BOOK REVIEW


With an ever-widening access to drugs of all types and increasing access to health care at all levels of society, the risk of problematic or even life-threatening drug interactions is increasing. In this Second Edition of a widely available text on drug interactions, Piscitelli and Rodvold have brought together an impressive array of authors who are expert in their respective fields. In some areas of infectious disease, such as antibiotic treatment, advances have been limited, whereas in others, such as anti-retrovirals, the progress has been rapid. It is in this latter area that the potential for drug interactions is perhaps the greatest, because these patients are frequently on multiple therapies, particularly in developed countries. The increasing complexity of medicine in developed societies today also carries an increased risk of interactions leading to reduced efficacy or to toxic reactions.

This new edition is well organized with a good introductory chapter on the general principles of interactions and terminology. This is expanded by other authors in the following chapters, the first on the classical areas of absorption, metabolism, and excretion, and the second on the more recent developments in transport protein research (particularly P-glycoprotein) and their importance in the understanding of drug effects and interactions. The chapter on regulatory perspectives is of interest because it provides an insight into the alien world of regulatory agencies and what concerns them; however, for most readers other than drug developers, this will be of peripheral interest.

The importance of drug interactions in the treatment of HIV/AIDS and opportunistic infections is highlighted in two chapters covering almost 100 pages. The advances in treatment for AIDS has resulted in the use of a significant number of drugs with huge potential for therapeutic and toxic reactions, and knowledge of these is often limited to those who treat HIV/AIDS regularly. The chapter on antiretrovirals is supplied with extensive tables listing all the current drugs and their potential to interact with other drugs, and of equal importance, which anti-retrovirals should not be used with other drugs. The problem with such lists, especially in a rapidly developing area, is that they can date quickly and should always be used with care. Interestingly, the following chapter deals with drugs for opportunistic infections, many of which will be more familiar to readers of AJTMH. Again, useful lists are supplied, which reveal a certain bias toward the syndromes seen in the United States—anti-parasitic agents are considered only for Pneumocystis carinii pneumonia (PCP), and all other diseases and therapies are ignored, although whether this was done through selective choice or absence of information is not clear. For the practicing physician or pharmacist, it is almost as important to know what is not known as to know what is.

Because the anti-retroviral drugs are so prone to interactions, the next chapters on anti-mycobacterials, quinolones, β-lactams, and antifungal agents tend to cover some of the earlier ground, although in greater detail, and with some useful mechanistic data. Essentially, if the information required is not in the HIV/AIDS section, it will be found in these chapters, where a number of other commonly used drugs (digoxin, theophylline, warfarin, β-blockers, etc.) are considered in greater depth. The chapter on quinolone antibiotics is perhaps the most difficult to read, because it is out of character with the style of the rest of the book: the information given, however, is of considerable importance to anyone using these antibiotics.

The detailed treatment of food interactions is a reflection of the interest of one of the editors and provides a concise review of current information, which is as useful to a senior physician as to a newly qualified intern. Its content, if expanded to cover all other drug areas, could become compulsory reading for all medical students. While food/drug interactions are well recognized, if not well understood, drug–cytokine interactions are a newly developing field, and one that will probably feature in any future edition in greater detail. This chapter provides some of the rationale for the more puzzling drug effects that are sometimes seen and merits careful reading.

Having understood all that has gone before, “Circumventing (avoiding) Drug Interactions” comes in a logical, refreshing, almost cookbook style, reminding the reader what, by this time, he should have discovered. Some of the section headings should be written in the heart and mind of every prescriber, whoever they are, and can be summed up by the Hippocratic statement “Physician—Do No Harm.” The final author looks at how studies of interactions should be conducted and at some of the pitfalls in design and statistics that face the investigator. The approach is standard, and it would have been interesting to see a discussion of novel approaches to the understanding of drug interactions, such as the use of population sampling in large drug trials to validate findings from smaller studies.

This book would be useful for anyone involved in treating infectious diseases but is probably too detailed for day-to-day practice. The understanding of drug/drug interactions is such that the negative data would fill many more volumes and yet is as important. For those practicing outside highly developed health care systems with access to a pharmacopoeia of different drugs, its use is less clear. The chapters on HIV and tuberculosis drug interactions are certainly useful, but there is no section devoted to interactions associated with antiparasitic agents, which ignores a huge part of global practice and would be of importance even in a developed health care system where experience with such drugs is limited. Although some agents such as quinine, quinidine, and atovaquone do appear, it is largely as a small item in tables, rather than in depth. For those working outside the United States, the almost total absence of medically qualified authors is surprising, especially as much of the advice and the clinical cases are directed at the prescribing physician as much as the dispensing or academic pharmacist. This might be considered by some to detract from the book’s undoubted authority, although taken overall, it is an excellent assessment of the current understanding of drug interactions.

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