New Price of medical practice

David Carmichael and Jane Anderson

Oxford Textbook of Medicine.
Edited by D.J. Weatherall, J.G.G. Ledingham and D.A. Warrell.
Oxford University Press: 1983.
2 volumes, pp.2,700. £45, $75.

SINCE the publication in 1978 of the twelfth and last edition of Price's *Textbook of Medicine,* which had become rather tired in its old age, there has been considerable interest in what book Oxford University Press would produce to replace it. Despite the criticism that large textbooks rapidly go out of date, there is undoubtedly a place for the successor, the *Oxford Textbook of Medicine* (OTM), both for reference and as a reflection of medical practice in the United Kingdom.

The heart of the book is a systems review of disease, within a framework of anatomy, physiology, biochemistry, epidemiology, clinical presentation, diagnosis (including special investigations) and management. In addition there are separate chapters on basic science covering genetics, immunology and neoplasia. The first chapter, "On Textbooks and Medicine", emphasizes that there is more to being a good doctor than the possession of factual knowledge. The theme is pursued throughout both volumes, being exemplified by the sections on dermatology, psychiatry and terminal care. This last contribution, however, written by Dame Cicely Saunders, would have been better placed in juxtaposition with the first chapter rather than at the end of Vol. 2. The discussions of clinical symptomatology in gastroenterology, respiratory medicine and neurology, with examination laid out on an anatomical basis, should in particular be compulsory reading for both undergraduate and postgraduate students. Even experienced clinicians may find themselves re-evaluating their clinical skills in the light of these chapters.

Both general physicians and practitioners often find it difficult to give clear advice to prospective mothers, either in pregnancy or before. The chapters on reproductive medicine will be helpful and illustrate the value of a comprehensive textbook which is able to include topics which do not fit into one body system. Similarly the relationship of haematology, dermatology and psychiatry to systemic disease is well presented. An equivalent chapter on the eye would have been useful.

Several topics are covered in two or more sections, and although differences in emphasis are to be expected, some may lead to confusion — prophylaxis of endocarditis, treatment of inappropriate antidiuretic hormone release, use of acyclovir in chickenpox and diagnosis of Pneumocystis carinii are some examples. The formula of arginine vasopressin is shown twice, once incorrectly (the endocrinologist getting it right). Discussion of the management of asthma, in particular the evaluation and treatment of the severe asthmatic, is not clear and may confuse students and some junior doctors. The special investigations for each system may be an area in which the book will date most, with rapid advances in radioisotope, imaging and radiological techniques. In addition, the indications for some investigations are not always clearly set out; for example neither indications nor technique for renal biopsy are discussed satisfactorily. Be this as it may, postgraduates preparing for the examination for membership of the Royal College of Physicians will undoubtedly refer to the OTM and examiners should be prepared to accept information quoted from the book.

The coverage of all aspects of medicine is comprehensive and in this respect the OTM compares favourably with its American competitors such as Harrison's *Principles of Internal Medicine* and Cecil's *Textbook of Medicine.* Inevitably, recent topics such as acquired immune deficiency syndrome have not been included, but there could have been more on Kawasaki syndrome and Staphylococcal toxic shock. The inclusion of a long section on infectious and tropical diseases is wholly justified, both by its high standard and by the worldwide readership at which the books are aimed. It is surprising, therefore, that there is so little on vitamin deficiency diseases in the section on nutrition.

More generally, the lack of an index at the end of the first volume is irritating, even though the way in which the contents are laid out with clear cross-referencing makes the two volumes easy to use. They are, on the whole, well illustrated, although the quality is variable — several radiographs are poorly reproduced and the two pages of colour pictures contribute little.

The requirements of a textbook are that information should be accessible and accurate, and that its extraction should be as stimulating and pleasurable an activity as possible. The editors have certainly met these demands. Any textbook that can make both the serology of syphilis and the classification of porphyria comprehensible must be worth buying. □

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Bonner in paperback

Princeton University Press have recently published a paperback edition of John Tyler Bonner's *The Evolution of Culture in Animals.* The book first appeared in 1980 and was reviewed in *Nature* **288**, 26 (1980). Price of the paperback is $9.95, £8.60.

Simple quantum vibrators

R.G. Chambers

The Physics of Vibration, Vol.2, containing Part 2 The Simple Vibrator in Quantum Mechanics.
By A.B. Pippard.
Cambridge University Press: 1983.
Pp.208. £20, $39.50.

"SIMPLE" is perhaps a relative term, but the first third of this text, at least, should be accessible to the enthusiastic undergraduate. It includes a discussion of the harmonic oscillator (including coherent-state solutions and the driven oscillator), the f-sum rule, anharmonic oscillators and the Bohr–Sommerfeld and WKB approximations (with illuminating examples), and the two-dimensional anharmonic oscillator. It also includes a brief account of the behaviour of electrons in a metal in a magnetic field, including the complications caused by magnetic breakdown: a topic on which the author himself did much of the original work.

The remaining 130 pages are largely devoted to a study, in steadily increasing depth, of a particular model: a two-level system coupled by dipolar interactions to a quantized radiation field and/or to a classical electromagnetic field. The radiation field is represented by a set of harmonic-oscillator cavity modes, and the two-level system is used to represent, variously, two states of an atom (excited state and ground state), the spin-up and spin-down states of a nucleus in a magnetic field, the even-parity and odd-parity states of a polar group confined to a double potential well in a polymer, and the even-parity and odd-parity states of the NH_3 molecule. The model is applied to a variety of problems — including spin resonance and spin-echo techniques and the stimulated and spontaneous emission of radiation (without recourse to the methods of second quantization) — and the work ends with a study of the ammonia maser.

By this stage, the author can fairly claim to have succeeded in his aim of bridging the gap between undergraduate texts and specialist monographs. But the bridge is a much narrower and more demanding one than it was in Vol. 1, published in 1978, which was devoted to discussion of the simple classical vibrator. In particular the algebraic structure is in places rather dense, and only the most tenacious of undergraduates will fight his way through to the end. Nevertheless, his teacher will find much to ponder on in this original and thought-provoking text. □

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