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Book Review

Medical Pharmacology and Therapeutics by Derek G. Waller and Anthony P. Sampson

Amie Bain*

School of Applied Sciences, University of Huddersfield, Huddersfield, HD1 3DH, UK

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*Corresponding author.
Tel.: +44 1484 471476
E-mail: a.bain@hud.ac.uk

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ABSTRACT

A thorough and contemporaneous working knowledge of both pharmacology and therapeutics is integral to the current practice of pharmacy, and both disciplines form a significant and rudimentary part of the undergraduate curricula. It is vital that the student is able to formulate scientific rationale for the use of pharmacological agents in the treatment of disease, and that a sound underpinning knowledge of all relevant disciplines enables them to do so. Of equal importance is the ability of the teacher to present essential information about pharmacology and therapeutics as part of an integrated curricula in a way that engages the student and enhances their appreciation of the applicability of these various disciplines to clinical practice. Waller and Sampson's 'Medical Pharmacology and Therapeutics' aims to encourage a deeper understanding of the principals of drug usage by explaining the basic science underpinning clinical application of pharmacological agents. This review seeks to investigate elements that are specific to the needs of the target audience and will explore the potential of this book in achieving those aims.

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Currently in its fifth edition, 'Medical Pharmacology and Therapeutics' (Waller and Sampson, 2017) seeks to provide the reader with a grounding in basic pharmacology, pathophysiology and therapeutics in the context of management of common diseases. The disease-based approach taken helps to contextualise pharmacological knowledge and encourages appreciation of its importance and relevance to clinical practice.

The book is organised into sections according to major organ systems (e.g. cardiovascular, respiratory, renal, musculoskeletal, gastrointestinal, immune, endocrine, skin and eyes), along with an introductory section introducing key principals of pharmacology and later sections on chemotherapy and general features (e.g. drug toxicity and

prescribing). Each section includes chapters pertaining to diseases of the respective organ system, which aids clarity, relevance and navigation for both the student and teacher. Organisation in this way also encourages appreciation of the necessary integration of pharmacology, pharmacokinetics, physiology and therapeutics, particularly with respect to teaching and learning about the management of disease.

All major conditions are featured, and the scope of therapeutic areas covered is slightly broader than other, more pharmacy-specific therapeutics texts. The current and comprehensive clinical context in which scientific principals are explained may also enhance its desirability over more generic

pharmacology textbooks for students and teachers of healthcare professional courses.

Information in each chapter is accessibly presented in bullet-point format, firstly as an introduction to the pathophysiology of the clinical condition, followed by successive reviews of the pharmacological agents used in its treatment, including example agents, their pharmacology, pharmacokinetics and unwanted effects. Finally, an overview of the management of the condition is included, along with an excellent, extensive selection of self-assessment questions in a variety of formats (complete with comprehensive feedback) and a very helpful drug compendia of agents relating to the condition of focus. This structure facilitates depth of understanding of the principals and rationale of therapeutic drug use.

Due to the arrangement of information regarding pharmacological agents around clinical conditions, there is an inevitable degree of internal referencing, as one class of drug can be used in the management of several disease states. The inclusion of chapter number at the top of each page would therefore aid reader navigation and enhance ease of use, although this technicality does not deter from the benefits of presenting information in this way. Up-to-date reading lists and reference to selected major UK guidelines (e.g. from the British Hypertension Society) helps direct the reader to resources in order to supplement and consolidate their knowledge. Reference to major clinical trials that have informed and directed drug use for disease, along with pharmaco-economic and patient-orientated factors, may enhance its ability to satisfy the more advanced reader in therapeutics, but as an introductory text, it is an excellent resource for teachers of pharmacology who wish to deliver a contemporaneous and integrated curriculum that is engaging to students.

The inclusion of new information regarding the Prescribing Safety Assessment (British Pharmacological Society, 2017) is a welcome addition to the 5th edition, not just for medical students but also for pharmacy students, as its relevance and use on the MPharm is set to increase (Health Education England, 2016). This section may benefit from the inclusion of example questions and feedback used in the Prescribing Safety Assessment, although the

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section adequately refers students to a number of further resources to help with assessment preparation.

Overall, the strengths of this text include its organisation and position of pharmacological information in a clinical context, its accessible language and engaging format, with the comprehensive and complementary use of diagrammatic information and self-assessment to facilitate learning. A succinct yet broad scope of topics enhances the desirability of this text to those who design and deliver an integrated curriculum, and also to the student who wishes to learn what is typically regarded as a difficult, but most essential topic, in a relevant and approachable way.

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