

REVIEWS

USAN and the USP Dictionary of Drug Names, 1984 Ed. Edited by MARY C. GRIFFITHS. United States Pharmacopeial Convention, Inc., 12061 Twinbrook Parkway, Rockville, MD 20852. 1983. 640 pp. 21 × 28 cm. Price \$45.00 (discounts for 11+ copies).

The 1984 cumulative edition of *USAN* contains over 18,500 nonproprietary (*USAN* and *INN*) and proprietary drug names in one compact volume. Most entries include current CAS names, graphic formulas, and manufacturers. Combined with the cross-index by pharmacologic-therapeutic category, list of CAS registry numbers, and appendix of molecular formulas, this volume constitutes a definitive source of information on drug substances used in the United States. A must for all researchers in the pharmaceutical field.

—Staff Review

The Merck Index, 10th Ed. Edited by MARTHA WINDHOLZ. Merck & Co., P.O. Box 2000, Rahway, NJ 07065. 1983. 2052 pp. 18 × 25.5 cm. Price \$28.50.

This encyclopedia of chemicals, drugs, and biological substances, now in its 94th year of publication, is internationally recognized as an authoritative reference work. Written and edited by the chemists of Merck & Co., the 10th edition continues in the tradition, incorporating the considerable new knowledge in the field that has accumulated in the 7 years since the 9th edition was published. This reasonably priced single volume of precise up-to-date data is an essential laboratory and library resource.

—Staff Review

Cologne Atherosclerosis Conference No. I: Inflammatory Aspects. Edited by MICHAEL J. PARNHAM and JOHANNES WINKELMAN. Birkhäuser Boston, Inc., 380 Green Street, Cambridge, MA 02139. 1982. 265 pp. 16 × 24 cm. Price \$31.95.

If one were to judge a book by its title, this one would be a disappointment. The title suggests an exposition of the role of inflammation in the siting and development of atherosclerosis. Instead, this is a monograph on inflammation, particularly as it relates to arthritis. Hopefully, the right audience will find the book.

The material is divided into three sections: six chapters on the role of the microvasculature in inflammation, five chapters on the role of various cell types in inflammation, and six chapters on the mediators of inflammation. The "Microvasculature in Inflammation" section is very well covered. The four presentations of Hensen, Williams, Bray, and Bjork form a cogent and provocative overview of the field. The second section, "Cells in Inflammation," is largely limited to a discussion of the monocyte/macrophage. With that constraint, the inflammatory panoply had to be selectively unfolded. This is not a serious problem since the role of the neutrophil was well covered in the first section and the lymphocyte, although in the background, is ever present as a regulator of macrophage activity. For an integrated account of the role of helper and suppressor lymphocytes in the maintenance of chronic inflammation, one would need to look elsewhere. The third section, "Mediators of Inflammation," is a potpourri of topics ranging from complement to oxygen radicals to antigen-induced arthritis. The contribution of Bitter-Sauermann on the role of complement in inflammation is outstanding as a succinct essay on complement C3a and C5a anaphylatoxin activation and regulation. The difficult task of integrating all of this material is attempted in a summary overview. It is noteworthy principally for reminding us of the plurality of cells, products, and processes involved in inflammation.

In addition, a number of narrow contributions are scattered throughout the three sections. They may appeal to the specialist, but for most they will add to the cost rather than the value of the volume. Overall, this multicontributor book has ample good articles to recommend it to those seeking an up-to-date, albeit selective, overview of inflammation as related to the arthritides. It cannot be recommended to those whose primary interest is atherosclerosis.

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MARTINDALE: The Extra Pharmacopeia, 28th Ed. Edited by JAMES E. F. REYNOLDS and ANNE B. PRASAD. The Pharmacopeial Press, 1 Lamberth High Street, London, SE1 7JN. Distributed in the U.S. by Rittenhouse Book Distributors, Inc., King of Prussia, PA 19406. 1982. 2025 pp. 21 × 25 cm. Price \$130.00.

A 25% increase in information, extensive revisions, and 900 new monographs have been incorporated in the 28th edition of *Martindale*. This long-standing reference for pharmacists, which has evolved over a 100-year period, contains monographs of current, new, and investigational drugs grouped by class. Each monograph contains the chemical name, molecular weight and formula, proprietary names, literature documentation, and other information.

Although *Martindale* continues to place emphasis on drugs used in the U.K., it is international in scope, listing proprietary names from many different countries. With an index of drug names containing over 50,000 entries to provide easy access, this volume is an essential reference tool for all pharmaceutical scientists and libraries.

—Staff Review

Drug Fate and Metabolism: Methods and Techniques, Vol. 4. Edited by EDWARD R. GARRETT and JEAN L. HIRTZ. Marcel Dekker, Inc., 270 Madison Avenue, New York, NY 10016. 1983. 504 pp. 15 × 23 cm. Price \$75.00 (20% higher outside the U.S. and Canada).

This book is the fourth in a series, each volume of which represents a compilation of individually authored chapters. The topics treated are concerned with various aspects of drug disposition and analytical methods that are useful for quantitating and characterizing drugs and metabolites in biological fluids. The present volume contains a cumulative subject index for this and the previous volumes.

This volume contains six chapters covering a wide range of interests. The first chapter, "Computer Use in Pharmacokinetics," will be useful to those individuals currently employing or contemplating the use of computer programs for the pharmacokinetic analysis of data. There is a good basic discussion of the statistical foundation for curve-fitting routines and practical concerns that arise from such analyses. A particularly attractive aspect of this chapter is a series of appendices (18, 68 pages) that discuss analog computation (Appendix 1) along with a brief summary of many currently available digital computer programs. Each summary includes a description, subroutines, input requirements, output, limitations, and practical considerations. To this re-

viewer's knowledge, this is the first time that such information appears in one publication.

"Preanalytical Methodology for Drug Analysis in Biological Fluids" discusses a variety of factors that need to be considered prior to performing an assay (subject selection; collection, handling, and storage of specimens; storage, processing, and treatment of sample). Each type of biological fluid is discussed in turn, with consideration for each of the preceding factors (blood, saliva, bile, urine, and feces). The chapter has many useful practical suggestions, and several drug examples are used as illustrations. Over 300 references are provided.

"Isotope Derivatization Analysis" describes the principles of this analytical technique and how it may be applied to the determination of drugs and metabolites, with emphasis given to the double-isotope method. The advantages and limitations of the technique are discussed with respect to sensitivity and specificity. There is also a discussion of the development of this method for a needed application. Numerous examples are provided throughout the chapter.

"Electron Capture Gas-Liquid Chromatography in Drug Analysis" presents a thorough discussion of the operation of the electron-capture detector and its utility in the analysis of drugs and metabolites. There is an extensive compilation of information from the drug assay literature with over 250 references. Numerous practical considerations are presented, along with a comparison of this detector with electron-capture-negative chemical-ionization GC-MS analysis.

The chapter on "Animal Species" addresses the question of which animal species is the best metabolic model for the human for a particular type of chemical structure. This chapter is based on a survey of the literature between 1970 and 1979 and is divided according to metabolic pathways under phase I and phase II reactions. There is an extensive compilation of data using the above classification in numerous tables which present compound, species, and the presence or absence of the metabolic product discussed.

The final chapter is entitled "Quantitative Pharmacology-EEG in Determining Bioavailability and Bioequivalency of Psychotropic Drugs." This chapter addresses a specific pharmacodynamic technique, electroencephalography, for the quantitative measurement of response to psychotropic drugs. The authors present a thorough discussion of this technique with numerous drug examples. This is a relatively new area which has promise for a variety of investigations.

The chapters of this book are well written, current, and thorough. The book is recommended to those readers who have a specific interest in or who require an overview of any of the individual topics covered. Certainly it is worthwhile library purchase.

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Nutrition and Drugs. (Current Concepts in Nutrition, Vol. 12.) Edited by MYRON WINICK. Wiley-Interscience, 605 Third Avenue, New York, NY 10016. 1983. 206 pp. 16 × 23.5 cm. Price \$40.00.

For various reasons most pharmacy schools provide little education in nutrition. But just as nutrition is important in maintaining proper health, it is also important in ensuring the proper response to drugs and in limiting their side effects. This volume provides a diverse group of topics on the subject of nutrition and drugs. The following list provides for each chapter the title, the first three authors, the chapter length in pages, and the number, average date, and percentage of reference citations published in 1978 and subsequent years:

1. "Drug-Vitamin B₆ Interaction," H. Bhagavan and M. Brin, 12, 22, 1972, 35%.
2. "Effects of Drugs on Cellular Transport of Nutrients," R. Branda, 16, 61, 1976, 50%.
3. "Vitamin D Metabolism and Metabolic Bone Disease," Z. Gaut, 20, 80, 1977, 58%.
4. "Alcohol, Protein Nutrition, and Liver Injury," C. Lieber, 24, 105, 1972, 25%.
5. "Drugs and Vitamin B₁₂ and Folate Metabolism," J. Lindenbaum, 16, 79, 1975, 40%.
6. "Drugs in the Food Supply," S. Miller and J. Harris, 12, 0, none.

7. "Lipid-Lowering Drugs and Low Fat Diets," R. Palmer, 10, 0, none.
8. "Effect of Diet and Sulfonyleurea Drugs on Insulin Resistance and Insulin-Receptor Function," F. Pi-Sunyer, 18, 99, 1974, 30%.
9. "Drugs and Nutrient Absorption," D. Roe, 10, 40, 1973, 22%.
10. "Appetite Regulation by Drugs and Endogenous Substances," A. Sullivan, J. Triscari, and L. Cheng, 30, 235, 1978, 65%.
11. "Drugs and Diet Therapy," A. Stunkard, 6, 0, none.
12. "Diuretics and Salt Restriction in Blood Pressure Control," S. Wasertheil-Smoller, H. Langford, M. Blaufox *et al.*, 16, 20, 1966, 38%.
13. "Vitamin A Analogs in Skin Disease," D. Windhorst, 12, 34, 1978, 62%.

Statistical results obtained for the entire volume and each chapter indicate some shortcomings of this volume. This book provides 765 published and 10 in-press citations with an average reference date of 1975; although 50% of the references cited were published in 1978 or later years, some 30% were published prior to 1975, a fact which questions use of the word "current" in the series title.

Overall quality control was poor. Some chapters were good; others were far less so. Aside from being well done, chapters 2, 3, 10, and 13 had 50-65% of the cited references published in 1978 and subsequent years. Chapters 1, 4, 5, 8, 9, and 12 are satisfactory, in general, but have reduced utility because of dated references; only 22-40% of the cited references were published in 1978 and later years. Chapter 12, with some of the most recent references in this group, also had some of the most dated references.

Although the content was interesting, a few chapters seem to detract from this work more than they support it. Chapters 6, 7, and 11 have no reference citations at all. Moreover, many of the missing references would seem critical to the point being made; their absence is astonishing.

There are a few instances where anticipated topics and citations were not mentioned. This diminished the breadth of the article. Specifically, chapter 5 makes no mention of the depletion of vitamin B₁₂ by chronic cyanide ingestion, a fact based on substantial research. Furthermore, it was also surprising that no mention was made of food additives and the possible link to hyperactivity in certain children in the discussion of chapter 6.

The volume contained a satisfactory index and although most chapters were easily read, chapter 11 warrants mention because of its complex and lengthy sentence structure. One example is both sufficient and classic:

"We recommend this because they act, I believe, by lowering the body weight set point, they do not rapidly lose their efficacy, at least in humans, tolerance does not develop, and therefore, when they are withdrawn, the body weight set point that had been artificially suppressed by the drug is elevated to the pretreatment level, resulting in very severe pressures upon people to regain the weight they lost with the aid of these drugs."

In summary, the highly variable quality and topical approach makes this volume more valuable to established libraries than to a general home library. While scientists actively engaged in research involving nutrition and drugs or pharmacology-toxicology will find this work useful, interest in this volume by many scientists will probably depend instead on the topic discussed. Because of limited prior exposure to this subject, pharmacists may find many of the topics to be refreshing and relevant both to their continuing education and to their dealings with a public increasingly fascinated by "nutrition" and dieting. Clearly, however, individuals interested in this subject should examine the work before purchase.

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Progress in Drug Metabolism, Vol. 7. Edited by J. W. BRIDGES and L. F. CHASSEAUD. John Wiley and Sons, One Wiley Drive, Somerset, NJ 08873. 1983. 440 pp. 24 × 15 cm. Price \$90.00.

Within this volume are six independent, authoritative reviews consisting of a monograph on the renal excretion of drugs; the absorption, distribution, and excretion of two therapeutic classes of compounds; the metabolism and toxicity of two environmentally important compounds; and the relationship between metabolism and toxicity in the avian species. Each chapter is concise, well written, and includes pertinent structures and graphic illustrations. As in the