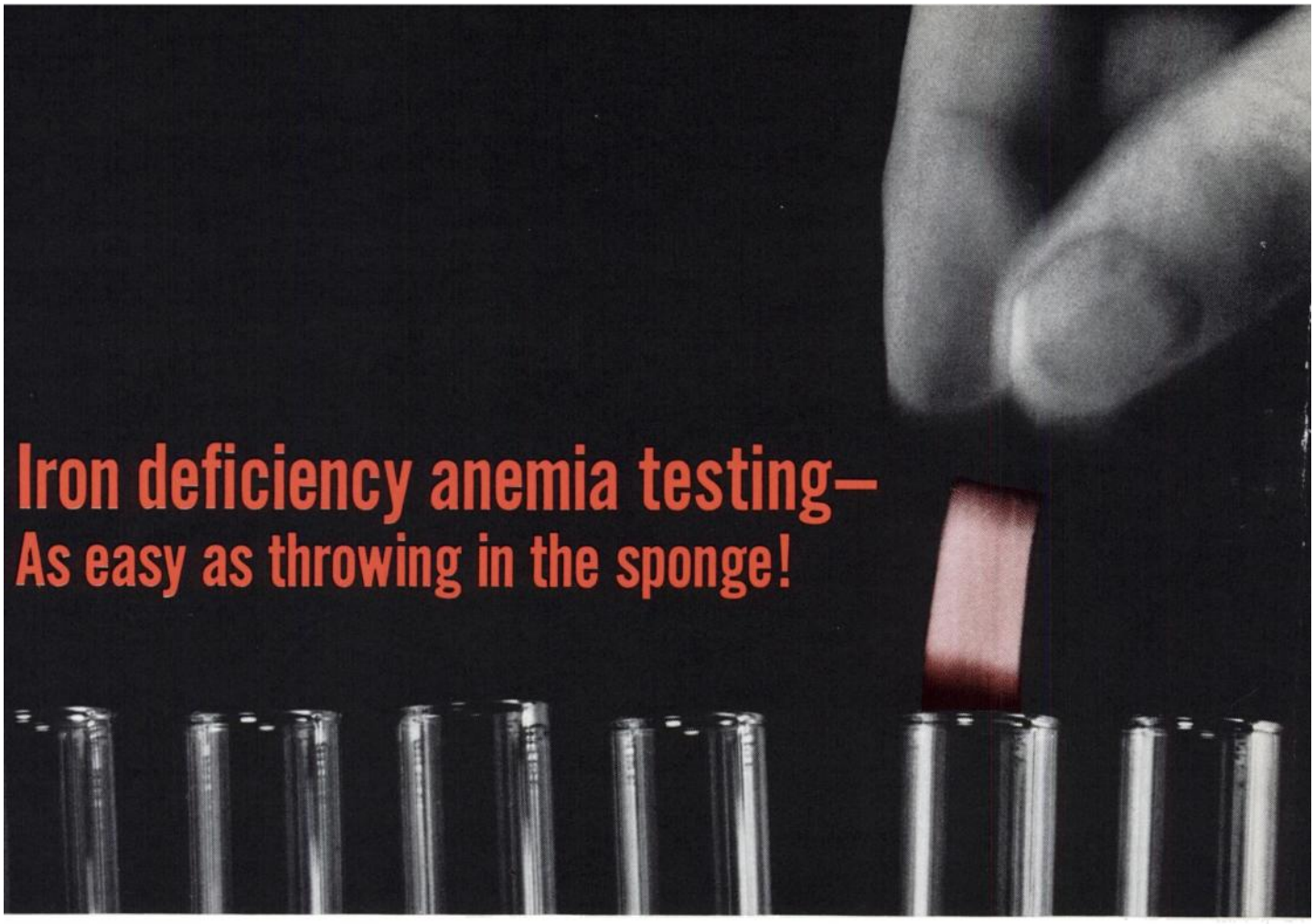

Iron deficiency anemia testing—
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Irosorb-59 is the second in a series of **in vitro** radio-pharmaceutical tests developed by Abbott Laboratories. **The Irosorb-59 Sponge offers a remarkable degree of accuracy and simplicity that makes routine screening a practical matter.**

Accuracy: The diagnostic accuracy of the test is unsurpassed in measuring latent iron-binding capacity. What's more, unlike other methods, it can be used following the administration of a hematinic.

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Convenience: Irosorb-59 is in a disposable kit form ready for immediate use at room temperature.

Safety: No dilution or pipetting of radioactive material is necessary. Since the patient receives no radioactive materials, the test can be used in children, pregnant women, or in adults without any hazard of radioactivity.

Flexibility: The test does not require the presence of the patient for the determination of the radioactivity. Serums can be frozen and saved until a sufficient number has been collected to run a rack full of tubes at one time, or serum samples can be mailed to personnel performing the test.

Irosorb-59 is available to all doctors, hospitals and clinical laboratories—AEC licensing is not required.

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DIAGNOSTIC KIT

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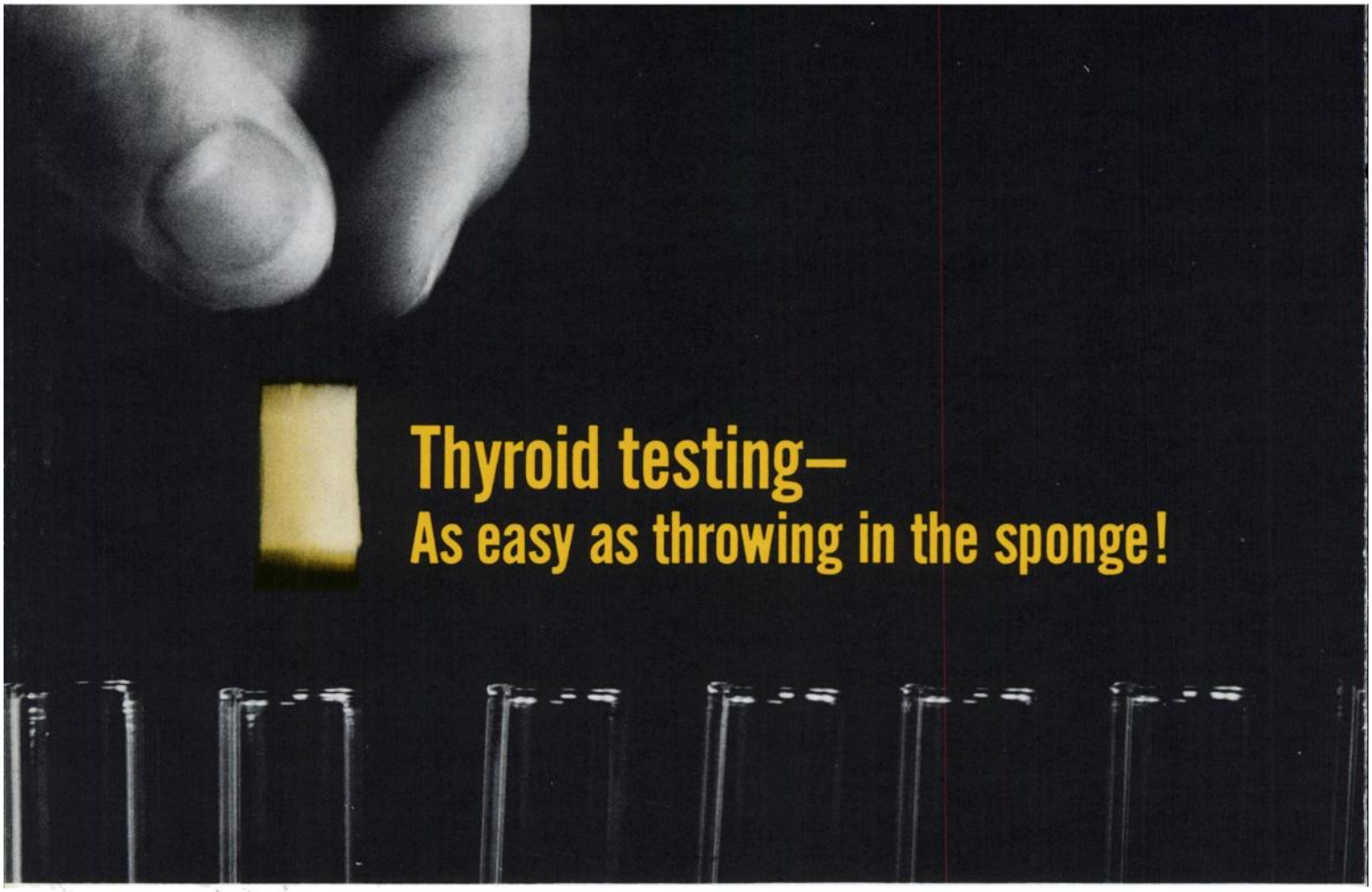

The Triosorb Sponge is an in vitro test providing accuracy, speed and convenience.

Accuracy: Because factors such as red blood cells and exogenous iodine have been eliminated from consideration in the Triosorb Test, it is unsurpassed in accuracy.

Speed: With only 3 washes and no need for double pipettings, shakers, or incubators, the Triosorb Test can be more rapidly performed than any other T-3 test.

Convenience: Available in a disposable kit ready for immediate use at room temperature. There is no dilution or pipetting of radioactive materials with Triosorb. It is the simplest and most convenient thyroid function test to perform.

"The resin sponge (Triosorb) technique is superior to the erythrocyte method for performing the I^{131} T3 test in terms of simplicity, convenience and elimination of errors characteristic of the erythrocyte procedure."[1]

"The T-3 uptake test was vastly improved by a resin-sponge . . . (Triosorb) . . . which is offered as a replacement for the red cells as well as for the loose granular resin which varies from day to day."[2]

Triosorb is available to all doctors, hospitals and clinical laboratories—AEC licensing is not required.

1. McAdams, G. B., and Reinfrank, R. F., J. Nuclear Med., 5:112, 1964.
2. Manfredi, O. L., et al., J. Nuclear Med., 7:72, 1966.

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TETRASORB™-125

T-4 DIAGNOSTIC KIT

On the opposite page,
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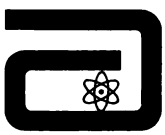
Tetrasorb-125.
Please lift this page
for information about
Triosorb® and Irosorb-59®.



This sponge puts the squeeze on the PBI!

"For many years the protein-bound iodine (PBI) has been used as an indirect index of the level of thyroid hormones; however, in an appreciable number of cases it does not provide an accurate measurement, because compounds containing iodine or mercury are present."[1]

It is now generally recognized that a quantitative **direct measurement** of thyroid hormones in serum is the most valuable single laboratory aid in assessing thyroid function.

"Using a resin-sponge and thyroxine tagged with I-125, a simple method was developed to determine serum thyroxine."[2]

That method is Tetrasorb-125, the first diagnostic kit offering a direct measurement of thyroid function by determining serum thyroxine. Hypothyroid patients show a decrease in serum thyroxine while hyperthyroid patients show an increase.

Tetrasorb-125 is based on the principle of saturation analysis for measuring total serum thyroxine (T-4). Prior to the availability and convenience of the Tetrasorb-125 Kit, these results were reported for the T-4 test:

"When T_4 and PBI values were compared, a good correlation ($r=0.823$) was obtained with a higher diagnostic accuracy for the T_4 determination. All euthyroid individuals with PBI's elevated due to iodine had T_4 values in the normal range. . . . The T_4 level correlated well with the clinical status in hypothyroid subjects receiving T_4 or hyperthyroid subjects receiving various forms of therapy."[1]

"Unlike the protein-bound iodine determination, this technique is entirely unaffected by iodine or mercury, an important advantage from the clinical point of view."[3]

"These results proved that this method could be used as a routine clinical diagnostic test in place of the determination of PBI."[4]

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Tetrasorb-125 is available to all doctors, hospitals and clinical laboratories—AEC licensing is not required.

1. Murphy, B. P. and Pattee, C. J., J. Clin. Endocr., 26:247, 1966. **2.** Kaplan, B. C., AAAS Meeting, Dec., 1966.
3. Murphy, B. P., J. Lab. & Clin. Med., 66:161, 1965. **4.** Nakajima, H., et. al., J. Clin. Endocr., 26:99, 1966.

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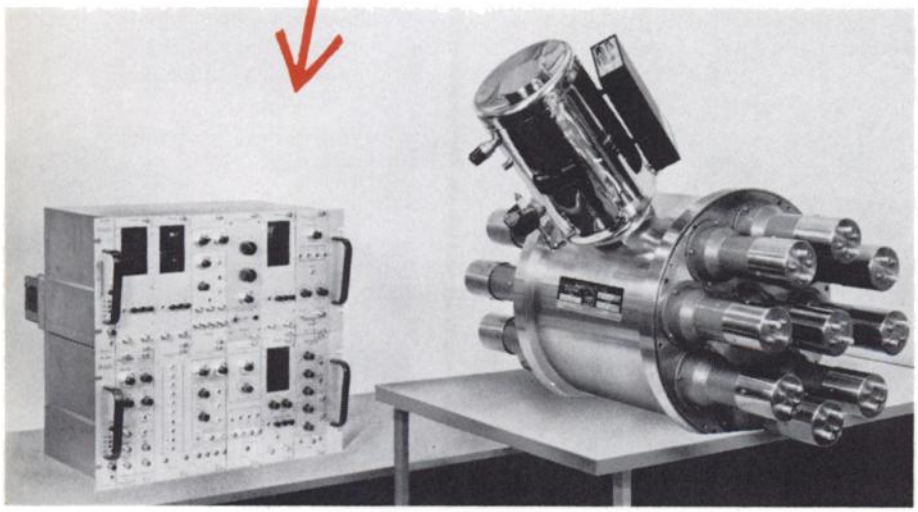

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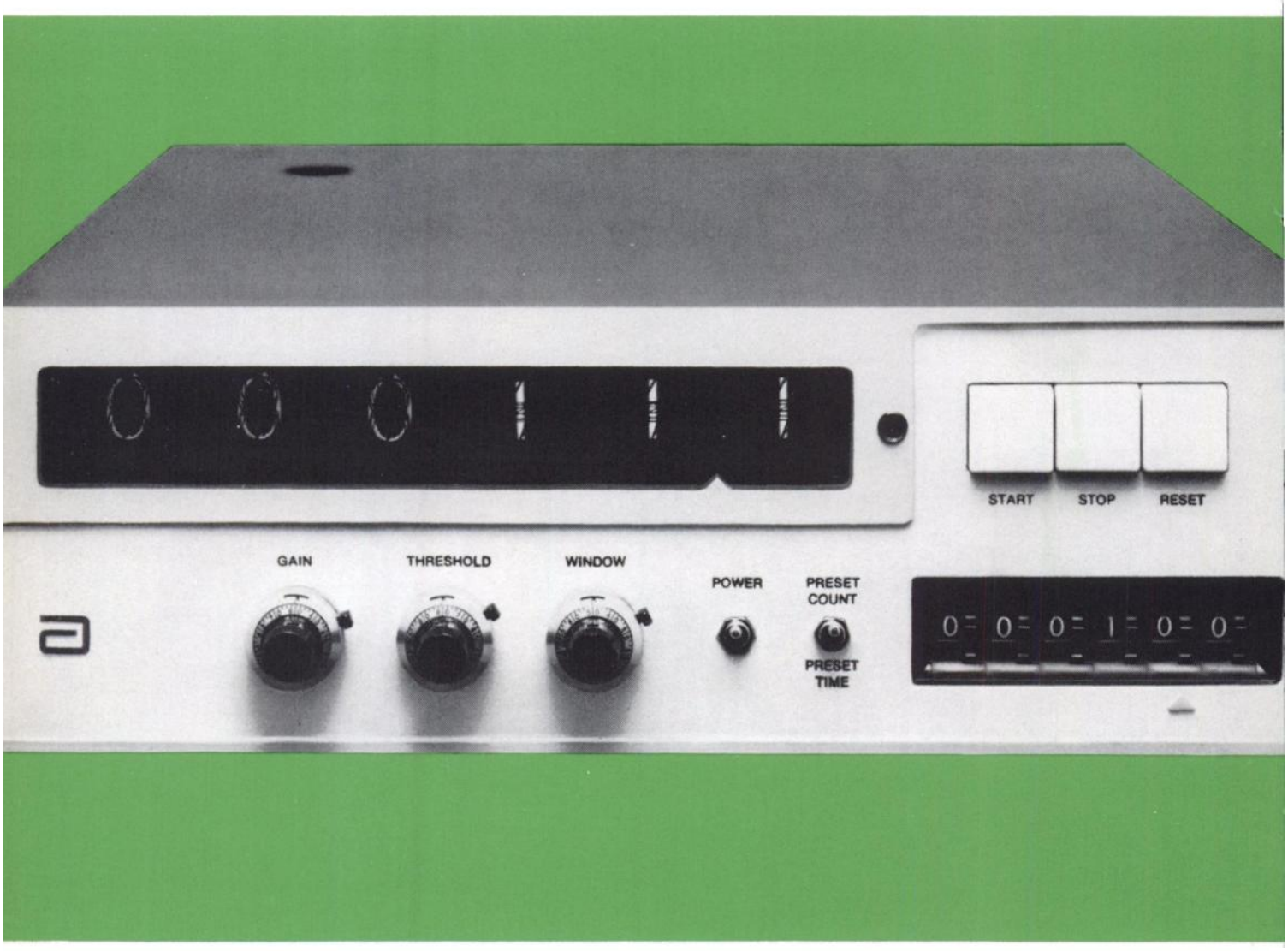

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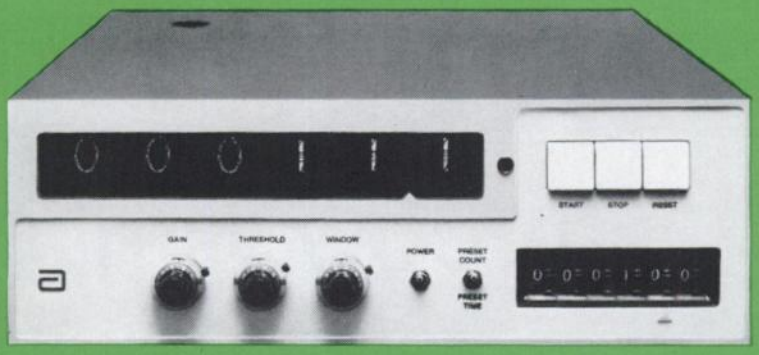

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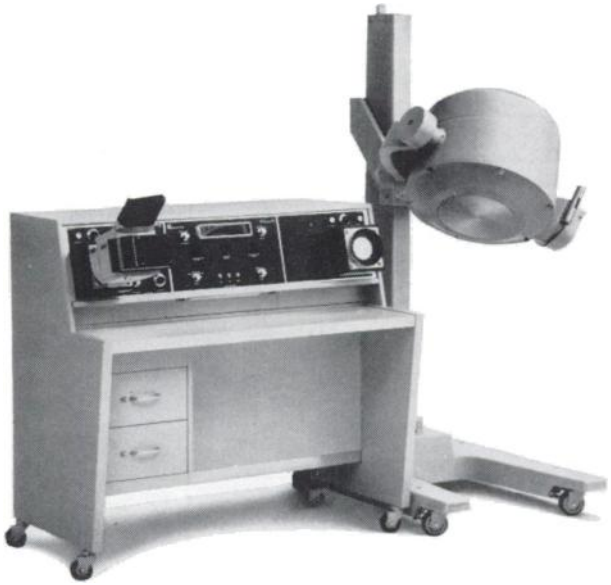

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The analyzer also encodes the data, in computer-compatible form. And then transfers the data to the second console (left), the magnetic tape transport.

So much for theory. Application is where the Magnetic Tape System pays off. Because the taped data on a multitude of clinical organ studies can now be fed to a programmed off-line computer.

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But first you should talk to your Nuclear-Chicago sales engineer about the Magnetic Tape System for Pho/Gamma III. And about our other new Pho/Gamma III accessories (fast digital printer, chart recorder, and 35-mm automatic time-lapse camera, among others). Or, if you'd like, write directly to us. 8-238

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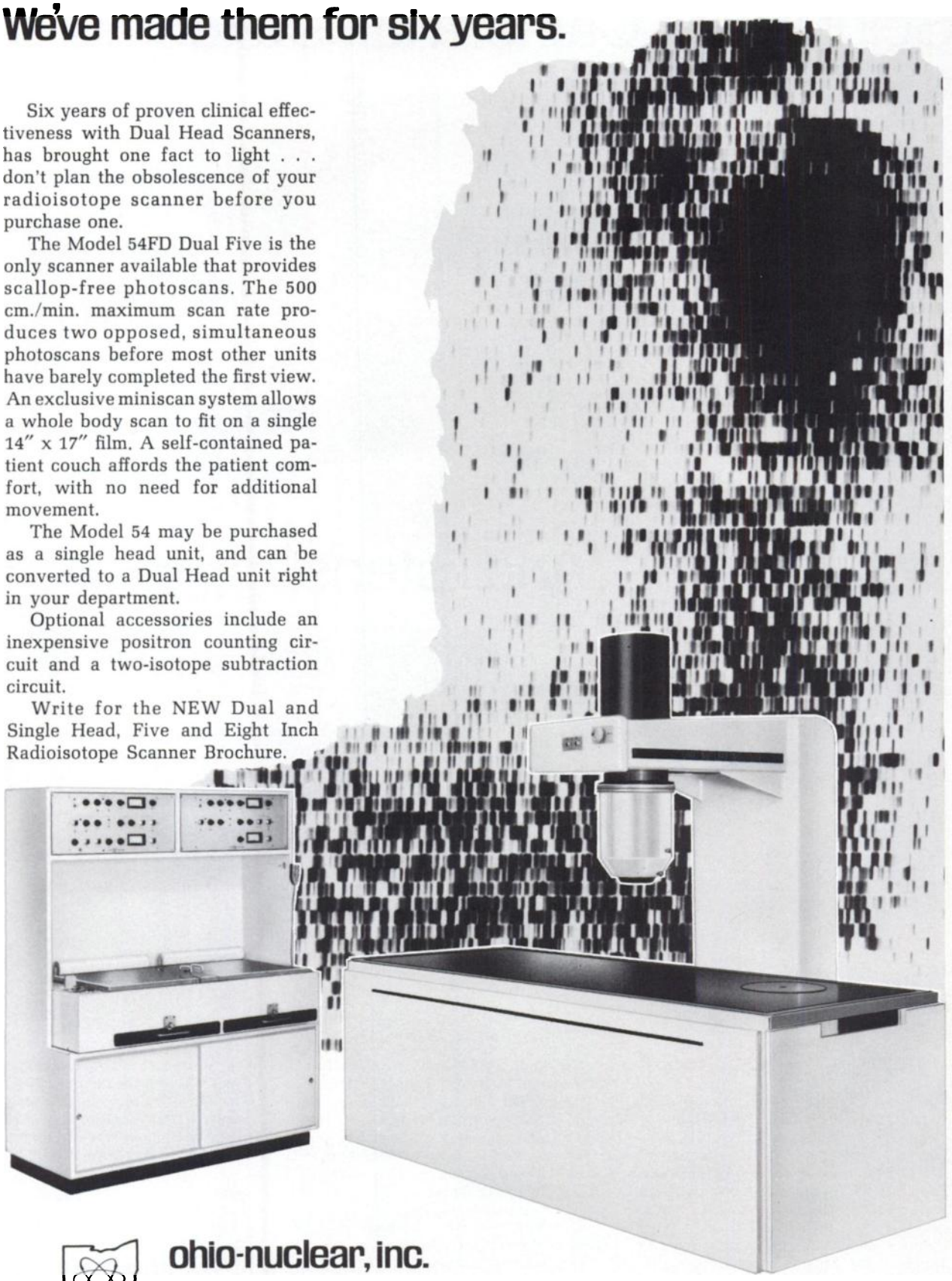

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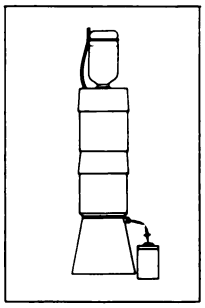
In addition, Technetope II is readily adaptable to tandem milking which provides high concentrations of ^{99m}Tc per ml.—another Squibb first and exclusive.



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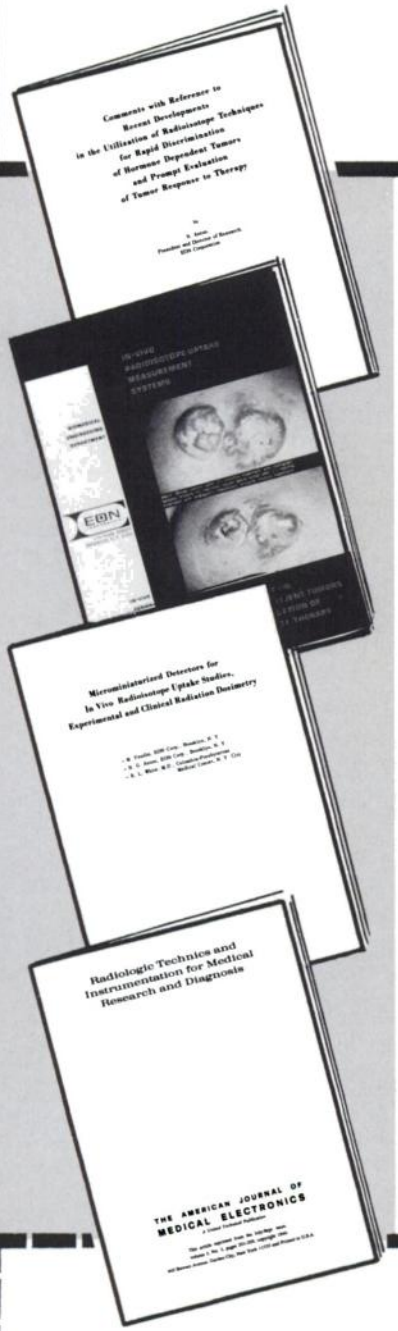

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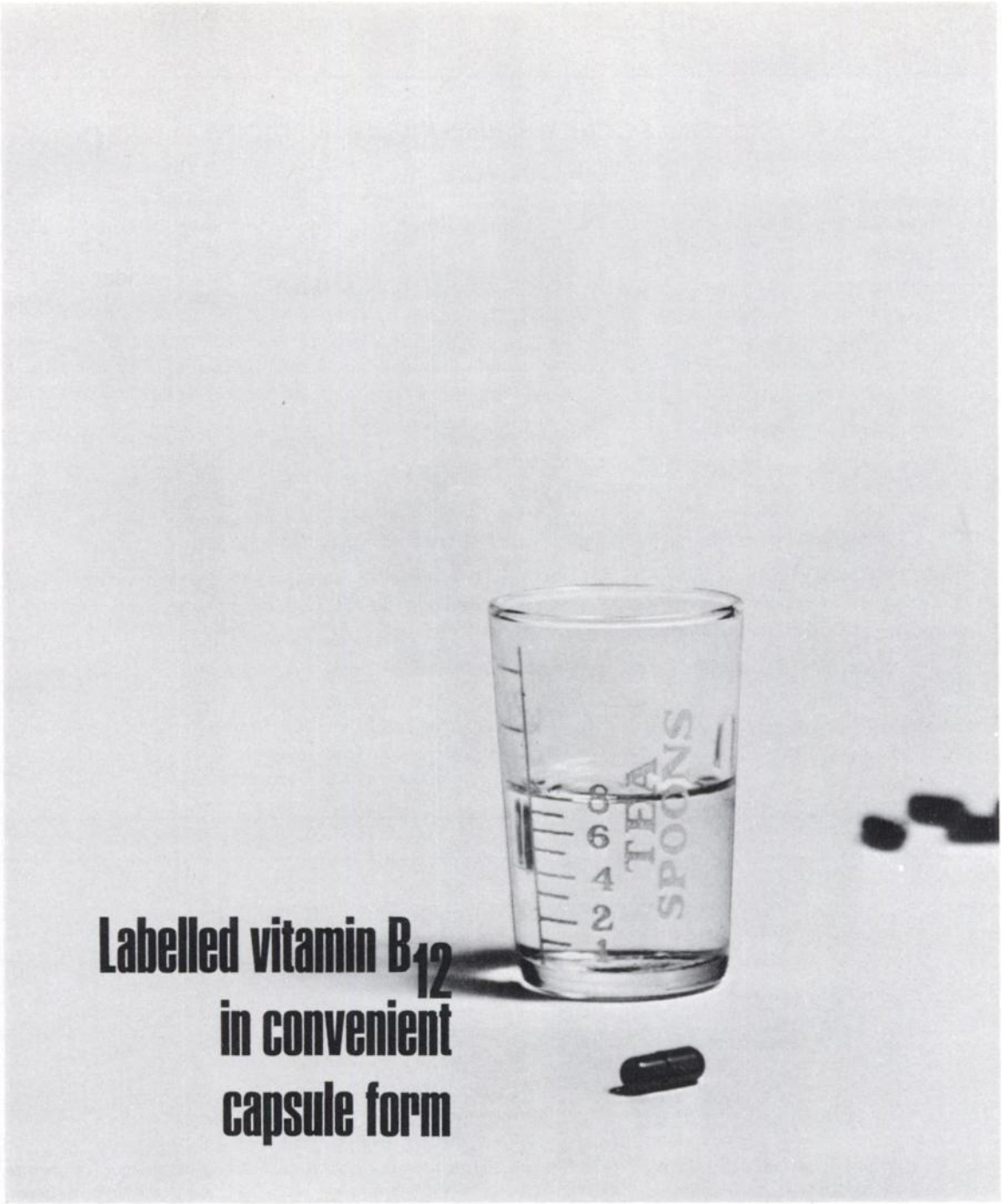

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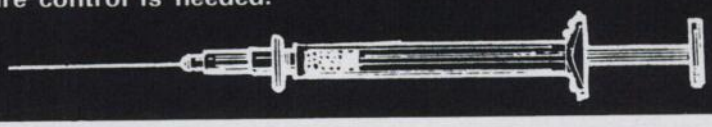

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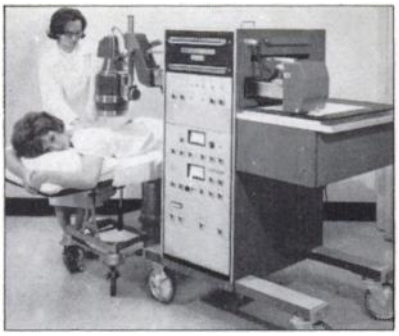

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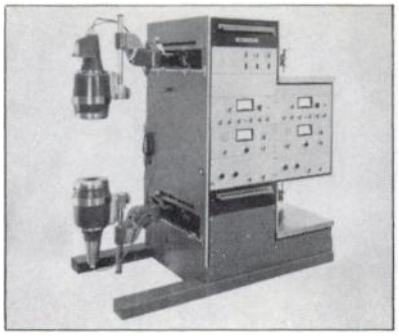

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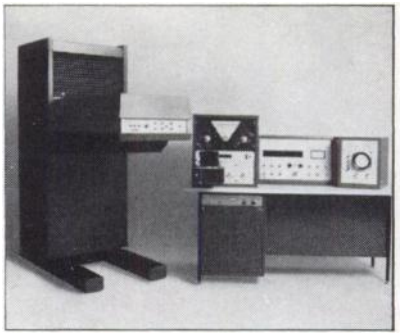

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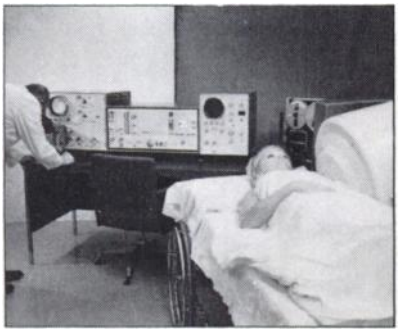

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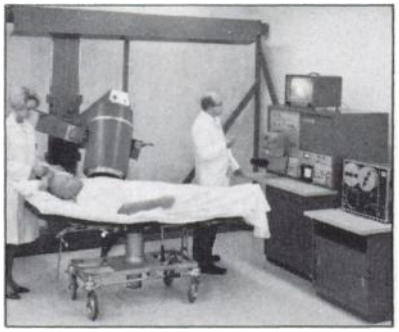

5

1 Magnascanner® 500
2 Dual Magnascanner®
3 Dynapix®
4 Dynacamera™
5 Magnacamera®

"Which is the better choice for gamma imaging, a scanner or a camera?"

(Yes.)

That's much like: "which is better: a plane or a car?" Surely it depends upon the problem at hand.

As it does with gamma imaging. Your one best bet might well be a scanner. Or a camera. You may need both. Sadly, there can be no universal instrument, no all-things-to-all-men system. Consequently, Picker now offers five separate and distinct imaging devices: three are scanners, two are cameras. And this is the most complete line in the world. By far.

The implication is simple: the chances are excellent that Picker has the specific system that precisely matches your needs. Here now are some recognizable user requirements coupled with the appropriate Picker instruments.

Need: small hospital, starting static-imaging, small patient load, modest budget. Or: large hospital needing additional diagnostic confirmation. Solution: Magnascanner® 500. Four out of five nuclear medicine departments start with a Magnascanner. Now over 2000 in use throughout the world. Despite many new features and very high resolution, cost is modest.

Need: specialized static studies involving two views at same time. Solution: Dual Magnascanner®. Provides two large, high resolution scans simultaneously.

Need: heavy static-imaging patient load. Some demand for dynamic function work also. Solution: Dynapix®. High speed static imaging with very high resolution. Also useful for medium speed dynamic function studies.

Need: broad capability for handling both static imaging and dynamic function (and a great deal of it). Solution: Dynacamera™. Very fast instrument providing high resolution. Does both static and dynamic work.

Need: sophisticated dynamic function work at very high speeds. Solution: Magnacamera®. Exceptionally high speed for studying the most rapid dynamic processes.

The conclusion: Picker has a wide selection of imaging systems because there are many imaging needs. The *widest* selection in the world. Suggestion: describe your situation to your local Picker representative and ask him to develop solutions. Or, if more convenient, start by requesting our detailed gamma-imaging brochure. Write Picker Nuclear, 1275 Mamaroneck Avenue, White Plains, N.Y. 10605. Dept. B

PICKER

I'm Will Lepeska. I now can offer you a totally different leasing plan for nuclear-imaging systems.

I have formed an independent company—Lepeska Leasing—that will lease nuclear-imaging systems under a unique type of arrangement. The salient features of my plan are of such potential benefit to you that I'd like to discuss them one by one.

"I'll buy that." (You don't have to.)

All currently available lease plans for scanners, scintillation cameras, and the like are essentially conditional-purchase contracts. The lessee is given the option to purchase the equipment at the end of the "leasing" period. In my standard plan, however, there is *no* purchase option in the leasing agreement. I offer you, quite simply, the option to renew your lease at the end of the agreed-upon period. I offer you a *true* leasing plan.

Costs vs. time.

Here's the unique advantage to my standard lease plan. Since the lease payments are not designed to make up the actual purchase price, the payments are therefore *lower* than any other plan. You pay only for usage of the imaging system. You lease from your operating budget, rather than waiting to buy the system from your capital budget. To illustrate this important difference in payment, a brand-new imaging system with appropriate accessories (nominally priced at $40,000) can be leased from Lepeska Leasing for less than $800 per month over the standard lease period of five years. The same system would cost $1000 or more per month under other leasing plans with purchase options. And reconditioned systems (also available from Lepeska Leasing) can be leased on a year-to-year basis at even lower monthly charges. Should you trade in your used imaging system, lease payments can be reduced even further.

Obsolescence obsoleted.

The plan I've been talking about so far is the standard one, which offers the lowest possible monthly payments. But, if you, like many researchers and clinicians, view the field of nuclear medicine as a fast-moving one, then you'll want to know about a special plan of mine—the *cancel-option* plan. This plan includes a cancellation option, to be exercised by the lessee, at the end of the 2nd (or 3rd or 4th) year. Although the lease payments for such a plan will necessarily be greater than those for the standard plan, the advantage is one of flexibility. You can cancel when option time comes and re-lease new equipment. Or you can opt for continuation of the lease, with a subsequent reduction in payments.

Medicare and Blue Cross say "yes" to these plans.

A second advantage to *both* plans is that, by eliminating the purchase option, lease payments qualify as operating expense. And as such, they are *100%* chargeable to and reimbursable by Medicare, Blue Cross, and similar programs—without the need to estimate and justify a depreciation schedule. The cost of protecting your hospital from obsolescence can thus be properly and simply shared.

What kind of equipment? What kind do you want?

Lepeska Leasing, as an independent leasing company, permits you to choose equipment of any manufacturer or to combine equipment from different manufacturers. You can choose from among the most respected names in the field: Baird Atomic, Nuclear-Chicago, Ohio Nuclear, Picker Nuclear.

A word about me.

In my recent capacity as marketing vice-president of Nuclear-Chicago Corporation, I gained much first-hand knowledge of the problems of starting and upgrading a nuclear-medicine facility. Now, I'm devoting myself to the leasing of the imaging systems these facilities require. I know the field. I know the people in it. All of the *independent* activity of my company will be directed to sharing that knowledge with my customers. Through a variety of low-cost, versatile leasing programs and options.

Act.

It comes down to this: If you're considering buying or leasing a nuclear-imaging device or system, *or*, if your hospital is delaying the purchase of such a system—contact me. In a meeting with you and your administrator, I can review the economics of leasing for *your* hospital. Write to Lepeska Leasing, 109 South Cook St., Barrington, Illinois, 60010. Or call: (Area Code 312) 381-0775.

Lepeska Leasing

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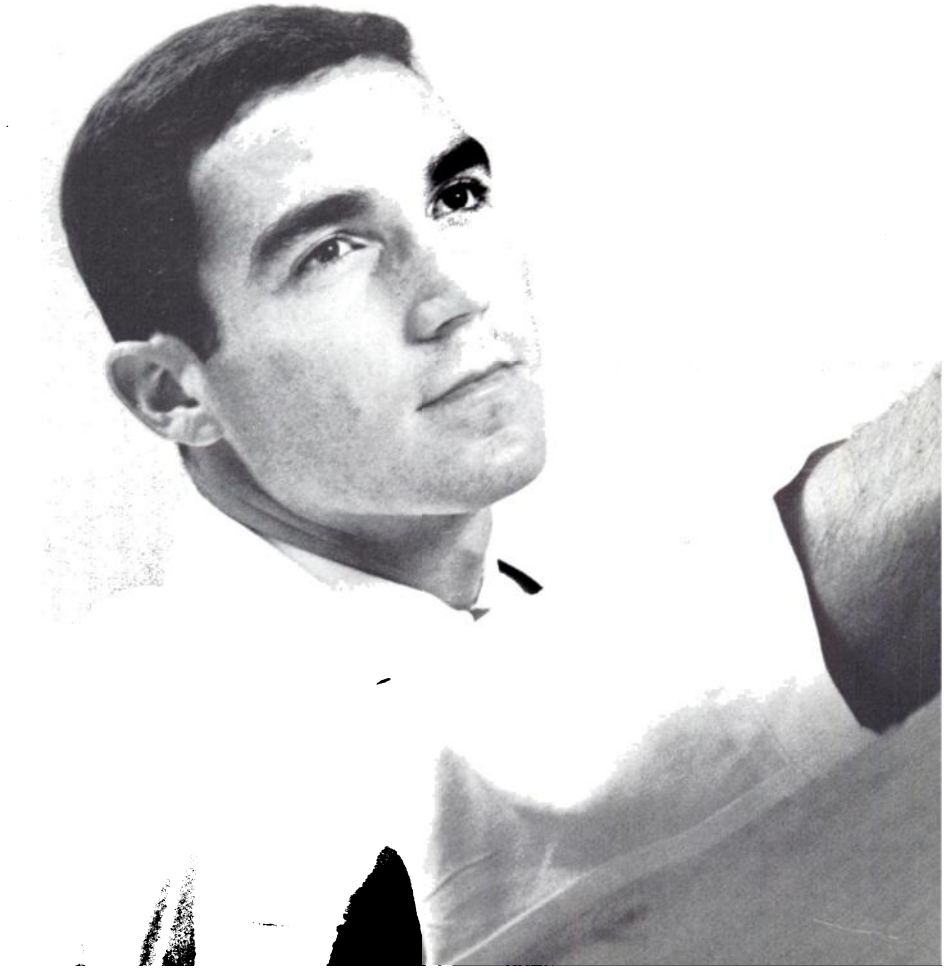

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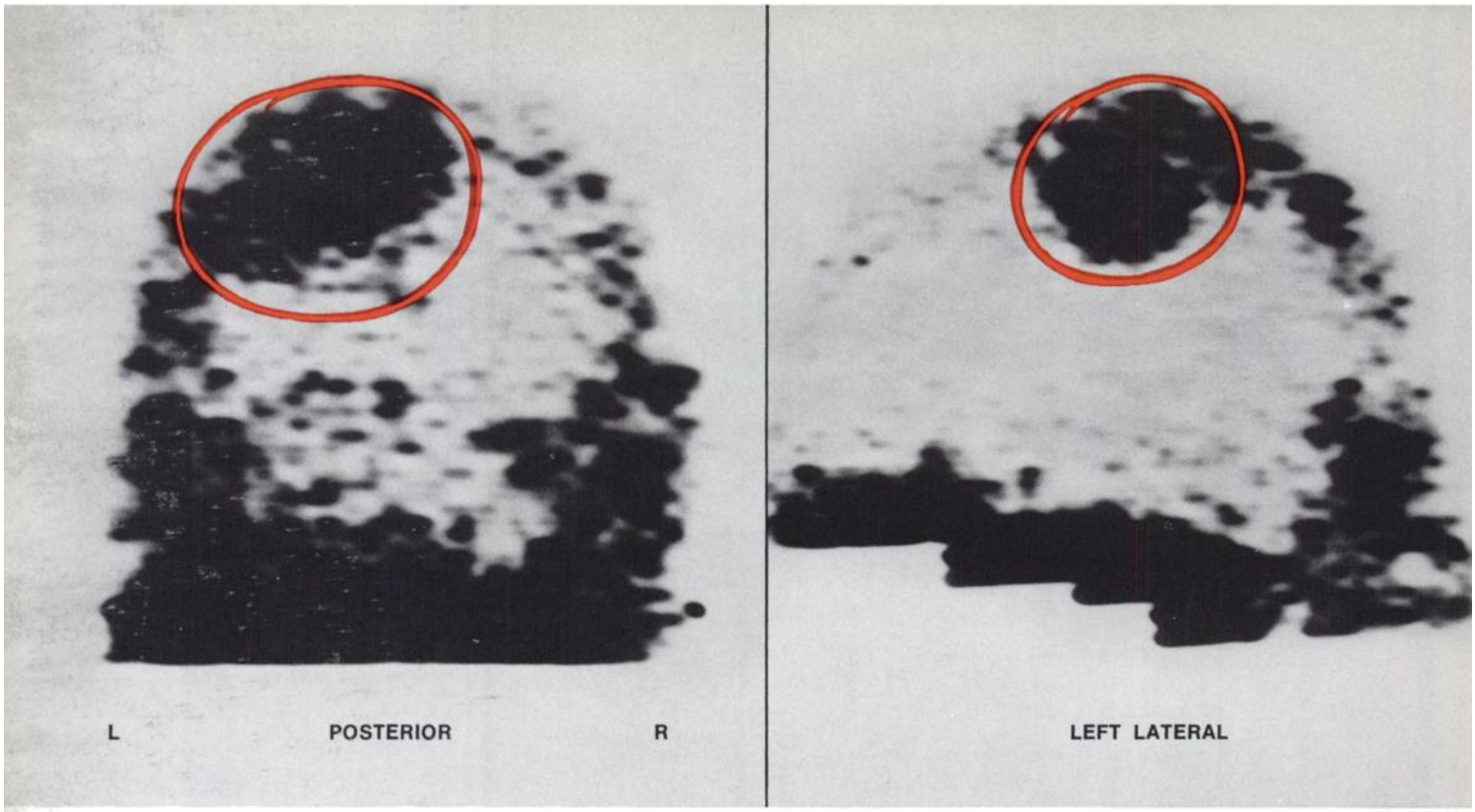

In suspected brain pathology, find out fast with **Pertscan**-99m

For brain scanning, Pertscan-99m provides more information with less radiation to the patient than any other related cerebral test—whether other radioisotopes or x-rays. And you get each projection fast—as little as 2 minutes with a camera, 15 minutes or less with rectilinear scanners.

A 54-year-old man was hospitalized with progressive weakness of the right side, followed by seizures of the right side (Jacksonian seizures). Brain scans showed an abnormal concentration of isotope in the left parasagittal area. Surgery revealed a meningioma, which was removed, and the patient recovered.

The 2 scans above, showing the marked abnormal uptake (which turned out to be a meningioma), were made with Pertscan-99m. This product is shipped Monday through Friday—and Sunday. Thus, brain scans can be scheduled 6 days a week—Monday through Saturday.

INDICATIONS: Adjunctive diagnostic aid in detecting and localizing intracranial neoplastic (primary or metastatic) and non-neoplastic lesions.

CONTRAINDICATIONS: Radio-pharmaceutical agents should not be administered to pregnant women or to persons less than 18 years old unless the indications are very exceptional.

PRECAUTIONS: Care should be taken to ensure minimum radiation exposure to the patient as well as all personnel; to prevent extracranial contamination because this can lead to erroneous interpretation; and to differentiate areas of abnormal activity from areas of normal vascular activity. 804464

Pertscan™-99m
SODIUM PERTECHNETATE Tc 99m

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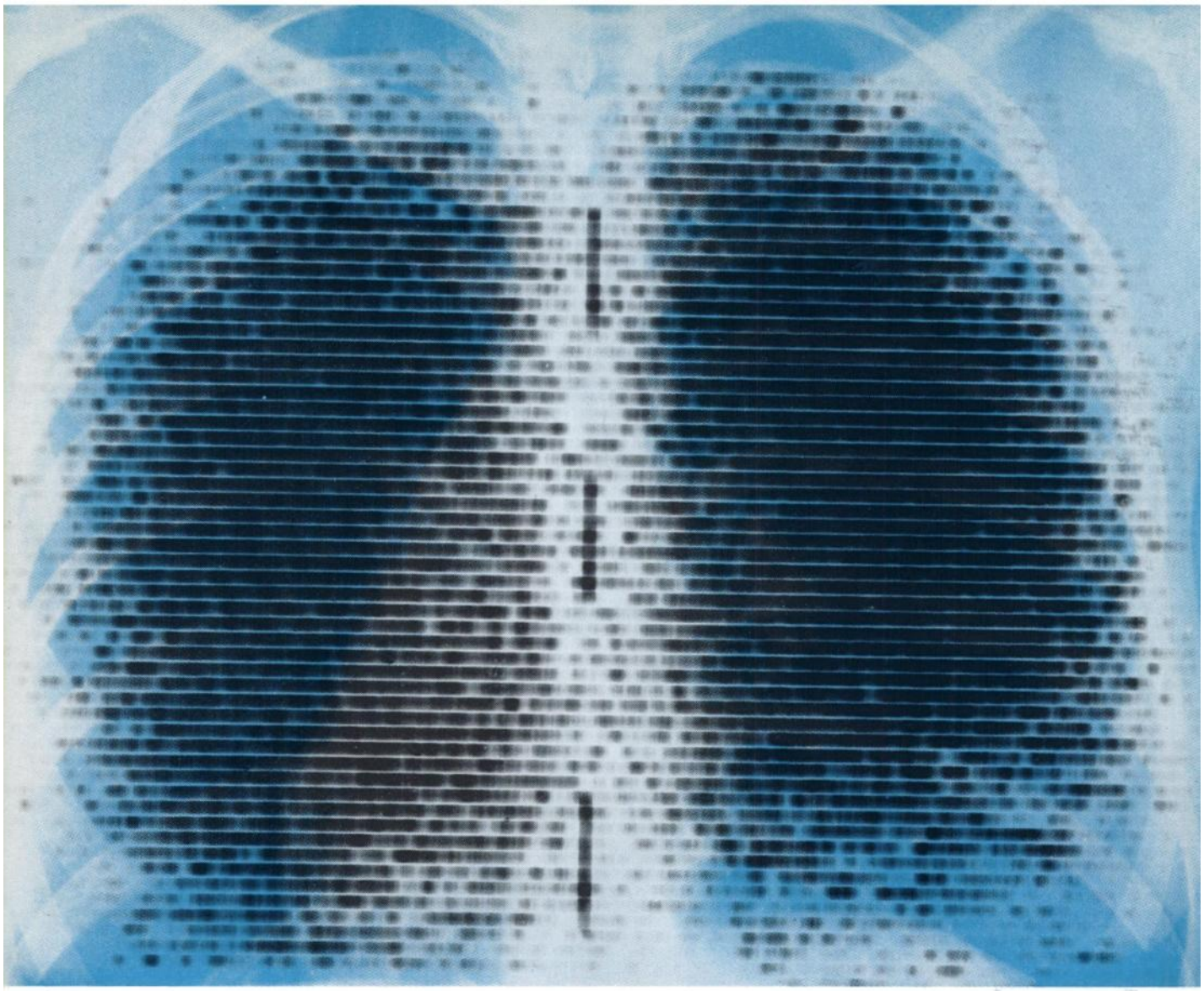


Abbott announces Macroscan™-131

AGGREGATED RADIO-IODINATED (I^{131}) ALBUMIN (HUMAN)

If it's a pulmonary problem, Macroscan-131 pictures it!

Pulmonary embolism, suspected: To confirm (or rule out) its occurrence.

Chronic pulmonary tuberculosis: To estimate unilateral and regional function and perfusion of the lungs.

Emphysema: To evaluate the degree of focal lack of perfusion.

Pneumonitis: To evaluate the decreased regional blood flow that occurs without obstruction of vessels.

Lung tumors: To evaluate the regional ischemia resulting from compression or obstruction of pulmonary arteries.

Surgery and/or other therapy for lung disorders: To evaluate the effectiveness of therapeutic measures.

Macroscan-131 is sterile and non-pyrogenic. It is ready to use and should not be heated prior to use.

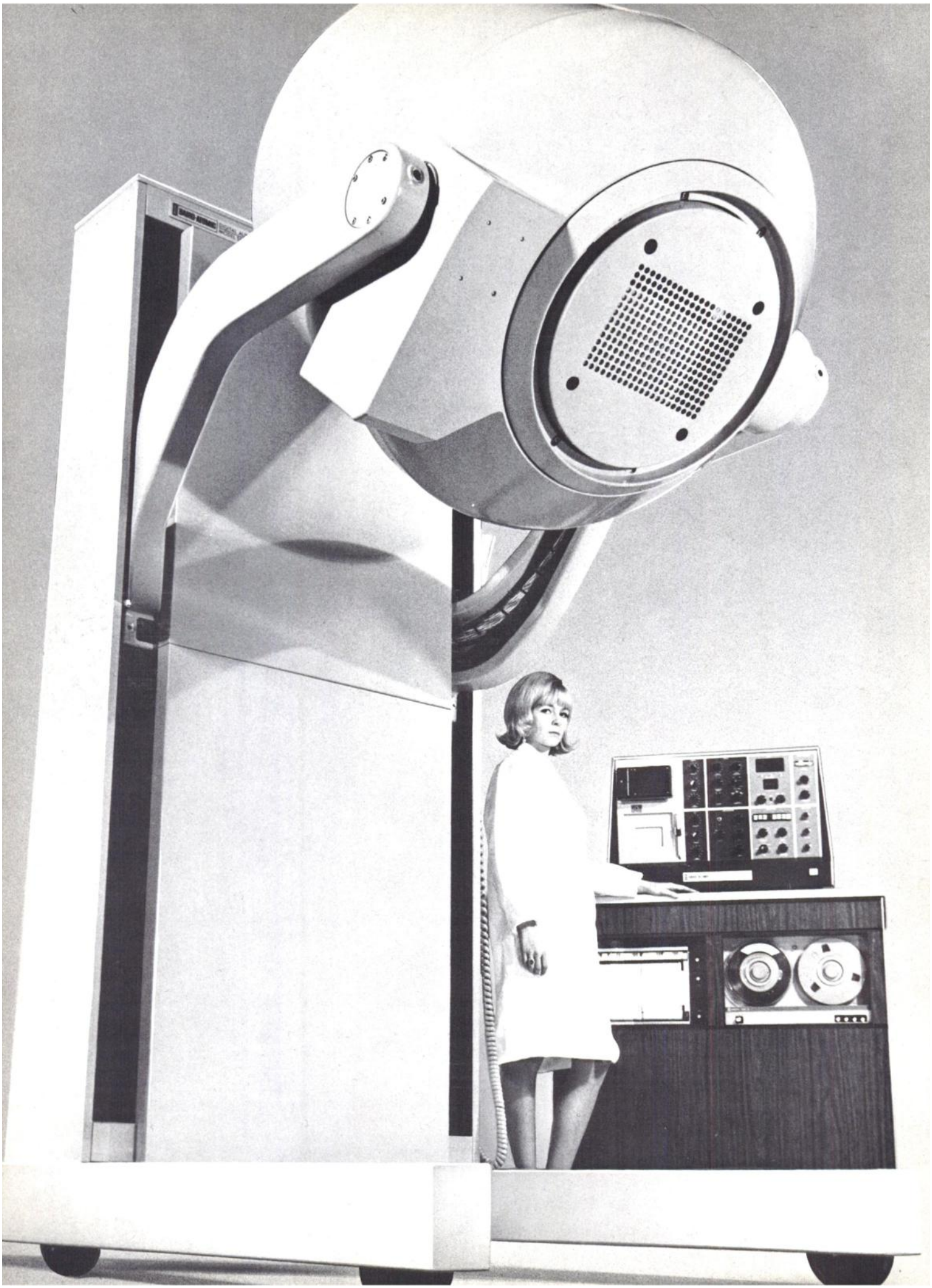
INDICATIONS: For scintillation scanning of the lungs to evaluate total, unilateral, and regional arterial perfusion to the lungs.

CONTRAINDICATION: Radio-pharmaceutical agents should not be administered to pregnant women, nursing mothers, or to persons less than 18 years old unless the indications are very exceptional.

PRECAUTIONS, SIDE EFFECTS: Care should be taken to administer the minimum dose consistent with safety and validity of data. The possibility of an immunological response to albumin should be kept in mind when serial scans are performed. There is a theoretical hazard in acute cor pulmonale, because of the temporary small additional mechanical impediment to pulmonary blood flow. A possible case of urticara has been related to a similar preparation. The thyroid gland should be protected by prophylactic administration of concentrated iodide solution.

TM–TRADEMARK

709400



The Baird-Atomic Autofluoroscope® can do things that no other scintillation camera can.

Fact: The Baird-Atomic Scintillation Camera is the only Camera that can provide quantitation of patient data with real numbers as read directly from the front panel. You can do cardiovascular dynamics and cerebral blood flow dynamics both visually and quantitatively. And you can do lung, pancreas, thyroid, placenta, and other static analyses. The Autofluoroscope is the only system that can provide permanent patient record storage with instant recall of all the originai data in unaltered form.

Up to three areas of quantitation can be outlined by a light pen and presented to the multiple pen recorder for a graphic display of total organ activity versus time. It is the only complete instrument having all the high demand computer functions built into the system. Let us prove to you that the Baird-Atomic Scintillation Camera will do everything we say it will. 33 University Road, Cambridge, Mass. 02138, Telephone 617 864-7420 • Baird-Atomic Europe, The Hague, The Netherlands. Baird-Atomic Ltd., Hornchurch, England.

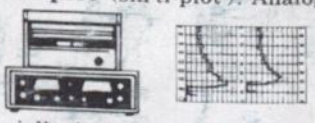
BA BAIRD-ATOMIC

scintillation camera (sĭn′tĭ-lā′shŭn kăm′ĕr-ă). The Pho/Gamma® III manufactured by Nuclear-Chicago Corporation. Provides in-vivo visualization and recording of radioisotope distribution in body organs through a variety of readout techniques.

scintidigit (sĭn′tĭ-dĭj′ĭt). Digitized record, on paper tape of total number of counts accumulated during each Pho/Gamma III examining period. Produced by high-speed digital printer accessory.

scintiphoto (sĭn′tĭ-fō′tō). Photographic recording of radioisotope distribution in body organs, as displayed on Pho/Gamma III oscilloscope. Scintiphotos can be either **1.** individual, self-developing pictures exposed during total examination period and processed by triple-lens camera supplied with Pho/Gamma III, or **2.** serial, time-lapse pictures made throughout examination period on 35mm film by optional automatic time-lapse camera available for Pho/Gamma III.

scintiplot (sĭn′tĭ-plŏt′). Analog record, on chart paper, of radioisotope distribution, as visualized by Pho/Gamma III. Used especially for renal studies, when Pho/Gamma III detector is operated in divided-crystal mode. Produced by dual-channel ratemeter/dual-pen recorder accessory combination.



scintitape (sĭn′tĭ-tāp′). Magnetic-tape recording of Pho/Gamma III data. Produced by magnetic tape system accessory. Clinical information is transferred to tape by system's multidimensional analyzer. Tape is manipulated by system's tape transport. Taped data can be **1.** played back for photographic recording from analyzer's scope as digital scintiphotos (DSP), or **2.** fed to an off-line computer for automatic processing and analysis.

osterior view: 1, fossa; 2, infra- 3, superior mar- pular (coracoid) illary margin; 6, y; 7, inferior an- f the scapula; 9, gin; 10, spine; 11, commencement, he tendon of the scle moves; 12, arterial foramen; rocess (Leidy).

We're helping add some new words to the "diagnostic dictionary."

Because we've come up with some exciting new accessories for the Pho/Gamma® III Scintillation Camera.

Perhaps not all of the words in our "dictionary" will end up in the clinician's vocabulary. Frankly, we invented most of them. For a reason. To help illustrate the newly expanded versatility of Pho/Gamma III for the processing, storage, and analysis of data on radioisotope distribution in body organs and areas.

And versatility *is* the key word. Now Pho/Gamma III can help you learn more, in more ways, than ever before.

For example: To the familiar scintiphoto must now be added *sequential* scintiphotos. They're taken with our new 35-mm automatic time-lapse camera. It fits right on one of the twin scopes on the Pho/Gamma III console.

Other new additions include analog chart records, digital printouts, magnetic tape—all new, all briefly defined in our dictionary.

Why not use it as a point of departure for a talk with your Nuclear-Chicago sales engineer. Or write to us for all of the words on Pho/Gamma III and its expanded array of accessories. 8-848

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