

Those looking for a broad overview will gain much by reading this book. However, for some readers in search of a pure clinical textbook, the amount of physiology in this book may be overwhelming. Also, this book does at times suffer from erratic organization and crude radiographic drawings that detract from an otherwise well constructed product.

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Handbook of ICU Therapy, 2nd edition. Ian McConachie FRCA, editor. Cambridge, United Kingdom: Cambridge University Press. 2006. Soft cover, 439 pages, \$60.

The intensive care unit (ICU) is one of the busiest and most demanding environments in the hospital. It is also one of the most difficult work environments in which to stay abreast of current literature and best practice techniques. For junior health-care professionals and those who are not accustomed to it, the ICU environment can be very intimidating. A well designed, easily accessible text that can update a busy clinician on recent developments in the field and one that could make the working environment of the ICU more accessible to trainees and consultant health-care professionals is very desirable.

The **Handbook of ICU Therapy**, 2nd edition, in many ways, is such a text. At its core, the book provides a broad discussion of the basics of ICU care, including excellent review chapters on the physiology of acute illness, mechanical ventilation, shock states, and fluid and electrolyte management. It presents many newer concepts in the field, including issues related to anemia and blood transfusion, noninvasive ventilation, and renal replacement therapy. Its most distinguishing features, however, are detailed chapters about specific patient populations encountered in the ICU: the post-surgical patient, the septic patient, the patient with acute lung injury or acute respiratory distress syndrome, and the patient with cardiac dysfunction, to name a few. The book has been extensively updated and substantially

expanded from the first edition, published in 1998.

The book is probably best suited for the physician-in-training seeking a more in-depth understanding of critical-care management issues, the critical-care nurse seeking information on current developments in ICU care, the respiratory therapist seeking a more in-depth understanding of patient care, the physician consultant who feels intimidated entering the ICU and desires a basic understanding of the ICU environment, or the intensivist who needs an overview of a particular topic prior to a more in-depth review of it.

Although meant to be a "ready reference" for the busy practitioner, this handbook finds itself caught between being a true "pocket reference" and a full fledged textbook. Perhaps it fills a niche for readers who do not want to delve into a full textbook of critical care but prefer more detail than the average ready reference. It identifies various controversies in critical care, such as the use of the pulmonary artery catheter, blood transfusion therapy, noninvasive positive-pressure ventilation, alternative ventilation modes, and withholding and withdrawing care, but unfortunately these are either presented in too much detail for a handbook (eg, blood transfusion therapy and withholding/withdrawing care) or in not enough detail to adequately cover the controversy (eg, pulmonary artery catheter, blood transfusion, noninvasive ventilation, and alternative ventilation modes).

The book is organized into 2 parts. Part 1 covers basic principles of critical care. Part 2 covers specific problems encountered in the ICU. There are 30 chapters, 9 of which are entirely new to this edition, and 3 of which were previously covered within a single chapter (the one on patients with cardiac dysfunction). There is an 11-page index that is accurate and makes topics easy to find. Although it reviews the current literature well, the book draws heavily on evidence in anesthesiology and surgical references.

Part 1 reviews many of the basic concepts of ICU care and discusses many of the most current practices in ICU care. Part 2 is the stronger portion of the book. It is written from a distinctly British viewpoint. Many of the evidence-based discussions in this book are applicable to countries on both sides of the Atlantic; however, discussions about the application of the data are, in many instances, clearly British or European. This aspect of the text should be kept in mind if

one intends to apply its guidance in the United States. For example, a drug such as dopexamine, emphasized in this book for use in the care of surgical patients and as a vasopressor, is not available in the United States. There are also several British/European acronyms not used in the United States (eg, "U&E" for urea and electrolytes, "HDU" for high density unit).

Each chapter is organized into an introduction (most with chapter objectives), the chapter body, a list of references, and a "Further Reading" section, rich in "high-yield" recent publications that should be considered required reading for most intensive care specialists. Unfortunately, this handbook has few tables, graphs, or figures to clarify or stress important concepts; this paucity is a notable drawback. I also thought that a few chapters were notably missing from an ICU handbook. In particular, there are no discussions on airway management, acid-base disorders, thromboembolism, cerebrovascular disease, toxicology, immunosuppression, or pregnancy. The chapter that includes an in-depth discussion on withholding and withdrawing care, although excellent, seemed to me misplaced in a handbook reference.

The chapters on sedation, analgesia, and neuromuscular blockade, continuous renal replacement therapy, sepsis, and acute lung injury and acute respiratory distress syndrome are all outstanding review chapters that are well referenced and useful to the bedside clinician.

The chapter on the surgical patient in the ICU and the trauma patient were too in-depth to be a useful as a quick reference and both were distinctly British (eg, commenting on the use of bed rest in preoperative optimization of pulmonary status, and emphasizing the differences between the trauma patient populations—more penetrating wounds in the United States vs more blunt trauma in the United Kingdom). The chapter on congestive heart failure dealt mostly with the management of out-patients and had little applicability to the ICU patient in acute decompensated heart failure or cardiogenic shock. The chapter on gastrointestinal problems was poorly organized; it was a broad overview of too many topics, without sufficient depth or clinical utility in most of them.

Overall I found the book a useful review of the basics of ICU care for the readership previously mentioned. I would not recommend it to most board-certified intensivists or other physicians actively engaged in the

care of critically ill patients, because certain contributors make some controversial statements without mentioning the report or data on which the statement is based. For example, one contributor states what appears to be an opinion, that the use of invasive positive-pressure ventilation “may inhibit venous drainage from the head [and] result in a rise in intracranial pressure,” without immediately providing references to support the assertion. The advanced reader, if he questions this statement, must sift through the chapter’s reference list to find the data from which the statement originates, or conclude that the statement is a *de novo* opinion. In the case of invasive positive-pressure ventilation and intracranial pressure elevation, there are conflicting opinions.¹

Still, the majority of the chapters are up to date, with excellent references, many of which I have added to my files. This handbook does provide a concise, affordable, brief reference that discusses many of the important aspects of and recent developments in ICU care.

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Pediatric Critical Care Medicine. Anthony D Slonim MD DrPH and Murray M Pollack MD MBA, editors. Philadelphia: Lippincott, Williams, & Wilkins/Wolters Kluwer. 2006. Hard cover, illustrated, 921 pages, \$149.

Pediatric Critical Care Medicine is a moderately sized volume, “conceived as a core text and reference text” for critical care medicine trainees and practicing physicians alike. The book is fairly evenly divided into an initial pathology and pathophysiology review, followed by corresponding organ-

system-based clinical medicine chapters, “purposely designed to be short and concise.” The chapters pertaining to respiratory physiology, mechanics, and disease, well-represented in the text, will be of special interest to the respiratory therapist.

The text has an attractive blue hard cover, but its glossy surface wears quickly and scratches easily. The semi-gloss pages are sturdy and the print legible.

Part 1, on pathology and pathophysiology, has 10 chapters. Each chapter summarizes state-of-the-art information on its topics, including the 30-page basic science chapter, “The Cell.” The 100-page chapter on immunology, inflammation, and infectious diseases has 3 sections, and the one on infectious diseases is partitioned into novel discussions, including “Foundations of Infectious Diseases in the Pediatric Intensive Care Unit,” “The Microbial Agents,” “The Clinician and the Clinical Microbiology Laboratory,” and “The Antimicrobial Agents.” Included are global overviews on endocrinology and metabolism, hematology/oncology, nephrology, gastroenterology, shock and shock syndromes, and neurosciences.

The 45-page chapter on cardiac physiology and pathophysiology includes longer sections on cardiac performance and cardiopulmonary resuscitation, and brief sections on cardiomyocyte function, electrophysiology, cardiopulmonary interactions, and the pathophysiology of chronic myocardial dysfunction. The 69-page pulmonology chapter includes more involved sections on embryologic and postnatal airway and lung development, respiratory system physiology, mechanical breathing, and acute lung injury, but only very brief sections on airway structure and function, defense mechanisms of the pulmonary tree, movement of fluids and solutes and blood flow within the lung, alveolar function, pulmonary gas exchange, and cardiorespiratory interactions.

The chapters in Part 1 have irregular content and structure editing. In particular, the chapters of cardiac physiology/pathophysiology and pulmonology include several very brief (a few pages) sections that seem purposefully partitioned in excess of the overall desire to be concise, and the sections on cardiopulmonary interactions and cardiorespiratory interactions should have been combined into a single section. However, within each chapter, some sections are quite com-

plete and well written (eg, those on cardiac performance and mechanical breathing).

Part 1 does contain some novel and conveniently compiled material (eg, review of immune response and inflammatory modulators, and metabolic pathways of interest to the intensivist). However, several chapters or topics cite only a limited number of other review references and do not refer to original, definitive manuscripts or synthesize a broad palate of information. Also, unfortunately, there is no material on “oncology” in the hematology/oncology physiology chapter.

The sections in Part 2 fare somewhat better. The 8 sections cover endocrine, host defense, hematologic, oncologic, cardiac, respiratory, neurologic, renal, and gastrointestinal disorders. The clinical medicine overviews are accompanied by helpful tables of differential diagnosis strategies, therapeutic algorithms, and dosing schedules. The exceptional sections on pulmonary hypertension, dysrhythmias, and mechanical ventilation are very complete, and the sections on therapeutic apheresis and inborn errors of metabolism are unique. Most sections cite less than a dozen references, however, which seems superficial.

There are no chapters on multiple-trauma, burns, ingestions, environmental medicine, transport medicine, solid-organ transplantation, monitoring basics, or pharmacology basics.

In general, the table titles are easy to read, but the text font is variable, often quite small, and the use of space is not optimal; I would have preferred 2 columns of larger text in a category block instead of one column with tiny type. There is some use of bullets. Many of the figure legends, especially of the borrowed figures, are in very small print and quite lengthy. Many of the borrowed figures are gray and lack crisp resolution, and they often do not add substantially to the chapter. Most of the color plates of these grayscale items are not especially helpful or relevant either. The book would have benefited from illustrations of intracardiac pressure tracings during pulmonary-artery-catheter placement, airway anatomy, pacemakers, and a dialysis circuit.

The index is generally helpful in finding major subject areas.

In **Pediatric Critical Care Medicine** some sections are very well written and complete, but the book as a whole is not as rigorously or precisely authored as other well-known critical care texts. The graphics