STEVEN PRAY.  Nonprescription Product Therapeutics. Baltimore MD: Lippincott Williams and Wilkins, 1999. xiv + 816pp., 183 figs., 183 this.  $85.00

Nonprescription Product Therapeutics is a well written textbook that provides a comprehensive overview of conditions treatable with non-prescription medicines. The information presented in the text is a welcomed resource for student use in the classroom as well as for pharmacists and pharmacy students in an ambulatory or community setting. Practical information on over-the-counter (OTC) medicines and self care is presented by the author who is both a pharmacy educator and a practitioner.

The text is well organized and is based on a systems approach so the reader can page to sections titled oral and gastrointestinal conditions, respiratory conditions, pain conditions, dermatologic conditions, etc. Chapters within each section are structured to assist the pharmacist in making specific patient recommendations or referrals. Each chapter includes case studies entitled “At the Counter” which provide good examples with structured responses that are representative of information in the chapter. Patient Assessment Algorithms are also included throughout the text which provide logical pathways in making decisions. Essential patient information, referred to as “Counseling Tips”, is extensively highlighted throughout the text. A section titled “Focus On” provides the reader with information related to a topic area but not addressed, such as the pharmacist as a triage expert and his or her role in suspected child abuse. Real life experiences from practice have been incorporated in “A Pharmacist’s Journal.”

Chapters 1 and 2 provide interesting introductory material and include a discussion on various Rx-to-OTC switches and examples of confusing products that line the pharmacy shelves and reasons for the confusion. Chapter 16, on respiratory conditions, provides an excellent coverage of humidifiers and vaporizers. This chapter also provides good examples of case studies, patient counseling tips and information learned from “A Pharmacist’s Journal.” Additionally, easy to understand graphics are included as figures. Chapter 17 provides counseling tips on managing the asthma patient with the necessary information on monitoring lung function at home with peak flow meters as well as proper use of metered dose-inhalers.

The section covering medical conditions and situations includes Chapters 43 and 44 on problems related to sexual activity and female genital conditions. These chapters provide a thorough explanation of various situations with solutions. Both chapters provide the necessary education information that is needed and extend beyond condom use and fungal infections.

Overall, this is an excellent and useful text for students and pharmacists. It provides valuable information that is practical and will allow the student to feel comfortable when counseling patients in an ambulatory or community setting. Nonprescription Product Therapeutics provides a clear focus on self-treatable conditions and should be recommended.

Diane Nykamp
Mercer University


Beginning in 1959 as the Formulary Service™, the American Society of Health-System Pharmacists (ASHP) has annually updated and revised their premier drug information publication, culminating in the 40th publication in this annual series: AHFS Drug Information 1999®. In 1984, the previous loose-leaf format of the book was replaced by a bound format, which allows for more extensive updating since the entire book is republished each year. The 1999 edition has been expanded by 160 pages over last year’s edition to include 24 new drug monographs and eight summary monographs that are now full-length. Each monograph that has been revised in 1999 includes the statement: “Selected Revisions January 1999.” In addition, each paid subscription to AHFS Drug Information 1999® receives AHFSFirstFAX that provides a one-page faxed overview monograph on FDA-approved
drug products as soon as they are released.

Examples of the updated material include the latest recommendations of the US Centers for Disease Control and Prevention guidelines for the treatment of STDs; the latest recommendations from NIH on the management of ADHD; the American College of Gastroenterology recommendations on the prevention and management of Clostridium difficile-associated diarrhea; and revised vaccine monographs that include the 1999 U.S. childhood immunization schedule.

For many institutional practitioners, the Formulary Service™ has served as the basis for their drug information needs for many years. AHFS Drug Information 1999® continues the tradition as a source of comparative, unbiased, and evaluative drug information on virtually every single-drug entity available in the United States. AHFS Drug Information 1999® is most useful as a source of drug information for P&T committees. It also meets many drug information needs when placed in patient-care areas for ready access by physicians, nurses and other health-care professionals.

Finding information on a drug is relatively simple. The index lists drugs by trade name, generic name, abbreviation (e.g., INH for isoniazide), and/or former name (e.g., glyceryl guaiacolate for guaifenesin) and refers the user to the specific page number where the monograph is located. Unlike many texts that list drugs in alphabetic order, each monograph is grouped according to the AHFS Pharmacologic-Therapeutic Classification®, an arrangement that permits easy review of information on a group of drugs with similar activities and allows the user to determine quickly the similarities and differences among drugs within a group. Each monograph provides in-depth information on a particular drug and dosage forms. For example, the monograph on amphotericin B is 12 pages in length and includes information related to its chemical structure, stability, mechanism of action, spectrum, resistance, pharmacokinetics, uses, general cautions, pediatric cautions, geriatric cautions, acute toxicity, drug interactions, and dosage and administration.

A user unfamiliar with this reference text may be awed by the depth in which information is provided. It is certainly not used in a similar manner to the plethora of drug handbooks/guides that are particularly applicable to nurses and those responsible for medication administration. And, some users may find it frustrating to look up specific information on multiple component (combination) drugs. For example, Arthrotec® is listed in the index with the reader referred to two separate monographs—diclofenac and misoprostol—where the trade name Arthrotec, is only listed, not the complete information one may expect on this particular combination product.

AHFS Drug Information 1999® should be an integral part of any institutional pharmacy library. It is not intended for placement in the lab coat pocket as a "peripheral brain," but serves as an invaluable reference source for any health care practitioner or student desiring a complete overview of available drugs as well as comparative data with other drugs in a class. This text is not the type of reference that ends up gathering dust in the library. It should be used, and used often, as a primary source of drug information.

Glen E. Farr
University of Tennessee


This book is a module in the clinical skills program of the American Society of Health-System Pharmacists. It is describes for pharmacy practitioners and students the management supports required to provide patient care services in an ambulatory care setting. The module consists of 12 units and two appendices. The structure of each unit is similar. The unit begins with identifying the objectives, a description of how the unit is organized, and the content of the unit. The unit ends with self-study questions and answers.

The first unit is appropriately titled “Getting Started”. It describes potential roles for pharmacists in patient care and the administrative activities that support a pharmaceutical care service, assessment of services, and the role of business and operational plans in establishing a pharmaceutical care practice.

The second unit is facility design which describes the physical requirements of space and equipment for offering patient care services. The third unit delineates the issues involved in establishing a laboratory. It describes the levels of testing complexity and pertinent laws and regulation. Lists with addresses and phone numbers for state agencies responsible for laboratory regulations, approved proficiency testing providers, and an OSHA consultation directory are included. The unit also provides example forms required for operating a laboratory.

Units 4, 5, 6, 7, and 9 are concerned with establishing patient care components and include a patient appointment system, patient education materials, documentation, the development of screening services, and creating and maintaining a patient tracking system. I liked all the units but the unit on documentation was particularly well done. It is comprehensive and includes a well-developed example.

Units 8, 10, 11, and 12 deal with the global management issues of marketing, legal issues, providing quality care, and reimbursement issues. Again, all units are comprehensive and the presentation is clear and easy to follow.

Appendix 1 provides blank forms which should be quite helpful. Appendix 2 is a case study; I would have liked to see more case studies particularly from community pharmacies though.

The primary advantage of the module over a textbook is that it does not require the reader to ‘translate’ academic knowledge into practice knowledge. For example, the patient care activity, scheduling an appointment, maps directly to the unit: Patient Appointment System. A second advantage is that the module is very focused. The primary disadvantage relative to a textbook is limited references; for example, references for providing education to ethnic minorities would be informative.

The module should be very useful to both practitioners and students. However, I don’t think it can replace a textbook for students because some sections assume the reader has experience or background knowledge. For example, students may not understand the difference between a set-fee and a pre-established fee without experience with payment systems. Used as a guide, though, the module should enable students to learn a great deal about practice management and serve as an excellent tool to get students out of the classroom into practice sites or to enhance learning in clerkship experiences. However, because the self-study questions focus on factual knowledge, learning would be enhanced if users wrote short reports or gave verbal presentations on how a specific practice site addresses (or proposes to address) the topics in the module.

Overall, the module is clearly presented; the materials are well-written and of high quality. It is comprehensive and provides substantial basic information for developing the management supports required for patient care.

Marion K. Slack
The University of Arizona

JOSEPH G. CANNON. Pharmacology for Chemists. New York NY: Oxford University Press, 1999. xiv + 272 pp. 74 figs., 4 tibs. $120.00.

The title, Pharmacology for Chemists, clearly describes the aim of this book. The author has taken material from a three-day ACS short course, which was aimed at teaching pharmacology to organic chemists, and expanded upon it to create this introductory guide book.

The book is divided into three sections. Section I (5 chapters) introduces the principles on which pharmacology is based. Chapter 1
covers membrane structure, concepts of water structure, partition coefficient, solubility, dissolution, absorption and distribution of drugs. Chapter 2 gives a brief introduction to pharmacokinetics. Chapter 3 focuses on the basic principles governing the metabolism and urinary excretion of drugs. Chapter 4 is devoted to the theories on how drug-receptor interactions can lead to pharmacological actions. Chapter 5 describes the various types of pharmacological studies typically performed on new drug candidates. Among the topics described are radioligand-receptor binding assays, methods used to quantify observed pharmacological responses, quantal verses graded assays, measurement of therapeutic indices, etc.

Section II of the book addresses drugs that exert their actions in the peripheral and central nervous systems. General concepts on the anatomy and physiology of the nervous system are introduced in Chapter 6. Chapters 7-13 have discussions of the drug classes that work by modifying the major neurotransmitter systems in the brain and peripheral nervous system. This section comprises approximately one-half of the book and perhaps reflects the author’s longtime career in drug discovery of drugs affecting the nervous system.

Section III consists of four chapters, approximately 50 pages that discuss organ system diseases. Three of the chapters are devoted to various aspects of cardiovascular diseases and drugs useful in treating these ailments. The remaining chapter covers histamine-related diseases and the H1 and H2 histaminergic drugs.

A minimum number of references (zero in some) are cited in each chapter and these refer primarily to reviews or textbooks from which figures have been reproduced. Each chapter contains a useful list of recommended readings. A rather complete table of contents and an index make it easy to find information included in the book. A glossary of terms is included and will be very useful to the novice pharmacologist for whom the book is intended.

The book’s strength is that it is written by a chemist and for chemists. As such, the book’s primary usefulness will be for masters and doctoral level chemists who are entering jobs related to drug discovery and seeking an introduction to pharmacology. The book is promoted on the back cover as an “ideal guide” for the chemist entering the drug discovery field. Discussions in the book are informative and readable; however, they lack depth and range and are poorly referenced. Due to these limitations, the book falls short of being an “ideal guide” and would be described better as an introduction.

The cost of the book will limit its use. Textbooks on medicinal chemistry cover almost all of the material covered in Pharmacology for Chemists, plus much more. Good medicinal chemistry texts are available in the $50.00 - $80.00 range.

I recommend the book to chemists entering careers in drug discoveries. It provides a good introduction to pharmacology. Chemists will want to consider other books for a more complete understanding of the topic. Libraries serving pharmaceutical and biotechnology companies should hold this book.

David S. Fries
University of the Pacific

This concisely written, hardcover book contains four parts comprising 15 chapters. Part one (Basics of Pharmacoeconomic Research) contains three chapters that introduce the reader to the field of outcomes research and the importance of pharmacoeconomics in today’s health care environment. Part two (Types of Pharmacoeconomic Analyses) contains five chapters devoted to defining the five principal types of pharmacoeconomic analyses namely cost-of-illness, cost-benefit, cost-effectiveness, cost-utility, and cost-minimization analyses. A practical aspect of this book is a brief presentation of research studies, in these five chapters, that have been conducted using a particular pharmacoeconomics analyses for a variety of diseases and conditions such as stroke, asthma, cancer, obesity, and depression.

The four chapters contained in part three (Techniques of Pharmacoeconomic Research) focus on the important elements of pharmacoeconomic research such as determining the perspective of the study, selecting the outcome measures to be assessed, categorizing the costs to be calculated and explaining the rationale and methodological approach for sensitivity testing. The final section of the book - Part Four (Evaluation of Pharmacoeconomic Information) has three chapters. The first of these chapters is geared toward readers who are interested in evaluating pharmacoeconomic research while the second chapter raises some important regulatory and ethical issues surrounding pharmacoeconomics research. The last chapter does an excellent job of providing readers interested in the field of pharmacoeconomics with a list of resources (books, journals, and databases) for obtaining detailed information. At the end of each of the four parts is an evaluation component that allows readers to test the knowledge gained from the chapters in that section by answering short questions (the author also provides brief answers to these questions).

Overall, I liked the book and I believe the author achieves his goal of writing an introductory text about pharmacoeconomics. It is easy to read and presents basic concepts in a simple manner. However, it does not cover any topic in enough depth to allow recommendation as the sole required text in a graduate course. It serves the purpose of bringing together a diverse array of issues and provides a good starting point for someone who needs to achieve a simple understanding of the complex field of pharmacoeconomics. Hence, it may be useful for the purpose it is intended for and that is as a handbook for pharmacists and health services researchers who are new to the subject of pharmacoeconomics.

Mayur M. Amonkar
West Virginia University


The original text for this well-referenced book was written to supplement the pharmacy practice laboratory manual at the University of Wisconsin-Madison. In 1998, the contents were substantially increased and revised to appeal to a broader audience. The contents of the book are compiled in an orderly easy-to-read manner and integrate information from multiple sources such as the USP/NF, Remington’s Pharmaceutical Sciences, ASIAP Journal and the author’s personal research. The book has thirty-four chapters divided into six content parts plus twenty-one appendices.

Part I provides background information on processing prescription orders, including legal requirements, beyond-use dating, patient counseling and drug utilization review. Part 2 covers pharmaceutical calculations beginning with quantity and concentration expressions and the evaluation of dosage regimens. All commonly used pharmaceutical calculation types are presented and examples are given using both proportion and dimensional analysis. The author also provides useful tables such as sodium chloride equivalents and solubilities of selected substances in alcohol-aqueous systems to facilitate working
Parts 3, 4, 5 and 6 specifically address compounding issues. Part 3 introduces general compounding guidelines, compounding equipment and ingredients, and the concepts of weighing and measuring. Each chapter in Part 4 provides detailed information on specific vehicles and excipients including a preservative chapter which is especially useful as a guide for selecting appropriate preservatives for particular preparations. The chapters in Part 5 address the compounding and dispensing of different dosage forms, including sterile and non-sterile solutions, solids, and semi-solids. The author begins each of these chapters with a general definition of the dosage form, and then presents their uses and desired properties, advantages and disadvantages, principles of compounding, examples of formulations, calculations, administration techniques and appropriate patient counseling. Part 6 addresses compatibility and stability issues including a pertinent discussion of a pharmacist’s responsibility for providing quality drug products.

The appendices contain published guidelines for compounding sterile and non-sterile preparations in addition to tables such as medical abbreviations, conversion factors, and nomograms. This compilation of documents facilitates learning and understanding by providing students and practitioners with essential background references in a single source.

This paperback text is an outstanding supplement for pharmacy practice laboratories and dosage form courses, as well as a valuable resource for compounding pharmacists. The content is scientifically sound and laced with common sense advice and helpful hints.

Mary Ann F. Kirkpatrick
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This concisely-written, soft-cover book contains 20 stand-alone chapters and three appendices - The Mammalian Cycle, Common Toxicity Criteria, and the Karnofsky Performance Status Scale. It is authored and reviewed by oncology pharmacists, many of whose names are widely recognized as long-standing oncology pharmacy educators, clinicians and leaders. This book is intended to be a self-study guide and each chapter includes specific references, suggested reference texts, and self-study questions. Relevant terminology is defined in the glossary and the index provides easy reference. Extensive use of tables and figures is employed throughout the book.

Although this book is not formally divided into sections, three content categories are apparent. The first two chapters provide an overview of cancer (Chapter 1) and the principles of cancer treatment (Chapter 2). The pharmacology of cytotoxic chemotherapy is reviewed in Chapters 3 and 4, followed by the pharmacology of immunotherapy in Chapter 5 and basic principles for optimizing chemotherapy outcome (Chapter 6). Two additional chapters that contain basic principles of high relevance to the practicing oncology pharmacist include Chapter 10, The Administration of Chemotherapy, and Chapter 20, Pharmacy Practice Issues in Oncology. Administration of cancer chemotherapy reviews the rationale and methods for administering chemotherapy by the oral, intravenous, intramuscular routes as well as local and regional infusions of chemotherapy. The chapter entitled “Pharmacy Practice Issues in Oncology” reviews the general principles involved in the handling of hazardous drugs and reviewing medication orders for cancer chemotherapy. In addition, this final chapter includes resources for patient and consumers as well as for health professionals that can be found in both text form as well as on the Internet.

Approximately an equal number of chapters in this book can be classified as addressing supportive care issues for the cancer patient. Chapter 7, entitled Systemic Toxicities, briefly describes hematologic, dermatologic, hypersensitivity reactions and late complications of cancer therapy, including second malignancies and gonadal dysfunction and infertility. Chapter 8, Major Organ Toxicity, reviews specific organ toxicities to the heart, kidneys, bladder, liver, lungs and central nervous systems that occur with specific antineoplastic agents.

Gastrointestinal complications of cancer chemotherapy are discussed in Chapter 9, infectious complications in Chapter 15, pain management in Chapter 16, psychosocial and palliative care in Chapter 17, nutritional support in Chapter 18 and oncological complications frequently encountered secondary to both cancer and its treatment in Chapter 19. General principles of bone marrow transplantation, its applications and complications are reviewed in Chapter 14.

The third and shortest portion of the content of the book is devoted to the management of specific malignancies. Chapter 11 reviews the management of lung and colorectal cancers, Chapter 12, breast and prostate cancers, and Chapter 13, hematologic malignancies. Each of these chapters is approximately 10-14 pages in length, inclusive of numerous figures and tables. It is the opinion of this reviewer that these chapters were included to provide a simple overview of selected cancers and their treatment in order to serve as an example of the presentation, diagnosis, staging and treatment of selected solid tumors and hematologic malignancies.

The editors state in the preface that Concepts in Oncology Therapeutics is designed for practicing pharmacists, post-graduate trainees and for pharmacy students, to be used as an introduction to the field of oncology. The basic nature of the information provided, the simplistic manner in which it is presented, and the self-study questions included at the end of each chapter suggest that it would be of great value in a nontraditional degree program or certificate program.

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