

## BOOK REVIEWS

**RADIATION PROTECTION—CONCEPTS AND TRADE OFFS.** Friedell, Hymer S. Lecture No. 3, The Lauriston S. Taylor Lecture Series in Radiation Protection and Measurements, Washington, D.C., National Council on Radiation Protection and Measurements, Sept., 1979, 33 pp, \$7.00

This slim volume is the third in a series of lectures established in honor of Lauriston Taylor. Dr. Friedell's thesis is that radiation protection specialists must become involved in the analysis of the risks and benefits associated with the diagnostic uses of ionizing radiation. He urges that the scheme adopted for assessing the risks of low dose be easy to understand and interpret, because complication will only mystify the people to whom the dose concepts are being explained. Since a risk-benefit analysis must be undertaken, the risks and benefits must be set in the light of other risks and benefits, especially since neither the risks nor the benefits of low-dose radiation are specific to radiation. Once the risks are identified, an orderly process for comparing risks and benefits must be formed. This might involve a method of equating them in the same units, such as lives saved or lost, by comparing the hazards from a number of competing modalities, or by a *de minimis* concept that would specify an acceptable level of effects. He then argues for the development of a totally new framework to pull all of this together. He feels a need for several interacting groups to study the problem from all sides and come to terms with their differences. These groups should be privately based, at least in the beginning, to show the world how it might be done.

This little volume is a good exposition of the problems of low-dose radiation assessment and a mechanism for solution. It is neither deep nor detailed.

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**MANAGEMENT OF PERSONS ACCIDENTALLY CONTAMINATED WITH RADIONUCLIDES.** NCRP Report No. 65. Washington, D.C., National Council on Radiation Protection and Measurements, 1980, 205 pp, \$8.00

NCRP Report No. 65, the product of several years of hard and diligent work by NCRP Scientific Committee 37, is here. It was worth waiting for this manual on "Management of Persons Accidentally Contaminated with Radionuclides."

The text encompasses the entire spectrum of radiation accidents involving radioactive contamination and is extremely well organized. The sections on initial management of the patient; detection of external and internal contamination; and therapeutic procedures and measures for the management of contaminated wounds, skin, and internal contamination are written clearly and can serve as a reliable, practical guide to the management of radiological emergencies. The resumé of experience with important radionuclides is an excellent review of the problems and risks from uranium, transuranic elements, some of the more common fission products, and other radionuclides. The recommended medical management of internal contamination is presented extremely well with good reasoning and clear instructions for the prescribing physician. Chelation therapy is discussed in detail. The nuclear

and health physics aspects of radiation accident management are easily understandable, and the occasional "rule of thumb" advice appears to be helpful and practical.

A quick reference section summarizes concisely such topics as the on-site response and hospital decontamination procedures. In tabular form it also shows physical characteristics, measurement methods, physical and effective half-lives, maximum permissible body burdens, and critical organ information, as well as suggested treatment for most of the important radionuclides. Every aspect of dealing with radioactive contamination or incorporation has been given attention without burdening the reader with too many details. Nevertheless, this 200-page manual contains an enormous amount of fact and knowledge. The reader should particularly note the words of warning about the use of the data in the tables. The text appears to be free of misprints or factual errors; in fact, even the telephone numbers of the Department of Energy regional coordinating offices, as part of the interagency radiological assistance plan (IRAP), are correct and up-to-date. The facts, opinions, and recommendations presented in this manual are for the most part acceptable (the recommendation to treat uranium incorporation with DTPA is not supported by other experts in the field) and based on the practical experience and research of the committee members and on almost 300 well-selected and up-to-date references (a gold mine for the interested reader who needs to know more).

This manual should be in the office of every medical emergency department, radiology and nuclear medicine department, paramedical emergency service, and hospital administrator. However, anyone who might need information from the manual in an actual emergency situation should be familiar with the cross-reference system used in this text or, preferably, should have read the book before putting it on the shelf. It is an excellent source of information for setting up radiation emergency treatment areas in hospitals and, in fact, could also serve as the basis for a training program in the medical management of radiation injury and contamination.

Dr. Warren K. Sinclair, President of the NCRP, and the Scientific Committee # 37 with George L. Voelz as chairman are to be congratulated on the production of this excellent manual.

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**NUCLEAR MEDICINE ANNUAL.** Leonard M. Freeman and Heidi S. Weissmann. New York, Raven Press, 1980, 428 pp, \$39.50

Every book can be evaluated from the points of view of: (1) the idea or purpose behind the book, and (2) the quality of execution. The purpose of this book is, in general, to fill the gap between journal articles, which are up-to-date but cannot present a discipline in an organized or comprehensive fashion, and textbooks,