investigator as the poster's source, he might have explained the relationship between him and http://www.PhDposters.com better.

An appendix contains "The Value of Systematic Reviews as Research Activities in Medical Education," based on an article Lang published previously. While the topic is interesting, it seems irrelevant to the scope of this book.

A book titled "How to Write, Publish and Present" should do those things exceptionally well, and Lang and the ACP Press met the challenge. The book is printed on clean white matte paper. The table of contents is listed twice, first in an abbreviated version, then in an expanded version. Switching between the 2 is like clicking on a web link. Plenty of white space allows wide margins, with quotations from Confucius, Socrates, Abe Lincoln, Edward Tufte, Ansel Adams, James Thurber, and others.

The reference numbers, bullets, and subheads are in a subdued contrasting color. The typefaces and type sizes being described are used to illustrate the point. The colors in photographs, posters, and slides reproduced well. The index is complete, with helpful cross-references between initialisms and expanded terms. For instance, the index includes both GIF and Graphic Interchange Format. The only errors I noticed were the outlining in Table 4-6; misaligned hanging indents in references numbered above 9; arrows possibly left out of a Program Evaluation and Review Technique (PERT) chart (Figure 6-2); and a few journal names not being italicized.

Published in 2010, the book is up to date, with references and web site accession dates through 2009. Lang's advice suits the current mode of writing. He suggests that "if a paragraph takes up more than one computer screen, consider breaking it into 2 or more paragraphs" (page 45) and notes that dot charts and box plots can be created in word processing programs. He includes discussions of electronic publications, submitting a manuscript online, and digital imaging.

This book is comprehensive and useful to a wide audience. Unlike many books on scientific writing and publishing, this one includes chapters on preparing posters and slides. Its advice and examples apply to both clinicians and basic scientists. If I had to

choose one book on this topic, this is the one I would pick.

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Critical Care Medicine: The Essentials, 4th edition. John J Marini MD and Arthur P Wheeler MD. Philadelphia: Wolters Kluwer Health/Lippincott Williams & Wilkins. 2010. Soft cover, 720 pages, 138 illustrations, \$69.95.

Critical Care Medicine: The Essentials is brought to us again by Drs Marini and Wheeler. This is the fourth edition of the book. The first edition was published in 1989, and since then the book has assumed its place as one of the core textbooks of critical care medicine. The authors describe the book as an in-depth overview of critical care medicine. While attempting to remain clear and concise, their goal was not to create a quick-look reference book to be carried on rounds; rather they wished to present a comprehensive overview of critical care medicine. I would argue they largely accomplished this goal.

**Critical Care Medicine: The Essentials** is divided into 2 sections. Section 1, entitled "Techniques and Methods in Critical Care," comprises 19 chapters. The initial chapters describe in detail cardiopulmonary physiology, both the normal and abnormal, and how to measure cardiac and pulmonary function. This is an important starting place, as good practitioners of critical care must be good physiologists. Our field requires a solid understanding of normal physiology and of how to manage the body's responses when things go awry. For example, Chapter 2 provides a detailed description of hemodynamic monitoring, including use of the pulmonary artery catheter. This is an excellent discussion of the pulmonary artery catheter. The use of this tool has dropped dramatically over the last several years, and many clinicians are losing the ability (or not even learning) to understand and interpret pulmonary artery catheter measurements. The authors provide a good review of this information. Perhaps as important, they discuss insertion techniques, troubleshooting, and how to verifying the accuracy of measurements. Section 1 continues with chapters ranging from mechanical ventilation to disorders of acid-base and electrolytes. The chapters on mechanical ventilation are well organized. The depth of material covered will be of use to both the student who has not yet had an introduction to mechanical ventilation and the practicing clinician trying to understand the ever increasing number of new ventilation modes.

General supportive care and quality improvement are discussed at the end of Section 1. Chapters focusing on these topics are welcome, as our understanding of the value of an interdisciplinary critical care team and effective communication within the intensive care unit continues to grow. Furthermore, discussions of cost-containment are becoming extremely important as we enter into a new era of health-care reform.

Section 2, entitled "Medical and Surgical Crises," has 19 chapters and focuses more on specific medical events commonly seen within the intensive care unit. When I first picked up the book I began reading from the beginning. While this provided a good review of cardiopulmonary physiology, I soon found myself jumping around from chapter to chapter, depending on the particular clinical questions I had. For example, upon taking care of a patient with potential non-convulsive seizures following a cardiopulmonary arrest I turned to chapter 34, on neurological emergencies. Later, I opened to chapter 26 to review infections in the immunocompromised host. I think most readers will utilize the book in a similar fashion. Fortunately the book is well organized and the reader can easily open it to relevant sections. Chapters are generally organized by organ system. Within each chapter there are easily identified sections dedicated to the illnesses one might expect to see in the intensive care unit. Chapters build upon each other and flow well, but are also thorough enough to stand alone. Each chapter also begins with a list of numbered key points. These numbers can also be found in the margins throughout the same chapter. I found this particularly useful. I could scan the key points at the beginning of each chapter and if I had questions about one of the key points I could rapidly search the chapter to find the associated number in the mar-

The primary audience for this book is medical students and residents. However, I believe the book provides more than enough depth to be useful to even the most seasoned critical care clinician. The authors use a great number of tables and figures to supplement the text throughout the book. These are especially helpful throughout the physiology chapters, and for the most part are well explained. The tables provide summaries of information, and the figures provide visual explanations of what can be difficult concepts for many readers to grasp. However, some figures remained difficult to understand even after rereading the text and figure legends several times. Furthermore, given the breath of knowledge the authors are attempting to convey, the book can sometimes be dense and difficult to read. Since the book is advertised as ideally suited for students and residents, it would have been helpful to try to further simplify some concepts when possible. The text has more typographical errors than I would have expected, but they rarely detract from concepts being discussed.

Rather than a collection of chapters authored by different people, **Critical Care Medicine: The Essentials** was written entirely by Drs Marini and Wheeler. The advantage of having a limited number of authors is the single voice woven throughout the entire book. The reader does not have to adjust to chapters written by different authors with varying styles. However, one potential down side is that the authors' opinions and biases are carried throughout the entire book rather than exposing the reader to a number of different views. Even the authors admit they have "tried to extract what seem to be those grounding bits of knowledge that have shaped and reshaped our own approach to daily practice," and that their "tips and tricks . . . have been sprinkled liberally throughout [the book]."

This is the fourth edition of **Critical Care Medicine: The Essentials**. The third edition was published in December 2005. In comparison, 8 years passed between each of the previous editions. The fourth edition touts an enhanced discussion of abdominal computed tomography, new advanced cardiac life support guidelines, and a few other new topics. I did not think the new material in the fourth edition was substantive enough

to justify purchasing it if you own the third edition. However, for the reader who either has an older version or does not yet have an intensive care reference text, **Critical Care Medicine: The Essentials** should definitely be considered.

In summary, Critical Care Medicine: The Essentials provides a thorough review of cardiopulmonary physiology, an understanding of which is crucial for the expert critical care clinician. The text also provides comprehensive analyses of critical care methods and well-covered discussions of the medical and surgical problems seen among intensive care patients. I would recommend this book as a reference text for all with an interest in critical care.

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