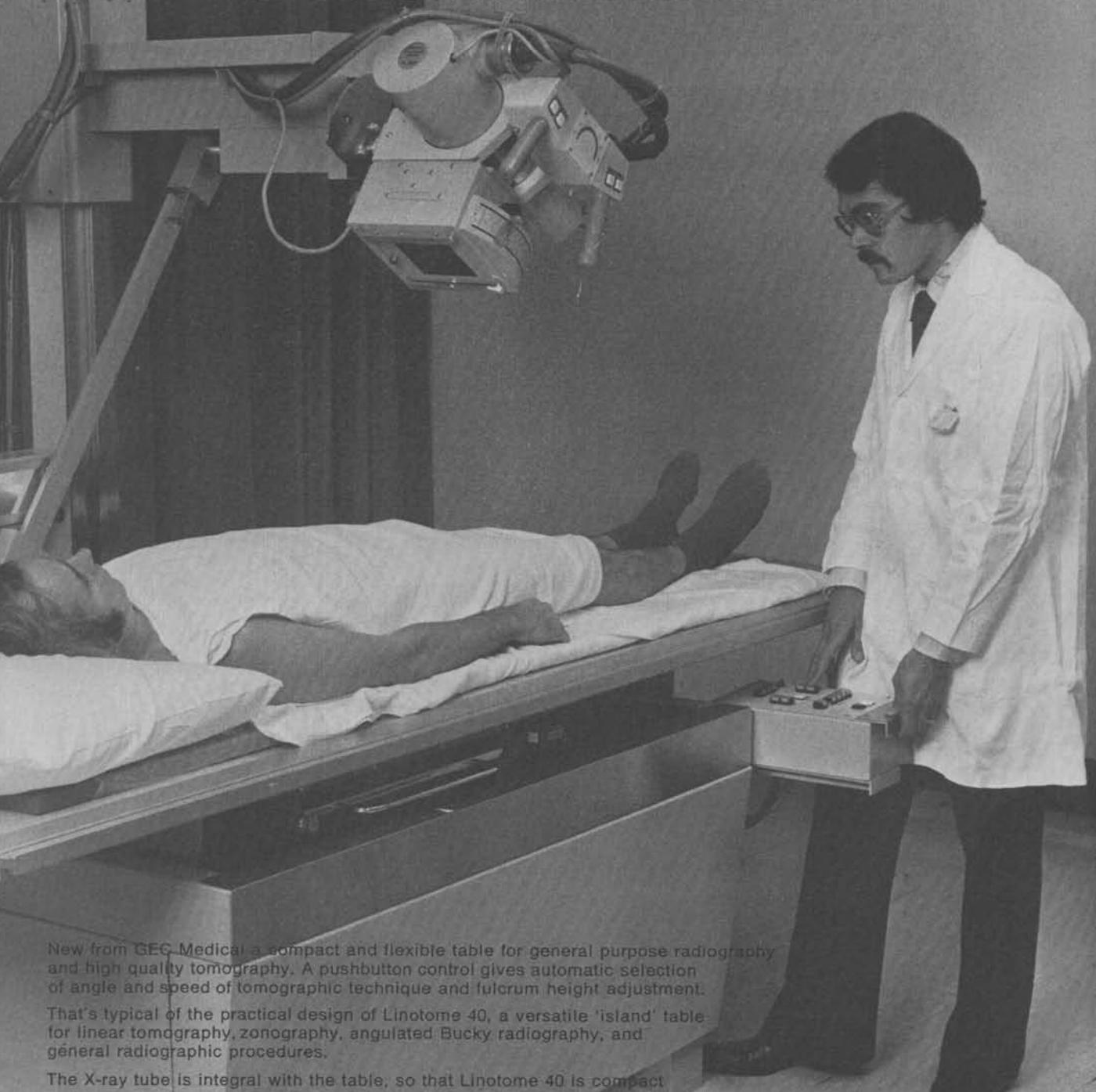


Radiography and Automatic Tomography at the touch of a button



New from GEC Medical a compact and flexible table for general purpose radiography and high quality tomography. A pushbutton control gives automatic selection of angle and speed of tomographic technique and fulcrum height adjustment.

That's typical of the practical design of Linotome 40, a versatile 'island' table for linear tomography, zonography, angulated Bucky radiography, and general radiographic procedures.

The X-ray tube is integral with the table, so that Linotome 40 is compact and spacesaving as well as easy to install. There's no need for ceiling suspensions, either. In fact, GEC Medical's Linotome 40 - simple to operate, robust in construction yet smooth in movement - is a winner all along the line. So be among the first to get the full facts.

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Contrast, definition, brilliance-in a word, CURIX

Enquiries have proved that most radiologists working with Curix RP1 film prefer the material because of its outstanding qualities.

In making their choice, low fog level, contrast, image sharpness and sensitivity were of prime importance. In a word, they

required "quality". Curix offers that quality.

The film combines all the desired properties which give the radiologist more detailed information on which to base a safe, sure diagnosis.

It's easy to see why Curix is our biggest selling X-Ray film.

Isn't it time you proved the brilliance of Curix RP1.

Further information from:
Agfa-Gevaert Ltd.,
Medical X-Ray Sales Dept.,
27 Great West Road, Brentford,
Middlesex TW8 9AX.
Tel: 01-560 2131



CURIX
RP1

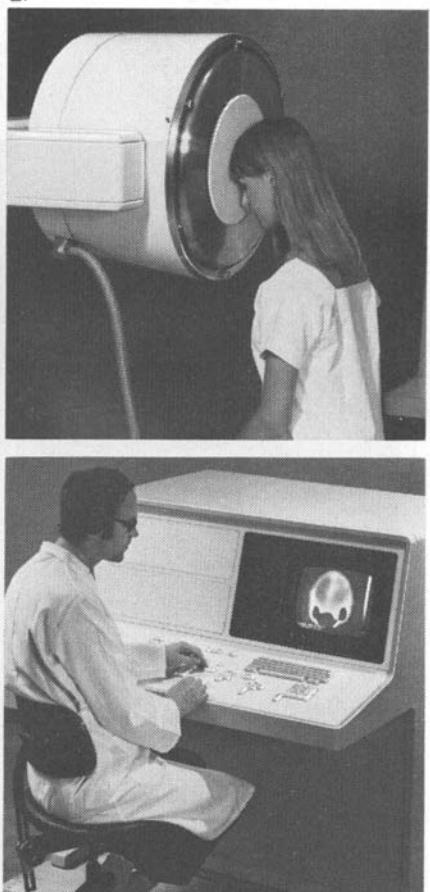
Philips Nuclear Medicine Programme:

Everything for the modern clinic

1.



2.



3.

For example:

The Gamma Camera, for static or dynamic studies of organs such as brain, liver, lungs or kidneys.

The radiation from the radio-active isotopes is detected by the Gamma Camera and fed to the Philips Processing and Display System (PDS) for registration. Analysis of the images is simple and quick. The system is convenient in operation. Pictures can be displayed in colour or black-and-white. If you are interested to learn more about our range of nuclear medicine equipment, contact Philips Medical Systems Ltd., 45 Nightingale Lane, London, SW12 8SX. Tel: 01-673 7766.

1. Gamma Camera picture after having been processed by the Philips Processing and Display System.

2. Position for brain examination.

3. Philips Processing and Display System.



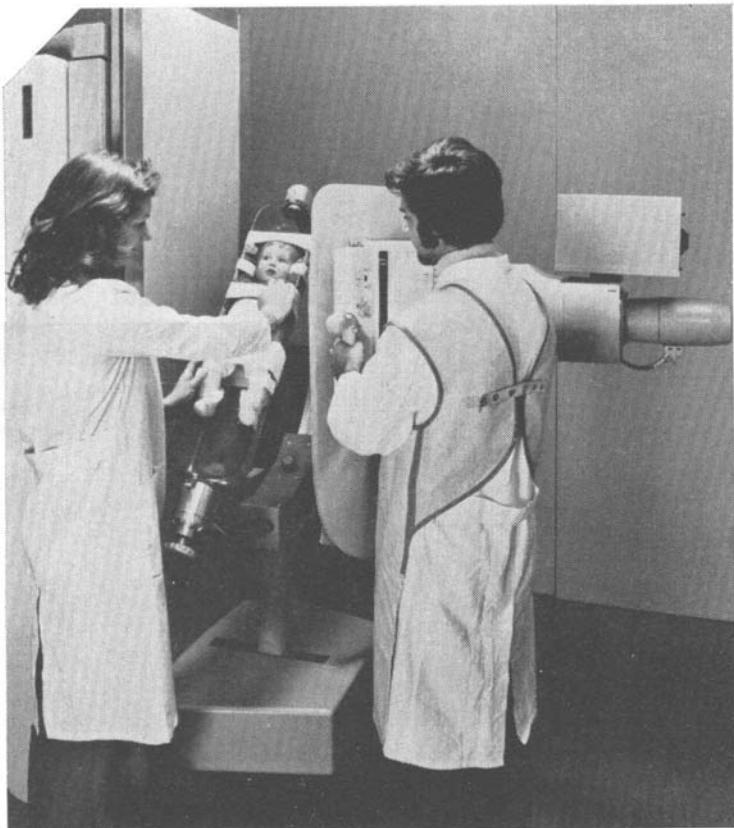
Medical
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Major requirements in paediatric radiology...

Though varying greatly in size, neonates and adolescents both belong to the domain of the paediatric radiologist, thus special requirements are imposed on the radiological equipment used. In the case of newborns, accurate positioning and short exposure times are of primary importance. Some older children are already of adult size. This again, imposes other requirements.

...now recognised by Philips



1. The change-over from examinations in adults to children is quite literally a matter of seconds. The paediatric supports are quickly installed and removed; parking when not in use is easy and convenient. The supports are mounted on a column inserted into a permanently installed footrest; this latter feature greatly facilitates the change-over procedure whilst ensuring maximum safety.

2. The assembly can be moved in its entirety towards and away from the tabletop by motordrive. In this way a short object-film distance and a longer focus-object distance are obtained for serial changer radiography and image intensifier fluorography. As a result images are sharp and the radiation dose to the patient is minimum.
3. The serial changer parks aside, clearing the tabletop for bucky work with an over-table tube.



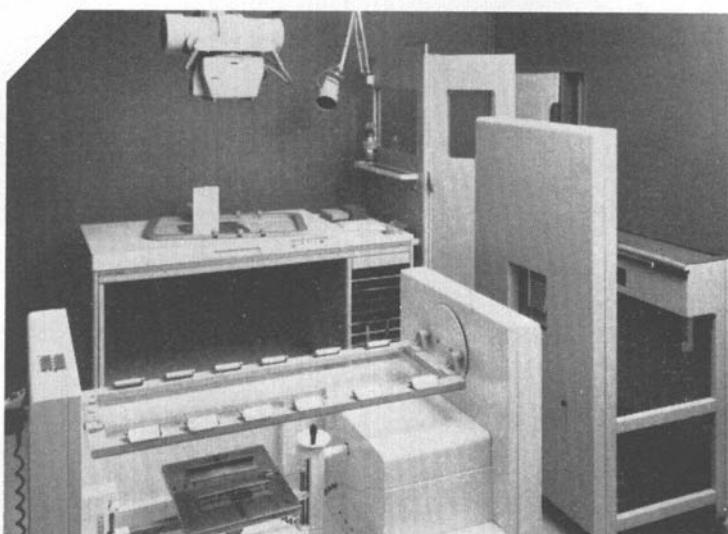
in two largely complementary X-ray systems which, together, ideally meet all these requirements:

The Junior DIAGNOST System - a special paediatric system for the radiography of patients up to some seven-years "tall". Rapid, convenient patient positioning, excellent image quality are among the outstanding features of this system. In essence, the Junior DIAGNOST comprises three separate stands: one for thorax

studies, one for general radiography and the third for tomography. They are operated from a single, ceiling-suspended X-ray tube powered by a single, high-output H.T. generator. The entire system fits neatly into one small examination room.

The DIAGNOST 73 P - a dedicated paediatric system for fluoroscopic and radiographic examinations in children regardless of their age or size. At the same time, however, it

offers all the facilities of a universal X-ray system. The ancillary equipment for the DIAGNOST 73 P includes easily fitted supports for babies, for children from two to about six years and also a set of special supports for use in pneumo-encephalography and urology.



....and met to the full at Karolinska Sjukhuset.

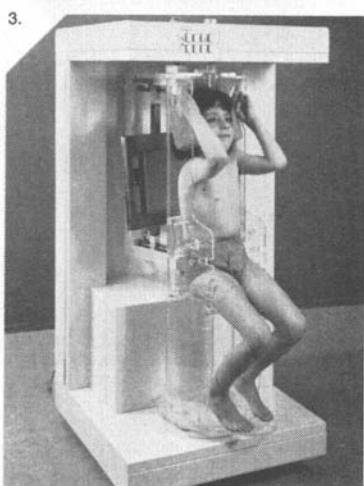
The systems can be seen in everyday use in the Children's X-ray Department of Karolinska Sjukhuset in Stockholm. They were installed some time ago, and the personnel have now become thoroughly familiar with their operation.

For lectures describing clinical experience with the systems, given during the 13th Meeting of the European Society of Pediatric Radiology, and descriptive brochures on the systems contact



1. Thorax studies are easily made with the Junior DIAGNOST V. A footswitch enables the exposure to be triggered exactly at the correct respiratory phase. The collimator has been designed to ensure that stray radiation reaching the hands of the radiographer is kept to the safe minimum.

Philips Medical Systems,
Eindhoven, The Netherlands.
or Philips Medical Systems Ltd.,
45 Nightingale Lane,
London SW12 8SX.



2. In the case of the Junior DIAGNOST H, positioning is simplicity itself - the tray is moved and not the child. The extremely short object-film distance of approx. 9 mm results in excellent image quality.

3. Tomography with the Junior DIAGNOST T can be performed with the stand horizontal, vertical or in any intermediate position. The tomographic effect is produced by a combined movement of patient support and film cassette with the X-ray tube remaining stationary. The very short time required to complete the blurring movement viz. 0.01 sec. per 4 degrees of arc solves the problem of immobilisation.



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your fingertips ...
you'll never be
lost for words**



With the SIREP radiograph reporting system, you get a finished, typed report in little longer than it takes you just to dictate. At your fingertips is a method that's more comprehensive, more accurate and more useful. More comprehensive because SIREP's enormous store of logically presented medical knowledge is adaptable to the whole range of diagnostic examinations. More accurate because

reports are instantly displayed on a monitor for checking as you work. And more useful because it means an almost immediate typed diagnosis for the referring physician. Yet despite its high degree of sophistication, SIREP still allows you maximum flexibility with no extra burden. SIREP reporting is quick to learn, easy to use, adapts to your existing organisation and gives you the extra possibility of

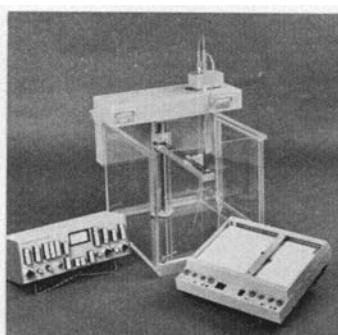
integration with the main hospital records computer. However heavy your X-ray case-load, it's lighter to carry with SIREP — one of the most advanced reporting systems available.

For full production information write to:—
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X-Ray Division
15-18 Clipstone Street
London W1P 8AE
Tel: 01-580 2464

The SIREP radiograph reporting system. From Siemens.

SHM NUCLEAR IS NOW EMI THERAPY SYSTEMS.

SHM Nuclear Corporation has joined EMI Medical, Inc., to provide the profession with a fully integrated source of advanced X-ray diagnostic and therapy systems. □ SHM Nuclear pioneered the development of linear accelerator technology, serving the needs of radiologists with X-ray therapy systems, dosimetry equipment and therapy planning systems. EMI invented and demonstrated the efficacy of the CAT Scanner, a monumental advance in medical diagnostics. Together, they offer hospitals, clinics and private physicians an unequaled range of equipment and technical support for designing and equipping radiology centers. □ SHM Nuclear's new name is EMI Therapy Systems Inc. We think it better describes the kind of products we offer and the immense technical resources we can employ to meet your needs. □ Contact EMI Medical Limited, Windsor House, Slough, Bucks, England; or EMI Therapy Systems Inc., 570 Del Rey, Sunnyvale, CA 94086 (408) 245-3136



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therapy supplier,
offering linear
accelerators,
simulators,
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6. The construction is of stainless steel. Most components are interchangeable with the R200.

7. An efficient and prompt after sales service is available at all times.

8. The R300 is backed by a two year guarantee.

For further information on the R300 call our local representative or ring us direct.

When it comes to X-Ray we'll give you a helping hand.



ILFORD

ILFORD Limited, Basildon, Essex. Tel: 0268 27744

At last, a 5MV linear accelerator that's good enough for the Philips integrated therapy programme.

The Philips Integrated Therapy Programme ensures increased efficiency in the modern radiotherapy department by having a common design philosophy, similarity of operational procedures and simplified service.

The programme embodies maximum reliability and patient safety. It incorporates a long-term plan providing the clinic and hospital with the essential equipment for today and the future.

The new Philips 5MV linear accelerator is the latest introduction to the Programme.

A machine that has been specifically designed for the radiotherapy department needing a unit for X-ray treatments when electron therapy is not required.

Fulfilling an important role.

For the smaller clinic, the SL.75/5 offers all the sophistication of the higher energy linear accelerators in the same series, but it has also been carefully designed to match other units in the 4-6MV range.

For departments where the higher energy machines are already in operation, the common design philosophy of the 5MV enables it to be readily integrated into the department.

All this makes the 5MV ideal as a primary treatment unit or a secondary unit for the larger overworked clinic.

This is what you can expect in performance.

The SL.75/5 will handle 60 patients a day.

The X-ray energy can be set in the 4-6MV range and is monitored and controlled by the same system that is used in the other Philips linear accelerators and so ensures accurate energy stability.

Dose rates at 350 rads per minute at one metre can be achieved at 5MV. (Equivalent to 550 rads per minute at 80cm.)

If you would like to know more about the Philips Integrated Therapy Programme, please write to: N.V. Philips, Medical Systems, Eindhoven, The Netherlands, or The M.E.L Equipment Company Ltd., PAD. Manor Royal, Crawley, Sussex, England, or Philips Medical Systems Ltd., 45 Nightingale Lane, London SW12 8SX,

The maximum field size is 40x40cm at one metre F.S.D.

A 420° gantry rotation has been included to ensure rapid setting up of patient treatments.

All movements are motorised with variable speed control and have simultaneous movement capabilities.

There is also a choice of treatment tables. Either a high lift ram type or an above floor version. (A combination of table side supports and centre spine construction allows beam access from any angle.)

Safety as always.

A major aspect of the SL.75/5 design concerned safety.

The dual channel dosimetry system is backed by a timer. Select and confirm routines ensure maximum patient safety and reduce operational errors. And if required, a verification system can also be added.

Where room protection is limited, a retractable beam absorber is available that can be interlocked to prevent irradiation to unsafe directions.

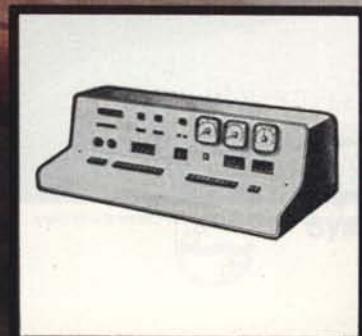
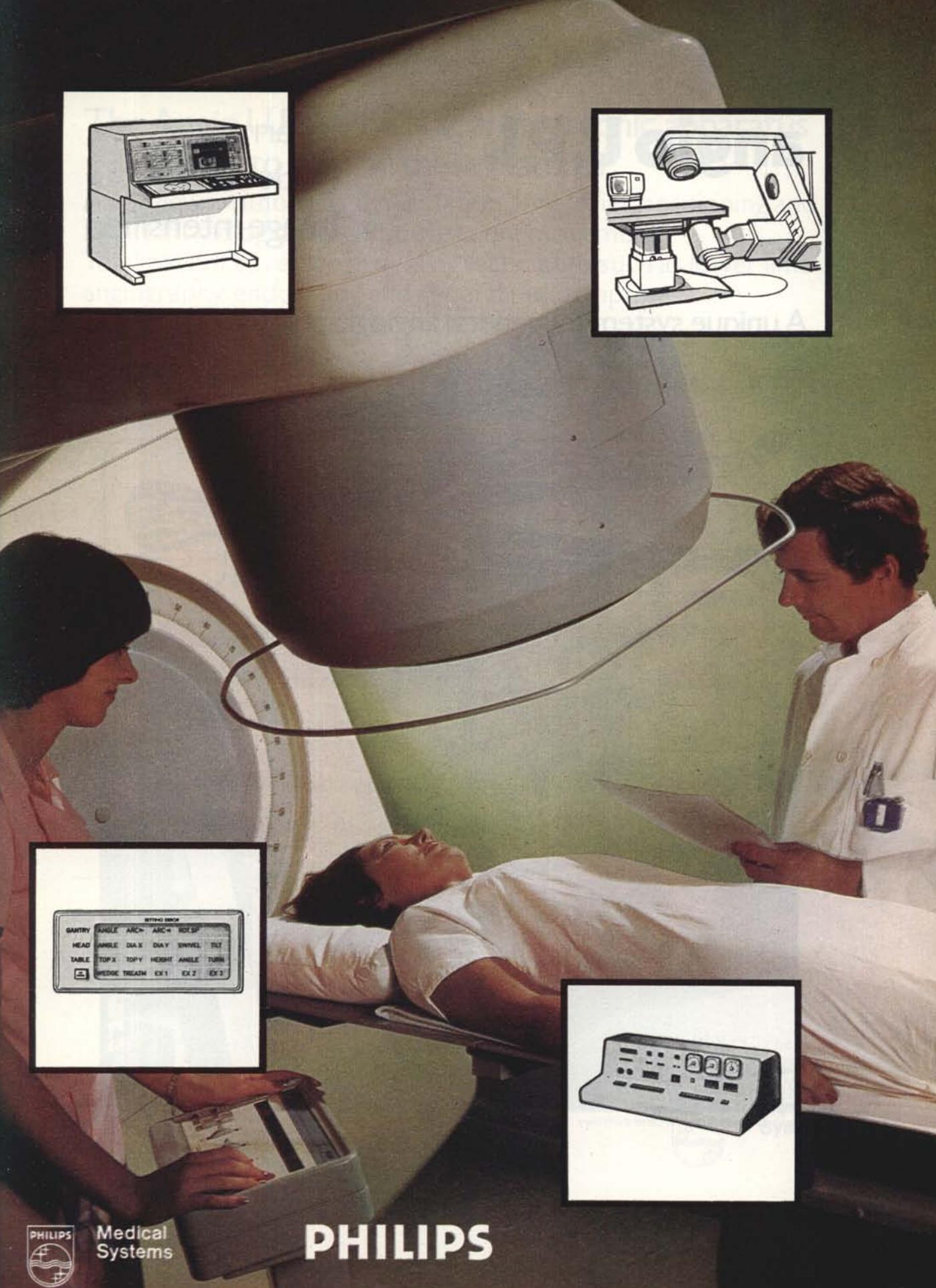
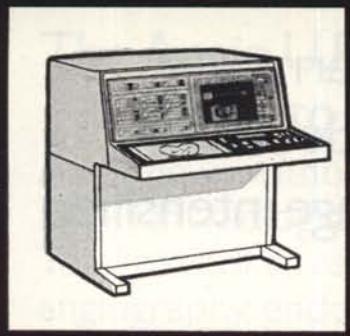
Dose and time LED displays are automatically maintained in the event of an electrical supply failure.

Find out more about the 5MV and the entire Philips Integrated Therapy Programme.

Here we have made a brief mention of just a few aspects that make the SL.75/5 an important addition to the Philips Integrated Therapy Programme.

The entire Programme includes cobalt units, localiser/simulator, a treatment planning system and ortho-voltage therapy units.

Philips are constantly developing new equipment for the highly specialised radiotherapy field.



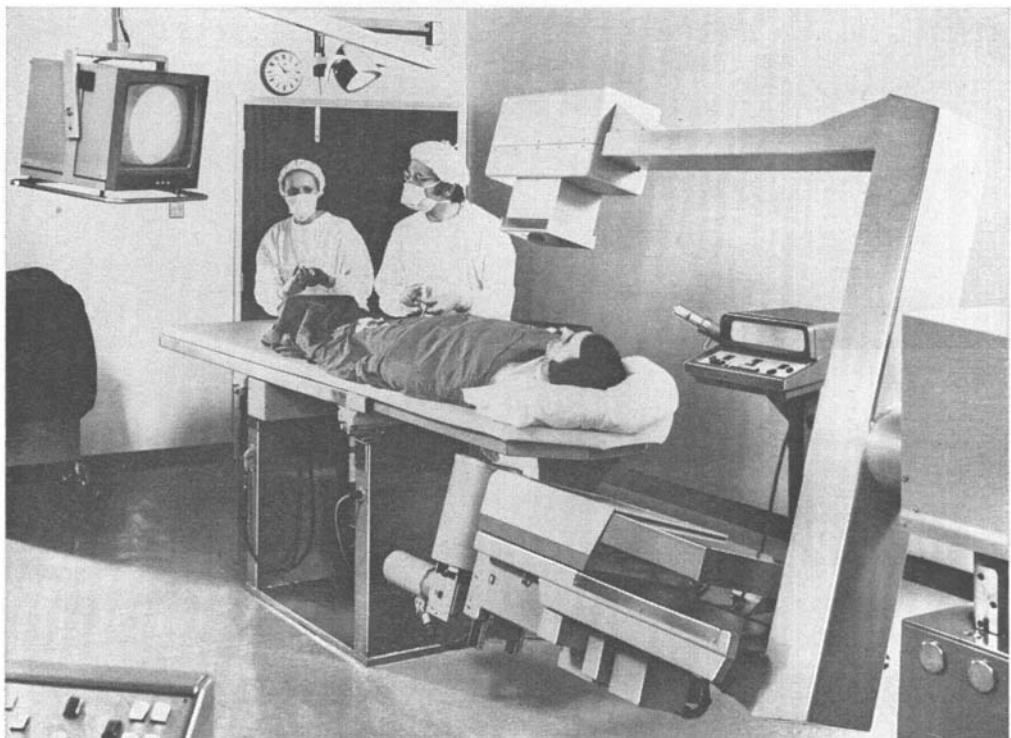
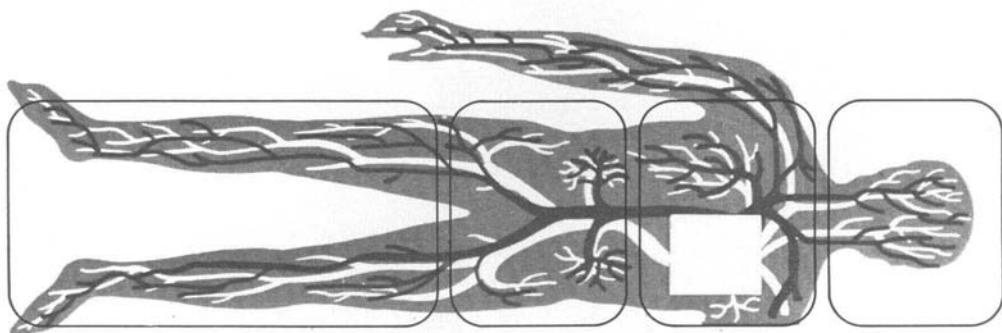
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angio U.P.I.

**U-arm
Puck U35
Image intensifier**

A unique system for general angiographic examinations

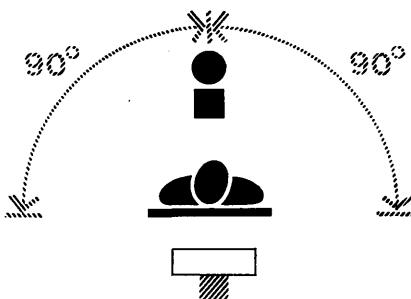


By kind permission of Leeds General Infirmary

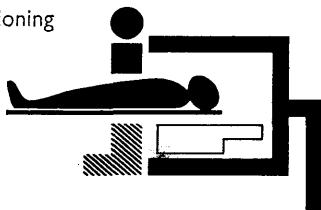
The Angio U.P.I. is the first angiographic apparatus to offer all these features:

Axial views without patient rotation. Intensifier positioning and large film radiography without patient movement.
Total patient coverage providing techniques such as lower limb angiography, endoscopy and general radiography.

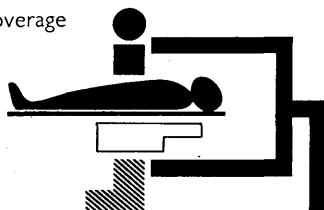
Axial views without patient rotation



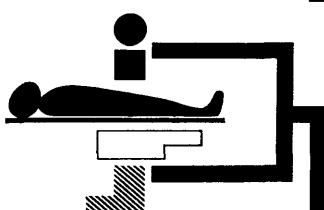
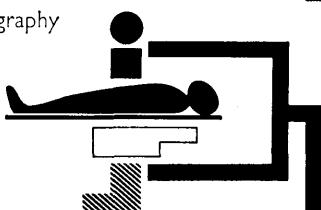
Intensifier positioning



Total patient coverage



Large film radiography



Lower limb angiography



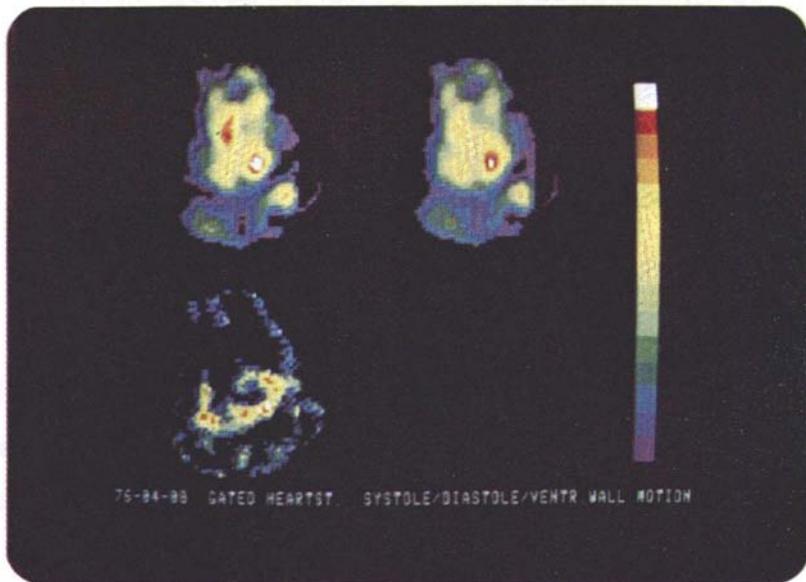
Further details on the Angio U.P.I. system are available from
Philips Medical Systems Ltd., 45 Nightingale Lane, London SW12 8SX. Tel: 01-673 7766

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Indepth evidence



76-84-93 DATED HEARTST SYSTOLE/DIASTOLE/VENTR WALL MOTION

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8. 例題：(1) 国内貿易

  例題8.1 国内貿易

  例題8.2 国内貿易

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75-12-16 HEART A-P ISNCI TGDH PERT HIGH RES CALL
6-11002 B-21 B-52848



**Medical
Systems**

Modern radio-isotope techniques enable non-invasive visualisation of ischemic areas of the heart... and processing the mass of data obtained is a task for a Philips Processing and Display System. In the colour video display, the two upper images show the heart in systole and diastole, acquired under ECG gating, while the third image, corresponding with the motion of the ventricular wall, is generated by a special program. If desired the user can also compose special programs - by simply linking existing sub-routines - and call them at any time by pressing the relevant program number.

Replay of the total study with 16 images at a time enable the optimal replay mode to be selected. Replay can be interrupted for the selection of regions of interest from

which the computer calculates the time/activity graphs corresponding with the organ function.

This indepth evidence admirably illustrates the effectiveness of the Philips Processing and Display System in providing rapid quantitative and qualitative diagnostic information obtained during dynamic investigation in nuclear medicine.

The system employs a Philips mini-computer with a 32k 16-bit memory which, together with disc-operated software programs, provides considerable processing speed and flexibility. Furthermore, it has been designed specifically for use by medical personnel and program execution requires no specialized knowledge of data processing techniques.



1 Direct access to disc-stored programs covering a complete range of routine examinations is by means of ergonomically grouped key arrangements; the results being immediately displayed on the 30 cm black-and-white video monitor. The system can be extended with a colour monitor. Frequently used procedures can be combined to form new programs. In cases where a single key offers the choice of more than one routine, the program assumes a 'question-answer' mode enabling the operator to make a suitable choice. Incorrect operation is not possible. If a non-acceptable procedure is inadvertently selected, the keyboard is immediately blocked and an 'error' condition displayed on the monitor.

2 Software programs, including standard as well as improved routines, are introduced via the system's built-in

compact-cassette recorder. This facility also enables results to be recorded for eventual image playback and appraisal.

3 FORTRAN IV option. The capability of Philips Processing and Display System can also be extended to solve special problems. In such cases data can be pre-processed in the convenient PDS way and further analysis carried out using the FORTRAN IV option. Programs can be written in FORTRAN language by the user and results monitored on the PDS display or printed-out on the same terminal that is used to enter or retrieve the FORTRAN program.

Part of a complete program of nuclear medicine equipment and systems, and fully supported by an international service organisation, the Philips Processing and Display System represents the perfect integration of operational simplicity and

efficiency with applicational flexibility and reliability.

COUPON

If you would like further evidence on Philips Processing and Display System, or on any other equipment in our nuclear medicine programme, complete this coupon and send to: Philips Industries Medical Systems Division, Building QM, Room 326, Eindhoven, The Netherlands.

Company: _____

Name/Position: _____

City/Country: _____

Street/P.O. Box: _____

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AUSTRALIA
BRISBANE, QUEENSLAND
ROYAL BRISBANE HOSPITAL
DEPARTMENT OF RADIOLOGY

DEPUTY DIRECTORS
(3 positions)

Applications are called for the positions of Deputy Directors of Radiology (3 positions) in the Department of Radiology at the Royal Brisbane Hospital. The appointees will work under the general direction of the Director of Radiological Services to the Royal Brisbane Hospitals Group. The Royal Brisbane Hospitals Group consists of the Royal Brisbane, Royal Children's and Royal Women's Hospitals. The appointees will have close association with the Radiologists at the Royal Children's Hospital, each of the three positions will have special responsibilities. It is envisaged that the special responsibilities will be—

1. Neuro-radiological Services
2. Special Procedures
3. General radiological services Casualty radiological services and Obstetrical radiological services.

Applicants should state their special interest or preference for any of the three positions.

The Royal Brisbane Hospital has some 1,100 beds and the Department of Radiology performs some 130,000 procedures per year. The equipment in the Radiological Department is at present being up dated and the department itself is being extensively enlarged by an extension to the new department in an adjoining new block.

In the General Department all types of radiological procedures are carried out and it is contemplated that ultrasound and body scanning will be added as soon as these procedures become an established reality.

The Neuro-radiological Department is situated within the Department of Neurology and Neurosurgery and is equipped with a Mimer III Neuro-radiological Unit and an E.M.I. Head Scanner.

In the Department, as well as the Deputy Directors, there is an establishment of a Director, 8 Staff Radiologists and 11 Registrars in training. Close co-operation is expected between the department and the newly created Chair of Radiology within the University of Queensland.

The positions are permanent after a period of 12 months probation. Superannuation, 5 weeks annual leave, sick leave, conference leave and overseas study leave are provided.

Salary is \$A.29,458 per annum.

Further information available from the Agent-General for Queensland, 329 The Strand, London WC2 OLZ to whom applications should be sent giving full details of qualifications, age and experience, together with names and addresses of three referees. Closing date 18 February 1977.

**BIOLOGICAL PRODUCTS IN
 THE TREATMENT OF CANCER**

An open symposium to be held by the International Association of Biological Standardization

London, April 13th–15th, 1977

Topics

Principles governing the use of biological preparations in the treatment of cancer
 Materials B.C.G., C. parvum, Interferon, etc.

Production

Quality control

Mode of action

Immunology

Pharmacology

Experimental oncology

Toxicology in animals

Clinical relevance of experimental data and design of trials

Clinical Studies

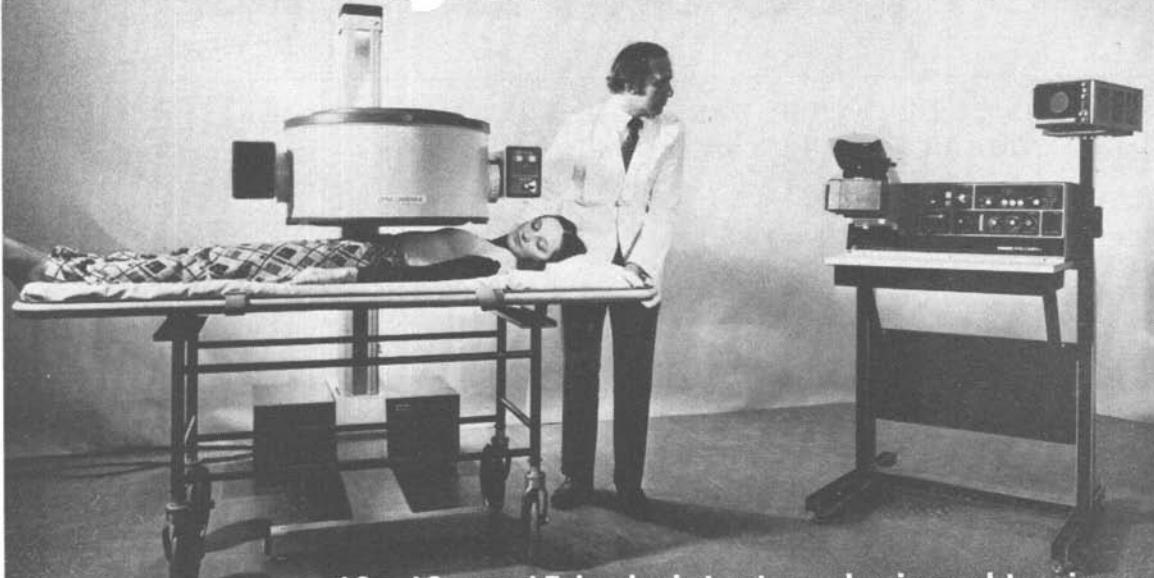
Further information and registration forms may be obtained from the Organizing Secretary, Dr. A. H. Griffith, The Wellcome Research Laboratories Langley Court, Beckenham, Kent.

Persons interested in presenting papers at this symposium are asked to submit the proposed title to the Organizing Secretary before December 31st, 1976.

**Progress
 in Computerized
 Tomography**

The Department of Diagnostic Roentgenology, Mayo Clinic, announces a 2½ day continuing education course entitled, "Progress In Computerized Tomography". The course will be held on May 25, 26, and 27, 1977, at the Mayo Clinic in Rochester, Minnesota. The program will emphasize computerized tomography of the body but will also include certain aspects of CT physics and economics and will include certain aspects of computerized tomography of the head and breast. The course is approved for AMA Category I credit on an hour for hour basis. Registration fee is \$200. For further information contact Patrick F. Sheedy II, M.D., CT Course Director, or Robert R. Hattery, M.D., David H. Stephens, M.D., and O. Wayne Houser, M.D., Co-directors, Mayo Clinic, Mayo Foundation, Rochester, Minnesota 55901.

DynaCamera 4



10-, 12-, or 15-inch detectors designed to give the finest-ever gamma scintillation images.

The 15-inch detector is the latest and most advanced large-field-of-view detector available to compliment the Picker gamma imaging system. It is capable of $\frac{1}{8}$ -inch resolution for 99^m Tc with $\pm 10\%$ uniformity and excellent linearity.

Designed for small and medium-sized hospitals, teaching hospitals, and medical centres, these units incorporate the following features :

- High-speed ultra-low dead time using analogue buffering and delay time techniques
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- Joystick control of the calibrated region of interest for count density quantitation of normal vs. abnormal areas of the patient's organs
- Built-in patient anatomical landmarking system

All items are standard, built-in and exclusive features.

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unique padding permits passage of X-rays without showing on the plate

RADIOLOGISTS

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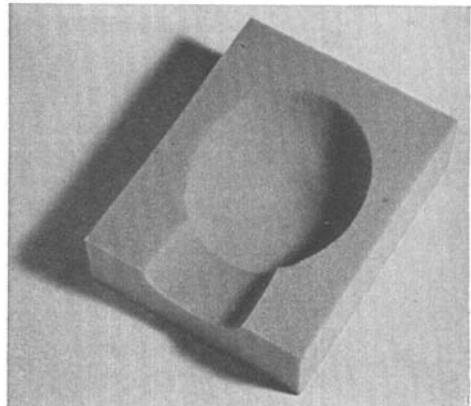
ADULT SIZE BLOCK 202, 10" x 8" x 3"

CHILD'S SIZE BLOCK 303, 7" x 6" x 2"

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POLYFOAM BLOCKS 202 & 303

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Fellowship in Radiation Oncology

The Department of Radiation Oncology at the Rhode Island Hospital, in conjunction with the Section on Radiation Medicine of Brown University, is offering a one to two year fellowship starting January 1st, 1977, for physicians who have completed at least three years of training in Therapeutic Radiology.

The program will be centered in the new department at the Rhode Island Hospital, which includes two new linear accelerators, simulator and mould room, for the management of over 1,000 new patients a year. A large program has been mounted for the implementation of computer assistance of the total delivery of radiotherapy.

The fellow will participate in the many multi-modality studies in progress and participate in the multi-disciplinary conferences and clinics at the Rhode Island Hospital and other Brown University affiliated health centers.

*Inquiries should be directed to:
Arvin S. Glicksman, M.D., Chairman, Department of
Radiation Oncology, Rhode Island Hospital,
Providence, Rhode Island 02902*

A difficult choice for your gamma camera?
Do not be concerned...

now you can have:

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All on one instrument

The new Selo Supercamera KR7/L gives you:

highest resolution (3.2 mm bars) with a large field (39 cm diameter) with up to three analyser windows plus automatic peak tuning, automatic uniformity correction, and a high count rate.

This gives a high level clinical capability with **proven reliability**.

This new camera ensures that the fine reputation earned by Selo in nuclear medicine will continue to grow.

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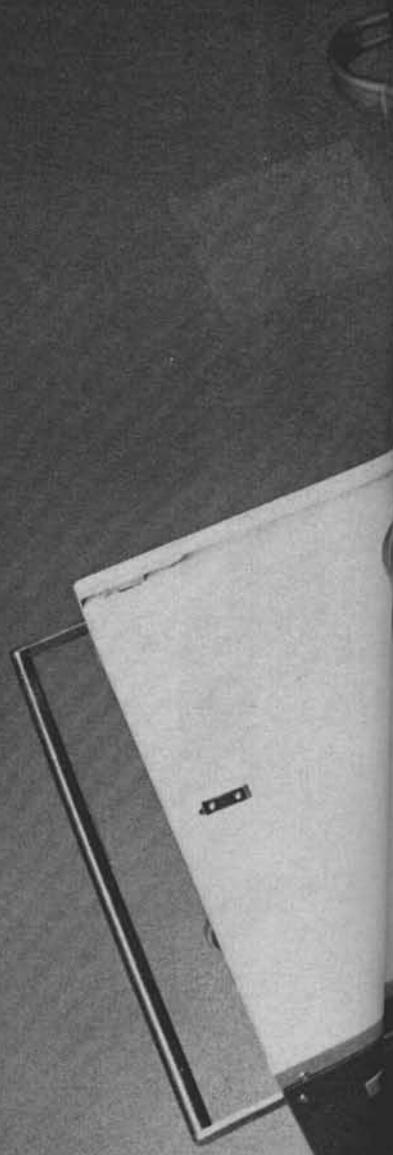
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Care consists of a simple, speedy and extremely accurate Light Beam Positioning Unit; a versatile Cassette Carrier system; and a choice of trolleys. The work of hospital staff is simplified by using the same light-weight purpose-designed trolleys from Ambulance through X-ray department to operating theatre or ward.

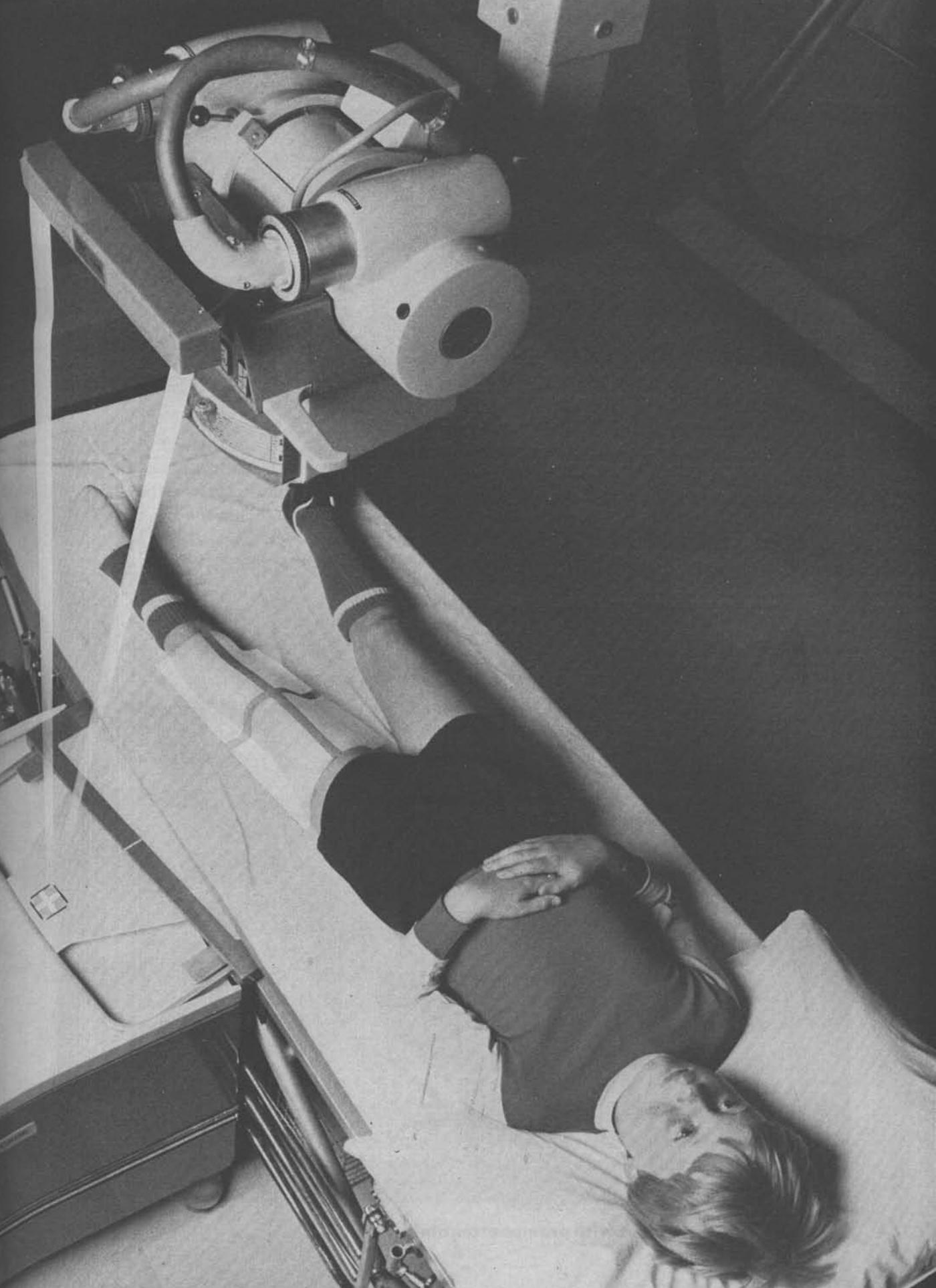
Care is available for demonstration at our Wembley showroom. Find out more by telephoning and ask for the brochure.



Medical Responsible technology

GEC Medical Equipment Limited

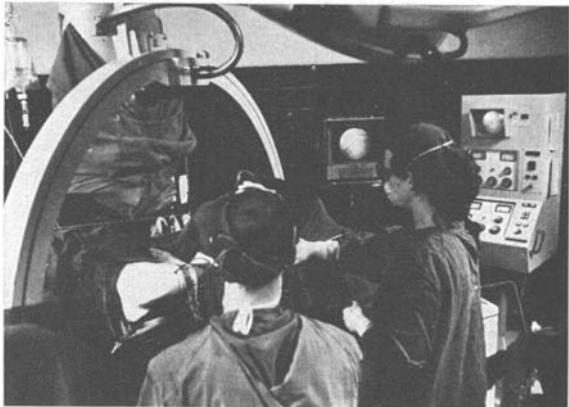
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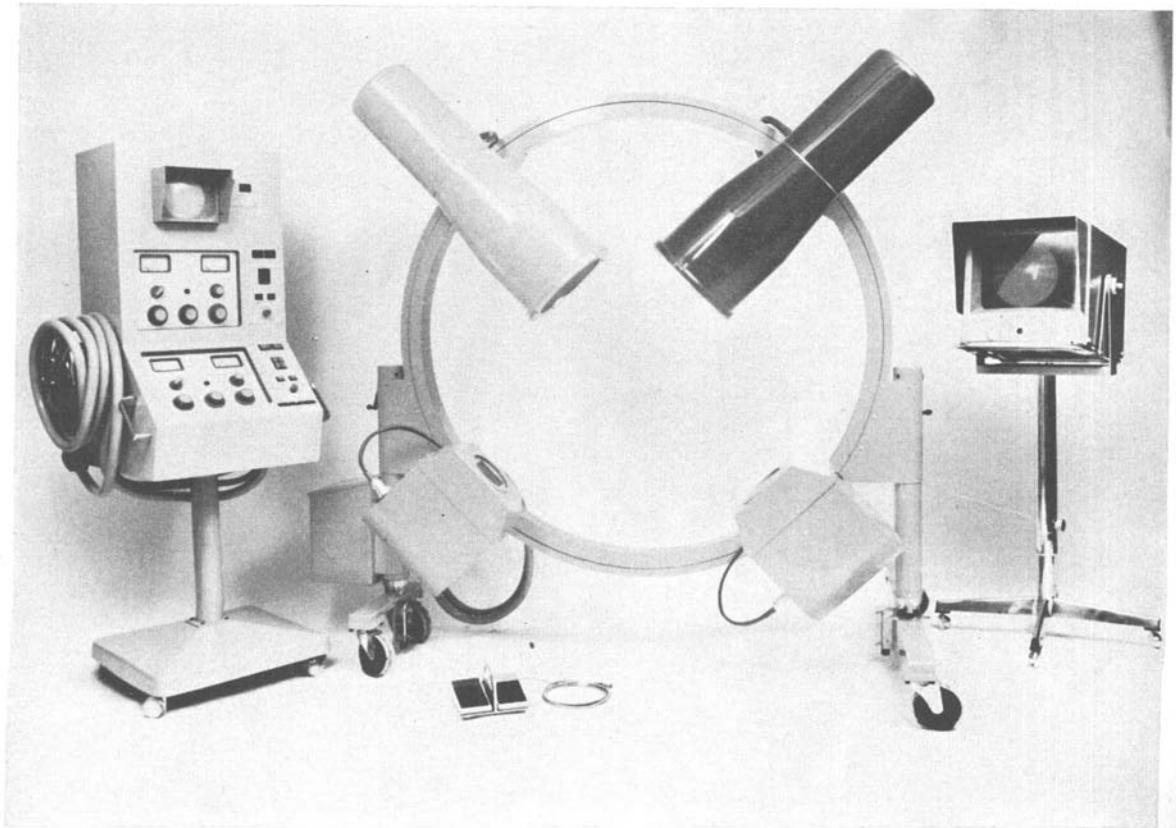
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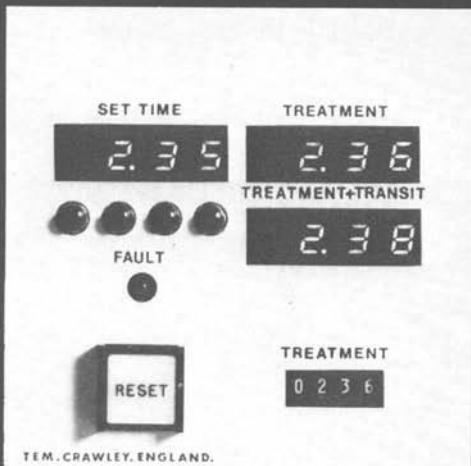
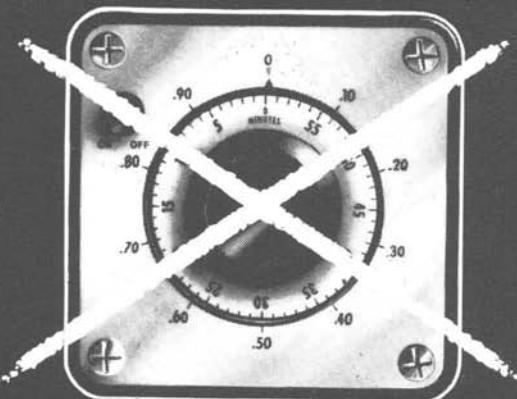


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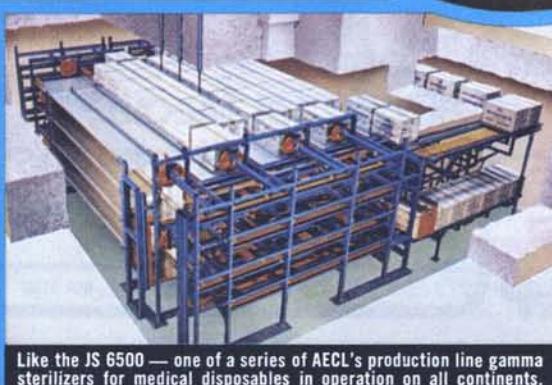
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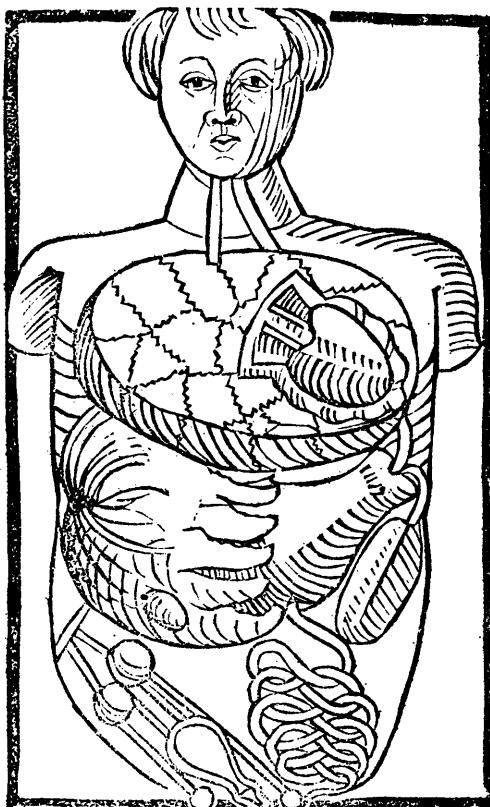
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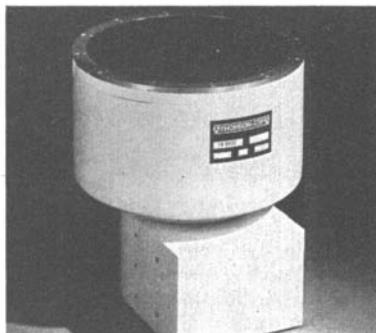
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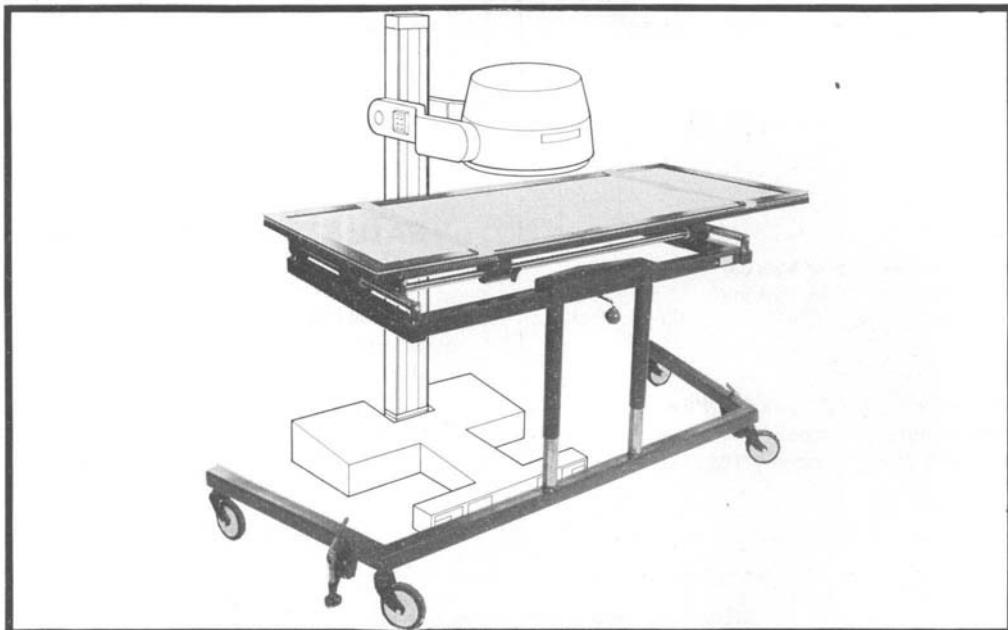
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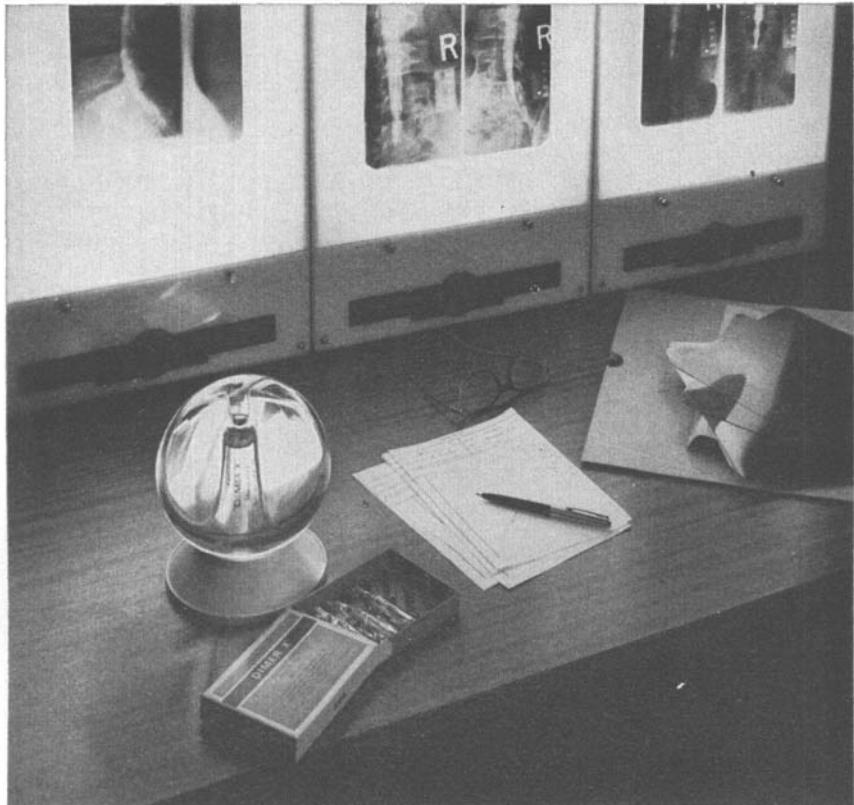
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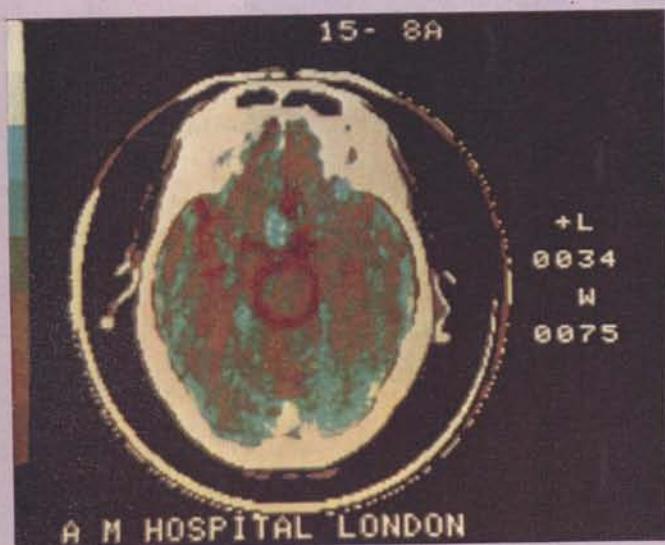
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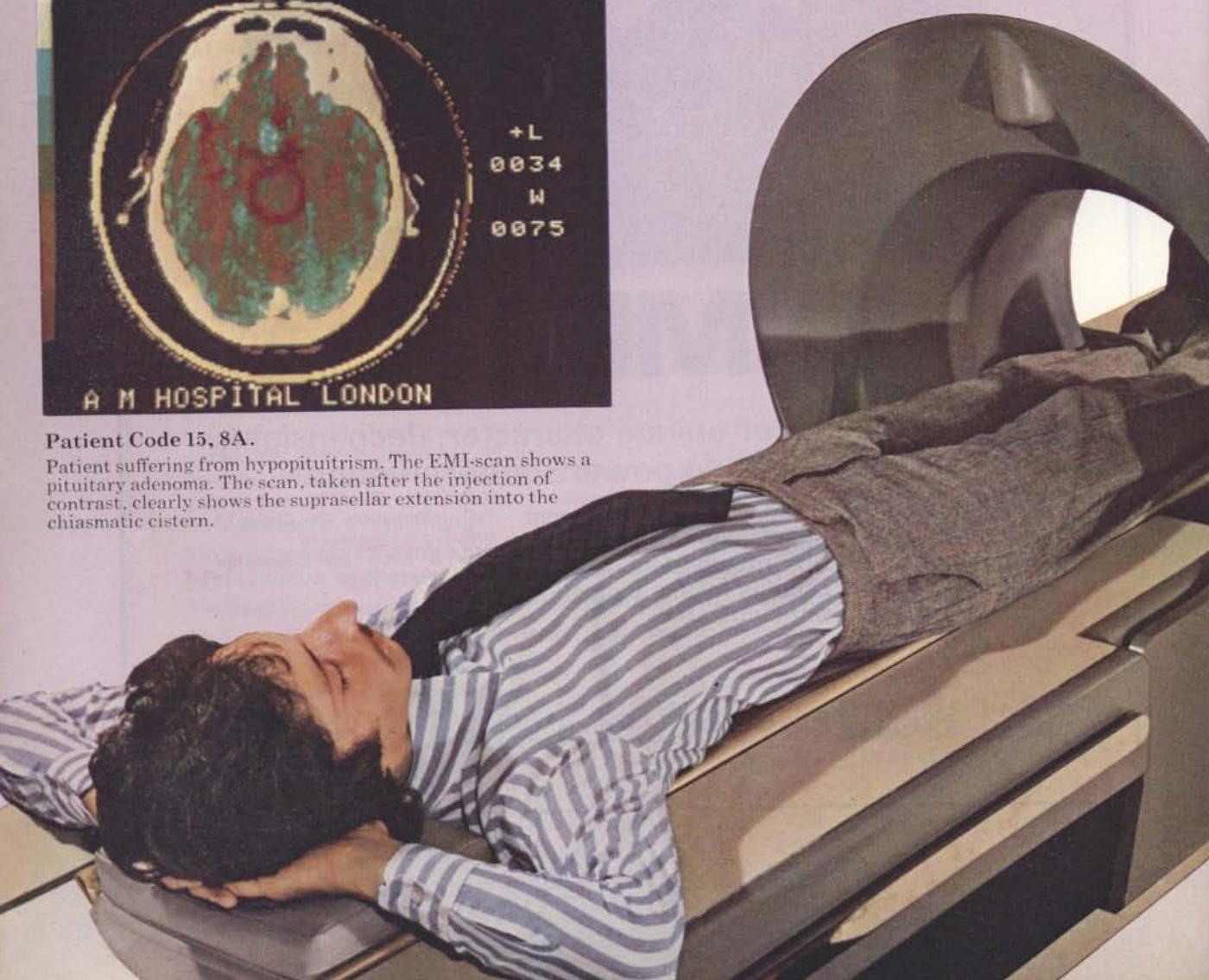
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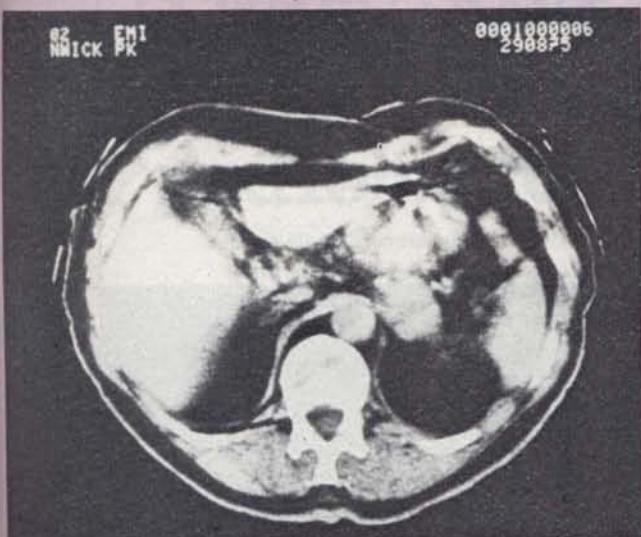


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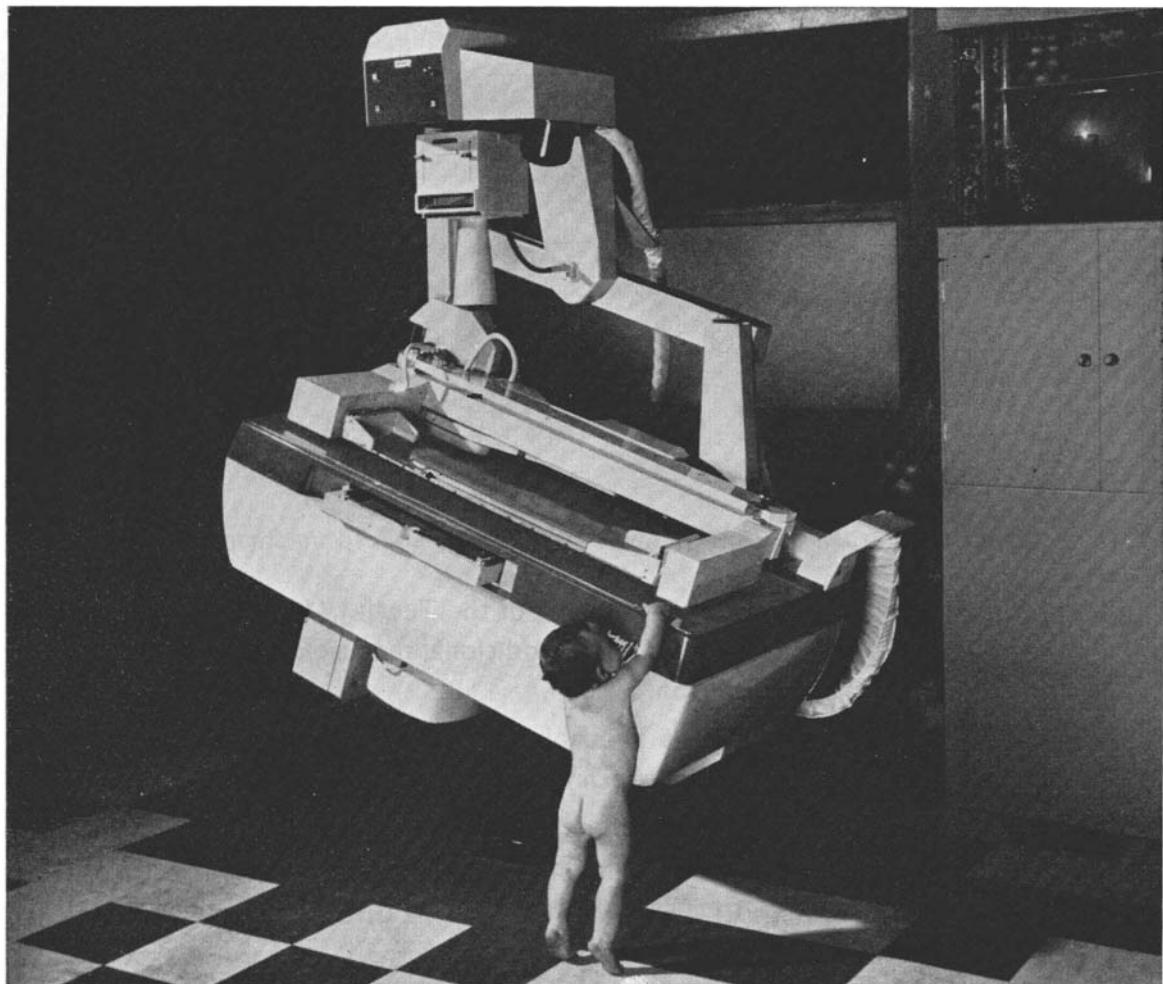
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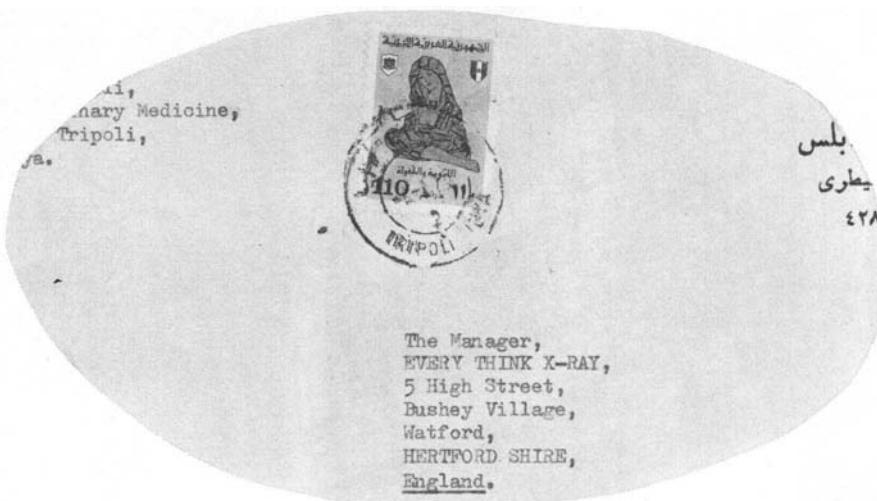
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