SIEMENS

Where do you want your nuclear equipment to be 10 years from now?

Meeting your clinical and economic needs, of course. Just like the company that supplied it to you.

That's why more nuclear medicine departments have chosen Siemens over any other manufacturer.

Because our equipment—like our company—is built to last.

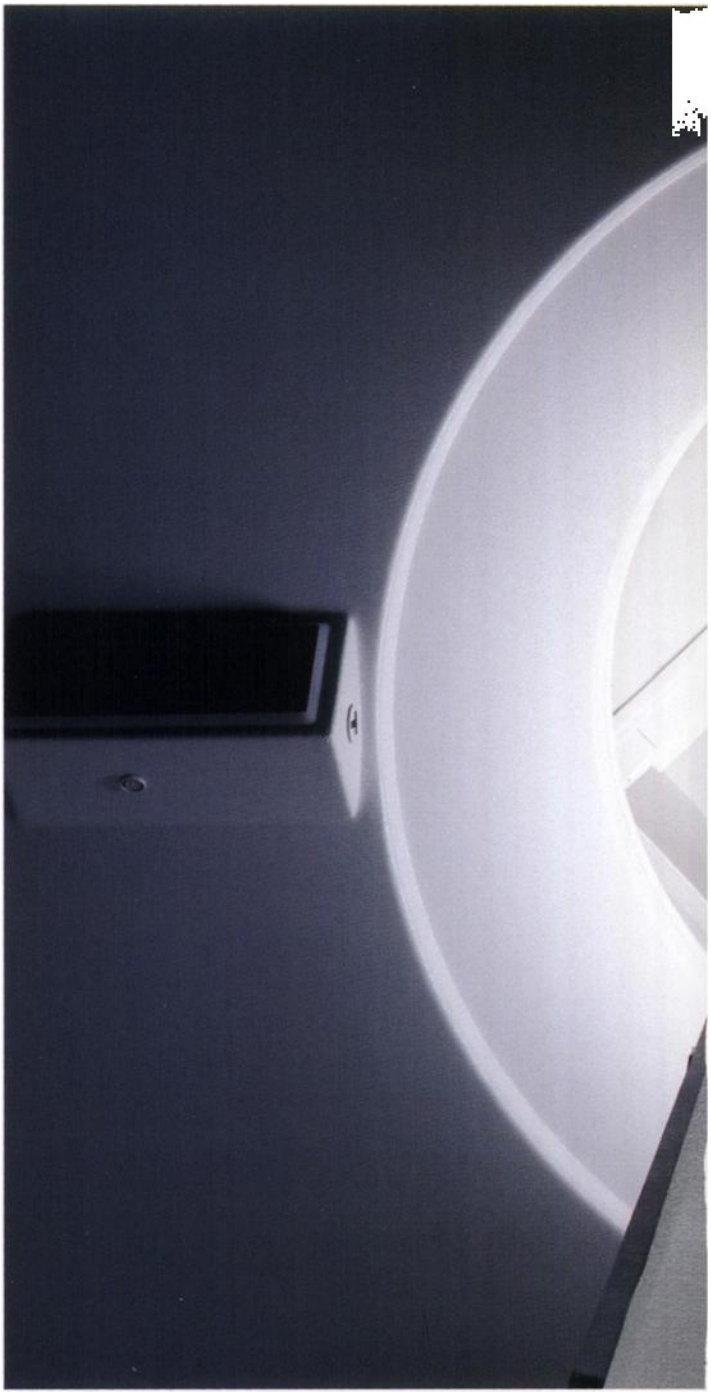
Unmatched images. Siemens detector technology is acknowledged as the gold standard. The ORBITER™ and DIACAM™ cameras consistently produce outstanding images while maintaining high throughput. Now these proven standards of excellence are joined by our second generation MULTISPECT™ systems, Siemens answer to multi-detector technology.

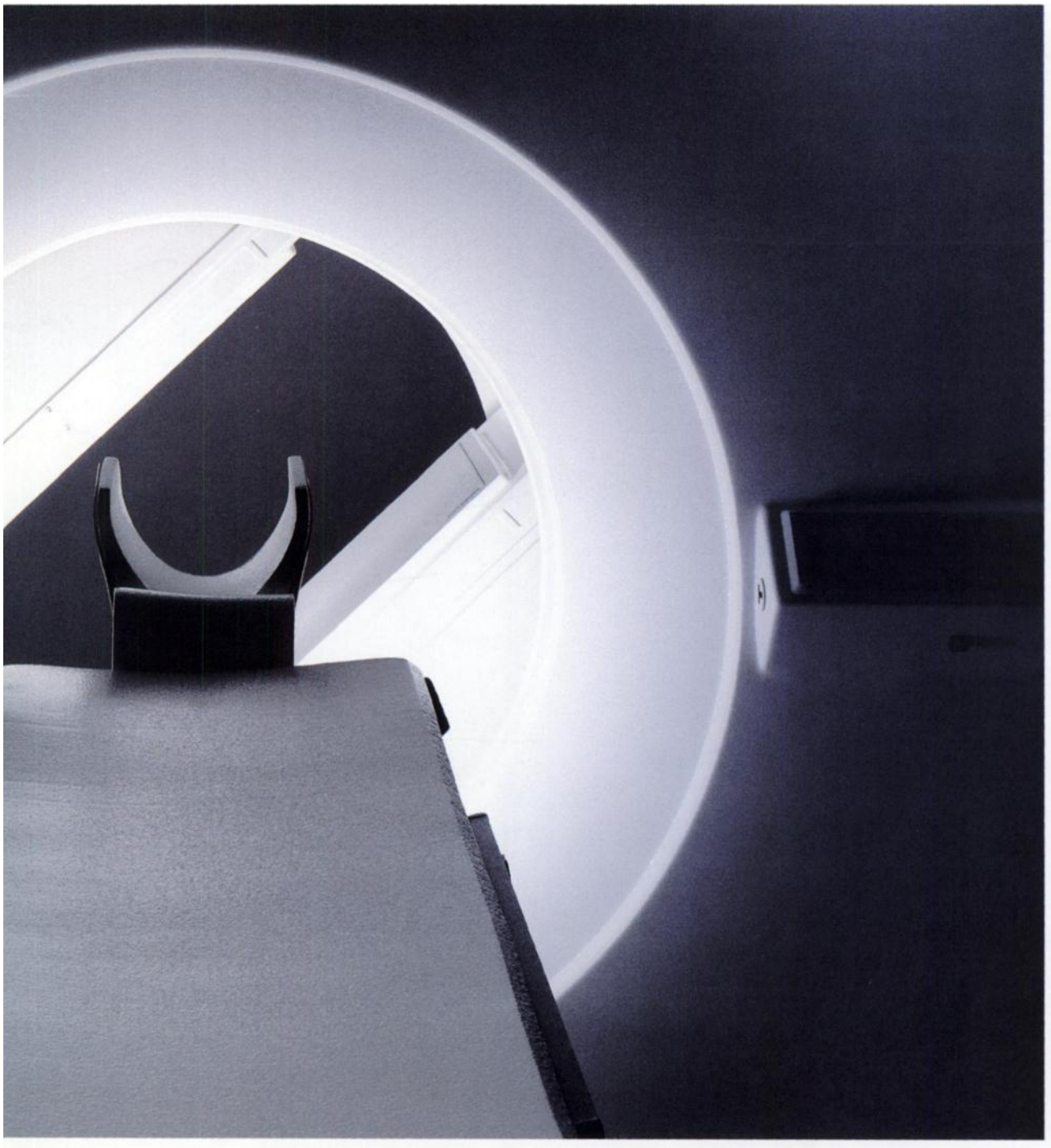
Power and productivity. With the ICON™ computer, it's easy to be efficient. User controls are virtually intuitive. Distributed processing makes short work of even the heaviest schedules. And advanced networking technology expands the value of all your existing nuclear equipment.

Solutions. Our equipment is up and running quickly—and then stays that way. From installation to comprehensive customer training and service programs, Siemens offers your nuclear department solutions—today and into the future.

Siemens Medical Systems, Inc.
2501 North Barrington Road
Hoffman Estates, IL 60195
Telephone: 708-304-7252

Siemens . . .
technology in caring hands.





Freedom of choice

begins here

and here.

For all the thyroid uptake tests you need to handle quickly and accurately, there's really only one system capable of being compared to our computer-based, Capintec System 1000. It's our fast, accurate and economical CAPTUS® 500. Both feature on-screen prompts and spectrums, hard-copy printouts, and with the addition of a well detector let you do a variety of laboratory and wipe tests efficiently and easily. In fact, the only difficulty you'll ever have is simply choosing the system best suited to your needs. For more information, please call (800) 631-3826 today.

CAPINTEC, INC.
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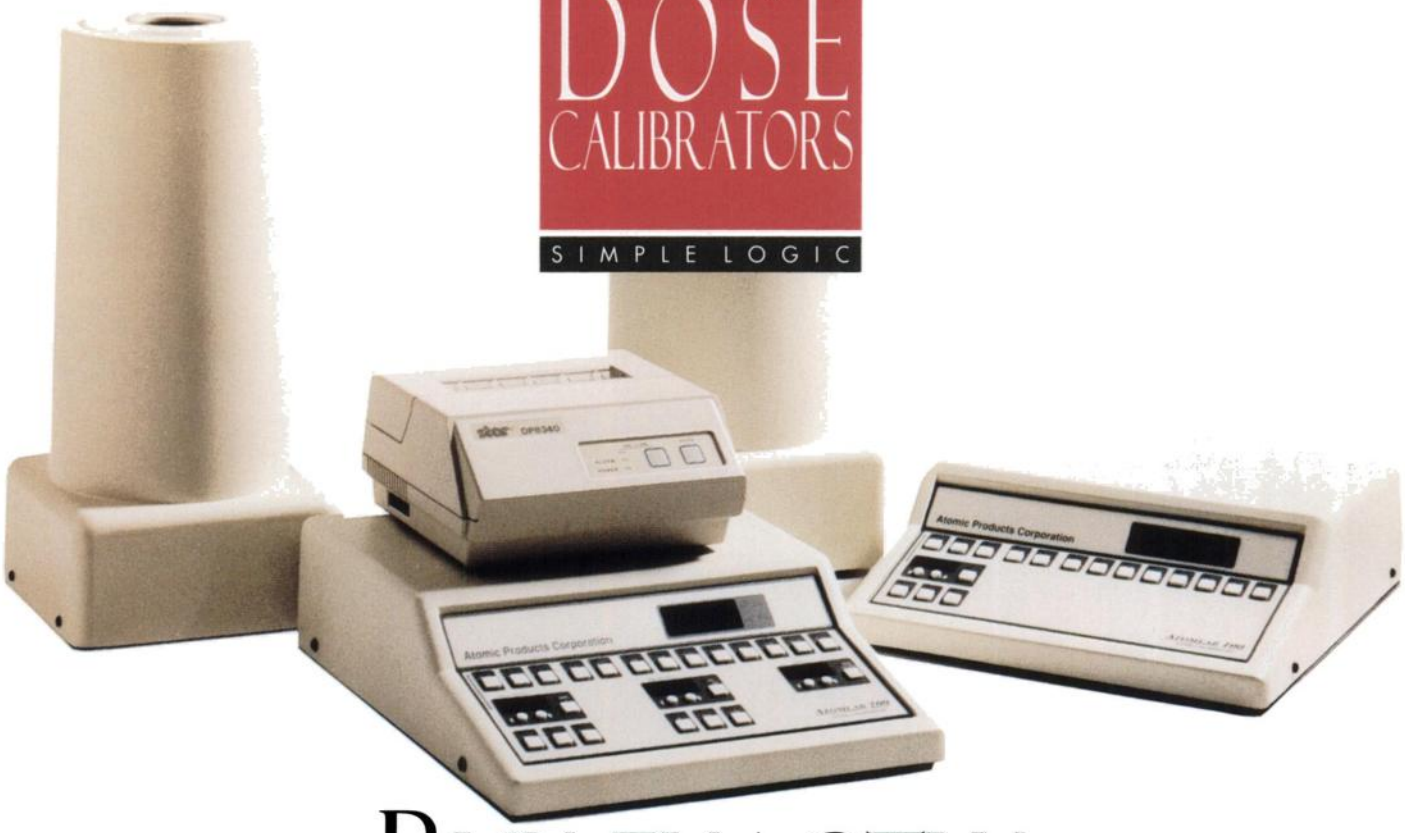
Fax: (201) 825-1336 Telex: 642375 (Capintec Rasy)

ATOMLAB DOSE CALIBRATORS

SIMPLE LOGIC



BUY EXACTLY WHAT YOU NEED... AT A PRICE YOU CAN AFFORD.

Our advanced line of quality Dose Calibrators gives you speed...accuracy... and superior ease of use...all for the cost of lesser systems.

Compare us to our competition, and you'll see they just don't measure up.

Of all the dose calibrators in its price range, only the ATOMLAB 100* offers *a one second response time • Automatic zeroing and background subtraction • Auto-ranging • An electronic power supply which eliminates expensive battery changes and downtime • A remote chamber with double shielding • Bidirectional RS-232 port (optional) • and MORE* for a price that will surprise you.

The ATOMLAB 200* offers all of the above plus *Automatic inventory control of 25 samples • Decay correction, volume subtraction and dose determinations • Automatic constancy and linearity calculations • Printed reports for all functions* for just a little more.

We've been serving the Nuclear Medicine community since 1949 (back then we were known as Atomic Products Corporation). We know what you expect from us and our products. That's why ATOMLAB DOSE CALIBRATORS performance specifications *exceed* NRC and agreement state requirements for accuracy and linearity. That's why we're the only company that provides a two-year warranty, a 30-day money-back guarantee and lifetime "loaner protection" with every dose calibrator we ship.

BIODEX...we give you what you need, at a price you can afford.

**Compare the ATOMLAB 100 or 200 to other comparably priced dose calibrators and see why we say it's only simple logic.*

BIODEX

MEDICAL SYSTEMS INC.

Formerly ATOMIC PRODUCTS CORPORATION

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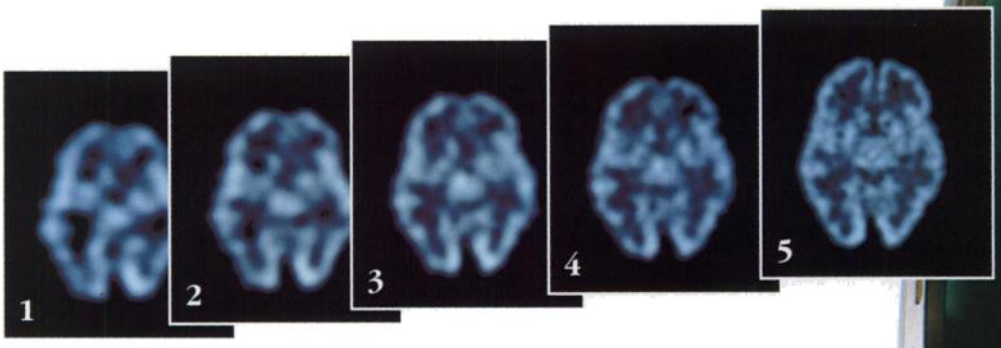
A new gold standard in Nuclear Imaging:

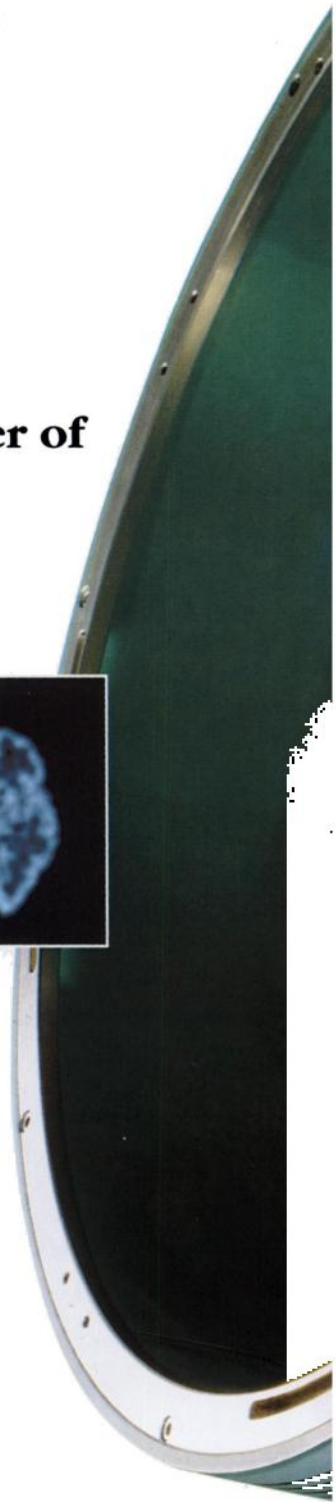
Helix™

The latest member of the APEX family

The first Slip-Ring Nuclear Imaging System, with the unprecedented imaging power of continuous, high-speed orbiting



A sequence of five evolving SPECT images: Note improvement of image quality, yielding final resolution of 7mm (tomographic brain phantom scan, courtesy of Dr. J. Abramovici, Ixelle, Belgium).

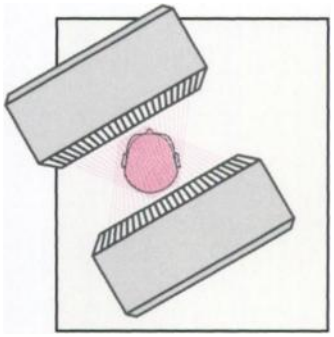


Elscint

The Intelligent Image

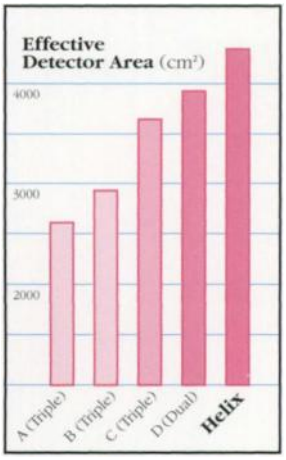
Dual-head SPECT: triple efficiency

You can perform Helix tomographic scans at up to 3.5 times the efficiency of conventional imagers, because Helix's jumbo-size detectors cover an area of 4320 square centimeters.



Ultraflared™ fan-beam collimators: more than triple the sensitivity

This means maximum SPECT detection efficiency, and makes unsurpassed 7mm system resolution images achievable.



Helix's 4320 cm² detector area – unsurpassed in the industry

And only Helix can span a 400mm-long segment in a single SPECT scan. Not to mention our unique Scatter-Free Imaging™ package built right into the system for much improved contrast and resolution.

SPECT *and* Whole-Body: the best of both worlds

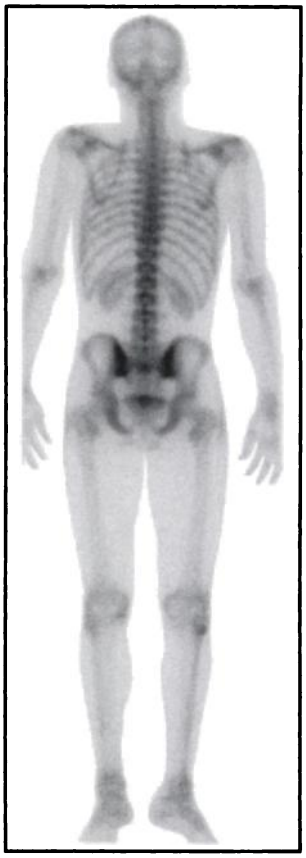
Face it, most multi-head systems just can't do whole-body scans. Not so with Helix.

Helix gives you the best of SPECT, the best of Whole-Body, with no compromises, no trade-offs.

Two super-size rectangular detectors provide 3.5mm resolution* across the entire field. Plus, microcast collimators and Scatter-Free Imaging give you the highest lesion detectability available.

And Helix's pre-programmable, body contoured "smart" scans, with 1280 x 1024 display, give you what you're looking for – the best possible Whole-Body images.

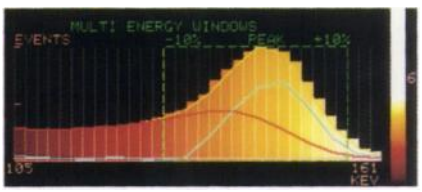
No compromises, no trade-offs – no excuses.



540 x 400 mm jumbo detectors and 3.5 mm resolution optimize Whole-Body scanning

Planar imaging: Scatter-Free and more

With Scatter-Free Imaging, the system "learns" the local scatter characteristics and makes corrections based on the measured energy spectrum, for



Multi-window acquisition and energy-weighted processing yield Scatter-Free Imaging.

*HR configuration

Helix's golden aspect of Nuc

20% window image

Scatter-Free image

each pixel, for each image, for each patient.

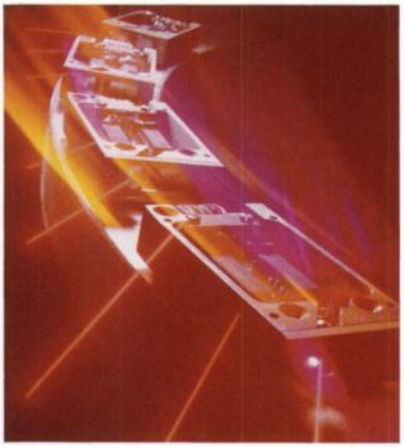
Result: better image contrast, better spatial resolution, better lesion detectability.

For truly complete imaging, jumbo-size 400x540mm detectors with 3.5mm resolution* maintain image clarity all the way across the entire field.

A triumph of technology: for now and for the future

Helix represents a culmination of efforts, based on a solid R&D foundation and drawing from a decade of experience gained over the course of close to 2000 APEX installations worldwide.

Helix's Slip-Ring technology will carry it well into the 21st century, together with such features as: a 100 MHz infra-red optronics communications link... an Intel™ i486 33 MHz computer platform... truly modular design... and advanced detector technology.

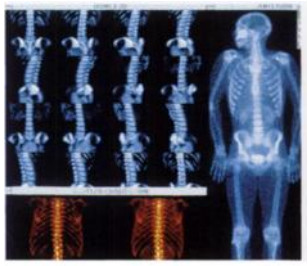


Helix's high-speed 100 MHz infra-red optronics data link frees SPECT from cable tangles

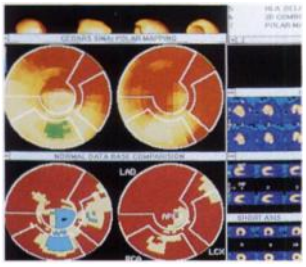
Clinical software: nobody comes even close to APEX. Nobody.

Elscint has – right now – the most complete range of nuclear imaging clinical software in the industry.

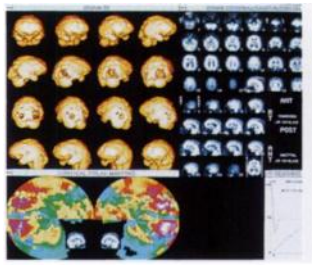
Helix draws on more than a decade of pioneering activity in digital nuclear imaging and over 20 years of medical image processing experience.



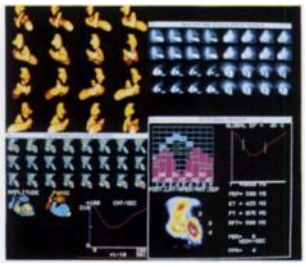
3D volume rendering bone scan



Cedars-Sinai quantitative SPECT



HMPAO brain SPECT polar mapping



Gated tomographic wall motion evaluation

Built-in CLIP™ programs cover the widest spectrum of nuclear medicine processing protocols, each optimized for a specific task, and clinically validated over the last decade.

Simply put, when it comes to user-tested, user-available software, nobody comes close to APEX. Nobody.

Events that changed the course of Nuclear Imaging:

1971–Elscint takes the lead in the 70's by introducing the industry's first image processing station, the VDP.

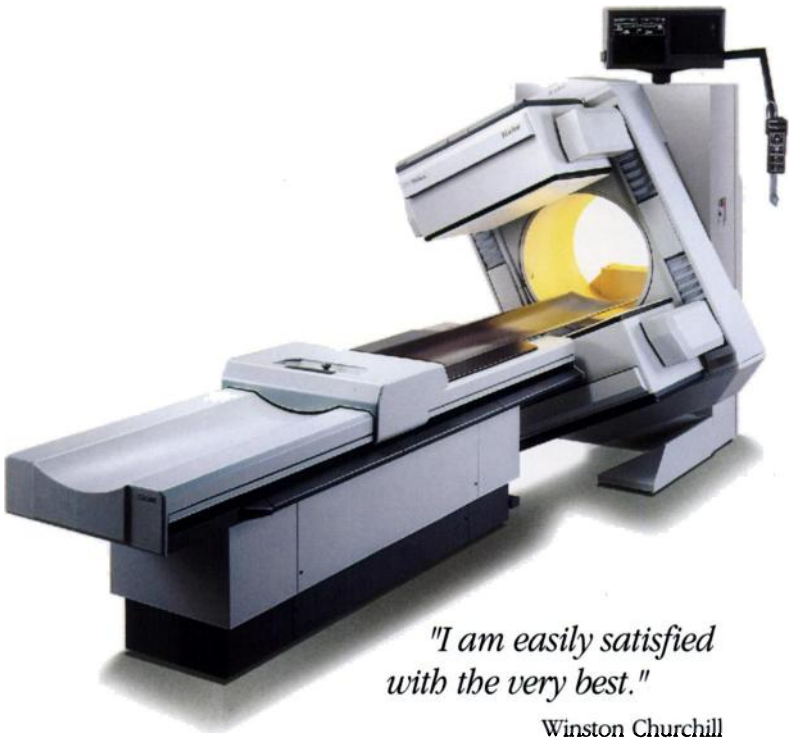
1981–Elscint sets the trend for the 80's by introducing the first digital gamma camera, the APEX.®

1991–Elscint introduces...

Helix:

The dual-head, multi-purpose nuclear imager featuring Slip-Rings.

Only from Elscint.



"I am easily satisfied with the very best."

Winston Churchill

Elscint

The Intelligent Image

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touch. In every lear Imaging.

Helix workstation: perfect harmony

Think of a workstation as a symphony orchestra with instruments like 32 MB RAM, 128 KB cache memory, i486 33 MHz CPU, 800 MB optical disk, 700 MB hard disk, 1280 x 1024 display, 19" color screen, IBM standard operating system and Ethernet.™

All world-class performers, to be sure. But only if they're playing from the same sheet of music.

Our Helix symphony is a harmonious combination of raw computer power; Elscint's industry-leading clinical software repertoire; real-time acquisition and reconstruction; IBM standard window management; full-simultaneity; multi-tasking; and the most powerful NM PACS in the industry.

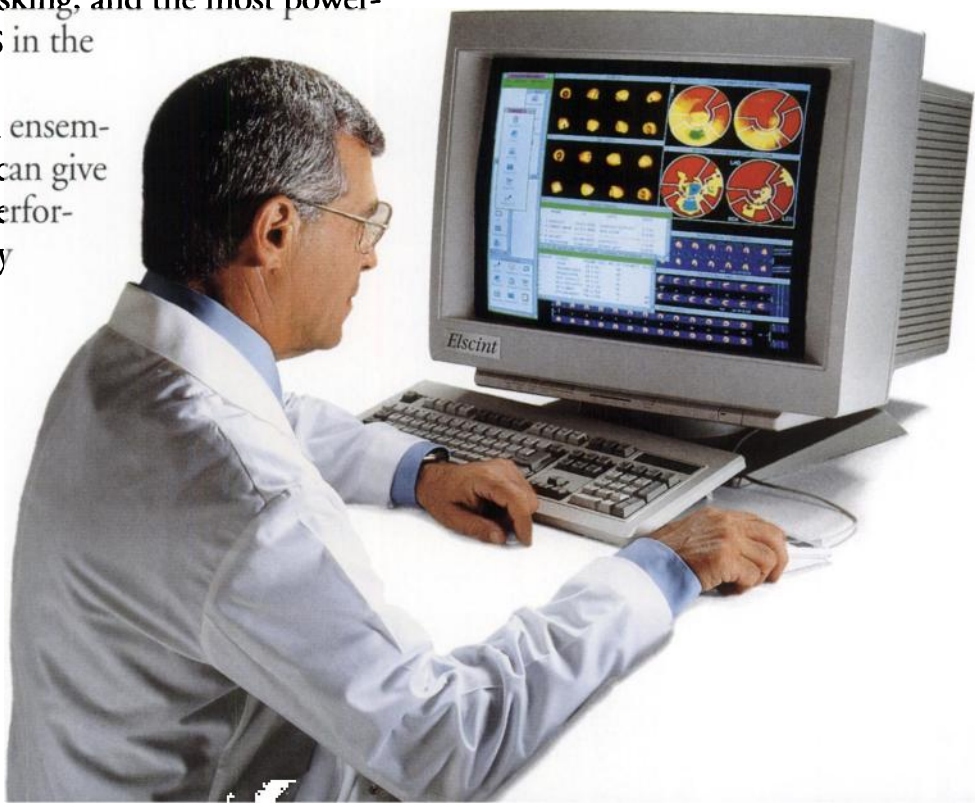
Quite an ensemble. So you can give a virtuoso performance, every time.

Light-weight, interchangeable pallets facilitate patient comfort for SPECT and Whole-Body scans.

Helix: an ergonomic marvel

A solid, fixed gantry... a superbly balanced cantilevered patient handling system for precise scanning... programmable "home" positions for easy patient set-up and collimator exchange... Touch-Ruler™ for single-touch Whole-Body scans... low-attenuation, ultra-thin interchangeable pallets of carbon fiber composite for high-resolution Whole-Body and SPECT scans... compact gantry design... 2.7-inch "brain reach" for better brain SPECT.

We've addressed every last detail of design to give you the ultimate imaging system.



Helix: global connectivity...all the way home

The well-connected imager: leader of the PACS

Decide on Helix, and you instantaneously become a member of the most advanced NM PACS in the industry – right from day one.

If you have other Elscint APEX systems, Helix connects right into data communication and into centralized data and archive management via ApexNet,™ Elscint's NM PACS.

Multi-system connectivity is facilitated with more than 90% of the cameras and processors produced by other vendors like General Electric, Siemens, ADAC and Picker, or computers by DEC, IBM and others.

Helix provides instant access to data. ApexNet lets you view and process patient studies from different departments simultaneously, and ApexView,™ Elscint's remote viewing station, puts you in the picture even at home.

Service à la MasterMind™: no time for down time

At Elscint we value your time. And Helix service support is among the world's most advanced thanks to DigitalGuard, FieldWatch, and MasterMind.™

DigitalGuard is a built-in optronic system for periodic automatic calibration of the gamma camera.

FieldWatch is a computerized, quick-response service network.

MasterMind is an artificial intelligence "expert" system, providing every on-site nuclear medicine field engineer with the constantly updated troubleshooting expertise of the company's leading scientists and engineers.

The result: service done right the first time, every time.

MasterMind: Artificial Intelligence-guided service

Helix: the intelligent investment

When it comes to multi-detector systems, Helix could be the easiest, most logical product choice you ever made. You simply can't go wrong.

With Helix you know that every referral can be imaged, every nuclear medicine procedure can be performed. No compromises, absolutely none.

Multi-Detector Evaluation	Helix	Product A	Product B
Slip-Ring continuous rotation	✔		
Cardiac SPECT	✔		
Brain SPECT	✔		
Whole-Body imaging	✔		
Scatter-Free Imaging	✔		
Software repertoire	✔		
Workstation power	✔		
Complete PACS	✔		
Advanced ergonomics	✔		
Immunity from obsolescence	✔		

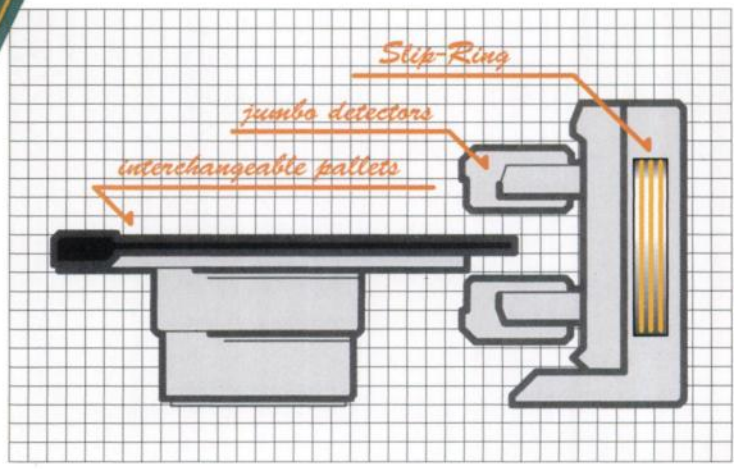
Look at Elscint's new Helix, and you're looking at the future of nuclear imaging technology.

A whole new world of imaging brought to life by our RingMaster™ Slip-Ring System. Take Evolving-Images™ and RollBack,™ for example, two terms that are probably new to you.

With Evolving-Images you can now display and update SPECT images *as* you acquire them, not only *after* the job is done.

With RollBack, if a patient moves during a scan, you can recall the reconstructed image, as it was just prior to the movement, in order to assess its diagnostic value. Saves retakes, saves time, saves money.

Helix's continuous-rotation Slip-Ring technology will open new horizons in nuclear imaging, such as Whole-Body SPECT spiral imaging, cardiac SPECT beat rejection and SPECT brain perfusion.



Large-bore Slip-Rings in the "heart" of the Helix gantry

SNM
40th Annual Meeting
Critical Dates

Item		Due Date
Abstract Forms		
Scientific Papers	October Issue *JNM*	1/6/93
Scientific Exhibits	Contact SNM, Dept. of Meetings	1/6/93
Registration Form	Contact SNM, Dept. of Meetings	5/7/93
Housing Form	Contact SNM, Dept. of Meetings	5/14/93

DON'T FORGET THE MID-WINTER MEETING IN ATLANTA, GEORGIA

TITLE:
Desktop Computing in Nuclear Medicine
DATE:
February 8–9, 1993
LOCATION:
Atlanta Airport Hilton, Atlanta, GA
SPONSOR:
The Computer and Instrumentation Council

AccuSync

The Finest Cardiac Gate Available for Nuclear Cardiology

The AccuSync series cardiac gates, designed to provide precise R-Wave detection with no delay . . .

Quality

In addition to continually updating all our instruments through the use of state-of-the-art technology, our dedication to a top quality product is the basis of our policy.

Compatibility

R Trigger output is compatible with all computers including ADAC, DEC, ELSCINT, GE, MDS, PICKER, RAYTHEON, TECHNICARE, TOSHIBA, MEDASYS, SOPHA, SIEMENS, SUMMIT, AND TRIONIX.

Customer Service

Our service personnel respond to most repairs within 24 hours to meet the urgent needs of all our customers.

AccuSync Products

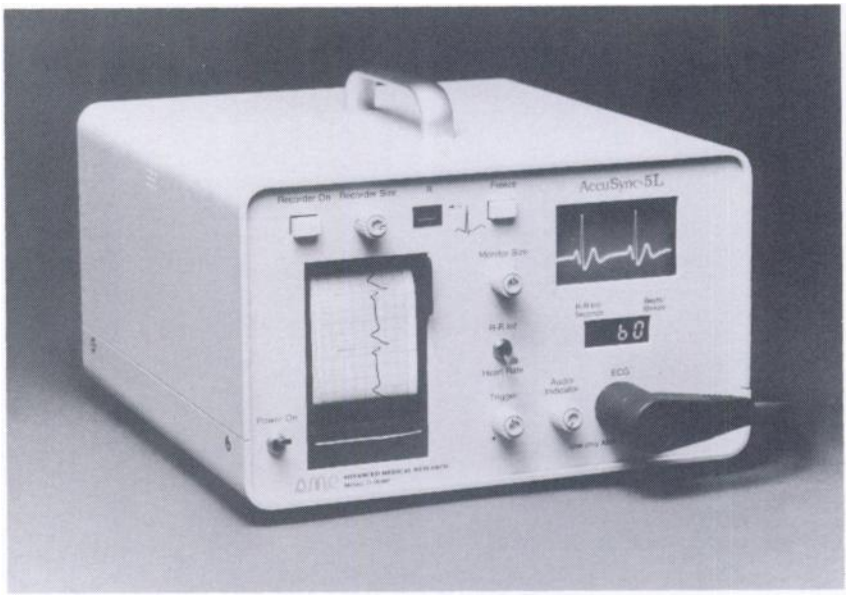
The 5L represents the top of the line in the AccuSync series. Other AccuSync models include the 6L, 1L, 3L, and 4L; each designed with different options according to the customer's requirements.

Warranty

All models are backed by a one year warranty on parts and labor. Extended warranty is available.

Accessories

All models include patient cable, lead wires, BNC to BNC cable, and A/C line cord. These accessories, as well as chart paper are available.



The model 5L features CRT monitor for visual display with freeze action capability as well as a Strip Chart Recorder for recording R-Wave activity.

All models feature:

- Isolation Amplifier for Patient Safety
- Trigger Pulse LED • No Delay
- ECG Output • Audio Indicator
- Trigger Control for Precise Location of Trigger Pulse
- Compatible R Trigger Output

Call or write us today for more information on any of the AccuSync products listed below.

- **AccuSync 5L**
- **AccuSync 6L** • **AccuSync 1L**
- **AccuSync 3L** • **AccuSync 4L**

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YOU PUT YOUR REPUTATION ON THE LINE EVERY DAY.

SO DO WE.

THAT'S WHY WE GIVE YOU MORE.

(SIGNATURE)

ACCURATE. REPRODUCIBLE. EFFICIENT. INTUITIVE. COMPREHENSIVE. THAT'S SOPHA'S NEW XT SOFTWARE:

UNIQUE REPRODUCIBILITY AND ACCURACY

XT software features the first automatic cardiac SPECT re-orientation program, and highly advanced edge-detection techniques. More consistent performance for maximum clinical confidence.

A NEW MEASURE OF THROUGHPUT

Introducing the first simultaneous stress and rest SPECT protocol, available only with XT software. Producing total volume reconstructions, 3D, bullseye, and comparative displays, and hard copies. All in a single step.

A NEW LEVEL OF SIMPLICITY AND COMPREHENSIVENESS

sopha's focus on nuclear medicine is readily apparent in the logical flow of XT protocols, making your interaction more intuitive than learned. And the range of XT applications in cardiology and general procedures is unparalleled.

XT SOFTWARE. WE STAKE OUR REPUTATION ON IT. SO CAN YOU.

sopha medical

At right: sopha single-page comprehensive cardiac display

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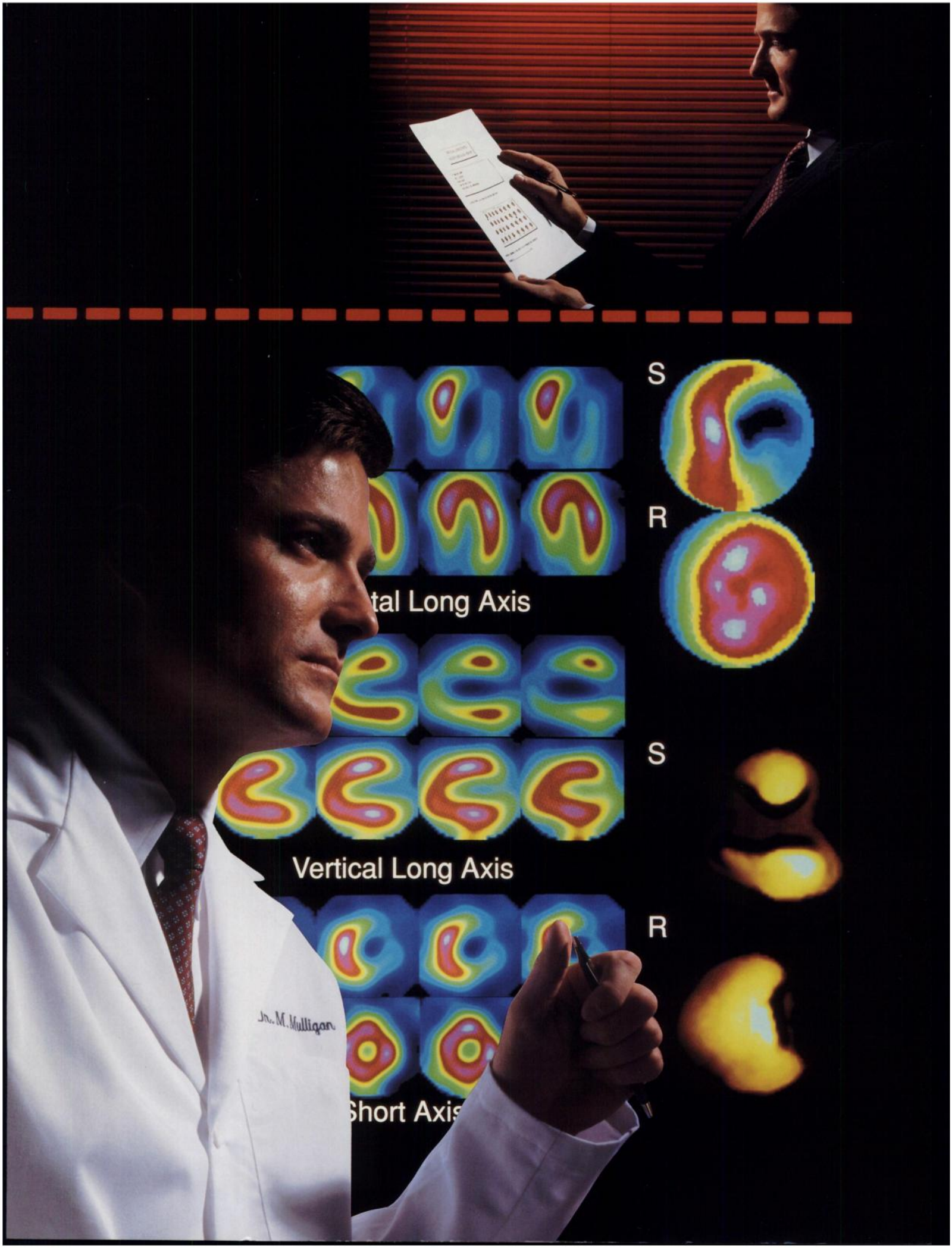
sopha medical France (worldwide headquarters) 33.1.30.84.91.00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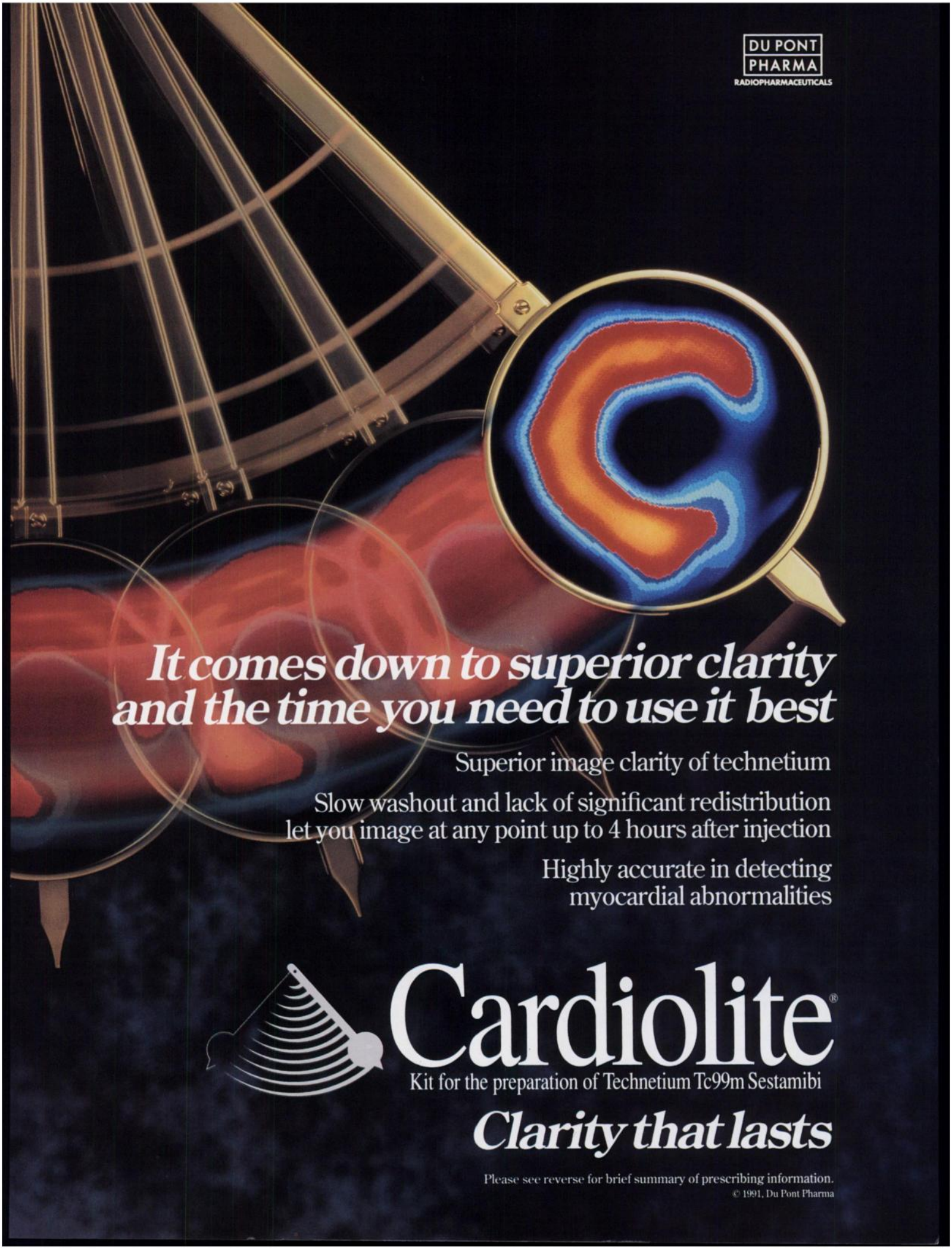
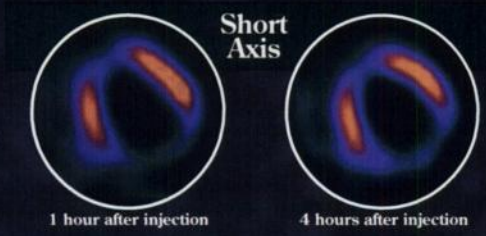

DU PONT
PHARMA
RADIOPHARMACEUTICALS
It comes down to superior clarity
and the time you need to use it best
Superior image clarity of technetium
Slow washout and lack of significant redistribution
let you image at any point up to 4 hours after injection
Highly accurate in detecting
myocardial abnormalities
Cardiolite®
Kit for the preparation of Technetium Tc99m Sestamibi
Clarity that lasts
Please see reverse for brief summary of prescribing information.
© 1991, Du Pont Pharma



CARDIOLITE scans (SPECT) from a 62-year-old male with three prior myocardial infarctions (LFOV camera equipped with a high-resolution collimator, 64 x 64 matrix, 180° arc RAO to LPO, 64 projections, 25 s/projection).

Cardiolite®

Kit for the preparation of Technetium Tc99m Sestamibi

Clarity that lasts

Please see reverse for feature and benefit highlights.

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

DESCRIPTION: Each 5 mL vial contains a sterile, non-pyrogenic, lyophilized mixture of:

Tetrakis (2-methoxy isobutyl isonitrile) Copper (I) tetrafluoroborate - 1.0 mg
Sodium Citrate Dihydrate - 2.6 mg
L-Cysteine Hydrochloride Monohydrate - 1.0 mg
Mannitol - 20 mg
Stannous Chloride, Dihydrate, minimum ($SnCl_2 \cdot 2H_2O$) - 0.025 mg
Stannous Chloride, Dihydrate, ($SnCl_2 \cdot 2H_2O$) - 0.075 mg
Tin Chloride (Stannous and Stannic) Dihydrate, maximum (as $SnCl_2 \cdot 2H_2O$) - 0.086 mg

Prior to lyophilization the pH is 5.3 to 5.9. The contents of the vial are lyophilized and stored under nitrogen.

This drug is administered by intravenous injection for diagnostic use after reconstitution with sterile, non-pyrogenic, oxidant-free Sodium Pertechnetate Tc99m Injection. The pH of the reconstituted product is 5.5 (5.0–6.0). No bacteriostatic preservative is present.

The precise structure of the technetium complex is $Tc99m[MIBI]_6^+$ where MIBI is 2-methoxy isobutyl isonitrile.

INDICATIONS AND USAGE: CARDIOLITE®, Kit for the preparation of Technetium Tc99m Sestamibi, is a myocardial perfusion agent that is useful in distinguishing normal from abnormal myocardium, and in the localization of the abnormality, in patients with suspected myocardial infarction. It is also useful in the evaluation of myocardial function using the first-pass technique.

CONTRAINDICATIONS: None known.

WARNINGS: In studying patients in whom cardiac disease is known or suspected, take care to assure continuous monitoring and treatment in accordance with safe, accepted clinical procedure.

PRECAUTIONS:

GENERAL

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

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

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

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

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

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

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

Carcinogenesis, Mutagenesis, Impairment of Fertility

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

The active intermediate, $Cu(MIBI)_4BF_4$, was evaluated for genotoxic potential in a battery of five tests. No genotoxic activity was observed in the Ames, CHO/HPRT and sister chromatid exchange tests (all *in vitro*). At cytotoxic concentrations (≥ 20 μg/mL), an increase in cells with chromosome aberrations was observed in the *in vitro* human lymphocyte assay. $Cu(MIBI)_4BF_4$ 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 Tc99m Sestamibi. It is also not known whether Technetium Tc99m Sestamibi can cause fetal harm when administered to a pregnant woman or can affect reproductive capacity. There have been no studies in pregnant women. Technetium Tc99m Sestamibi should be given to a pregnant woman only if clearly needed.

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

Pediatric Use

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

ADVERSE REACTIONS: During clinical trials, approximately 8% of patients experienced a transient metallic or bitter taste immediately after the injection of Technetium Tc99m Sestamibi. A few cases of transient headache, flushing and non-itching rash have also been attributed to administration of the agent. One patient demonstrated signs and symptoms consistent with seizure, 8 to 10 minutes after administration of the drug. No other adverse reactions specifically attributable to the use of Technetium Tc99m Sestamibi have been reported.

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

370 to 1110 MBq (10 to 30 mCi)

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 section in full prescribing information).

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 room temperature (15 to 30°) before and after reconstitution.

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

Table 4. Radiation Absorbed Doses from Tc99m Sestamibi

	Estimated Radiation Absorbed Dose			
	REST			
	2.0 hour void		4.8 hour void	
Organ	rads/ 30 mCi	mGy/ 1110 MBq	rads/ 30 mCi	mGy/ 1110 MBq
Breasts	0.2	2.0	0.2	1.9
Gallbladder Wall	2.0	20.0	2.0	20.0
Small Intestine	3.0	30.0	3.0	30.0
Upper Large Intestine Wall	5.4	55.5	5.4	55.5
Lower Large Intestine Wall	3.9	40.0	4.2	41.1
Stomach Wall	0.6	6.1	0.6	5.8
Heart Wall	0.5	5.1	0.5	4.9
Kidneys	2.0	20.0	2.0	20.0
Liver	0.6	5.8	0.6	5.7
Lungs	0.3	2.8	0.3	2.7
Bone Surfaces	0.7	6.8	0.7	6.4
Thyroid	0.7	7.0	0.7	6.8
Ovaries	1.5	15.5	1.6	15.5
Testes	0.3	3.4	0.4	3.9
Red Marrow	0.5	5.1	0.5	5.0
Urinary Bladder Wall	2.0	20.0	4.2	41.1
Total Body	0.5	4.8	0.5	4.8

Stabin, M., July, 1990, Oak Ridge Associated Universities, P.O. Box 117, Oak Ridge, TN 37831, (615) 576-3449.

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

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

The US Nuclear Regulatory Commission has approved this reagent kit for distribution to persons licensed to use byproduct material identified in 35.100 and 35.200 of 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.

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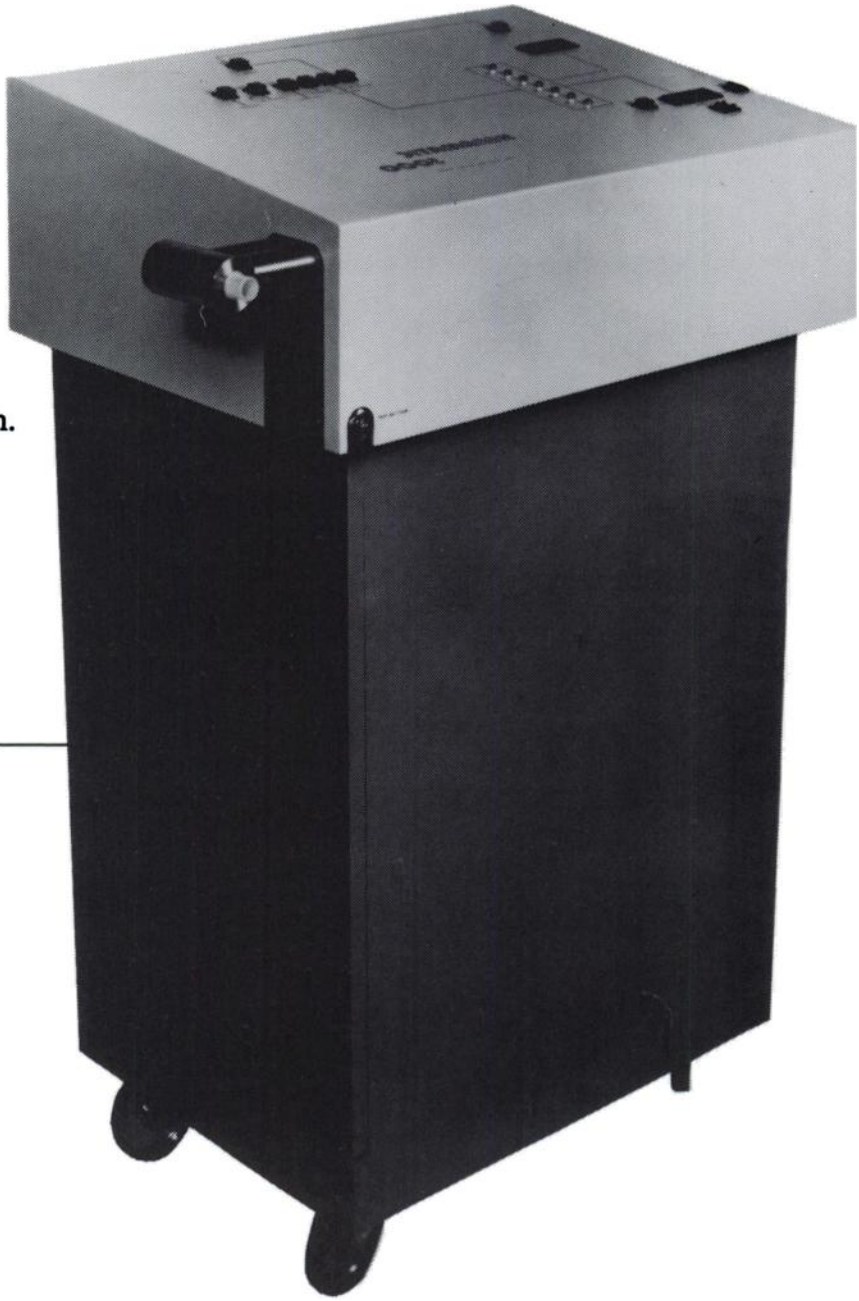

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CALL FOR ABSTRACTS FOR SCIENTIFIC PAPERS AND SCIENTIFIC EXHIBITS

40

The Society of Nuclear Medicine 40th Annual Meeting
Tuesday June 8–Friday, June 11, 1993
Toronto Convention Center
Toronto, Ontario, Canada

The 1993 Scientific Program Committee, Scientific Exhibits Subcommittee, and the Scientific & Teaching Sessions Committee solicit the submission of abstracts from members and nonmembers of The Society of Nuclear Medicine for the 40th Annual Meeting in Toronto, Ontario, Canada. Accepted Scientific Paper and Scientific Exhibit abstracts be published in a special supplement to the May issue of *The Journal of Nuclear Medicine* and accepted Technologist Section abstracts will be published in the June issue of the *Journal of Nuclear Medicine Technology.* Original contributions on a variety of topics related to nuclear medicine will be considered, including:

- **Instrumentation and Data Analysis**
- **Radioassay**
- **Radiopharmaceutical Chemistry**
- **Dosimetry/Radiobiology**
- **Nuclear Magnetic Resonance Chemistry**
- **Clinical Science Applications:**
  - **Bone/Joint**
  - **Cardiovascular (clinical and basic)**
  - **Endocrine**
  - **Gastroenterology**
  - **Neurology (clinical and basic)**
  - **Immunology (antibody)**
  - **Pediatrics**
  - **Pulmonary**
  - **Renal/Electrolyte/ Hypertension**
  - **Hematology/ Infectious Disease**
  - **Oncology (non-antibody)**

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

Deadline for receipt of abstracts for SCIENTIFIC PAPERS is Wednesday, January 6, 1993.

Deadline for receipt of abstracts for SCIENTIFIC EXHIBITS is Wednesday, January 6, 1993.

There are two abstract forms for the annual meeting. The Scientific Paper abstract form can be obtained in the October 1992 *JNM.* The Scientific Exhibits abstract form is only available by calling or writing:

The Society of Nuclear Medicine
Att: Abstracts
136 Madison Avenue
New York, NY 10016-6760
Tel: (212) 889-0717 • FAX: (212) 545-0221

1S

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Department of Radiology
Section of Nuclear Medicine

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- Knowledge of image acquisition and reconstruction.
- Appreciation of factors that influence image quality.
- Knowledge of quality control techniques for SPECT.

SPONSORSHIP:
This program is sponsored by the Medical College of Wisconsin.

TUITION:
The tuition fee of $650 includes the course syllabus, handouts, breaks, breakfasts, lunches, and other amenities involved in making this a pleasant learning experience. Maximum enrollments have been established. Cancellations prior to the course will be refunded, less a $30 administrative fee.

CREDIT:
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LisaAnn Trembath
SPECT Brain Imaging Fellowship Coordinator
Nuclear Medicine Division
Medical College of Wisconsin
8700 W. Wisconsin Avenue
Milwaukee, WI 53226 (414) 257-7867

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CALL FOR PROPOSALS

The Society of Nuclear Medicine Awards Committee announces that two grants for $25,000 each are available for July 1, 1993.

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Please send for more information and an application to:

Deadline: January 8, 1993

The Society of Nuclear Medicine
SNM Awards Committee
136 Madison Avenue
New York, NY 10016

Research and Development Fellowship

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The Society of Nuclear Medicine
SNM Awards Committee
136 Madison Avenue
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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. We reserve the right to decline, withdraw, or modify advertisements.

Rates for Classified Listings — $19.00 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: $10.00 per line. *Note: Box numbers are available for the cost of the 2 lines required.*

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Publisher-Set Charges — Page $100; half page $75; quarter page $40; eighth page $25.

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.

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NUCLEAR RADIOLOGIST: Radiologist with Nuclear Medicine/Nuclear Radiology Boards or eligibility, to join 14 member private practice radiology group in Seattle suburb. Send curriculum vitae to A. Azose, MD, Nuclear Medicine Department, 400 South 43rd Street, Renton, WA 98055.

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Technologist

NUCLEAR MEDICINE TECHNOLOGIST. The Mallinckrodt Institute of Radiology at Washington University Medical Center, St. Louis, MO, has an immediate opening for a F/T registered or registry eligible technologist. Progressive department with excellent benefit package. Interested applicants call Kathleen Johnson-Brunsden at (314) 362-2808. Affirmative Action/Equal Opportunity Employer. M/F/H/V.

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Lutheran General Hospital

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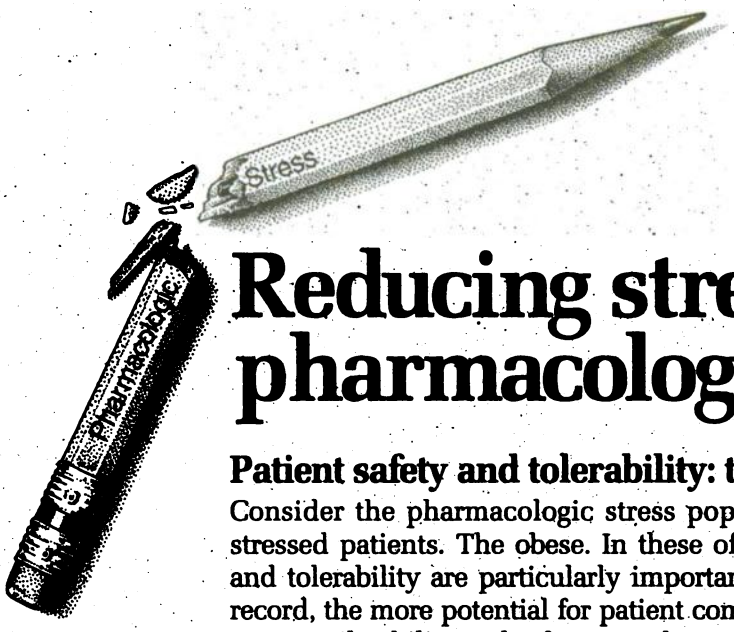
Yale-New Haven Hospital

The Art of Patient Care



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Patient safety and tolerability: the stress factors

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I.V. Persantine® (dipyridamole USP) has a safety profile established in over a decade of clinical testing.[1,2*] And, based on information from over 250,000 patient studies, I.V. Persantine is generally well tolerated.[†] Such an established record in pharmacologic stress creates a standard by which to compare other agents.

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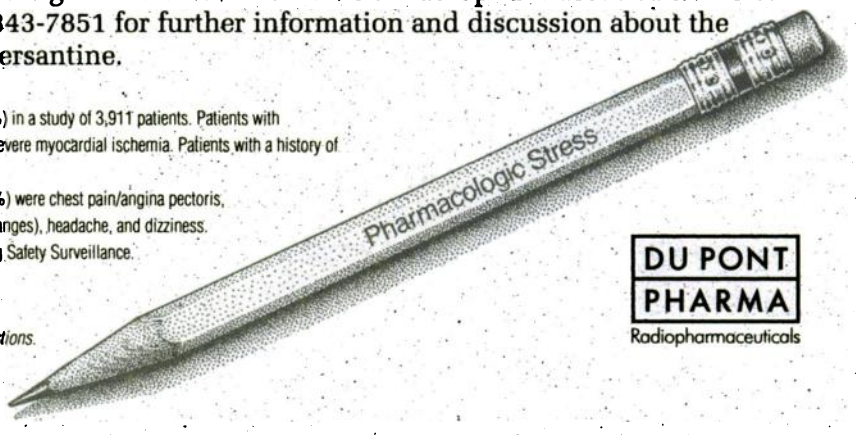

*Severe adverse events have occurred infrequently (<0.3%) in a study of 3,911 patients. Patients with a history of unstable angina may be at a greater risk for severe myocardial ischemia. Patients with a history of asthma may be at a greater risk for bronchospasm.
In the same study, the most frequent adverse events (>2%) were chest pain/angina pectoris, electrocardiographic changes (most commonly, ST-T changes), headache, and dizziness.
†Du Pont Merck Pharmaceutical Company Post-Marketing Safety Surveillance.

Please see brief summary of prescribing information on reverse for contraindications, warnings, and adverse reactions.

DU PONT PHARMA
Radiopharmaceuticals

I.V.PERSANTINE® (dipyridamole USP) Injection 5mg/ml

References: 1. Ranhosky A, Kempthorne-Rawson J, et al. *Circulation.* 1990;81:1205-1209. 2. Data on file, Boehringer Ingelheim Pharmaceuticals, Inc., Ridgefield, Conn.

I.V.PERSANTINE®

(dipyridamole USP) Injection 5mg/ml

Brief Summary of Prescribing Information

CONTRAINDICATIONS Hypersensitivity to dipyridamole.

WARNINGS Serious adverse reactions associated with the administration of intravenous Persantine® (dipyridamole USP) have included fatal and non-fatal myocardial infarction, ventricular fibrillation, symptomatic ventricular tachycardia, transient cerebral ischemia, and bronchospasm.

In a study of 3911 patients given intravenous Persantine as an adjunct to thallium myocardial perfusion imaging, two types of serious adverse events were reported: 1) four cases of myocardial infarction (0.1%), two fatal (0.05%), and two non-fatal (0.05%); and 2) six cases of severe bronchospasm (0.2%). Although the incidence of these serious adverse events was small (0.3%, 10 of 3911), the potential clinical information to be gained through use of intravenous Persantine thallium imaging must be weighed against the risk to the patient. Patients with a history of unstable angina may be at a greater risk for severe myocardial ischemia. Patients with a history of asthma may be at a greater risk for bronchospasm during IV Persantine use.

When thallium myocardial perfusion imaging is performed with intravenous Persantine, parenteral aminophylline should be readily available for relieving adverse events such as bronchospasm or chest pain. Vital signs should be monitored during, and for 10-15 minutes following, the intravenous infusion of Persantine and an electrocardiographic tracing should be obtained using at least one chest lead. Should severe chest pain or bronchospasm occur, parenteral aminophylline may be administered by slow intravenous injection (50-100 mg over 30-60 seconds) in doses ranging from 50 to 250 mg. In the case of severe hypotension, the patient should be placed in a supine position with the head tilted down if necessary, before administration of parenteral aminophylline. If 250 mg of aminophylline does not relieve chest pain symptoms within a few minutes, sublingual nitroglycerin may be administered. If chest pain continues despite use of aminophylline and nitroglycerin, the possibility of myocardial infarction should be considered. If the clinical condition of a patient with an adverse event permits a one minute delay in the administration of parenteral aminophylline, thallium-201 may be injected and allowed to circulate for one minute before the injection of aminophylline. This will allow initial thallium perfusion imaging to be performed before reversal of the pharmacologic effects of Persantine on the coronary circulation.

PRECAUTIONS See WARNINGS.

Drug Interactions Oral maintenance theophylline may abolish the coronary vasodilatation induced by intravenous Persantine® (dipyridamole USP) administration. This could lead to a false negative thallium imaging result.

Carcinogenesis, Mutagenesis, Impairment of Fertility In studies in which dipyridamole was administered in the feed at doses of up to 75 mg/kg/day (9.4 times* the maximum recommended daily human oral dose) in mice (up to 128 weeks in males and up to 142 weeks in females) and rats (up to 111 weeks in males and females), there was no evidence of drug related carcinogenesis. Mutagenicity tests of dipyridamole with bacterial and mammalian cell systems were negative. There was no evidence of impaired fertility when dipyridamole was administered to male and female rats at oral doses up to 500 mg/kg/day (63 times* the maximum recommended daily human oral dose). A significant reduction in number of corpora lutea with consequent reduction in implantations and live fetuses was, however, observed at 1250 mg/kg/day.

*Calculation based on assumed body weight of 50 kg.

Pregnancy Category B Reproduction studies performed in mice and rats at daily oral doses of up to 125 mg/kg (15.6 times* the maximum recommended daily human oral dose) and in rabbits at daily oral doses of up to 20 mg/kg (2.5 times* the maximum recommended daily human oral dose) have revealed no evidence of impaired embryonic development due to dipyridamole. There are, however, no adequate and well controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human responses, this drug should be used during pregnancy only if clearly needed.

*Calculation based on assumed body weight of 50 kg.

Nursing Mothers Dipyridamole is excreted in human milk.

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

ADVERSE REACTIONS Adverse reaction information concerning intravenous Persantine® (dipyridamole USP) is derived from a study of 3911 patients in which intravenous Persantine was used as an adjunct to thallium myocardial perfusion imaging and from spontaneous reports of adverse reactions and the published literature.

Serious adverse events (fatal and non-fatal myocardial infarction, severe ventricular arrhythmias, and serious CNS abnormalities) are described previously (see WARNINGS).

In the study of 3911 patients, the most frequent adverse reactions were: chest pain/angina pectoris (19.7%), electrocardiographic changes (most commonly ST-T changes) (15.9%), headache (12.2%), and dizziness (11.8%).

Adverse reactions occurring in greater than 1% of the patients in the study are shown in the following table:

	Incidence (%) of Drug-Related Adverse Events
Chest Pain/Angina Pectoris	19.7
Headache	12.2
Dizziness	11.8
Electrocardiographic Abnormalities/ST-T changes	7.5
Electrocardiographic Abnormalities/Extrasystoles	5.2
Hypotension	4.6
Nausea	4.6
Flushing	3.4
Electrocardiographic Abnormalities/Tachycardia	3.2
Dyspnea	2.6
Pain Unspecified	2.6
Blood Pressure Lability	1.6
Hypertension	1.5
Paresthesia	1.3
Fatigue	1.2

Less common adverse reactions occurring in 1% or less of the patients within the study included:

Cardiovascular System: Electrocardiographic abnormalities unspecified (0.8%), arrhythmia unspecified (0.6%), palpitation (0.3%), ventricular tachycardia (0.2% see WARNINGS), bradycardia (0.2%), myocardial infarction (0.1% see WARNINGS), AV block (0.1%), syncope (0.1%), orthostatic hypotension (0.1%), atrial fibrillation (0.1%), supraventricular tachycardia (0.1%), ventricular arrhythmia unspecified (0.03% see WARNINGS), heart block unspecified (0.03%), cardiomyopathy (0.03%), edema (0.03%).

Central and Peripheral Nervous System: Hypothesia (0.5%), hypertonia (0.3%), nervousness/anxiety (0.2%), tremor (0.1%), abnormal coordination (0.03%), somnolence (0.03%), dysphonia (0.03%), migraine (0.03%), vertigo (0.03%).

Gastrointestinal System: Dyspepsia (1.0%), dry mouth (0.8%), abdominal pain (0.7%), flatulence (0.6%), vomiting (0.4%), eructation (0.1%), dysphagia (0.03%), tenesmus (0.03%), appetite increased (0.03%).

Respiratory System: Pharyngitis (0.3%), bronchospasm (0.2% see WARNINGS), hyperventilation (0.1%), rhinitis (0.1%), coughing (0.03%), pleural pain (0.03%).

Other: Myalgia (0.9%), back pain (0.6%), injection site reaction unspecified (0.4%), diaphoresis (0.4%), asthenia (0.3%), malaise (0.3%), arthralgia (0.3%), injection site pain (0.1%), rigor (0.1%), earache (0.1%), tinnitus (0.1%), vision abnormalities unspecified (0.1%), dysgeusia (0.1%), thirst (0.03%), depersonalization (0.03%), eye pain (0.03%), renal pain (0.03%), perineal pain (0.03%), breast pain (0.03%), intermittent claudication (0.03%), leg cramping (0.03%).

OVERDOSAGE No cases of overdosage in humans have been reported. It is unlikely that overdosage will occur because of the nature of use (i.e., single intravenous administration in controlled settings). See WARNINGS.

Caution Federal law prohibits dispensing without prescription.

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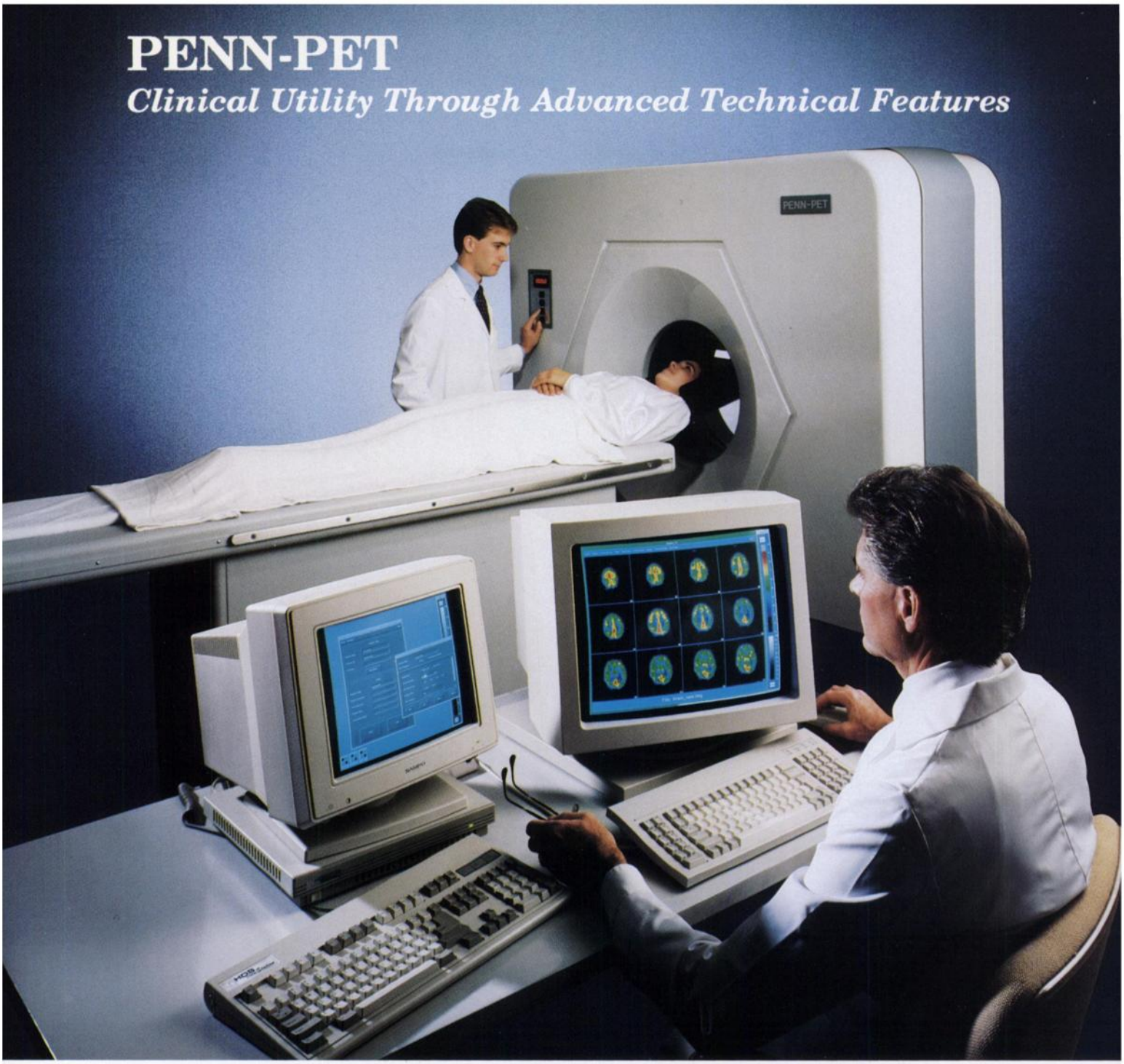

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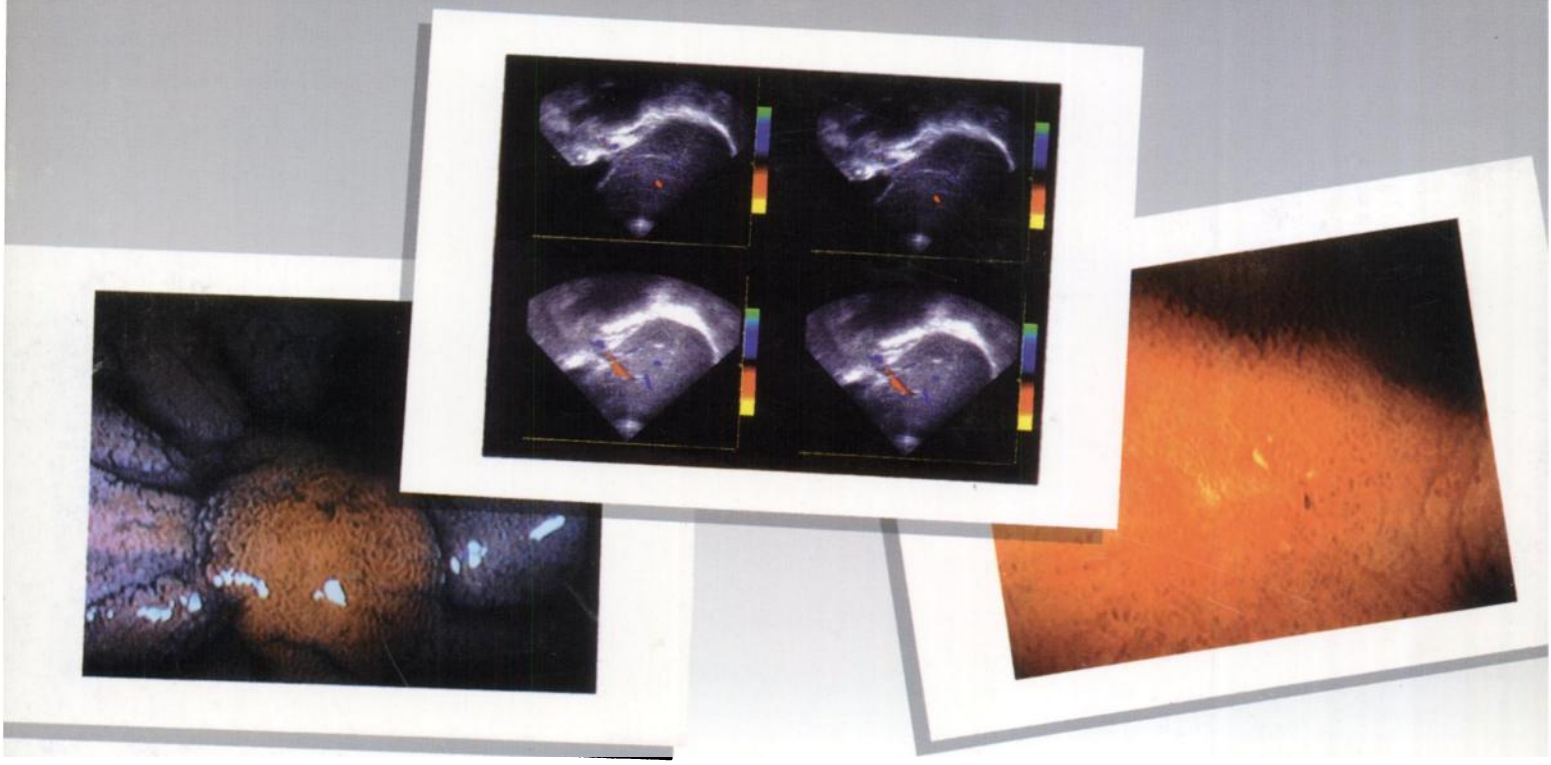

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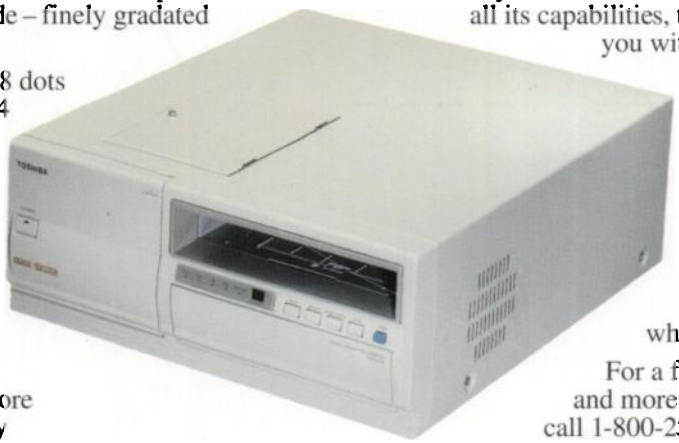

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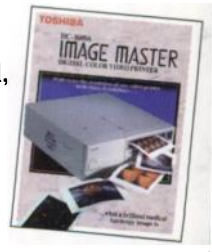

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