

**Critical Care Handbook of the Massachusetts General Hospital, Fifth Edition.** Edited by Luca M. Bigatello, M.D., Hasan Alam, M.D., Rae M. Allain, M.D., Edward A. Bittner, M.D., Ph.D., Dean Hess, Ph.D., R.R.T., Richard M. Pino, M.D., Ph.D., Ulrich Schmidt, M.D., Ph.D. Philadelphia, Lippincott, Williams & Wilkins, 2010. Pages: 752. ISBN-10: 0781795664. ISBN-13: 978-0-7817-9566-1. Price: \$57.95.

Covering the essentials of critical care, the *Critical Care Handbook of the Massachusetts General Hospital, Fifth Edition*, serves as a multidisciplinary expert review of the general principles and specific considerations in taking care of the critically ill patient.

This fifth edition is organized into two major sections. The first, with 16 chapters, explores general principles of critical care, including hemodynamic and respiratory monitoring, nutritional support, fluids and electrolytes, airway management, and principles of mechanical ventilation. The second section, with 28 chapters, covers more evidence-based specific management of systemic diseases, including renal failure, chronic obstructive pulmonary disease, and coronary artery disease.

The opening chapters provide an outline strategy for grasping the fundamentals of critical care. The outline format provides a simple review of the most commonly found problems in the intensive care unit. The chapter on hemodynamic monitoring is an especially useful and relevant review of the interpretation of data based on the application of basic circulatory physiology. The clear and concise chapters provide enough valuable insight to be practically useful at the bedside without providing more bulk than is needed in a manual format. The emphasis on practicality is again in evidence in the chapter on the use of ultrasound in the intensive care unit, in which a clear overview of the uses and limitations of point-of-care ultrasound and echocardiography in such units is provided. A brief review of ultrasound physics is given in addition to several figures comparing normal and pathologic anatomy.

The transverse view of the right internal jugular vein and carotid artery juxtaposed with a longitudinal view is precisely the type of bedside practical and tangible expertise needed before performing ultrasound-guided central line placement. The first section of this manual is filled with chapters providing clear figures, black-and-white illustrations, and tables of high quality. The practical outline form provides easy navigation of the material and would make this a favorite of the novice as well as the seasoned intensivist.

The second section of the book looks specifically at 28 areas of specific systemic management. This serves as a quick review of the pathophysiology involved and then directly addresses diagnostic and therapeutic goals. In the pulmonary embolism and deep vein thrombosis chapter, the management was particularly useful as the complications and con-

traindications of therapy were clearly outlined. The manual frequently provides the evidence that exists behind the recommendations given in these latter chapters. Where original work is not cited, pertinent reviews are indicated. Concluding is a useful appendix listing supplemental drugs commonly used, including their indications, dosage, effect, onset and duration, clearance, and any additional recommendations. Chapters are succinct, with clear discussion and summary points concluding each presentation.

This is an excellent overview manual of critical care. I strongly recommend this book as a valuable addition to the library of anyone who practices intensive care medicine and would appreciate a critical care manual that provides thorough, direct, and up-to-date management recommendations.

**Kimberly D. Jenkins, M.D.**, University of Toledo, Toledo, Ohio. kimberly.jenkins2@utoledo.edu

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**Emerging Technologies for Teaching and Learning: Teaching 2.0.** *Int Anesthesiol Clin* 48(3), Summer 2010. Edited by Viji Kurup, M.D., Stanley H. Rosenbaum, M.D. Hagerstown, Maryland, Lippincott, Williams and Wilkins, 2010. Pages: 166. Price: \$162.00.

The quantity and sources of medical knowledge currently available present challenges to contemporary teachers and learners of medicine: what to learn, and when, where, and how to learn it. As faculty seek to maximize efficiency and efficacy of teaching without resorting to increasing the length of residency, students are seeking to optimize the efficiency and efficacy of learning, relying increasingly on strategies afforded by new technologies.

This issue of *International Anesthesiology Clinics* addresses the current status of teaching, learning, and technology in the context of the millennial learner, who is defined here as anyone born after 1980. The book derives its title "Teaching 2.0" from the term "Web 2.0." As this reviewer discovered on a Wikipedia query, Web 2.0 refers to the evolution of the World Wide Web from a historically static to a currently interactive and interconnected system. In keeping with this terminology, the book focuses largely on information and computer technology, particularly those interactive aspects of technology that facilitate teaching and learning.

The book begins with an overview describing first the characteristics of the adult learner, then delineating the features of the millennial student as a learner in general and as a user of technology. The book then delves into the various technologies relevant to teaching and learning, addressing also the subject of simulation as a mandatory component of the maintenance of certification in anesthesiology program. It introduces the concept of including the patient as another