

ment of an intravenous line. It was nice to have, although I would have looked for this in the procedures section. The final bit of pharmacology deals with dosage calculations. The text gives formulas and example problems, which is a nice touch.

The final section is titled "Tools"; it includes another place to list telephone numbers, this time by department, physician contact information, and other important contact information for a respiratory therapist. All are forms set up for the user to fill in the information in ballpoint pen. There is also a nice form titled "Physician Consultation," which is in a helpful format for providing pertinent information to physicians. I found this format useful when facilitating student communication with physicians in the clinical setting. Also of note is a short list of frequently used formulas. These formulas are all found elsewhere in the book but are also provided here for quick reference. Personally I would have liked to have a formula list tabbed separately to allow even quicker access, since finding formulas is one of the chief uses of a pocket guide. The remaining tools in this section are a list of common abbreviations and the index. One final handy feature I found was a small ruler on the book's back cover, which was really nice for reading chest films.

The author claims the text to be a quick and easy reference for respiratory care practitioners and students. I found the text to be just that. The features are useful, the design is thoughtful, and the information is pertinent and up to date—all attributes needed in a pocket guide. It is evident that as much thought went in to the design of this text as the content. The graphic illustrations are used appropriately and are of high quality. I found myself frequently referring to the graphics. The algorithms in the text are a great teaching tool as well as a potential resource for departments to adopt a useful assess-and-treat protocol. Based on the accessibility and quality of the information in the text, **Respiratory Notes: Respiratory Therapist's Pocket Guide** is a valuable resource for any respiratory therapist or respiratory care student.

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**The ICU Book**, 3rd edition. Paul L Marino MD PhD. Amsterdam: Wolters Kluwer/Lippincott Williams & Wilkins. 2007. Soft cover, illustrated, 1,065 pages, \$79.95.

In its 3rd edition, this medium-sized, conservative-looking book has 1,065 pages and a blue soft cover. The title indicates that this book is intended as a fundamental source book regarding general, critical, patient care, in which the author did not intend to cover highly specialized topics such as burns.

A single author wrote all 3 editions. Being from a single author, the book has the advantage of maintaining a uniform viewpoint in all chapters. However, several inherent shortcomings or biases might be expected from a single author writing regarding extensive fields of critical care. In this latest edition the author invited another author's opinions in the final 13 chapters of the book. I compared the contents of the 3rd edition to that of the previous edition, which was published 10 years ago.

The 3rd edition has 16 sections and 53 chapters. An appendix section has useful references such as the units of measurements used in medical sciences, selected reference ranges of clinical laboratory tests, and clinical scoring systems. The book consists of relevant basic physiology, pathophysiology, clinical manifestations, treatments and preventive measures, techniques, and the toxicology of critical care. Each chapter is organized into an introduction, chapter body with subtitles, and references. There are many tables, figures, and relevant pictures to clarify important content. The author rewrote most of the chapters in this edition. There are also 2 new chapters, on infection control in the intensive care unit (ICU) and disorders of temperature regulation.

The description of the contents in each chapter seems to talk with the readers by an appropriate choice of words. In this edition the author changed the description in many sentences, in order to clarify the meaning in the same context as that in the 2nd edition, such as the change of "flow in collapsible tubes" to "flow in compressible tubes." The author also changed the format of each chapter by including a final section that summarizes the important information. The references have been updated, with an emphasis on recent reviews (up to 2006) and current clinical practice guidelines. Although the author does not explicitly state the target reader, the book will be useful for resident physi-

cians, respiratory therapists, ICU nurses, and even knowledgeable ICU clinicians.

Section 1, the basic science review, covers the circulatory flow as well as oxygen and carbon dioxide transport in 2 chapters. It seems reasonable to put these 2 subjects at the beginning of the book, as the essence of critical care is to maintain optimal circulation and gas exchange. In this first section the author strengthened the contents on these fields, including clinical monitoring of the relationship between preload and systolic performance and diastolic heart failure.

In Section 2, preventive practices in the ICU are described, and infection control in the ICU is added as a new chapter. In the chapter on alimentary prophylaxis the author added a comparison of the effects of stress ulcer prophylaxis measures on the incidence of clinically important bleeding and hospital-acquired pneumonia in patients with mechanical ventilation. In Section 3, on vascular access, the author describes many practical aspects of catheter insertion and maintenance, and related complications. In Section 4, on hemodynamic monitoring, the author explains the recent debate about the value of pulmonary artery catheters. The author rewrote "Correcting  $V_{O_2}$  Deficits" in Chapter 11 and added the recent guidelines for early management of patients with severe sepsis and septic shock using central venous oxygen saturation.

In Section 5, on disorders of circulatory flow, the characteristics of fluids used for volume resuscitation has been added as a table, which will be helpful for resident physicians attempting to select the type of fluid best designed to correct a specific problem by adjusting fluid balance. The author also appropriately changed the end point of the volume resuscitation information.

In Section 7, regarding acute respiratory failure, I thought the author's remark regarding the value of the  $P_{aO_2}$  and arterial oxygen saturation ( $S_{aO_2}$ ) as markers of the need for inhaled oxygen was much too decisive. The author pointed out the poor relationship between  $P_{aO_2}/S_{aO_2}$  and the integrity of tissue oxygenation. The author states that possible replacements would be venous oxygen saturation ( $S_{vO_2}$ ) and the ratio of  $S_{aO_2}$  to  $S_{vO_2}$ . However, there is debate regarding the clinical value of  $S_{vO_2}$  and the ratio of  $S_{aO_2}$  to  $S_{vO_2}$  as a global index of tissue oxygenation.

In Chapter 22, on acute respiratory distress syndrome (ARDS), the author summarizes the protocol for low-tidal ventila-

tion in a table; however, the author did not cite the ARDS Network trial<sup>1</sup> of steroids in late ARDS, together with the previous positive results.

In Section 8, on mechanical ventilation, the author describes, in detail, lung-protective ventilation.

Section 9, on acid-base disorders, is well written. The influence of albumin on the anion gap and the role of bicarbonate as a buffer for acidosis were appropriately added to this section. Section 10, on renal electrolyte disorders, gives a thorough review of important electrolytes in critical care. Contrast-induced renal failure is appropriately highlighted. One of the major advances in recent critical care is the clinical meaning of transfusion.

In Section 11, on transfusion practices in critical care, the meaning of erythrocyte transfusion is well-addressed.

Section 12, on disorders of body temperature, is new in this edition. The author reviews the clinical issues of hyperthermia, hypothermia, and fever.

In Section 13, on inflammation and infection in the ICU, the information regarding initial volume resuscitation target and the role of steroids in severe sepsis has been updated. I appreciated the author's comment on page 817 regarding antibiotic overuse in the ICU, as the author stated that, "the first rule of antibiotics is try not to use them, and the second rule is try not to use too many of them."

The contents of Section 14, on nutrition and metabolism, do not differ much from those in the 2nd edition, except for the adrenal insufficiency and thyroid crisis issues.

The uses of analgesia and sedation are well-addressed in Section 15, on critical care neurology, where the individual dose titration and interruption of drug infusions are stressed. Chapter 50, on disorders of mentation, and Chapter 51, on disorders of movement, are both well-written. The common pharmaceutical toxins are addressed in Section 16, on toxic ingestions.

I believe that the 3rd edition is correctly updated in terms of its content and contents descriptions, compared with the 2nd edition from 1996. The book is not superficial. The author carefully surveys the important fields of critical care. I did not find a typographical error during my review. It is amazing to me that a single author performed such an extensive review of the advances in each field and rewrote most of the 2nd edition. I enjoyed reading **The ICU Book**. The 3rd

edition provides a valuable and detailed review of many important critical care fields. I recommend this text for respiratory therapists, physicians under critical-care training, and for critical care nurses.

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**Avoiding Common ICU Errors.** Lisa Marucci MD, Elizabeth A Martinez MD MHS, Elliott R Haut MD, Anthony D Slonim MD DrPH, Jose I Suarez MD. Philadelphia: Wolters Kluwer/Lippincott Williams & Wilkins. 2007. Soft cover, illustrated, 896 pages, \$54.95.

The 1999 Institute of Medicine report *To Err is Human: Building a Safer Health System*<sup>1</sup> put into words what many of us who care for intensive care unit (ICU) patients knew all too well. We knew that, despite the hard work and dedication of therapists, nurses, doctors, and many others, our patients did not reliably get interventions that could improve their outcomes. They were not nearly as safe in our hands as they should have been. Many of us responded to this challenge, dedicating ourselves to reducing errors by working harder, reading more, attending medical meetings, and sharing our experiences at morbidity and mortality conferences.

Despite our dedication and hard work, there is little evidence that ICU care has become safer or more reliable. In fact, both safety and reliability may actually worsen as treatment options become more complex.<sup>2</sup> We learned from the Institute of Medicine report that working harder is not enough. What can we do to make ICU care safer and more reliable?

**Avoiding Common ICU Errors** is a bold title. The preface, written by safety advocate Peter Pronovost, lays out a 3-fold ap-

proach to improving ICU safety: "We need to expose mistakes, develop strategies to reduce them, and evaluate our progress." How well does this book reach these aims? Who would want a copy of this text in her office reference collection? Would the title "Common ICU Errors" better reflect its content and value to readers?

**Avoiding Common ICU Errors** is organized into 14 chapters: 13 thematic, the last "miscellaneous." Chapter subjects include medications, devices/tubes/catheters/drains/procedures, ventilators/airway/intubation/extubation, infectious disease, shock/fluid/electrolytes, neurologic, laboratory, nutrition, renal, blood, imaging and tests, pregnancy, and miscellaneous. Each chapter contains a succinct 1–3-page review that includes relevant references that address specific issues that may lead to harm of ICU patients. For example, the first chapter, on medications, includes reviews of 57 topics, including "Know the characteristics of the narcotics you prescribe," "Do not use succinylcholine in patients with burns, paralysis, or other high-potassium states," "Remember that malignant hyperthermia may not have hyperthermia." In total, the text includes reviews of 317 errors considered "common" by the 164 contributing authors.

The reviews are concise and well written; some contain a table or figure, and each includes 3–5 references. Most of the reviews are thorough, given their focused intent. The text itself is pleasantly readable and includes an index, although there is no separate index for tables or figures.

Do the reviews address truly common ICU errors? I would have expected more focused attention on nosocomial infections, including interventions designed to prevent device-related bloodstream infections and ventilator-associated pneumonia (VAP). Issues of device-related bloodstream infections are superficially addressed in the section "Be meticulous in the technique when inserting and caring for central venous access catheters in the ICU, to lower the incidence of infection." The use of chlorhexidine as the preferred skin antiseptic is reviewed, although its described use ("should be applied via a concentric larger circular motion for at least 20 seconds and should be allowed to dry without blotting or fanning") does not match current manufacturer recommendations, which call for 30 seconds of back-and-forth scrub strokes on a dry site or 2 minutes of back-and-forth strokes on a moist site, followed