

What's New

Every description of the items on the following two pages was condensed from information supplied by its manufacturer. The reviews are published as a service to the professionals working in the field of nuclear medicine and their inclusion herein does not in any way imply an endorsement by the Editorial Board of the JNMT or by the Society of Nuclear Medicine.

New Technetium Diagnostic Kit

Techneplex®, a reagent kit for intravenous diagnostic use, has been added to Squibb's "Medotopes" nuclear medicine product line.

When [^{99m}Tc] sodium pertechnetate is added to the vials contained in the kit, a chelated technetium Tc-99m pentetate is formed. Pentetate products, commonly known as "tin-DTPA," are widely used for kidney and brain imaging. The technetium Tc-99m pentetate kit is also used to assess renal perfusion and to estimate glomerular filtration rate.

The Techneplex kit consists of ten multidose vials, each containing a sterile, pyrogen-free lyophilized mixture of 10-mg pentetate calcium trisodium and 0.5-mg stannous chloride. The product is prepared by adding the sterile, pyrogen-free [^{99m}Tc] sodium pertechnetate solution to the vial.

Techneplex allows brain imaging in less time than with [^{99m}Tc] sodium pertechnetate. It also allows delayed brain imaging in 30 to 40 min, as compared with 3 to 4 hr with [^{99m}Tc] pertechnetate.

"The Digital Man," a new graphic produced by imaging technology, has been introduced by Squibb to accompany the marketing of Techneplex. The graphic highlights the kidney and brain areas to reinforce the diagnostic uses of the product. Techneplex is available at a list price of \$90 per 10-vial kit.—*E. R. Squibb & Sons, Inc., PO Box 4000, Princeton, NJ 08540.*

Circle Reader Service No. 56

Radiation Detector

Radiation alert-mini is a new advance in ultra-small sophisticated Geiger technology. It is a miniature radiation detector with selectable audible alarms and LED level indicators. The unit can be carried conveniently in a pocket or clipped on a belt. Radiation alert-mini gives a highly sensitive warning when approaching a source or when the ambient radiation level is rising. This provides the user with an important advantage over film badges and dosimeters,

which give a cumulative reading only after the fact.

Radiation alert-mini displays background radiation and detects a broad spectrum of alpha, beta, gamma, and x-rays. Solid-state precision microchip circuitry extends battery life up to 2,000 hours on a single nine-volt battery. Switchable alarm ranges indicate six levels from zero to 3000 times natural background radiation.—*Solar Electronics, 156 Drakes Lane, Summertown, TN 38483.*

Circle Reader Service No. 62

Radiation-Precaution Sheets

Disposable, radiation-precaution sheets allow safer, more efficient handling of all radioactive excretions from "hot" patients. Developed especially for use with nuclear medicine diagnostic and therapy patients, these highly absorbent sheets are bonded to integral leak-proof barriers to assure effective containment of radioactive excretions.

The color-coded sheets—with white, highly absorbent, nonallergic, lint-free sheet surface bonded to blue, leak-proof barriers—surpass NRC recommendations for segregation of hot linens, which must be isolated for ten half-lives.—*General Econopak, Inc., 1725 North Sixth St., Philadelphia, PA 19122.*

Circle Reader Service No. 61

Isotope Calibrator

Nuclear Associates' deluxe isotope calibrator provides a rapid means of measuring the activity of radioisotope doses. Simply dial the selector switch to the isotope to be assayed and insert the sample in the well chamber. The system automatically ranges to the correct scale, displaying the value in large LED numerals. A background-suppress control can dial out levels up to 50 μ Ci (Tc-99m).

The instrument offers factory calibrations for nine of the most-used radioisotopes: Ga-67, In-111, In-113m, I-123, I-125, Mo-99, Se-75, Tc-99m, and Xe-

133. Other gamma emitters from 25 keV to 3 MeV can be assayed by using the 1000-division digital dial on the front panel. Dial settings for Tl-201, Co-57, Cr-51, and other popular radioisotopes are given in the manual.

Multi-dose collection vials, syringes, and containers of almost any configuration can be used. A plastic well in the sample holder protects the chamber from accidental spills or leakage. An internal lead shield surrounds the sensitive portion of the ion chamber detector, providing complete protection against high radiation levels from the Tc-99m eluate.—*Nuclear Associates, 100 Voice Rd., Carle Place, NY 11514.*

Circle Reader Service No. 58

Radionuclide Carrier

R/X Nuclear (a division of Reactor Experiments, Inc.) announces the availability of a new radionuclide carrier for brachytherapy sources. This specialized container provides a safe, convenient way to move gamma sources where and when they are needed without physical straining or hazard. The brachytherapy seed carrier is tall enough to accommodate tubes of seeds up to 12 in. long. A separate small container is attached to the front of the carrier as a repository for cut seeds and attached forceps are provided for handling the seeds. The carrier has a full 1½ in. wall of lead all around the seeds.—*R/X Nuclear, 963 Terminal Way, San Carlos, CA 94070.*

Circle Reader Service No. 59

General Purpose Monitor

The new "Frisker" general purpose monitor has the versatility to keep pace with the changing monitoring requirements of the nuclear medicine department. It can function as a bench-top, line-operated unit for area monitoring or it can be used in the battery mode for portable, "go anywhere" surveys.

Three optional probe/detectors are offered. The low-cost, beta-gamma probe uses a GM detector for both

(Continued on next page)

(Continued from preceding page)

fixed area monitoring or portable surveys. The alpha-beta-gamma probe has a large-area, thin-window, "pancake" GM detector and converts the frisker to an efficient surface contamination monitor. The crystal gamma probe permits high-sensitivity I-125 monitoring.

The unit has four linear ranges: 500, 5K, 50K, and 500K cpm. Precision is within 5% of full scale. The repetitive "beep" alarm is adjustable over full scale. It also has visible alarms, a recorder output for hard-copy data, and a choice of AC or battery operation.—*Nuclear Associates, 100 Voice Rd., Carle Place, NY 11514.*

Circle Reader Service No. 60

Cerebral Blood Flow Measurement

Novo Laboratories, Inc., has introduced Cerebrograph™, a multidetector system for the measurement of cerebral blood flow by external isotope clearance methods.

The Novo Diagnostic Division, now just entering the U.S. market, also plans to market Novo Lysotec™ for diagnosis of deep vein thrombosis and Novo Osteodensitometer™ for noninvasive measurement of bone mineral content. These two diagnostic systems are currently undergoing clinical testing in Europe.—*Novo Laboratories Inc., 59 Danbury Rd., PO Box D, Wilton, CT 06897.*

Circle Reader Service No. 57

IODOTOPE® Therapeutic Capsules

E.R. Squibb & Sons, Inc., announces an improved formulation for its IODOTOPE® sodium iodide I-131 capsules for oral thyroid therapy. The new formula minimizes the escape of volatile I-131 and yields a more stable product.

Sodium iodide I-131 is now incorporated in a molten mass during production. The mass solidifies on cooling and, therefore, does not interact with the blue and buff capsule.

Packaging improvements also enhance safety. An absorbent carbon pack is now placed in the shipping vial. Its presence helps absorb any I-131 that might volatilize during shipment and storage, thereby decreasing the possibility of laboratory contamination. The product is available in a range of potencies from 1 to 50 mCi.—*E.R. Squibb & Sons, Inc., PO Box 4000, Princeton, NJ 08540.*

Circle Reader Service No. 55

What's New in Radioimmunoassay

Pipetting Instruments

Two recently introduced pipetting instruments from Micromedic Systems Inc. offer laboratories semiautomation on a budget.

The MICROMEDIC® automatic diluter dilutes specimens and dispenses reagents with extreme accuracy and precision. The diluter can handle volumes from 2 μ l to 1,000 μ l. It requires only three different pump sizes to deliver its full sampling and dispensing range. The pumps are interchangeable; they allow rapid changeover, minimal priming, and easy cleaning. The diluter is accurate to within $\pm 1\%$; reproducibility is 0.1% C.V.

The MICROMEDIC® reagent dispenser's microprocessor allows exceptionally accurate and precise reagent volume dispensing—from 1 μ l to 9,999 μ l—with pushbutton ease. An LED display indicates the volume selected in microliters with the number of dispensings remaining (at that selected volume) in the reagent cartridge. The dispenser helps conserve costly reagents by requiring minimal priming and allowing easy and quick cartridge changes. The cartridges can be filled on the instrument and unused reagent can be conveniently stored in the cartridge, ready for use anytime. The dispenser features compatibility with other Micromedic pipetting instruments.—*Micromedic Systems Inc., 102 Witmer Rd., Horsham, PA 19044.*

Circle Reader Service No. 67

B₁₂/Folic Acid RIA

Micromedic Systems Inc. has introduced a new solid-phase, no-boil radioassay kit for the simultaneous assay of vitamin B₁₂ and folic acid. The kit offers convenience and ease of use by eliminating both the traditional boil step and the messy charcoal separation step of other tests. The test takes approximately 1 hr to perform.

The new COMBOSTAT™ II test is in complete compliance with the National Committee for Clinical Laboratory Standards. The test's vitamin B₁₂ values exhibit excellent correlation with microbiological and other conventional radioassay methods. Complete clinical and accuracy data have been generated with confirmed B₁₂ deficient sera, pernicious anemia sera, B₁₂ and folate

normal sera, chronic myelogenous leukemia sera, microbiological assays, and red blood normal sera.—*Micromedic Systems Inc., 102 Witmer Rd., Horsham, PA 19044.*

Circle Reader Service No. 68

RIA Buyers Guide

From the same company, the 1982 buyers' guide is available free of charge. Included in this revised brochure is a complete selection of RIA kits, primary and secondary antisera, iodinated ligands, antisera for immunostaining, purified antigens for iodination, conjugates for immunization, and custom services such as lyophilization, iodination, and immunoassay kit development.—*Cambridge Medical Diagnostics, Inc., 575 Middlesex Turnpike, Billerica, MA 01865.*

Circle Reader Service No. 66

RIA Problem-Solving Guide

Cambridge Medical Diagnostics, Inc., offers its RIA problem-solving guide to laboratories free of charge. The guide offers suggestions for such problems as low maximum binding, flat curves, high NSBs, high control values, low control values, poor duplication, poor reproducibility, and more.—*Cambridge Medical Diagnostics, Inc., 575 Middlesex Turnpike, Billerica, MA 01865.*

Circle Reader Service No. 65