
JNMT Bookshelf

CLINICAL EVALUATION METHODS GUIDE

Ann M. Steves, Deborah A. Perkins, and Richard S. Pollack, eds., Technologist Section, Society of Nuclear Medicine, New York, 1982, 72 pp, \$15.00.

This softcover handbook is composed of six chapters in which various techniques to assess student performance are discussed. Each chapter describes the development and use of such educational assessment tools as the checklist, the rating scale, the anecdotal record, the critical incident technique, the questionnaire, and the data form. Examples are included in the chapters to illustrate each technique. The *Guide* includes a bibliography for further study.

Intended primarily for nuclear medicine technology educators, this book is also appropriate for other allied health instructors. The content is geared toward those individuals who must evaluate student performance but who have had little formal training in educational theory. This handbook will help the instructor to develop the assessment tool most suited to the particular need and circumstance, with a minimum of academic jargon. It is a concise useable book that fills a longstanding void.

PATRICIA WEIGAND, CNMT
Veterans Administration
Medical Center
Philadelphia, Pennsylvania

THE EVALUATION OF MEDICAL IMAGES, MEDICAL PHYSICS HANDBOOKS 10:

Adam Hilger (with Hospital Physicists' Association)
Bristol, U.K., 1981, \$28.00.

This 130-page book is the tenth in the series of Medical Physics Handbooks published by Adam Hilger Ltd. on behalf of the Hospital Physicists' Association. It is "primarily intended for scientists who are interested in the field" of image assessment.

The book has eight chapters, an appendix, a compre-

hensive bibliography, and a useful list of "further reading" material. Chapters 1 through 5 apply fairly rigorous mathematical analyses to a number of image analysis topics. The chapter titles are "The Limitations of Imaging Systems," "Transfer Theory and Image Analysis," "Descriptions of Image Noise," "The Quest for a 'Figure of Merit'," and "Image Processing." The final three chapters take a more practical approach, which will appeal to clinicians also interested in this field. The chapters are "The Extraction of Quantitative Information from Diagnostic Medical Images," "Image Evaluation by Signal Detection Theory," and "The Efficacy of Diagnostic Medical Imaging." The latter two chapters deal in considerable detail with ROC curves, both their generation and interpretation.

The material is not limited to nuclear medicine imaging, but includes examples from radiology, ultrasound, and thermography. Neither is it confined to so-called static images; the chapter on the extraction of quantitative information from images includes sections on time varying measurements and functional images.

The Appendix includes a number of useful sections dealing with Fourier transforms, convolution, and filtering.

It is of passing interest to note that a book on image evaluation containing only eight images can be produced. This is also indicative of the fact that the approach is largely mathematical and demands considerable patience on the part of the reader to assimilate the material.

This book is unlikely to appeal to the technologist, but is likely to prove useful adjunctive reading material for the scientist working in this area of endeavor.

T.D. CRADDUCK, PhD, FCCPM
Victoria Hospital
and University of Western Ontario
London, Ontario, Canada