Book review

Handbook of Drug Interactions: a Clinical and Forensic Guide, 2nd edn

Ashraf Mozayani & Lionel P. Raymon, eds. Published by Humana Press, New York. 8 Mar 2011. Hardcover: 828 pp, price \$239.00. ISBN-10: 1617792217; ISBN-13: 978-1617792212

Interactions are tricky. They are easy to miss as you add another line to the prescription chart. They multiply promiscuously, if not quite exponentially. Their clinical effects go from the unobservable, through the uncertain, to the actionable. Thus, guidance is certainly needed, and Mozayani & Raymon have assembled a work by nearly 40 contributors, which they hope will prove useful to 'health and forensic professionals'. This is quite a gap to bridge. Clinical pharmacologists will forgive Welner and Opler's explanation that 'antipsychotics are able to exert their effects by influencing how specific chemicals, known as neurotransmitters, move through the brain'. Lawyers may need a tranquilizer before approaching Moody's description of '...flunitrazepam 3-hydroxylation and *N*-demethylation, brotizolam 1'- and 4-hydroxylation, the oxazolo-ring cleavage of mexazolam, the *N*-demethylation of clobazam ...' and much more.

The title fails to give an idea of the true scope of the work. The chapter on cardiovascular drugs, for example, discusses adverse drug reactions in considerable depth; the chapter on antipsychotics covers several forensic aspects. The discussion of anabolic doping agents includes sections on β -agonists, erythropoietin and insulin-like growth factor-1. This chapter includes the disturbing notion of 'pharmacologically enhanced troops' and the uncomfortable fact that scrotal skin is fivefold more permeable than other skin to testosterone from patches. The information content is not uniform. Moody's chapter on benzodiazepines (435 references) and Wayne Jones's on ethanol (617 references) stand out. The rather complex interactions between phenytoin and other compounds are summarized in tables, as are the interactions with warfarin, but the tables are unreferenced, which is a pity. There are also gaps in the treatment of some important interactions. There is nothing on lithium, and no mention of transport proteins such as ABCB1 (p-glycoprotein) whose involvement in drug-drug interactions with amiodarone and verapamil, for example, is increasingly recognized. ABCB1 is also important when considering cancer chemotherapy, another subject that is omitted.

The forensic discussions are interesting for clinical pharmacologists. The vexed question of pharmacogenetic influences on morphine and codeine is covered, although there is still some doubt as to whether postmortem concentrations of opioids in breast-fed neonates can really be

used to demonstrate intentional administration. The rules of the International Olympic Committee, laid out in the anabolic steroid chapter, are in good time for this summer's festivities in London. The contribution by Brunette, a partner in a law firm, gives a fascinating insight into US legal processes, although it does not quite mesh with the pharmacology. For example, Brunette, in describing the case of *Whittle vs. United States* explains the interaction between Nardil® (phenelzine) and Fiorinal® (butalbital, acetaminophen and caffeine), but it is not described elsewhere in the text. *Stockley's Drug Interactions* says: 'The evidence for an interaction between the MAOIs and the barbiturates seems to be confined to a few unconfirmed anecdotal reports with amobarbital.' Thus, the *Handbook* is not what I was expecting, that is to say, a competitor for *Stockley* or for Hansten and Horn's *Drug Interaction Analysis and Management*, but a fascinating collection of monographs, some of which are outstanding.

Competing Interests

There are no competing interests to declare.

Robin Ferner

Department of West Midlands Centre for Adverse Drug Reactions, City Hospital, Dudley Road, Birmingham B18 7QH, UK

CORRESPONDENCE

Professor R.E. Ferner, Department of West Midlands Centre for Adverse Drug Reactions, City Hospital, Dudley Road, Birmingham B18 7QH, UK.
E-mail: r.e.ferner@bham.ac.uk

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