

performing radionuclide renal studies, especially those involving quantitative analysis. It is well organized, easy to read, reasonably complete, and would be a valuable addition to the library of the nuclear medicine practitioner who is seriously interested in the current status of radionuclides in nephrology.

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**ENGYMETRY AND PERSONAL COMPUTING IN NUCLEAR MEDICINE (Lecture Notes in Medical Informatics).** D.P. Pretschner. Berlin, New York, Springer-Verlag, 1982, 132 pp, \$11.50

Engymetry is a portable, nonimaging diagnostic methodology based on radioactive tracer measurements and pioneered by Dr. D.P. Pretschner at the Medical College in Hanover, West Germany. This monograph describes the development, operation, and application of engymetry in medicine.

Engymetry (engys = nearby) relies on solid-state detectors (CdTe, for example) attached to the body surface and a compact battery-powered data acquisition unit with modest storage capacity (4-K random access memory). Basically, the unit is capable of acquiring time-activity histograms for tracer studies where the kinetics of the process are measured in hours or days, and the equipment is now commercially available.

This monograph is divided into three parts: data acquisition (termed signal registration by the author), data processing, and clinical applications. In many ways, the text is an operation handbook for the equipment and computer software designed by the author. The data processing section treats the set of computer programs written for a personal computer (Apple II+ with disk) for the analysis of time-activity histograms. These programs are written predominantly in Pascal (UCSD subset with ancillary Apple Fortran 77 and assembler routines). The reader must be familiar with the Pascal computer language and Nassi-Shneiderman diagrams to fully appreciate this section. The software system, Dialog System for Analysis of Engymetric Time-Activity-Histograms (DISYA), is specific for the hardware configuration and data acquisition system used by the author and would be of limited interest if application of the same equipment were not being considered by the reader.

The author describes his experience with 400 subjects in a variety of clinical and research applications. These include thrombosis detection, cardiac shunts, chronic venous insufficiency, compartment syndromes, intraoperative blood distribution changes, cerebrospinal fluid dynamics, and peripheral vascular disease. This list will certainly increase as the commercial version of the system becomes widely available.

Ordinarily, a reference manual for a new piece of equipment, such as this engymetric system, would be dull reading indeed, but this monograph is a notable exception. The device fills an important need in nuclear medicine, that of a portable nonimaging detection system. The data analysis software system is so complete and so well developed that the value of the programs can easily justify the modest cost of the hardware required to run them. The low overall cost of the system and the relatively advanced state of its development will likely make these methods practical in many clinical and research applications where gamma camera imaging is inconvenient or the kinetics of the process under study are slow. The clinical applications described by the author are only a small subset of the system's range of applications. The reader will be stimulated to consider many nonimaging tracer measurements that have been impractical in the past. The text is well written and carefully organized with 220 references and an index. This monograph is complete and should be rewarding to clinical and

research specialists in nuclear medicine interested in nonimaging tracer methods.

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**RADIOLOGY OF THE EMERGENCY PATIENT.** Edward I. Greenbaum, Ed. New York City, John Wiley & Sons, 1982, 831 pp, \$72.95

*Radiology of the Emergency Patient* primarily deals with the diagnosis of an acute problem or the acute exacerbation of an existing problem. *The time is 10:00 P.M., and you are the only radiologist present. The treatment of the patient will be based largely on your diagnosis! Delay until the next day for the additional opinion of your colleagues will be of academic value only!* It is in this situation, particularly, that this atlas will be quite useful.

The book is a moderately extensive review of imaging procedures, particularly diagnostic radiology, in the patient with an acute medical or surgical problem. It is organized primarily by body systems, which are then described in chapters written by experts in these particular areas. The text is well indexed, making it useful for answers to specific questions. The chapter on nuclear medicine in the evaluation of the injured patient is good, and it would probably be most valuable to radiology residents and attending radiologists who do not routinely interpret radionuclide imaging procedures. Nuclear medicine physicians might find this chapter too superficial for their use.

There is an interesting chapter on legal medicine in the emergency room. Numerous case reports are presented that describe first what happened; second, why the lawsuit was brought by the patient; and third, the disposition of the suit. The lessons to be learned from the cases in order to avoid problems in the future are then discussed. Although not all of the cases involve radiology, this chapter merits reading.

Unfortunately, we must be somewhat critical of the text in certain respects. Although there are extensive illustrations of numerous entities, on some of the reproductions we found it difficult to visualize the indicated findings despite the legends and the arrows. In addition, the arrangement of the illustrations is such that frequently the description in the text is on the preceding page. Having to revert back and forth between the legend and the illustration, necessitated by this format, is a source of annoyance. Lastly, there are many entities described that are not illustrated. Although we appreciate the difficulty of illustrating every entity, the visualization of a complicated entity from descriptions alone can be exceedingly difficult.

In summary, we find this a useful volume and although it should probably be in the library of everyone who practices diagnostic imaging in the emergency patient, it would be especially useful during the first year of a radiology residency.

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**PROGRESS IN RADIO-ONCOLOGY II.** K.H. Karcher, H.D. Kogehick, G. Reinartz, Eds. New York, Raven Press, 1982, 510 pp, \$56.00

*Progress in Radio-Oncology II* is a comprehensive, current review of four major areas of radiation therapy, comprising particle-beam therapy, radiosensitizers, altered fraction schedules, and hyperthermia. These subject areas are preceded by a short discussion of the recent CROS patterns of care survey and a paper