The introductory chapter on the principles of emergency medicine includes a helpful section on sedation and general anaesthesia with important guidance for the discharge of patients who have received sedative drugs in the emergency department. Following an outline of the management of major trauma and multiple injuries, the text proceeds in a logical anatomical manner through injuries to the head, face and neck: the trunk (including chest and abdomen) and upper and lower limbs, with a separate chapter covering the hand. Cardiac arrest, chest pain, respiratory distress, collapse and sudden illness are followed by abdominal pain, obstetric, gynaecological, genito-urinary and perineal problems before moving on to sensitively constructed chapters on children's problems, disturbed patients and medicolegal aspects of emergency medicine.

The penultimate chapter on small wounds and localised infections emphasises that 'small does not mean trivial' and covers a comprehensive field including transmission of blood-borne viruses very succinctly. The concluding section covering ophthalmic, ENT and dental conditions together with facial pain reminds us that over 5% of emergency department attendances involve eye-related problems. The comprehensive index extends over 20 pages and helpfully has separate italicised entries referring to figures and tables.

Although aimed at undergraduates, junior doctors on foundation programmes, trainees in accident and emergency medicine, and doctors and nurses in the primary care setting, there is little doubt that this book will have a wider interest for those in early years surgical training and for more senior colleagues wishing to update themselves in the management of patients presenting with acute conditions outside their immediate field of specialist expertise.

Laboratory Skills for Science and Medicine

MAXINE LINTERN

EXTENT P/H	136 pages, Paperback
PRICE/ISBN	£19.95, 1846190169
PUBLISHER	Radcliffe (Abingdon), 2006
REVIEWER	Hashim Uddin Ahmed
STAR RATING	****

The author should be congratulated for writing this overview of laboratory skills that, to my knowledge, has not been covered in any other publication. It is something that has been sorely needed by the countless postgraduates and clinical research fellows who have wished to venture into the painstaking discovery of new knowledge. Written for any student at any level who is about to embark on such a project within a scientific laboratory, it should provide a new surgical research fellow with a welcome practical bridge from clinical work to basic science.

Written in an informal and friendly manner, the book is divided into two sections. Section one covers basic concepts

such as laboratory safety, chemical concepts, design and management of experiments, record keeping and scientific writing. Section two covers actual biomedical techniques such as Western blotting, ELISA, histological techniques, immunostaining, cell culture, Northern and Southern blotting, polymerase chain reaction (PCR), microarray and finally the use of animals. Every chapter gives a practical overview, which will help overcome the initial sense of abandonment one may feel when starting a research project and that other books in molecular biology distinctly miss.

However, I disagree with the author's assertion that it can be used as a day-to-day guide that the student can continuously come back to as the detail is just not there. For example, in the description of making a primer for PCR. Nevertheless, a good laboratory supervisor can help to build on what the book provides. In addition, guidance on writing grant applications within the scientific writing chapter would be useful. The reader is, however, provided with useful references (mainly websites), which will aid in filling out the details in a way in which traditional publications cannot.

Overall, I would recommend this book for those starting in a new laboratory. It does what it says in the title and provides an introduction and a bridge into what can be an overwhelming start to a new research career.

High Altitude Medicine and Physiology, 4th edn

JOHN B WEST, ROBERT B SCHOENE, JAMES S MILLEDGE

EXTENT P/H	484 pages, Hardback
PRICE/ISBN	£79.00, 9780340913444
PUBLISHER	Hodder Arnold (London), 2007
REVIEWER	Tim Clarke
STAR RATING	*****

This is the fourth edition of this definitive text book on high-altitude medicine and physiology. The editorial team has changed since the third edition with the retirement of Michael Ward and the introduction of Robert B Schoene. The text has undergone some major changes with some prudent pruning to limit the increase in size. Sections, for example on cold injury, not limited to the high-altitude environment have been reduced allowing the introduction and expansion of sections on genetics, women and children at altitude and the effect of co-existing disease at high altitude. All three of the editors are not only accomplished academics and clinicians but have carried out many field studies, which is almost always a hostile activity at high altitude. Many of the experiments forming the groundwork knowledge in the area have been carried out by teams that included and were led by the editors.

The book is arranged into 30 chapters, from the history of the study of physiology and illness at altitude to the practicalities of

field studies. Each chapter has a page-numbered contents table allowing easy access to the section desired and an excellent summary at the start. This allows the salient points to be understood even when skimming the book, especially if the physiology appears scary. Anyone familiar with West's respiratory physiology text will immediately recognise the same clarity of the graphs. Diagrams and graphs are positioned within the relevant text avoiding the necessity of page turning when referring to the illustrations. My only criticism of the illustrations is the lack of colour, especially in the mountain photographs.

There is currently an increase in the interest in altitude physiology promoted by the ease of travelling to such environments and high-profile expeditions and meetings. The Cauldwell Xtreme Everest research project has seen a fellow of this College, Mr CHE Imray, perform experiments on the summits of two 8000 m peaks in the last year, Cho Oyu and Everest.

High Altitude Medicine and Physiology is a definitive text. It should be the first port of call for anyone with medical training and an interest in high-altitude physiology or indeed planning to travel to high altitude, to gain an understanding of the associated physiological changes. It is not a field guide to expedition medicine or athletic training but it does contain the core principles of physiology and medicine on which these areas of medical interest are based.

Urinary Stone Diseases: The Practical Guide to Medical and Surgical Management

MARSHALL L STOLLER, MAXWELL V MENG

EXTENT P/H	696 pages, Hardback
PRICE/ISBN	£115.50, 9781588292193
PUBLISHER	Humana (Towota, NJ), 2007
REVIEWER	Ling Lee
STAR RATING	****

This text book is divided into four sections. The background section presents the history, epidemiology and genetics of stone disease, theories of stone formation and analysis of kidney stones. Chapter 1 gives a well-researched walk through the surgical history of stone management from the ancient Egyptians to the rapid changes in technology of the last century, which have shaped our present-day stone management. Chapter 3, on genetics, reveals the complexity of the subject as well as the difficulties in translating a known specific gene defect into the metabolic fault that predisposes to stone disease.

Chapters 6–19 make up section 2 on metabolism, which deals with various metabolic causes of stone formation. This section highlights the complex interplay of internal (genetic and metabolic) and external (diet, climate and concurrent illness) factors that influence urolithiasis. While a great deal of research

has helped our understanding of stone disease, the complete understanding of why some patients do not form stones in spite of abnormal physiological factors remains an enigma.

Section 3 on presentation and evaluation comprises four chapters, chapters 20 and 23 discussing imaging techniques, anatomical considerations and the benefits of a multidisciplinary approach in selecting the best management option. Radiation and infection safety guidance is presented in chapter 21. Differential diagnosis of loin pain and the initial management of the acute presentation of renal colic are dealt with in chapter 22.

Section 4 on treatment makes up the remaining third of the book, covering conservative management, palliation with ureteral stenting and the three main areas of intervention. Open stone surgery is rare in the developed world and the authors in this chapter describe fully the surgical techniques used for the complex staghorn calculi. The role for open cystolitholapaxy is still important yet is not included in this chapter.

In this section, I found a fair amount of overlap between the chapters, which is probably inevitable given the closely related chapter titles, such as 'Indications and outcomes of ureteroscopy' and the following chapter 'Ureteroscopy: Technical aspects'. Nevertheless the chapters stand well on their own and the authors have comprehensively presented the evidence in support of the various treatments. Possibly the biggest omission in the conservative management is the use of α -blockers in facilitating the passage of lower ureteric stones.

The aim of the editors to 'put together ... contemporary views on the development, treatment and prevention of urinary stone disease' is successfully achieved in this textbook. The chapters are well researched and written by experts. There could be greater use of tables, as in chapter 29, to present the outcomes of the treatment modalities. For the jobbing urologist, sections 3 and 4 are the most interesting and the conclusion at the end of each chapter and sections on 'pearls and tricks' are particularly useful. This textbook describes the practice of stone management in the developed world and is aimed at both the urologist who has a general interest in urolithiasis as well as specialists in the field. It would be a useful addition in any urology and lithotripsy unit.

AO Principles of Fracture Management

THOMAS P RÜEDI, RICHARD BUCKLEY, CHRISTOPHER G MORAN

EXTENT P/H	1106 pages, Hardback/DVD
PRICE/ISBN	€399.95, 9781588905567
PUBLISHER	Thieme (Stuttgart), 2007
REVIEWER	Stephen Hodgson
STAR RATING	***

For the last half century, the AO Foundation has been a pioneer in developing principles and techniques of fracture