Book Reviews

LIVING WITH RADIATION: THE RISK, THE PROMISE.

H. N. Wagner, L. E. Ketchum, Baltimore, Johns Hopkins University Press, 1989, 202 pp, $17.95

This book is designed to give the intelligent lay reader an overview of a wide range of topics and public policy issues relating to radiation. The approach is a nice mix of science, the history of science, a perceptive analysis of the realities of the political process, and the authors' hopes for the future.

After an effective Foreward by Glenn T. Seaborg, the authors relate a recent case in Malaysia concerning radiation that provides a framework for introducing the reader to many of the topics and issues that are addressed in more detail later in the volume. The selection of this approach was clever. The reader with some knowledge of radiation and related issues, including readers of this Journal, will find the setting exotic enough and the technology unusual enough to be drawn into the book. The lay reader will find it to be a painless introduction to some new ideas and concepts.

The central chapters follow a reasonably intelligent order. Chapter 1 addresses the role of radiation in nature and describes in interesting fashion the history of the evolution of man's knowledge of radiation. The second chapter describes the evolution of scientific evolution of and the political and military considerations about the use of the atomic bomb. (For a more thorough exploration of these issues, I recommend *The Making of the Atomic Bomb*, by Richard Rovere, New York, Simon and Schuster, 1986).

The third chapter describes succinctly the evolution of nuclear medicine. The authors focus heavily on positron emission tomography and its current and potential future use in brain imaging. While the nuclear medicine practitioner will not miss the omission of the other current nuclear medicine procedures, for who knows them better, I feel that the authors missed a fine opportunity to educate their target audience about the remarkable benefits of our field.

The fourth chapter covers a wide range of issues of current interest. The authors address real and perceived risks of radiation to women, nuclear power, disposal of high and low-level radioactive wastes, radon, and food irradiation.

The fifth chapter reviews some of the basic concepts of perception and reality that are an integral part of understanding the political and societal problems that radiation scientists have to cope with in trying to communicate with and educate the public.

Nuclear medicine practitioners can benefit in two ways from the publication of this book. They will find it to be a useful addition to their library and to their understanding of some of the key issues that they, as experts on radiation, may be asked to comment on or act as opinion leaders in their institution or community. In addition, it is a book that they can give to friends and relations on appropriate occasions with the knowledge that the gift will both entertain and educate.

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DATA FOR USE IN PROTECTION AGAINST EXTERNAL RADIATION, ICRP PUBLICATION 51.

Annals of the ICRP, Volume 17, 1987, 1-132, $50.00

ICRP Publication 51 is a technical handbook for scientists involved in the calculation of organ doses from external sources of radiation. A mathematic, MIRD-like phantom was defined and organ doses in a variety of units were calculated and are presented in tabular and graphical form.

This report is an update of ICRP Publication 21; it also incorporates the concepts of ICRP Publication 26 and its later modifications. Finally, it addresses recent definitions and changes in quality factor published by ICRU.

Nuclear medicine physicians, technologists, and most scientists will find little of interest in ICRP Publication 51. Nuclear medicine physicists who also have responsibility for x-ray and neutron radiation safety will find it invaluable.

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MAGNETIC RESONANCE IMAGING IN DISEASES OF THE NERVOUS SYSTEM—AN INTRODUCTION.

I. Moseley, Blackwell Scientific Publications, Oxford, UK, 1988, 234 pp, $95.00

This text, although subtitled "an introduction," is quite complete in its breadth of coverage of magnetic resonance imaging (MRI) of the central nervous system. In comparison to the cost of the larger MR texts covering the same subject matter the price of $95 is quite reasonable, and the quality of the paper and images is very good.

The information presented covers the gamut of central nervous system disorders, with the major concentration on the brain. Each chapter, and many sections within chapters, begin with the clinical presentation rather than focussing only on the images and their interpretation. The author's style is almost conversational, with occasional bits of humor included; viz. "The preoperative distinction of these two neoplasms is an essentially arid pastime . . . " (in discussing spinal meningioma and neurofibroma). The opinions presented are numerous and concur with accepted thinking for the most part, the major exception relating to the role of gadolinium diethylenetriaminepentaacetic acid ([Gd]DTPA) as a contrast agent for MRI. In all but the last chapters of the book there is a single sentence at the end of each section relating to the use of gadolinium; in the introductory chapter and final chapters the discussion of contrast enhancement is more inclusive. It is likely that the arrival of [Gd]DTPA on the scene occurred during the final stages of writing of the book, accounting for this type of presentation and the difference between the opinion of the author and currently accepted information.

The physics section at the beginning is mercifully brief and is followed by practical advice on patient selection, examina-