

James E. Eisenach, M.D., Editor

Clinical Monitoring: Practical Applications for Anesthesia and Critical Care. By Carol L. Lake, Roberta L. Hines, Casey D. Blitt. W. B. Saunders, Philadelphia, Pennsylvania, 2001. ISBN: 0721686982. Pages: 600. Price: \$100.

When I finished this book I could not help but think to paraphrase two common expressions. "We are what we *monitor* [not eat]." This book teaches us (like the army) "to be all that we can be." Every chapter in this book is worth reading and periodically rereading. Each covers the basics well and suggests ways we can extract more useful information from our monitors. The chapters entitled "Evoked Potentials" and "Monitoring the Function of the Respiratory System" stand out because they clarified concepts frequently confusing to me. Those entitled "Monitoring the Neuromuscular Junction" and "Monitoring Coagulation and Hemostasis" stand out because they took basic concepts that I thought I knew reasonably well, provided more up-to-date basic science background, and expanded my understanding of the applications. But these are personal responses. Others would single out different chapters for special mention. The chapters entitled "Pulmonary Artery Catheterization," "Perioperative Echocardiography," and "Maternal and Fetal Monitoring in Obstetrics" could stand alone as must-read monographs for weekend continuing medical education courses focusing on these areas. I also liked how thoughtful the editors were in finding authors for chapters related to monitoring in non-operating room (magnetic resonance imaging and lithotripsy suites), office-based, and pain clinic settings and point-of-care monitoring. The editors also took a chance with chapters entitled "Arterial Blood Gas Analysis" and "Biochemical and Metabolic Indicators," because most of us tend to think in terms of mechanical responses and digital readouts rather than laboratory values when we think monitoring. These are excellent inclusions.

However, I must blemish this rave review with a few criticisms. The introductory section just does not work. Most of us will select this book as a reference based on its title rather than as a source to answer questions about "Information Systems" or "Patient Simulators." Nor will most of us read "Principles of Pressure Monitoring" before going to chapters on the application of pressure monitoring. I would eliminate these chapters in future editions, not because they are poorly written—in fact, they are excellent—but because too few people will read them in this setting. I also disliked showing pictures of often-used commercial devices, such as Dinamaps, MiniStims, esophageal stethoscopes, and so forth. Finally, as with any multi-authored textbook, there were some overlaps that the editors could have avoided, e.g., near-infrared spectroscopy in chapters 11 and 18, capnography in chapters 16 and 17, and pulse oximetry in chapters 18 and 23.

What is missing from this text? I would have welcomed whole chapters focused solely on venous air embolism, awareness or depth of anesthesia monitoring, and electrocardiographic monitoring of pacemakers, rather than the few pages given to these subjects. I also would have preferred a separate chapter devoted to capnography rather than have it included as parts of "Monitoring the Function of the Respiratory System" and "Monitoring the Anesthesia Machine and Respiratory Gases." And, if the editors really wanted to take a chance, a chapter on the potential effect of phenotyping in preoperative assessment centers on future anesthetic monitoring and management could be very thought provoking.

In summary, I recommend that you-all (yes, I speak as a Southerner) either get this book for your personal use or make sure it is readily accessible in your operating room suite. It should become so well worn that you will feel compelled to purchase the next edition, and I hope there is one!

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Anaesthesia for the High Risk Patient. By Dr. Ian McCornachie, F.R.C.A. Greenwich Medical Media Limited, London and San Francisco, 2002. ISBN: 1841100722. Pages: 265. Price: \$39.95.

This pocket-sized quick reference text is chock-full of useful information. The 17 chapters span 265 pages and are written and edited by physicians and nurses from a single medical center. The text provides an initial overview on the epidemiology and identification of high-risk surgical patients, followed by chapters focusing on specific organ systems, complimented by chapters on systematic approaches to the elderly patient, hemodynamic optimization, pain management, and proper use of regional and local anesthetics. The presentation is logical and the bedside practitioner will find it helpful. The book is punctuated with a dry wit; for example, in reviewing priorities in the severely traumatized patient, the author reminds us to see the forest for the trees and wisely counsels "there is no merit in delivering a corpse with an arterial line to the operating table." The final chapter, "The Meaning of Risk," presents a succinct perspective on perioperative risk, reviews the presentation of risk to patients and their families, and emphasizes the spectrum of relative risk comparing the risk of death by murder *versus* flying *versus* driving *versus* receiving a general anesthetic.

The text nicely distills practical guidelines from larger textbooks and evidence-based treatises, state-of-the-art commentaries, and appropriately selected trials and meta-analyses. The authors cut to the chase with their recommendations and, for the most part, provide accepted references while identifying areas of ongoing controversy. Although the chapter entitled "The Critically Ill Patient in the Operating Room" is well written and includes a wealth of information, it could be strengthened in the second edition. The addition of specific references on the risk of relative adrenal insufficiency in the critically ill, perioperative glucose control, and clinical use of vasopressin, along with recent references on the use of protective ventilatory strategies and the pulmonary artery catheter (beyond the 1996 American Society of Anesthesiologists guidelines), would be helpful. However, in all fairness, many of these areas are undergoing rapid change with continual presentation of new data.

As in any multi-authored text, there is a moderate amount of redundancy, but this is mainly appreciated if the text is read in a single sitting. Most of the repetition is in the area of perioperative cardiac assessment and risk stratification, the most common cause of major perioperative morbidity and mortality. The overlap tends to be consistent, so there is little room for confusion or misinterpretation of data.

American readers might not be familiar with some of the terminology used throughout the text or with the focus on National Health Service practices, such as the allocation of limited resources, less common use of intensive care unit (ICU) beds (only 1–2% of hospital beds are identified as ICU beds in the United Kingdom), increased stratification of patient placement [use of high dependency units (HDU)], and the national schemes for identification of problems in patient management and those at high risk. Therefore, chapter 3 ("National Confidential Enquiry into Perioperative Deaths") and chapter 16 ("Admission Criteria for HDU and ICU") are mainly directed to British practitioners; however, they contain insights into recently identified causes of perioperative morbidity and mortality as well as useful bedside tools to determine whether admission to a step-down unit, monitored bed, or ICU would be a judicious choice for recovery room or postoperative patients. In chapter 16, the authors emphasize the oft-overlooked point that postoperative patients who come to the ICU from the ward frequently have worse outcomes than those directly admitted to more intensely monitored units. They advocate pre-emptive care and the concept of taking critical care from the ICU to the ward so that appropriate early assessment, intervention, and transfers are accomplished in a timely fashion. They also present a modified

early warning score (MEWS) as a handy bedside scale comprised of seven readily measured variables (respiratory rate being the most predictive) used to promote identification of patients requiring increased care and intervention.

McConachie *et al.* meet their goals of providing a useful refresher on “recent concepts and advances” that provides practical pearls on the care of high-risk surgical patients, the means to optimize patient status, and the ways to identify postoperative patients who would benefit from intermediate or critical care. Although the text is not a substitute for major tomes on anesthesia or critical care, the book is a cost-effective, helpful addition to any student’s, trainee’s, or practitioner’s library. I recommend it to you and have already put it to good use in my day-to-day assessment of patients. Hopefully, the text will be up-

dated frequently, since the references and recommendations may become rather quickly dated. The inclusion in future printings of selected Web sites should be provided. This will allow rapid procurement of important established guidelines (*e.g.*, endocarditis prophylaxis, low molecular weight heparin use, and regional anesthesia) and retrieval of current recommendations that continue to evolve about the optimization of hemodynamics, utility of the pulmonary artery catheter, and transfusion indications.

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