
"To improve healthcare through research and evaluation of pharmaceutical products, focusing on clinical outcomes and cost effectiveness." This is the stated charter for Data Pharmaceutica Inc., which publishes this reference text. The second edition is now available. After reading and digesting this charter carefully, one might believe that the company actually does research on and evaluation of pharmaceutical products. But after more thorough study, it appears obvious that it researches and evaluates data from several sources relating to pharmaceutical products. The name is illustrative of that conclusion: Data Pharmaceutica Inc. Nonetheless, the book is substantial in size and substantive in content.

According to the publisher, the information for the book was obtained from the Food and Drug Administration (FDA), from various pharmaceutical supplier catalogs, and from publicly available sources. The publisher urges users to verify important information with the pharmaceutical supplier. The magnitude of the text and the type of data available indicate that integrating several data sources must have been a large task, particularly when the accuracy of entries had to be verified and inconsistencies resolved. The editors are to be congratulated on this point alone.
The important components of the book are divided into three distinct sections, each with its own set of page numbers. The first section is the Keyword Index. The purpose of this section is to assist the user in finding the correct FDA standard generic name and thus find the page number in Section II, the Product Information Section, where specific information regarding that drug can be found. The index is important because it offers a number of features, all of which cannot be mentioned here. Examples include listings for every generic chemical to assist with multiple ingredient drugs; all brand names ever used for a drug, including branded generics; a complete listing of indications, including pathogens for antibiotics; the top 100, 200, 300, 400, and 900 drugs; patent expiration dates; FDA approval dates; and DEA schedules. All of these features, and others, will point the user to Section II and a page number where specific product information can be found.

The purpose of the Product Information Section (Section II) is to provide complete information on products, including prescribing information as well as information about equivalency and costs. The products are arranged alphabetically by generic name. Information on any given drug may include:

- Categories—all therapeutic and other categories applied to the drug
- Brands—all brand names and alternative generic names ever used for the drug
- Interactions—all FDA standard generic drugs that interact with this drug
- FDA Prescribing Information—up to 11 different sections dealing with those categories usually found in the package insert
- How Supplied—information relating to equivalency of the drug
- Other Information—the National Drug Code (NDC) number for each product by manufacturer, the average wholesale price (AWP) for the drug with package size, and other important pieces of information relative to that drug.

Section III is the heart of the book.

Section III of the book is Supplier Profiles. The purpose of this section is to provide additional information on a particular supplier. The section features the official FDA Short Name for the supplier,
the full company name, ownership information (if appropriate), and complete address and phone number(s). The official NDC labeler code for the supplier is provided. Also included are sales volume, total employees, and fax number. Federal procurement eligibility, including coverage by the 1990 Medicaid Rebate Law, is also listed. For public companies, a status of public or private is indicated. Statements of revenues and net income for the past five years are listed where available. The bulk of the section is a list of all FDA standard generic product names for which the supplier has products.

The reference provides a must-read How to Use section, as well as a list of pregnancy categories, DEA schedules of controlled substances, certified regional poison control centers, and information on computer tapes and disks.

In the opinion of this reviewer, this book falls far short of providing sufficient drug information for the astute physician or pharmacist. However, it is true that the better sources of drug information do not provide information relative to the costs of prescription drug products. This book also provides information relative to FDA equivalency ratings that is not found in more prominent drug information resources. However, the reviewer questions the practice of stating that a drug is not rated equivalent when what is actually meant is that “many of those drugs listed under NOT RATED EQUIVALENT were found to be not equivalent, however, some of these drugs have simply not been evaluated by the FDA in their current packaged form.” It would be more useful to identify (if possible) those drugs that have truly been “NOT RATED EQUIVALENT” for the practitioner so that little question regarding the “equivalency” of the drug by a specific manufacturer would be raised.

The reviewer feels that this book definitely has utility and should be used in organized health care settings to supplement other resources in focusing on clinical outcomes and cost-effectiveness. Several of the unique features of this book will be valuable to health professionals in these settings as well as to the researcher in marketing, drug use evaluation, and evaluations of costs.

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Physically, *Bad Medicine* is an unusual-looking book. It begins routinely enough with a preface, a note about the authors, and 13 chapters. But next the reader encounters an appendix composed of 40 tables on nearly 70 pages, another 20 pages of references, and, finally, a very thorough 17-page index. The reader immediately forgets about the unconventional configuration of the book upon beginning Chapter 1, however.

The authors are no newcomers to this field. All three have been studying the pharmacy world since their service on the Task Force on Prescription Drugs in the late 1960s. Previous books by these authors include: *Pills, Profits and Politics* (1974), *The Drugging of the Americas* (1976), *Pills and the Public Purse* (1981), and *Prescription for Death* (1982).

Actually, *Bad Medicine* may be viewed as a follow-up study a decade after the original work in this field. As with previous books by the authors, we learn about scandals, scares, crises, and other problems in the international pharmaceutical industry to a depth that only a small number of insiders could ever expect to attain. Throughout the book, there are personal references to the who’s who of multinational pharmaceutical companies, consumer advocates, national and international drug regulatory personnel, practitioners, and academics. The book is precious for a host of reasons, and one of these is this first-person description of events little known in detail to most of us.

There is much factual information about labeling abuses, promotional activities, and World Health Organization endeavors, as well as a historical review of several therapeutic areas. But the greatest value of the book is its objective, realistic assessment of company and industry performance in the face of overwhelming public outcry, legislative proposals, and professional resistance. One learns the sequence of events surrounding the battles over dipyrone, clioquinol, and ButazoneR. A by-product of learning this history is exposure to consumer groups around the world. We find detail about drug issues in Thailand, Indonesia, Bangladesh, and other
countries. The references are so complete and the topic so well described that the book is a gold mine for students in need of research questions, industry people or academics in need of interesting material for a speech or report, and for others interested in the conduct of the pharmaceutical industry abroad.

As with all works, this book has some positive features and some negative features. Fortunately, the positive ones far outweigh the negative ones. Avid readers of the authors’ previous books will detect much material that they have already read. This is a minor issue, since the benefits of reading the book far outweigh any negative considerations.

The book should be in the personal collections of educators, industry executives, and regulators and in the public collections of consumer groups, colleges, hospitals, and clinics. There is much to be learned from the experiences of Silverman and company, and we should consider ourselves fortunate that some of these rare and valuable glimpses into twentieth-century pharmacy issues can be shared with us by persons on the playing field or in first-row seats on the 50-yard line.

Let us hope that the lessons described in the book can help us prevent recurrences of some of these painful and possibly unnecessary traumas in the future.

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