absorption rate on the extent of the first-pass effect should be clinically insignificant.

This contention is also supported by a study that showed that although food could significantly reduce the absorption rate and peak blood levels of acetaminophen in humans, it had no significant effect on total bioavailability, as indicated by similar areas under blood concentration curves of acetaminophen (10). From this finding, it is also reasonable to suggest that differences in the contribution of the first-pass effect for rectally and orally administered acetaminophen would not be of clinical significance.

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BOOKS

REVIEWS

Drug Metabolism Reviews, Vol. 2. Edited by F. J. DICARLO. Dekker, New York, NY 10016, 1974. 308 pp. 16 × 24 cm. Price $25.50.

Drug Metabolism Reviews is presently published as an annual volume in two issues. The publisher also reissues it as a single hardbound volume. Hopefully, this removes the need for errata.

Because it originates from a periodical, this book has no master theme except that, paradoxically, while its existence cannot necessarily prove the existence of drug metabolism as a discipline its contents will help operationally define the nature and extent of the discipline; it is a series of monographs of specific interest. The value of such a collection of reviews can really be estimated only by an individual who needs the facts and/or theories presented in a review or who needs an entry into the literature of a research area. There is, then, a very definite place for such a book as *Drug Metabolism Reviews;* it does a good job of meeting a well-defined need. It should not be expected to be of uniformly general interest.

Some monographs are of more general interest in that they cover general drug metabolic interrelationships or mechanisms illustrated by specific examples. There are four such reviews. Comparative Aspects of Mixed Function Oxidation by Lung and Liver of Rabbits (Gram), Intermediates in Drug Metabolism Reactions (Hucker), The Influence of Stereochemical Factors on Drug Disposition (Jenner and Testa), and The Nature and Distribution of Enzymes Catalyzing the Conjugation of Glutathione with Foreign Compounds (Chasseaud).

Other monographs deal with a specific compound or compounds of a given structural or therapeutic class. There are four such in this book; The Role of Ascorbic Acid in Drug Metabolism (Zannoni and Lynch), The Metabolism of Biological Alkylating Agents (Jones), Metabolism and Biochemical Pharmacology of Guanethidine and Related Compounds (Lukas), and Recent Views on the Mechanisms of Nitrate Ester Metabolism (Litchfield). There is one review on methodology, another important area; Automated Assay of Drugs in Body Fluids (Rhodes and Hone). Each of these reviews contains at least some degree of critical evaluation of the subject matter. The editor is to be congratulated for avoiding the presentation of a series of annotated bibliographies.

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Clinical Pharmacokinetics: A Symposium. Edited by GERHARD LEVY. American Pharmaceutical Association, Academy of Pharmaceutical Sciences, 2215 Constitution Ave., N.W., Washington, DC 20037, 1974. 180 pp. 15 × 23 cm. Price $5.00.

Clinical pharmacokinetics represents the embodiment of sophisticated advances in Clinical Pharmacology and Pharmacokinetics with the promise of rational drug therapy. It allows for quantitative precision in defining and evaluating a predictable and reproducible clinical response. The book "Clinical Pharmacokinetics: A Symposium" provides a compilation of manuscripts by acknowledged investigators in the field of pharmacokinetics. Although it contains a potpourri of contributions rather than being a tightly organized and coordinated series of presentations, it represents a useful overview and starting point in the organization and implementation of a clinical pharmacokinetics program.

The chapters dealing with the organization of a clinical pharmacokinetics laboratory are somewhat personalized. However, contrasting these two chapters emphasizes the point that the organization and design of such a laboratory depends, to a large extent, on the interactions established with the other disciplines of the clinical team. Defining this orientation must precede the development of the laboratory. This can vary from an analytically oriented laboratory which monitors drug levels as a service function, to the research laboratory where pharmacokinetic and pharmacodynamic interrelationships are defined.

One essential aspect of a clinical pharmacokinetics program which is not sufficiently emphasized in the book is the develop-