
Though some redundancies occur among some of 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 Chiolero’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 Bergh et al1 on intensive insulin therapy in critically ill patients. The failure to incorporate the Van den Bergh 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.

Catherine Lee Farver RD CNSD
Nutrition Services
Department of Hospitality
Harborview Medical Center
University of Washington
Seattle, Washington

REFERENCE


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 immunoglobulin 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.

lines reflects the European bias of the book. The authors talk about the promising aspects of sparflloxacin and grepafloxacin, 2 fluoroquinolones that have been removed from the American market. There is a limited discussion on novel antibiotics for community-acquired pneumonia. The chapter on chronic bronchial suppuration reviews the pathophysiology, microbiology, and clinical features of COPD. There is an overview of the nonpharmacologic therapy for COPD and an extensive discussion of the principles of antibiotic treatment and antibiotics used to treat COPD. The cystic fibrosis chapter reviews the antibiotic and nonantibiotic therapy of cystic fibrosis. The discussion on antibiotic therapy reviews the general principles but also provides discussion on prophylaxis, suppression, and therapies for specific pathogens. The chapter also highlights the various therapeutic interventions for treating Pseudomonas aeruginosa infections.

Part IV, “Pulmonary Vascular Diseases,” is divided into 3 chapters that review the pathophysiology and current and future therapies for pulmonary vascular disease. The pathophysiology chapter reviews the general mechanisms of pulmonary arterial hypertension, pulmonary vascular remodeling, and the genetic contribution to vascular disease. The section on current therapies for pulmonary vascular disease briefly reviews the definition and classification, clinical assessment, investigation, and selection and evaluation of drug therapies. This chapter reviews the agents available for treating primary and secondary pulmonary hypertension, their selection, administration, monitoring, and determination of a positive response. The future therapy chapter discusses agents targeted at inhibiting inflammation, metalloproteinases, and suppressors of vascular smooth muscle growth.

Part V, “Lung Cancer,” is limited to the molecular pathology of lung cancer and small-cell cancer. The chapter on the molecular abnormalities of lung cancer provides an extensive discussion of the genetic changes in lung cancer. The chapter on small-cell cancer reviews staging, tumor markers, prognostic factors, and chemotherapy.

Part VI, “Cough,” includes 2 chapters, one that thoroughly discusses the mechanism of cough and the second that reviews the current treatments of cough. The chapter on cough mechanisms reviews the physiology and anatomic site of cough, the role of the central nervous system, and the site of action of antitussive agents. The other chapter thoroughly reviews therapy of chronic cough, the various disease states associated with cough, and the nonspecific antitussive therapies.

The strength of the book is its in-depth discussion of each topic. The authors use figures, radiographs, and tomography images to support their discussions. The overviews of pulmonary pathophysiology form the bases for the discussions of the drugs. The physiology sections discuss the basic clinical physiology of the respiratory diseases and genetic alterations that account for the disease state physiology. The pharmacology chapters discuss the contemporary agents used to treat respiratory diseases and also provide an update on currently experimental therapies. Another strength of the book is its chapter bibliographies, which are exhaustive and include classic and contemporary reports.

**Drugs for the Treatment of Respiratory Diseases**

**Purpose**
The book reviews the general principles and current and future therapies for respiratory disease. It is designed to be used as an expansion of a pharmacology reference as one can expect and reviews the drugs commonly used to treat respiratory diseases as well as the agents that may be available in the future. The book is geared toward the pulmonary subspecialist who is interested in the physiologic and pharmacologic basis of drug treatment of pulmonary disease. It is not geared to the primary care provider who is looking for a dosing reference for commonly prescribed pulmonary medications. This book will be a welcome addition to any pulmonologist’s reference library.

**Gregory M Susla PharmD**
Pharmacy Consulting Section
VHA Consulting Services
Frederick, Maryland

**Physiology Secrets, 2nd edition.**

I have used the first version of this book for several years and found it a useful resource for short-answer essay questions that cover physiology concepts, from the basic to the advanced. The second edition has been updated. New chapters have been added—on cell signaling, physiologic genomics, bone physiology, endocrine-metabolism integration, endocrine-immunity integration, and the physiology of aging. The chapters on cardiovascular physiology and respiratory physiology have been substantially expanded. The content is formatted as essay-type questions, with the answer following each question.

This book will be a useful source of information to anyone interested in physiology. The material is clearly and concisely organized and easy to read. The author states that the book is “designed to be used as an adjunct to, not a substitute for, a standard textbook,” and I agree that the book will be a useful adjunct for understanding both basic and advanced physiology concepts.

I did find several glaring errors that need to be corrected in the next edition. In the chapter on cells, nerves, and muscles there is a table that compares intracellular and extracellular concentrations of electrolytes and glucose. The table gives the intracellular and extracellular concentrations of glucose as 100 mg/dL and approximately 10 mEq/L, respectively. The extracellular value should be approximately 90 mg/dL. On page 4 of the same chapter, in the discussion of diffusion coefficients, the author used a hypothetical plasma membrane with an “area of 1 cm.” That should be “1 cm².” In chapter 4, on cardiovascular physiology, it is stated in a discussion of the cardiac muscle action potential that the “long plateau phase of up to 300 ms . . . provides time for cardiac filling.” That statement is inaccurate: the plateau phase allows for adequate calcium influx for excitation-contraction coupling to occur. In that same chapter, on page 77, in a discussion of vascular resistance the Poiseuille’s equation is given as:

$$ R = \frac{\pi r^4}{8 \eta l} $$

That equation is upside down and will therefore lead to the wrong conclusions about the effects of radius, vessel length, and blood viscosity on vascular resistance. Later in the book, on page 133, in the section on renal physiology, the equation is given correctly.

In the chapter on respiratory physiology I found several errors that need to be corrected. On page 98 the term “expired minute volume” is used. This may be my personal bias, but I believe that should be “expired minute ventilation,” not “volume.” The discussion of Fick’s law of diffusion, on page 106, gives an incorrect equation:

$$ D_{m2} = A \times D / T \times (P_1 - P_2) $$