Eberline

A DIVISION OF
**Thermo
Electron
CORPORATION**

AMR's AccuSync provides R-wave detection with precision and reliability. The finest R-wave Triggering device available for computerized gated cardiac studies.

AccuSync-5R Features

- Isolation Amplifier for Patient Safety.
- Digital CRT Monitor.
- ECG Strip Chart Recorder.
- Heart Rate/R-R int.
- Trigger Pulse LED.
- Trigger Control for Ease of Lead Placement and Precise Location of Trigger Pulse.
- R-Trigger Output, Compatible with all Computers.
- No Delay.
- ECG Output
- Playback Mode. (optional)
- Event Marker. (optional)
- Audio Indicator.



FEATURES

MODEL

AccuSync-6



All AccuSync-5R features with the exception of the Strip Chart Recorder.

AccuSync-IR



All AccuSync-5R features with the exception of Digital CRT Monitor.

AccuSync-2R
AccuSync-2M



All AccuSync-IR features incorporated into a Module designed to fit into certain Mobile cameras.

AccuSync-3



All AccuSync-IR features with the exception of the Strip Chart Recorder, Playback Mode and Audio Indicator.

AccuSync-4



All Accu Sync-3 features with the exception of the Heart Rate/R-R int. display.



**ADVANCED
MEDICAL RESEARCH**

301 Brewster Road/P.O. Box 3094
Milford, CT 06460/Telephone: (203) 877-1610

Raytheon 1985

More than a bold new logo that symbolizes a new approach to the diagnostic imaging marketplace—

A new organization
—Raytheon Medical Equipment Division—
with a prime focus on your current and future needs in nuclear medicine.

A renewed commitment
to nuclear imaging—backed by 16
continuous years of proven performance.

A new level of support
with the resources of one of the world's
leading technological, quality-oriented
companies.

A new sense of innovation
that stems from attention to *both* advanced
technology and the fundamentals critical
to nuclear imaging.

The result: All-new systems for nuclear
imaging. Systems with more power. More
capability. More features than you've ever
seen before.

Because, in 1985—if it's new in nuclear
imaging, it's from Raytheon.

Raytheon
MEDICAL EQUIPMENT DIVISION

2020 North Janice Avenue
Melrose Park, Illinois 60160

The Society of Nuclear Medicine

33rd
Annual
Meeting
June 22-25
(Sunday-Wednesday)
Washington, D.C.



INTENSIVE LEARNING OPPORTUNITIES FOR ALL NUCLEAR SPECIALISTS

Washington, D.C., will be the backdrop of our thirty-third Annual Meeting. The meeting includes four days of intensive learning opportunities interspersed with exciting social events. Sites that are uniquely Washington, D.C., will house our get-togethers.

With our commitment to offering only the very best educational resources available in nuclear medicine, we feel that this meeting will be our finest to date.

SCIENTIFIC PAPERS

This year's presentation of over 600 scientific papers includes a distillation of the latest advancements and finest work achieved by outstanding scientists and physicians in the field of nuclear medicine. These papers, presented by the original authors, with over 30 subjects to choose from, will provide a unique opportunity for enhancing your knowledge or exploring new avenues in correlative areas of nuclear medicine. Ample time is allotted at these presentations for questions and discussions.

An extensive display of scientific posters and exhibits will augment the presentations.

CONTINUING EDUCATION COURSES

Refresher and state-of-the-art continuing education courses in chemistry, physics, quality assurance, cardiovascular nuclear medicine, PET, SPECT, and NMR will supply up-to-the-minute approaches and procedures for all clinical settings.

TECHNOLOGIST PROGRAM

The ever-increasing importance of the role of the nuclear medicine technologist will be explored in our Technologist Program, and over 70 hours of clinical updates will provide chief and staff technologists with the latest in basic, intermediate, and advanced studies. This program will broaden expertise and enhance the technologist's contributions to nuclear medicine.

EXPOSITION

More than 1,800 exhibitors from over 90 pharmaceutical and equipment manufacturers will display their latest products in a lively atmosphere. These knowledgeable commercial representatives offer the technical depth our field demands, and they are valuable sources of timely and pertinent information.

AUDIOVISUALS, BOOKS, JOURNALS

The Society of Nuclear Medicine is continually adding to its library of audiovisuals, books, and other publications. A stop at the publications booth is well worth the time. Here you will find on display what the society has to offer for year-round educational advancement.

Networking opportunities and job referral boards are available at special locations throughout the meeting as well as membership information at our membership booth.

Registration: \$120 SNM members; \$215 nonmembers

Hotels: \$89 average rate/night

If you need further information, please contact:

**The Society of Nuclear Medicine
Education and Meetings Department
136 Madison Avenue
New York, N.Y. 10016
(212)889-0717 Telex: 510-100-5285**

The Raytheon Spectrum 150-DT: Nuclear medicine made faster... more exacting.



Spectrum 150-DT is the first totally integrated, digital nuclear imaging system with *complete* attention to detail throughout. For *complete* diagnostic imaging opportunities.

- Total imaging capability from whole body to precise, multi-angular ECT.
- Ultra large, rectangular, high-resolution field of view.
- Digital imaging up to 512² matrix with video output.

- Real-time digital image correction of linearity, energy and uniformity.
- Symmetric and asymmetric window imaging.
- Precision parallel hexagonal collimators.
- Integrated system self-diagnostics.
- Integral carbon fiber table for both ECT and whole body.

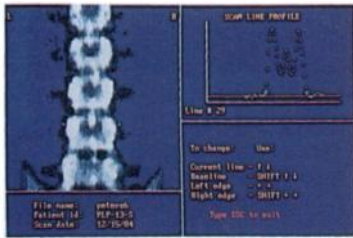
Learn more about Spectrum 150-DT. Contact your dealer. Or call us toll-free at 1-800-323-2213 (in IL, 1-312-865-2600).

Raytheon
MEDICAL EQUIPMENT DIVISION

2020 North Janice Avenue
Melrose Park, Illinois 60160

Raytheon: Excitement in nuclear imaging.

LUNAR DP3-XT/AT, The Unique Clinical Solution For Bone Densitometry



Over a decade of research and clinical testing has gone into the LUNAR DP3 dual-photon spine/femur scanners. LUNAR scientists pioneered both single and dual-photon absorptiometry and helped LUNAR become the world's largest manufacturer of bone measurement instrumentation.

LUNAR now offers the IBM-XT and AT* as options to our acclaimed DP3 scanner. Advanced features of the DP3-XT/AT include:

- Multi-tasking
- Automated peaking
- High-resolution color graphics
- Hard-disk storage

LUNAR continues to set the standard for bone measurement. These new features, plus a light-localizer and a belly-band, add to the DP3's proven capability.

Contact us to see why the clinical leaders have turned to LUNAR with confidence.

Ask A User!

Our customers comprise over 85% of all clinical facilities using dual-photon absorptiometry. They selected the DP3 because LUNAR's exclusive know-how ensures trouble-free, question-free operation and because of distinct advantages such as:

- Intelligent scans that reduce scan area, scan time, and patient exposure.
- Multiple sites—lumbar spine, proximal femur, tibia, proximal humerus and other areas
- Graphics displays—ultrafast, high-resolution images
- Normal database of US subjects
- Accuracy/precision based on physically correct algorithms
- High patient throughput with 15-minute scans
- Sophisticated software that takes the guesswork out of scanning
- Medical physics support from our in-house staff
- Software updates—free-of-charge
- Service—1-year warranty with 24-hour response
- Lower cost—extended source life
- Operational ease—menu-driven, automated software



**LUNAR
RADIATION
CORPORATION**

916 Williamson Street
Madison, Wisconsin 53703
(608) 258-8545

* IBM-XT and IBM-AT are trademarks of International Business Machine Corporation

Circle Reader Service No. 11

OUR CRC-30 RADIOISOTOPE CALIBRATOR. IT'S PART EINSTEIN, PART FREUD, AND PART GUTENBERG.



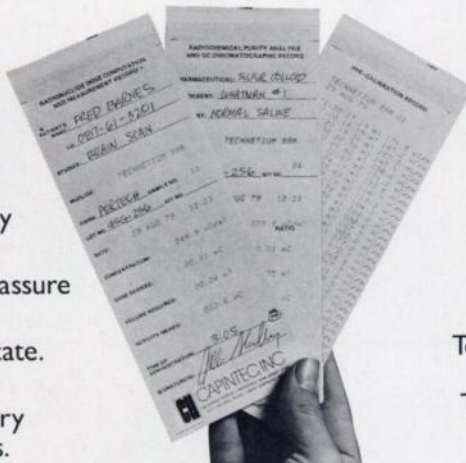
The CRC-30 calibrates and computes, analyzes radiochemical purity, and puts it all in print.


Computes radiopharmaceutical dose to assure that activity is exactly as prescribed.

Analyzes imaging preparations to assure radiochemical purity.

Prints permanent records in triplicate. Gives molybdenum assay printout.

Simplifies compliance with regulatory and hospital accreditation standards.



CAPINTEC, INC. 

Corporate Headquarters:
6 Arrow Road, Ramsey, New Jersey,
U.S.A. 07446

Sales and Service: 540 Alpha Drive,
Pittsburgh, Pennsylvania, U.S.A. 15238
Toll Free (800) 227-6832 (CAP-NTEC)
or (412) 963-1988,
Telex: 706454 (CAPINTEC PGH UD).

THE MEASURE OF EXCELLENCE



Some tiny packages
really deliver

Introducing the
Starcam integrated
nuclear diagnostic
imaging system



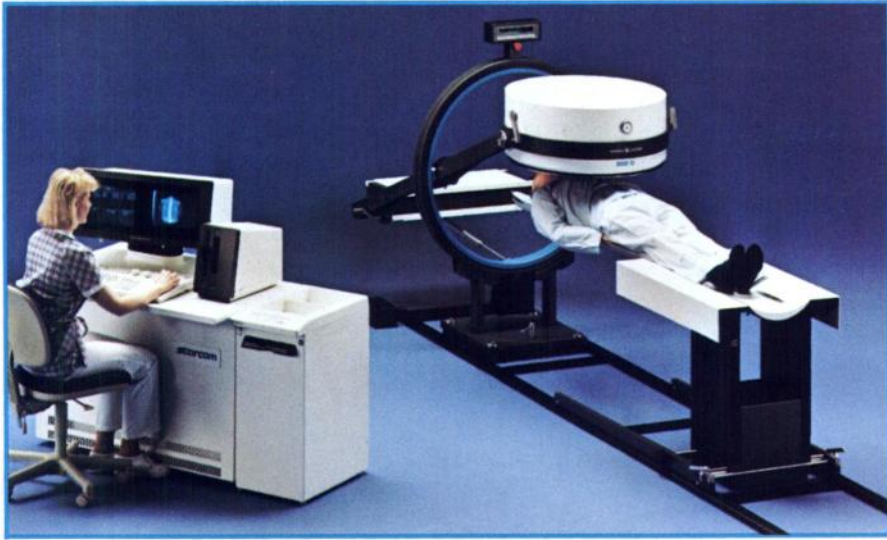
The revolution in nuclear imaging

Using advanced digital technology, General Electric has engineered a totally compact, *integrated nuclear diagnostic system* that gives you exceptional imaging capability and enhanced departmental productivity . . . in a single system. With the Starcam™ system, *all* acquisition functions are computer controlled. That means peak camera performance is maintained at all times, providing consistently high quality images. Our large image monitor offers acquisition and display in matrices up to 512², making images easier to view and giving you the best possible resolution.

Evolution backed by experience

The Starcam system is the technological evolution of our Star® system data processor and MaxiCamera® line. It's entirely compatible with existing Star systems through floppy data transfer and the future Starlink™ network. Starcam's modular digital design makes it adaptable to technological enhancements; a feature that lets you broaden the scope of your imaging capabilities as innovations in technology are made.

Starcam



Starcam is available in 300, 400 and 500 mm configurations and as a fully mobile unit complete with a versatile 300 mm detector. And General Electric's field proven Autotune® detectors, integrated to the Starcam system, automatically adjust photo multiplier tubes "on-the-fly," stabilizing camera performance and reducing system downtime and maintenance caused by PM tube drifting.

Digital "on-the-fly" energy and spatial corrections provide improved linearity, uniformity and overall image resolution.

Performance you can count on

Starcam incorporates five high-speed microprocessors, two of them 16-bit multi-tasking units, that work together in a distributed processing fashion. Combined with an integrated Array Processor (optional), this delivers exceptional computing capability, essential when performing studies such as ECT.

Starcam features dual central processing units with over two megabytes of very high-speed

expandable memory that's directly accessible for display and processing. An 84-megabyte Winchester disc, standard with Starcam, gives you more than twice the data storage available with other systems.

The bottom line... productivity

Starcam is a breakthrough in imaging technology. It provides today's nuclear departments with procedural capabilities unsurpassed by any other system. It redefines the operation of your department, eliminating many time-consuming functions without compromising the diagnostic value of the information obtained. The result is a more effective, efficient imaging department; one that optimizes diagnostic capability without jeopardizing the economic well-being of your health care institution.

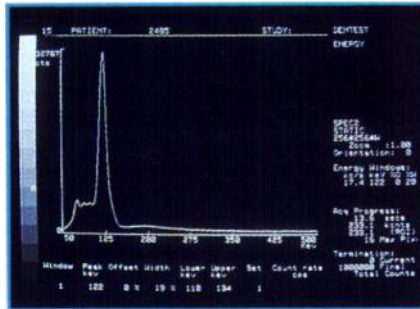
Starcam represents General Electric's continued commitment to developing nuclear diagnostic imaging technology that's innovative today and designed to stay that way tomorrow.

For more information, call our toll-free number today:

1-800-433-5566.
Ext. 5501



A fully mobile unit, complete with a versatile 300 mm detector, is available for remote imaging.



Starcam allows precise digital control of all detector parameters for up to three energy windows.

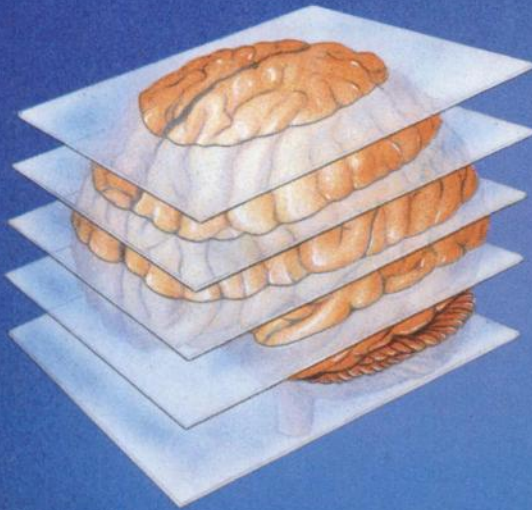


Starcam is available in 300, 400 (shown) and 500 mm configurations.

DO YOU WANT TO MAKE PROGRESS IN CLINICAL SCIENCE?

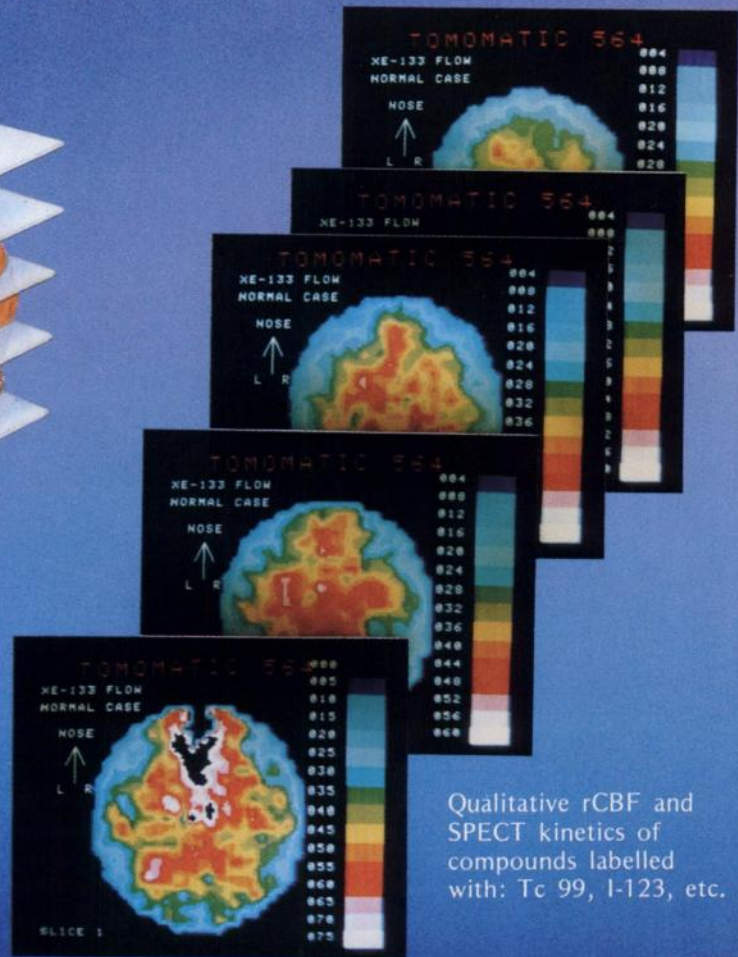
TOMOMATIC 564

fast — inexpensive — atraumatic



Quantitative rCBF measurements in five transaxial slices, recorded simultaneously in only five minutes.

Using: the repeatable Xenon 133 gas inhalation method.



Qualitative rCBF and SPECT kinetics of compounds labelled with: Tc 99, I-123, etc.

TOMOMATIC 564



TOMOMATIC 564 a dedicated brain SPECT system, featuring a fast rotating multidetector emission tomograph, with high gamma photon sensitivity and high geometrical resolution.

TOMOMATIC 564 uses state of the art in computer technology, with advanced and versatile user software.

TOMOMATIC 564 is the latest developed instrument in a series of 1, 3 and 5 slice tomographs.

Please contact us now for further information about the possibilities offered to you by TOMOMATIC 564 — make progress in clinical science.

Circle Reader Service No. 14

medimatic

For further information please contact:

U.S.A.:
Medimatic A/S Gersonsvej 7
2900 Hellerup

U.S.A.:
Medimatic Div. of M.I.D. inc.
18103 Sky Park South, D-205

Japan:
Riko Trading Company Ltd.
34-6 Nishi Gokencho

France:
Medimatic S.A.R.L.
324, Route de St. Germain

Italy:
Soxil S.p.A.
Via Antonelli 3

W. Germany:
Vogel GmbH & Co. KG
Marburgerstrasse 81

Managing Departmental Costs In A Cost Conscious Environment

Efficient departmental management is no longer an elective procedure for nuclear medicine.

In the cost-conscious environment of today's hospital, administrators are looking more carefully at departmental budgets. At the same time, attending physicians are ordering tests more selectively, basing their decisions both on the diagnostic information they need and the cost-effectiveness of the study.

Understanding Your Costs

This means that you are being asked to become more of a businessman, adding terms like "efficiency" and "productivity" to your medical vocabulary. Now you have to know the real operating costs of your department. What, for example, does it cost to perform a bone scan? Or a thallium study? Are most costs attributable to staff? To equipment? Or to supplies? Can changes in scheduling, inventory or procedure mix reduce these costs?

At Du Pont NEN we've developed a computer-based program to help you determine and analyze costs. Then, you can use the results to increase productivity in your department. It's called Financial Management Analysis (FMA) and it's available to all our customers.

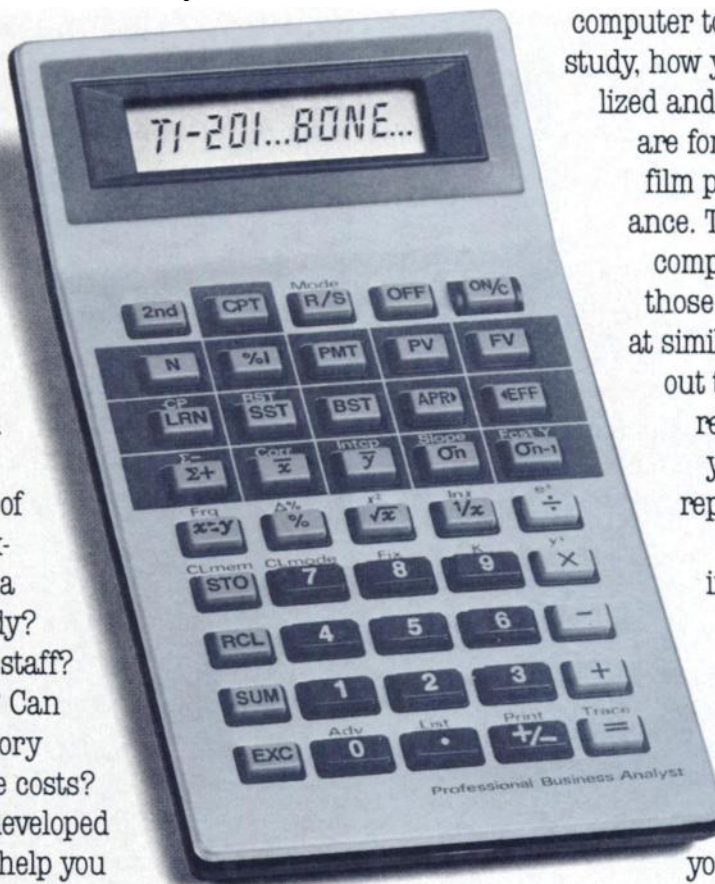
FMA - A Management Program for you

Here's how it works. Your Du Pont NEN representative will help you collect such data as costs for personnel, supplies and instrumentation, the number and kind of studies you perform and the time the studies take. Then, this input will be analyzed by the

computer to show your costs per study, how your staff is being utilized and what your total costs

are for every category, from film processing to maintenance. The program can even compare your figures with those of other departments at similar hospitals throughout the country. Your representative will present your FMA in a written report, and will review it with you to help you increase the efficiency of your department.

Ask your representative about FMA for your department. And about our other programs to help you meet the challenges of nuclear medicine in the '80s. Our goal is Imaging Excellence: enhancing the image of your department while improving the images in your department.



Putting Recent Advances to Work for You

New

Pediatric Nuclear Medicine

S. T. Treves, MD, Director, Division of Nuclear Medicine, The Children's Hospital; and Associate Professor of Radiology (Nuclear Medicine), Harvard Medical School, Boston, MA

In the fast moving world of nuclear medicine, you'll find **Pediatric Nuclear Medicine** to be a reliable guide for all aspects of the subject. All contributors to this volume are pediatric specialists working at some of the country's most prestigious institutions. They regularly use, and in some cases have initiated, the techniques described.

Their up-to-date information has been organized by Dr. Treves into a clear, consistent format. Chapters are divided according to organs and systems. Within each chapter, principles, indications and general considerations are discussed before specific methods are outlined. In the section on methods, you'll discover exceptionally clear discussions of radio-pharmaceuticals, methods of examination, dosimetry and radiation exposure in children. Clinical applications are included in addition to technical aspects and dosimetry. As an added benefit, the book's abundance of illustrations will clarify your

vision of common and rare disorders you may see in your pediatric patients.

For a better awareness of all the potentials, advantages and clinical indications for pediatric nuclear medicine, order your copy of **Pediatric Nuclear Medicine** now.

Contents

Introduction. Bone. Skeletal scintigraphy for assessment of mandibular growth and asymmetry. Bone marrow. Kidneys. Radionuclide voiding cystography. Scrotal scintigraphy. Liver. Spleen. Hepatobiliary scintigraphy. Gastroesophageal reflux and gastric emptying. Meckel's diverticulum. Thyroid. Brain. Cerebrospinal fluid. Dacryoscintigraphy. Heart. Lung.

**1985/338 pp/370 illus in 735 parts/\$74.50/
#96001-5**

Inquire at your local medical bookstore or write to:
Springer-Verlag New York, Inc.

Att: D. Winkler
175 Fifth Avenue.

New York, NY 10010

(Personal checks, AmEx, VISA or MC are gladly accepted.
Please add \$1.50 for shipping.)



Springer-Verlag New York Berlin Heidelberg Tokyo

Circle Reader Service No. 16

It's inevitable.

Somebody is always more determined. Works harder. And winds up on top.

Take Dysan, for instance.

We were the ones who helped develop the first 5¼" flexible diskette.

And while everybody else was trying to figure out how to make them, we were busy making them better.

With superior materials. A special lubricant and jacket liner that extend diskette life.

Unique manufacturing techniques. Like our burnishing process that helps eliminate read/write errors.

And an almost fanatical corporate commitment to quality.

What does all this mean to you?

Every Dysan diskette you buy will record and retain all your data all the time. For as long as you own the diskette and treat it right.

Dysan.

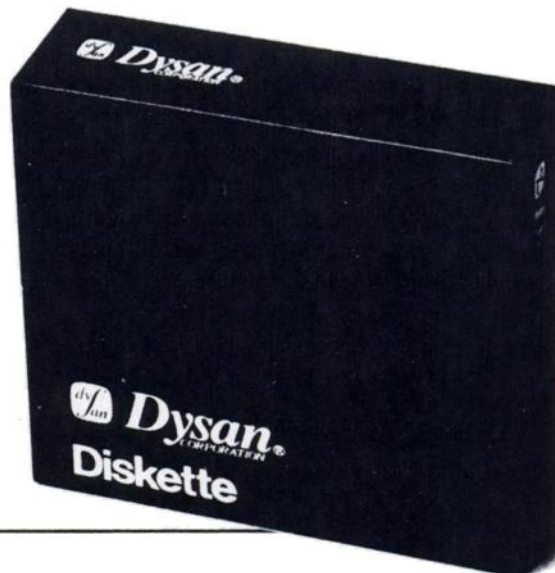
We're not just like everybody else.

Dysan 5¼" and 8" flexible diskettes are available from JRT Associates, your Dysan specialist.

JRT is a leading supplier to the imaging community, with a special understanding of your needs.

Call (212) 884-6674 to place your order for Dysan diskettes. For information, call or write:

**Somebody
has to be better
than everybody
else.**



JRT ASSOCIATES

Suite 812
2600 Netherland Ave.
Riverdale, NY 10463

DARE TO COMPARE...



More nuclear medicine departments are now using Radcal radionuclide calibrators — for several good reasons:

- a size and price to fit all needs and budgets
- U Listed (models 4045 and 4050)
- traceability
Radcal is a member of the Atomic Industrial Forum and participates in the AIF-NBS Radioactivity Measurements Assurance Program
- microprocessor controlled, with upgradeable software
- improved linearity and reproducibility
- heavily shielded ion chamber, remote up to 10'
- RS-232 serial interface and solid state chamber bias available

- splashproof control unit
fully sealed — no knobs, buttons, dials or range switches
- Curie/Becquerel selection
- modular components for easy maintenance

Compare . . . and you'll be convinced.

Radcal Corporation
TM

an **mdh** company

Call today for literature and pricing.

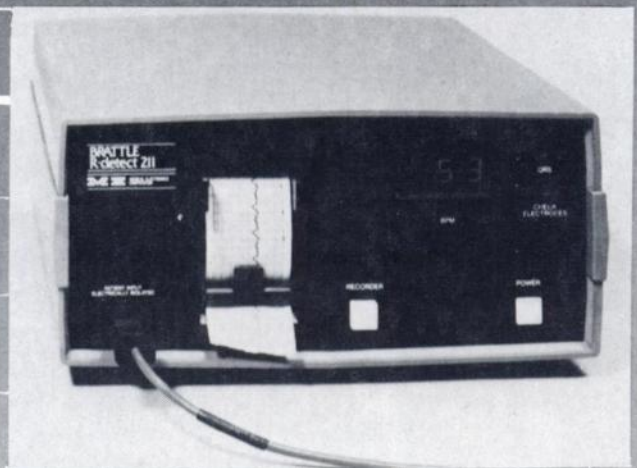
426 West Duarte Road • Monrovia, CA 91016 • (818) 357-7921 • Toll Free Outside CA (800) 423-7169 • Telex #182910

YOU DON'T HAVE TO KEEP YOUR FINGER ON THE TRIGGER!!

The BRATTLE R-DETECT automatically adjusts the threshold level . . . there is *no* manual setting needed.



MODEL 210



MODEL 211

The BRATTLE R-DETECT offers you fully automatic R-wave triggering and is compatible with all nuclear medicine computers. In addition, the model 211 has a strip chart with EKG and event marker indicating the exact location of the R-DETECT signal.

Special Features

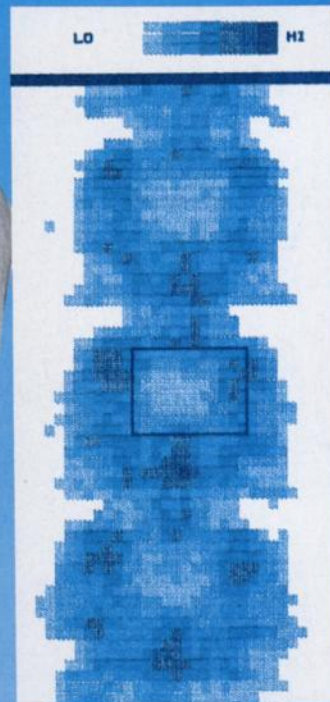
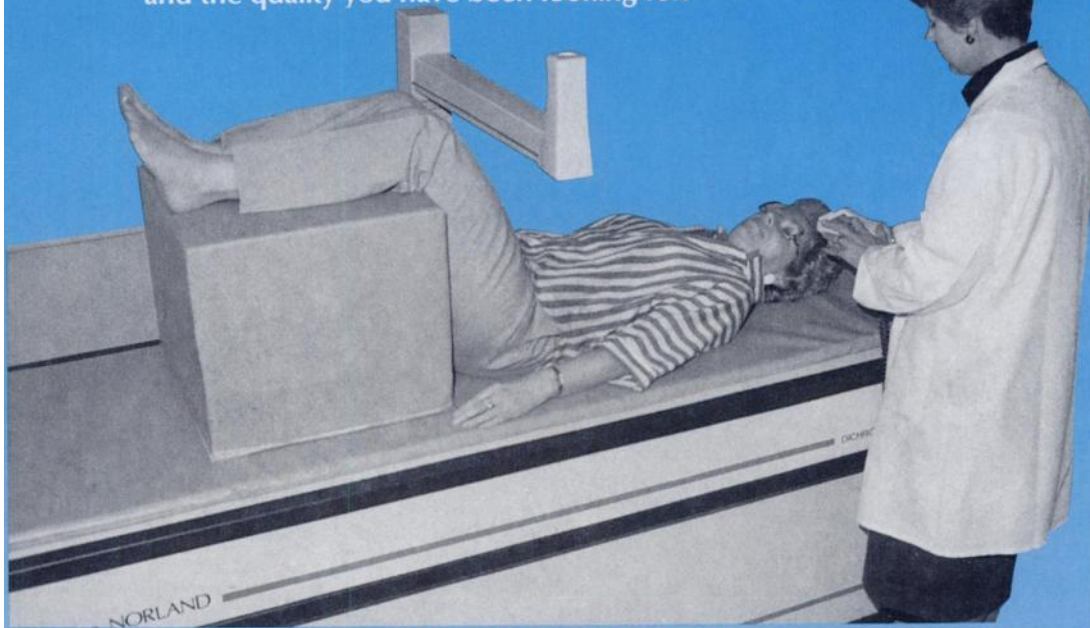
- Fully automatic threshold
- Only two electrodes
- High heartrate capability . . . ideal for stress testing
- Selectable PVC rejection
- Digital heartrate readout
- Pacemaker pulse rejection
- Flashing LED indicates QRS
- LED indicates faulty electrode connections
- Analog ECG output
- Compatible with all nuclear medicine computers
- Stripchart with EKG and R-DETECT event marker (model 211 only)

ME

Medical Electronics
335 Newbury Street
Boston, Massachusetts 02115
(617) 536-8300

NORLAND, THE FIRST NAME IN BONE DENSITOMETERS NOW OFFERS THE NEW 2600 DICHROMATIC

This advanced Second generation Dual Beam
Densitometer includes these many exclusive features
and the quality you have been looking for.



- **IBM-PC-XT* COMPUTER WITH COLOR GRAPHICS DISPLAY** plus independent microprocessor to operate the scanner simultaneously while you analyze another patient's data on the IBM-PC. IBM-AT and color printer are also available.
- **WHOLE BODY SCANNING TABLE** capable of lumbar spine and femoral neck measurements without moving the patient, plus optional Whole Body Calcium software.
- **LASER POSITIONING SYSTEM** to select scanning limits with remote control console, anywhere on the 243 cm table.
- **NEW TECHNIQUE FOR FEMUR NECK SCANS** actually scans diagonal to the table axes so the beam moves 90 degrees to the femur neck, providing the most reproduceable and accurate bone density values, with normal patient positioning.
- **EXCLUSIVE BONESTAR SOFTWARE SYSTEM** includes sophisticated patient data base management capabilities for thousands of data files as well as patient history and statistics. All software is extremely easy to use with menus and IBM's special function keys.
- **UNIQUE LOCAL REGION ANALYSIS MODE** permits measurement of intra-vertebral bone structure or any portion of the scanned data, even a kidney stone.
- **PROGRAMMABLE SCANNING SPEEDS** from 9.9 cm per second to 0.1 mm per second provide a range of lumbar scanning speeds of 7 minutes to over an hour for maximum spatial resolution.
- **ULTRASAFE RADIOISOTOPE CAPSULE** design features a built-in shutter to insure the maximum safety during source handling.

**EXCLUSIVE DISTRIBUTORS OF
NORLAND BONE DENSITOMETERS
for the USA and Latin America**



For more details write or call:
210 Madison Avenue
Fort Atkinson, WI 53538 (414)563-9341.



The Norland 2780 single beam densitometer, the most popular system world wide, is now available with advanced software to measure the "5 mm site" of the distal radius recently characterized by Dr. Roy Talmage and colleagues at the University of North Carolina at Chapel Hill, N.C.

Faster Imaging



For Less Money.

Depend on EDC... the leader in innovative, state-of-the-art collimator design.

Collimator specialization makes for a better product.

That's why so many leading nuclear medicine departments rely on collimators from EDC for unsurpassed quality and value.

Get superior imaging capabilities while handling greater patient loads, at less cost.

EDC collimators can fit all Gamma cameras including General Electric, Technicare, Siemens, Elscint and Picker. Whether you're buying a new camera or replacing an older, less efficient collimator—insist on EDC. We're known as the leading source for technically advanced, consistently superior collimators.

EDC manufactures collimators for low, medium and high-energies and for a wide range of sensitivities and resolutions. Your budget for new or replacement equipment will go further when you rely on the EDC collimator specialists.

Send us your requirements and camera model for a price quotation. Need a specific collimator to perform a specific task? Call Product Manager Andy Leask or any of our engineers. EDC can also recore your older collimator for greater efficiency. And EDC delivers, on-time, as promised!



Call or write: **Engineering Dynamics Corporation**
120 Stedman Street
Lowell, MA 01851
(617) 458-1456

Classified Advertising

Policy—The Journal of Nuclear Medicine accepts classified advertisements from medical institutions, groups, suppliers, and qualified specialists in nuclear medicine. Acceptance is limited to Positions Open, Positions Wanted, and Equipment Available. We reserve the right to decline, withdraw, or modify advertisements that are not relevant to our readership.

Rates for Classified Listings—\$10.00 per line or fraction of line (approx. 50 characters per line, including spaces). Please allow 28 characters for the first line which will appear in capital letters. Special rates for SNM members on Positions Wanted: \$9.50 per line. Note: Box numbers are available for the cost of the 2 lines required.

Rates for Display Ads—Agency commissions are offered on display ads only.
Full page \$920 Quarter page \$345
Half page 530 Eighth page 295

Terms—Payment must accompany order. Make checks payable, in U.S. dollars on U.S. banks only, to: The Society of Nuclear Medicine.

Deadline—first of the month preceding the publication date (January 1 for February issue). Please submit classified listings typed double spaced. No telephone orders are accepted.

Send copy to:
Advertising Department
The Society of Nuclear Medicine
136 Madison Avenue
New York, NY 10016
(212)889-0717

Positions Open

Physician

IMMEDIATE PHYSICIAN OPPORTUNITY to join rapidly growing nuclear medicine/diagnostic ultrasound group in South Florida. Special emphasis on cardiovascular nuclear medicine and echocardiography. Send CV to: Drs. Gottlieb & Block, 1150 N.W. 14 St., Suite #1, Miami, FL 33136; (305) 324-0424.

NUCLEAR MEDICINE PHYSICIAN wanted for full-time position in large Veterans Administration Medical Center associated with medical school. Apply to: H.T. Haden, MD, VA Medical Center, Richmond, VA 23249; (804)230-1315. An Equal Opportunity Employer.

DIRECTOR, NUCLEAR MEDICINE. The University of Kentucky Medical School invites applications and nominations for professor and director of Nuclear Medicine Division, Department of Radiation Medicine in a combined University-VAH program. We seek an individual with academic track faculty background to direct and provide leadership to a Medical School, Division of Nuclear Medicine for teaching, research, clinical development and care programs. To qualify for appointment, candidate should have recognized accomplishments in development studies, research, radionuclide studies, bibliography to support the application, desire to direct a Medical School department, teaching and administrative experience. VAH appointment experience desirable. MD degree and Board certification desirable. Qualified PhD scientists can apply with listed qualifications. Salary is based on academic rank and practice plan. Reply to Yosh Maruyama, MD, Chairman, Search Committee, Department of Radiation Medicine, University of Kentucky Medical Center, Room C-15, 800 Rose St., Lexington, Kentucky 40536. The University of Kentucky is an Equal Opportunity Employer.

Scientist

PHYSICIST. Medical physics group seeks an individual with expertise in health physics applied to nuclear medicine and diagnostic radiology. MS

degree preferred, but will consider a candidate with a BS degree and appropriate experience. Excellent salary and benefits. Send resume and salary requirements to: Jack J. Merkin, MS, Bio-Med Associates, 753 Boulevard, Kenilworth, NJ 07033. An EOE.

NUCLEAR MEDICINE PHYSICIST. We are recruiting for a physicist to supervise nuclear medicine laboratory at Yale-New Haven Hospital. The laboratory includes eight imaging instruments and four computers. Approximately 10,000 examinations are performed each year. Major responsibilities include supervision of technology training program, instruction of residents, consultation with physician staff regarding clinical and research studies, supervision of clinical computer applications, supervision of quality control and advice regarding equipment purchase and maintenance. Excellent opportunities exist for collaboration with both clinicians and other scientists in the Department of Diagnostic Imaging. If you are interested, please send a copy of your CV by September 30, 1985 to Paul B. Hoffer, MD, Department of Diagnostic Imaging, Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06510. Yale University is an affirmative action/equal opportunity employer. Applications from women and minority groups are encouraged.

ORGANIC RADIOCHEMIST. A position is available for a radiochemist in a research-oriented nuclear medicine laboratory. Experience in organic synthesis of radioactive tracers with both positron and single emitting radionuclides is extremely desirable. Active research is pursued in PET, SPECT, NMR, and monoclonal antibodies. Send CV to: Abass Alavi, MD, Chief, Nuclear Medicine, Hospital of the University of Pennsylvania, 3400 Spruce St., Philadelphia, PA 19104. The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer. Qualified female and minority candidates are encouraged to apply.

RESEARCH PHYSICIST. The Department of Radiology, Hospital of the University of Pennsylvania, invites applications for two research positions in medical imaging instrumentation. The successful applicant should have a PhD or equivalent and at least 3 years experience in nuclear physics and/or nuclear medicine research. They will join a group of investigators in developing advanced gamma-ray and positron imaging instruments for nuclear medicine. Submit CV to: Gerd Muehllehner, PhD, Department of Radiology, Hospital of the University of Pennsylvania, 3400 Spruce St., Philadelphia, PA 19104. The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer. Qualified minority and women applicants are encouraged to apply.

Resident

STANFORD UNIVERSITY SCHOOL OF MEDICINE. Nuclear Medicine Residency Program. Resident positions are available beginning July 1, 1986, for a 2-year program at Stanford University Medical Center and affiliated Veterans' Adm. Medical Center. Patients from the Children's Hospital at Stanford are also studied or treated at the University Hospital. The program, approved by the AMA and satisfying the requirements of the American Board of Nuclear Medicine, includes didactic instruction in radiologic mathematics and physics, radiation safety, dosimetry, electronics, and nuclear medicine instrumentation. A major portion provides practical experience in dynamic and static imaging, computer-assisted manipulation, radioimmunoassay methodology, other in vitro test procedures, and radiopharmacy as part of an integrated patient care program, both diagnostic and therapeutic. Prerequisite for entry into program: 2 years prior training in AMA-approved program in internal medicine, radiology, pathology or pediatrics. Requests for further information (include CV and reference list) should be directed to: I. Ross McDougall, MB, ChB, PhD, Professor of Radiology and Medicine, Stanford University Medical Center, Stanford, CA 94305. Stanford is an Equal Opportunity Affirmative Action Employer.

NUCLEAR MEDICINE RESIDENCY. The Division of Nuclear Medicine of the Department of Radiology of the New York Hospital-Cornell Medi-

cal Center invites applications for its accredited residency program in nuclear medicine beginning July 1, 1986. Requests for information and applications should be directed to: Dr. Salil Sarkar, Program Director, New York Hospital-Cornell Medical Center, 525 East 68th St., New York, NY 10021. An Affirmative Action/Equal Opportunity Employer.

UNIVERSITY OF MICHIGAN. Unexpected opening for postdoctoral fellow. Position open October 1, 1985. Laboratory involved in developing, evaluating in vitro and in vivo monoclonal antibodies for purposes of scintigraphic tumor diagnosis and therapy. PhD in immunology, molecular biology or chemistry desirable. Salary is in excess of \$20K/yr. Send CV with letter of application and 3 references to: Richard L. Wahl, MD, Division of Nuclear Medicine, Box 21, W5514, University of Michigan Medical Center, Ann Arbor, MI 48109-10. A Non-Discriminatory, Affirmative Action Employer.

Technologist

NUCLEAR MEDICINE TECHNOLOGIST. Clinical research position available for an experienced certified nuclear medicine technologist to participate in research utilizing monoclonal antibodies for imaging and therapy of cancer. Knowledge of SPECT and computer desired. Send resume and list of references to: President, Center for Molecular Medicine and Immunology, 100 Bergen St., Newark, NJ 07103. Equal Opportunity/Affirmative Action Employer.

DIRECTOR/NUCLEAR MEDICINE. Progressive, teaching hospital seeking Director of Nuclear Medicine. Responsible for 7 employees doing 3,400 exams (no RIA) annually in spacious, new department. Candidates should have BS degree and management experience. Spartanburg General Hospital is located in the Piedmont section of SC, convenient to Atlanta and Charlotte, mountains, ski slopes, and beaches. Send resume with salary history to: Director of Personnel Services, Spartanburg General Hospital, 101 East Wood St., Spartanburg, SC 29303; (803)573-6387.

Merchandise

WANTED: USED BAIRD CAMERA. Must be fully functional, and in good condition w/ service and maintenance records. We will respond immediately to any legitimate inquiry, including "finders fee." Call: (303)443-2610.

THIS SPACE CONTRIBUTED AS A PUBLIC SERVICE



More people
have survived
cancer than
now live in
the City of
Los Angeles.

We are winning.

Please support the
AMERICAN CANCER SOCIETY®

**UNIVERSITY OF CALIFORNIA,
SAN FRANCISCO, SCHOOL OF MEDICINE**

A Nuclear Medicine resident position is available beginning July 1, 1986 for a two-year program at San Francisco General Hospital Medical Center.

The program, approved by the ACGME and satisfying the requirements of the American Board of Nuclear Medicine, includes didactic instruction in radiological physics and mathematics, electronics, radiation safety, dosimetry, and nuclear medicine instrumentation.

Practical experience is provided in performance and interpretation of static and dynamic imaging, computer techniques, radioimmunoassay and other in vitro tests, radiopharmacy, and therapy with radionuclides. Residents participate fully in the integration of these modalities into patient care.

Prerequisite: Prior training in an ACGME-approved program in internal medicine, pathology, pediatrics, or radiology.

The University of California is an Equal Opportunity, Affirmative Action Employer.

Requests for further information (include CV) should be directed to:

Myron Pollycove, M.D.
Chief, Nuclear Medicine Department
San Francisco General Hospital Medical Center
San Francisco, CA 94110

**MEDICAL PHYSICIST/TECHNICAL
DIRECTOR/NUCLEAR MEDICINE**

Research Medical Center has an immediate opening for a medical physicist in the Department of Nuclear Medicine. The Department of Nuclear Medicine is a full service facility with equipment including: Siemens Dual-Headed Rota Camera, Picker Dyna Camera, Searle LFOV, Lunar Bone Densitometer, Informatek Simis III & Simis IV Computer Systems and a CD&A MaxDelta Computer System.

Responsibilities include technical and physics support for the Department of Nuclear Medicine as well as hospital radiation safety officer. There are some teaching responsibilities in the Department of Nuclear Medicine, School of Nuclear Medicine Technology. The successful candidate must be knowledgeable of NRC Regulations and licensing procedures. The position also requires computer programming experience. Applicants should have either a Master's or PhD degree with experience in clinical nuclear medicine.



We offer attractive salary and benefit package. Please send resume with salary history to **Walter G. Dukestein, MD, Director, Department of Nuclear Medicine, Research Medical, 2316 East Meyer Blvd., Kansas City, MO 64132.**

FREE HOSPITAL JOB GUIDE!



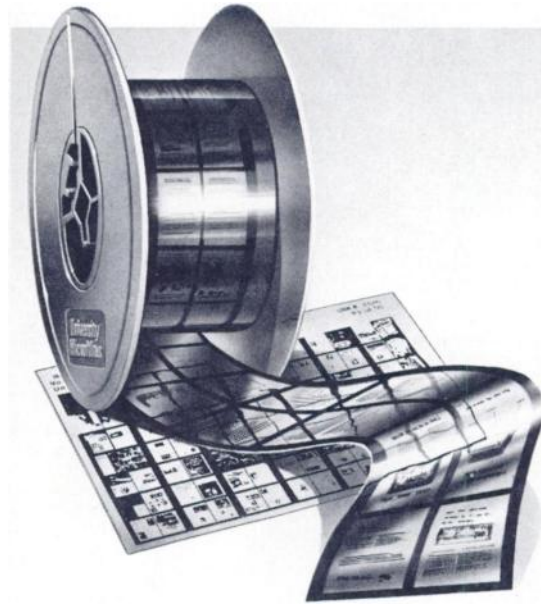
TEXAS
Operator #596
FLORIDA
Operator #37
NATIONWIDE

Call Toll Free Anytime
1-800-874-7777
Operator #3

NURSING & HOSPITAL JOB GUIDES provide comprehensive medical opportunity listings for administrative and staff positions in Florida and Texas. In addition to salary programs, benefit packages and detailed information about top medical institutions, the Guides give specifics about various regions within each state, with climate, population, housing, cultural and recreational activities.

(In Florida Call 1-904-373-2500)

**This publication
is available in
microform.**



University Microfilms

International reproduces this publication in microform: microfiche and 16mm or 35mm film. For information about this publication or any of the more than 13,000 titles we offer, complete and mail the coupon to: University Microfilms International, 300 N. Zeeb Road, Ann Arbor, MI 48106. Call us toll-free for an immediate response: 800-521-3044. Or call collect in Michigan, Alaska and Hawaii: 313-761-4700.

Please send information about these titles:

Name _____

Company/Institution _____

Address _____

City _____

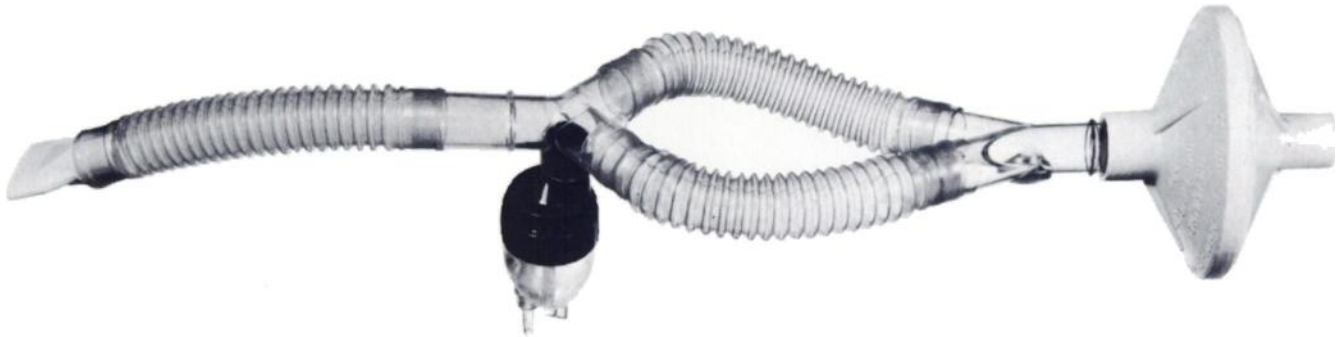
State _____ Zip _____

Phone () _____

**University
Microfilms
International**

EASY DOES IT.

ventilation scanning is now easier



and more cost effective with Venti-Scan

A complete self-contained, disposable, closed system for the performance of direct ventilation studies.

Merely place the disposable administration set in the shielded chamber. Patients receive resistance-free direct aerosol delivery (.5 micron in size) providing six vital views of the lungs with only 2-3 minutes of breathing on the airway circuit.

Detach the shielded chamber. Dispose of the contaminated administration set in a radioactive waste container, re-set the chamber and you're ready for the next study.

Simple...safe...efficient. Venti-Scan.
For complete information call or write.



Atomic Products Corporation

ATOMLAB DIVISION • ESTABLISHED 1949
P.O. BOX 1157, CENTER MORICHES, NEW YORK 11934 USA
(516) 878-1074
TWX #510-228-0449 ATOMLAB CTCH

TSC

Technetium 99m

Kit for the Preparation of Technetium Tc 99m Sulfur Colloid Injection

- 14,800 MBq (400 mCi) per vial maximum activity.
- Only one 5 minute boil is necessary; no need to re-boil, which takes more time and can add to personnel exposure rates.
- Can be rapidly cooled, greatly reducing costly early morning time delays.
- High reticuloendothelial system uptake: in average patients, 80 to 90% of the injected particles to the liver, 5 to 10% to the spleen and the balance to the bone marrow.
- Stable formulation: may be used up to six (6) hours after preparation.

To Order Call: 800 MEDI-123



medi+physics
MEDI-PHYSICS, INC., RICHMOND, CALIF. 94806
SUBSIDIARY OF HOFFMANN-LA ROCHE INC.

4050 Lakeside Drive, Richmond, CA 94806, (415) 222-8006

TECHNETIUM Tc 99m TSC KIT FOR THE PREPARATION OF TECHNETIUM Tc 99m SULFUR COLLOID INJECTION

For complete prescribing information consult package insert, a summary of which follows:

DESCRIPTION: Each kit contains sufficient material to prepare five (5) formulations. Each formulation consists of a reaction vial containing 0.5 ml 1.0 N hydrochloric acid, and two syringes, one containing a 1.1 ml aqueous solution of 1.9 mg sodium thiosulfate anhydrous and the other containing 5.3 mg gelatin in 2.1 ml of an aqueous buffer solution containing 177 mg sodium acetate anhydrous. All components are sterile and pyrogen-free. When a solution of sterile and pyrogen-free Sodium Pertechnetate Tc 99m Injection is mixed with these components, following the instructions provided with the kit, Technetium Tc 99m Sulfur Colloid Injection is formed. The product so derived is intended for intravenous injection. The precise structure of Technetium Tc 99m Sulfur Colloid Injection is not known at this time. Not less than 92 percent of the radioactivity corresponds to the Technetium Tc 99m in colloidal form.

INDICATIONS AND USAGE: Technetium Tc 99m Sulfur Colloid Injection is used in adults and children as an agent for imaging areas of functional reticuloendothelial cells in the liver, spleen and bone marrow.

CONTRAINDICATIONS: None known.

WARNINGS: Although rare, deaths have occurred following intravenously administered gelatin stabilized Tc 99m sulfur colloid. Advanced cardiopulmonary life support systems should be readily available where and when the drug is administered.

PRECAUTIONS:

General

The contents of the two syringes, one syringe containing the sodium thiosulfate solution and the second syringe containing the appropriate buffer solution, are intended *only* for use in the preparation of the Technetium Tc 99m Sulfur Colloid Injection and are NOT to be directly administered to the patient.

The contents of the kit are not radioactive. However, after the Sodium Pertechnetate Tc 99m Injection is added, adequate shielding of the final preparation must be maintained.

The contents of the kit are sterile and pyrogen-free. It is essential to follow the directions carefully and to adhere strictly to aseptic procedures during preparation. This preparation contains no bacteriostatic preservative.

Sodium Pertechnetate Tc 99m solutions containing more than 10 micrograms/ml of aluminum ion should not be used to formulate the Technetium Tc 99m Sulfur Colloid Injection. The Sodium Pertechnetate Tc 99m solution must also be free of oxidizing agents such as peroxides and hypochlorites.

Technetium Tc 99m Sulfur Colloid Injection is physically unstable, and the particles will settle with time. Failure to agitate the vial adequately before use may result in nonuniform distribution of radioactivity. If there is any delay in administration of the preparation, the syringe should also be gently agitated.

It is also recommended that, because of the increasing probability of agglomeration with aging, a batch of Technetium Tc 99m Sulfur Colloid Injection not be used after six (6) hours from the time of formulation.

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.

Technetium Tc 99m Sulfur Colloid Injection, as well as other radioactive drugs must be handled with care and appropriate safety measures should be used to minimize external radiation exposure to clinical personnel. Also, care should be taken to minimize exposure to patients, consistent with proper patient management.

Carcinogenesis, Mutagenesis, Impairment of Fertility

No long term animal studies have been performed to evaluate carcinogenic potential, mutagenic potential, or whether Technetium Tc 99m Sulfur Colloid affects fertility in males or females.

Pregnancy Category C

Animal reproductive and teratogenicity studies have not been conducted with Technetium Tc 99m Sulfur Colloid Injection. It is also not known whether Technetium Tc 99m Sulfur Colloid Injection 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 Sulfur Colloid Injection 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 menses.

Nursing Mothers

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

ADVERSE REACTIONS: The following adverse reactions have been reported associated with the use of Technetium Tc 99m Sulfur Colloid: cardiopulmonary arrest, seizures, anaphylactic shock, hypotension, dyspnea, abdominal pain, fever, chills, bronchospasm, nausea, vomiting, perspiration, redness, urticaria, numbness, dizziness, and burning at the injection site.

Several deaths and cases of lung and soft tissue uptake other than RES have been reported in association with the use of Technetium Tc 99m Sulfur Colloid (see WARNINGS).

The size and physical-chemical properties of the sulfur colloid particles formed from the components of the kit may determine the biodistribution of the colloid and its uptake by the RES. Diseases affecting the RES may also alter the expected uptake pattern.

HOW SUPPLIED:

Kit Contents

- 5 STERILE REACTION VIALS, each containing 0.5 ml 1.0 N hydrochloric acid.
- 5 STERILE SYRINGES, (labeled "A"), each containing 1.9 mg sodium thiosulfate anhydrous in 1.1 ml aqueous solution.
- 5 STERILE SYRINGES, (labeled "B"), each containing 5.3 mg gelatin in 2.1 ml aqueous buffer solution containing 177 mg sodium acetate anhydrous.
- 10 PRESSURE-SENSITIVE LABELS for final preparation of Technetium Tc 99m Sulfur Colloid Injection.
- 1 PACKAGE INSERT

Storage

Store kit at room temperature; refrigeration not required.