treatment of decompression illness in Chapter 10 but not to the very useful reference to anticoagulants as a possible contraindication to diving, on page 713, in Chapter 12, "Fitness to Dive."

There are a number of interesting changes since the previous edition appeared 10 years ago. Principal among these, and reflecting an ongoing debate within the field, is the nomenclature of bubble injuries related to breathing compressed gases. The editors have clearly spent some hours debating the merits of the various approaches and settled on a consistent representation that sits well in a multi-author text of this nature. In brief, the editors have chosen to return to the more traditional nomenclature based on the physiologic mechanisms of bubble injury when discussing physiology and mechanisms of action, and to adopt the more clinical nomenclature when dealing with diagnosis and treatment. Thus, in the majority of chapters authors have been required to use "decompression sickness" when referring to conditions resulting from the evolution of gas within the tissues, and "arterial gas embolism" when referring specifically to gas introduced into the vasculature following pulmonary barotraumas.

Importantly, however, in those chapters devoted to the clinical manifestations and treatment of decompression disorders, they adopted the rather more useful clinical approach of combining both these mechanistic terms under the umbrella term "decompression illness." The clinical utility of this approach reflects the considerable overlap in clinical presentation between these 2 distinct mechanistic models, and the reality that treatment of the two is very similar in clinical practice. Although potentially confusing, the different approaches are clearly explicated and allow the reader to consider both basic mechanisms and clinical diagnosis without a continual reiteration of the precise meaning of pathology terms at the start of each chapter. There is logic in this approach, which may well become the standard throughout the field and bring an end to the sometimes acrimonious debate between physiologist and clinician. A full explanation of this debate is given at the beginning of Francis and Mitchell's chapter, "Manifestations of Decompression Disorders."

New chapters include those on comparative diving physiology in mammals, drowning, and the biochemistry of oxygen under pressure. Many other chapters have been extensively rewritten by new authors, with a fresh perspective (eg, the chapters on long-term effects of diving). In general this edition is more clinical than those preceding and therefore of more general application for clinicians as well scientific and military diving units.

In summary, **Bennett and Elliott's Physiology and Medicine of Diving** remains a benchmark of texts in the field. I thoroughly recommend it as an essential reference for any diving medicine facility and suggest that many individual diving physicians and scientists will wish to secure a personal copy. Though the price tag is not inconsiderable, it is in keeping with the efforts of the individual authors and the quality of the editors' contribution. Let us hope we do not need to wait another 10 years for the next edition.

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From Nutrition Support to Pharmacologic Nutrition in the ICU. Claude Pichard MD PhD and Kenneth A Kudsk MD. (Update in Intensive Care Medicine, volume 34, Jean-Louis Vincent MD PhD, series editor). Berlin: Springer-Verlag. 2002. Soft cover, illustrated, 483 pages, $49.95.

From Nutrition Support to Pharmacologic Nutrition in the ICU provides an update on nutritional support of the critically ill adult intensive care unit (ICU) patient. The book's stated aim is, "to help clinicians optimize their competence and understanding in managing critically ill patients." International experts on nutrition wrote the book's 34 chapters. Each chapter focuses on a specific aspect of nutrition support for this population. The chapter topics range from the basics of nutrition assessment, monitoring, and provision of enteral and parenteral support to more esoteric topics such as new nitrogen-containing substrates and stress-related catabolic countermeasures. As a somewhat "old dog," I figured it was unlikely I would be reading any "new tricks" in this book, but I was pleasantly surprised to find much that captured my interest. I found myself marking up the book so I could come back to explanations of many fresh concepts, and the book inspired me to look up several original-source references listed in its interesting discussions, including articles by Berger et al on micronutrient balances in trauma and burn patients; by Frost et al on gastric emptying in the critically ill; by Zaloga et al on the effect of rate of enteral nutrient supply on gut mass; by Vernon and Hill on the relationship between tissue loss and function; and one by Ingenbleek et al that describes a prognostic inflammatory and nutritional index scoring method for critically ill patients.

This book is written for clinicians, including medical students, who want to optimize their understanding of nutritional support of the critically ill. This book would be most useful for physicians, registered dietitians, pharmacists, and nurses who provide nutrition support for the critically ill. Certain chapters of the book would be of interest to respiratory therapists who work in the ICU, such as the chapter on nutrition effects on respiratory and muscle dysfunction, and the chapter on nutritional support in acute respiratory failure. This book would be excellent for any advanced class on nutrition support of hospitalized patients or to brush up on the current hot topics in nutrition support of the critically ill for those new to this field.

Each chapter begins with an overview of the basic concepts of a subject and then delves into more "state-of-the-art" aspects. And, overall, each chapter succeeds in meeting that goal. The chapters are logically arranged. The book begins with a chapter on nutrition-related outcomes in critical care. The following chapters cover diverse subjects, with some of the more novel being "Host Defenses and Bacterial Assaults: A Delicate Balance," "From Structure to Function: What Should Be Known About Building Blocks of Protein," "Fatty Acids, Lipoproteins, and Lipid Emulsions," "Trace Elements and Vitamins," "Antioxidants in Critical Illness," "Strategies for Motility and Dysmotility in Nutrition Support," "Formulation of Parenteral and Enteral Admixtures," "Drug-Nutrient Interactions in the Critically Ill," "A Practical Approach to Feeding Intensive Care Patients," "Monitoring Nutritional Support in the Intensive Care Unit," "Nutritional Effects on Respiratory and Muscle Dysfunction in Intensive Care Unit Patients," "Liver Function: Alteration and Insufficiency," "Nutritional Support in Acute Respiratory Failure," "Hyperglycemia and Blood Sugar Management: Implications for Infection," "Nutrition Sup-

port of the Septic Patient," "Nutrition Support Guidelines for Therapeutically Immunosuppressed Patients," "Enteral Immunonutrition in the Intensive Care Unit: A Critical Approach," "Effects of Route and Dose of Immunonutrition Compounds," "New Nitrogen-Containing Substrates in Artificial Nutrition," and "Merging Evidence-Based Medicine and Nutrition Support Practice for Critically Ill Patients: The (Mis)Interpretation of Randomized Trials and Meta-Analyses."

Though some redundancies occur among some the chapters, as is common in a book of this nature, I did not find them distracting. Rather I found much new material to ponder. The chapter by Kudsk on host defenses and bacterial assaults discusses new theories on how enteral nutrients may positively affect the immune system. The materials presented are topical, such as chapters discussing nutrition support of the obese patient and immunonutrition in the ICU. The chapters are, for the most part, well written. Some typographical errors can be found, but not so many as to be of concern.

It is difficult to pick out the highlights of the book, because there are so many, but one particularly interesting chapter was Tappy and Chioléro's chapter on carbohydrate and fat as energetic fuels in intensive care unit patients, which discusses an interesting theory that enteral carbohydrates may have advantage over parenteral carbohydrates. They theorize that since enteral carbohydrates have lower glycemic index than parenteral carbohydrates, enteral carbohydrates provide more stimulation of gut hormone release. Additionally, enteral carbohydrates are delivered via the portal system rather than systemically (as parenteral carbohydrates are), which may be advantageous.

The chapter by Powell-Tuck and Goldhill is one of the best summaries I have read on monitoring nutrition support of intensive-care patients. Their section on body composition measurements is outstanding. I intend to make this chapter required reading for nutrition students rotating through the surgical-trauma intensive care unit.

Recognized United States experts on nutrition support wrote several chapters in this book. One thing that makes this book special is that many European experts also contributed chapters, which discuss therapeutic approaches not usually used here. That international perspective adds to the overall quality of the book.

Most information in the book is very up to date, except in a few instances. The chapter on strategies for motility and dysmotility in nutrition support suggests the use of Cisapride, which is no longer available in the United States because of safety problems. And the chapter on hyperglycemia and blood sugar management does not discuss the landmark study by Van den Berghe et al[1] on intensive insulin therapy in critically ill patients. The failure to incorporate the Van den Berghe study reflects the unfortunate effect of the lag time between writing and publishing a book, which results in some outdatedness, even when the book is hot off the press.

From Nutrition Support to Pharmacologic Nutrition in the ICU is an attractive softbound book and has reasonably sized type. The graphs, charts, and illustrations are readable, and it is of the proper size and weight for ease of reading. Its cost is a bargain, considering its reference value. I found each chapter worth reading; the reference lists at the end of each chapter are enough to make this book a "must-read" for any serious provider of nutrition support to the critically ill adult.

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REFERENCE

1. Van den Berghe G, Wouters P, Weekers F, Verwaest C, Bruyninckx F, Schetz M, et al. Intensive insulin therapy in the critically ill patients. N Engl J Med 2001;345(19): 1359–1367.

Drugs for the Treatment of Respiratory Diseases. Domenico Spina, Clive P Page, William J Metzger, and Brian J O'Connor, editors. Cambridge, United Kingdom: Cambridge University Press. 2003. Hard cover, illustrated, 599 pages, $150.

Drugs for the Treatment of Respiratory Diseases is described as "comprehensive" and is one of the first texts to survey current and novel drug treatments for respiratory diseases. It was edited by Spina, Page, O'Connor, and (the late) William Metzger and contains 23 chapters by 38 authors. Twelve of the authors are from the United States and twenty-six are from Britain and Europe, which reflects in the discussions on pulmonary drugs and therapies available in Europe. The chapters are grouped into 6 parts.

Part I, "Asthma and COPD," reviews the pathophysiology of and the drugs used to treat asthma and COPD [chronic obstructive pulmonary disease]. The sections on the pathophysiology of asthma and COPD are thorough, and chapters on drugs cover glucocorticosteroids, β adrenoceptor agonists, anticholinergic bronchodilators, allergy drugs, drugs that affect the synthesis and action of leukotrienes, theophylline and selective phosphodiesterase inhibitors, potential therapeutic effects of potassium channel openers, tachykinin and kinin antagonists, drugs that affect immunoglobin E, and drugs that target cell signaling. The drug chapters begin with introductions of the drugs' effects on pulmonary and cellular tissues and then review the pharmacokinetics, clinical efficacy, and adverse effects. The chapters on investigational therapies discuss the rationales for the drugs in asthma and COPD and give an overview of which compounds might be clinically useful. This section spans the therapeutic range from the general agents used to treat asthma to cellular- and receptor-specific agents that may become therapeutic alternatives in the future.

Part II, "Diffuse Parenchymal Disease," focuses on treatment of parenchymal lung disease and fibrotic lung disease. The various types of parenchymal lung disease, their diagnosis, clinical presentation, and treatment are discussed. The chapter on fibrotic lung disease overviews the difficulty of diagnosing and evaluating outcome, pathogenesis, and potential new drug therapies.

Part III, "Infection," reviews the current and future management of pneumonia, current therapy for chronic bronchial suppuration, and the current and future treatment of cystic fibrosis. The pneumonia chapter discusses the microbiology and severity of community-acquired and nosocomial pneumonia, resistance patterns, and the pharmacokinetic and pharmacodynamic profiles of commonly used antibiotics. There is an extensive discussion of the European and North American guidelines for the treatment of community-acquired pneumonia and the American Thoracic Society guidelines for nosocomial pneumonia. The discussion of the community-acquired-pneumonia treatment guide-