

In contrast to African-, Latino-, and Asian-ancestry Americans, the native Americans share more historical background because they have all been here for thousands of years. Thus I found the chapter on native Americans more clinically useful. The authors begin with a discussion on native American history and how that history has influenced their approach to Western medicine. There is a section on the "non-Western" world view, according to Robert Bee. He describes 8 tenets that provide an interesting demonstration of the contrast between Western and non-Western beliefs. Though his points are specific to native Americans, they clearly demonstrate how people from different ethnic backgrounds approach situations differently.

The chapter on Arab Americans gives a useful overview on the historical and demographic context of that varied group. The general discussion on Muslim religion and practices and how Muslim beliefs affect approaches to health care was very well written and informative. I found it particularly helpful that the chapter authors included statements on mental health, substance abuse, and end-of-life care, including advance directives, code status, and organ transplantation. These issues are difficult to discuss with all patients, and often discussions are impacted by cultural differences between providers. Further elaboration on those topics in relation to the other groups discussed in this text would have been useful.

There is a separate chapter focused specifically on caring for immigrant patients. This chapter includes brief but informative paragraphs on a variety of tropical diseases that one may see in immigrants. Tables 7-2 and 7-3 outline typical incubation periods for tropical infectious diseases and the differential diagnosis for symptoms associated with fever in immigrants. I found those tables easy to access, not excessive, and helpful in directing the workup of an immigrant who has a febrile illness. This chapter also includes a section on disease screening and vaccinations in immigrants.

The text also includes an excellent chapter by Linda Barnes on spirituality and religion in health care. She presents an interesting discussion on how deeply rooted religious beliefs or religious upbringing can affect a patient's approach to disease. There is a set of questions (in Box 8-4) to help providers improve their awareness of their own spirituality and how it might influence their approach to patient care. Box 8-5 in-

cludes 4 simple questions (adapted from Lo et al<sup>1</sup>) the provider can use to help learn about a patient's spirituality.

The final chapter addresses the need for physician advocacy. Bigby states that "cultural competence is a means, not an end." The authors emphasize the important role of physicians in advocating for culturally appropriate health care services. These processes are outlined nicely in Box 9-1. Through clinical experience, community involvement, and ongoing dialog with patients, medical providers should continually evaluate and reflect on their knowledge and practice. This final chapter is a fitting end to the information provided in this text. The reader is reminded of the important fact that cultural competence is a dynamic process towards which we should all be striving.

In conclusion, this is a potentially useful introductory text for health care providers interested in improving their knowledge of cross-cultural medicine. The medical literature on this subject is vast and has become increasingly sophisticated. Future efforts to improve cross-cultural medical education should build on this introduction by creating a text that shares similar information from the patient perspective rather than the medical perspective. Bigby introduces some very important ideas in this text, and I encourage further detailed efforts to expand on those ideas, especially regarding end-of-life care, linguistics, patient communication, and the semantics of illness.

I compliment Bigby and the contributing authors on their efforts to develop a concise, readable, clinically oriented text on cross-cultural medicine. They provide some useful background information on how personal history, demographics, ethnic background, spirituality, and gender influence approaches to medical care and propensity to specific diseases. The reader should remember that background information and generalizations about a cultural group may not apply to all the individuals in that group and should take to heart the importance of self-reflection, recognition of differences, and effective communication; then this text will provide you with some thought provoking, mind-opening means of enhancing your care of patients.

**Andrea Akita Chun MD**

Department of General Internal Medicine  
Harborview Medical Center  
University of Washington  
Seattle, Washington

## REFERENCE

1. Lo B, Quill T, Tulsky J. Discussing palliative care with patients. ACP-ASIM End-of-Life Care Consensus Panel. American College of Physicians-American Society of Internal Medicine. *Ann Intern Med* 1999; 130(9):744-749.

**Assisted Ventilation of the Neonate**, 4th edition. Jay P Goldsmith MD and Edward H Karotkin MD. Philadelphia: Saunders/Elsevier Science. 2003. Hard cover, illustrated, 588 pages, \$99.

Though the title of the book is **Assisted Ventilation of the Neonate**, it offers much more than just information about mechanical ventilation concepts and strategies. The intended audience is the neonatal team, and the subject matter pertains to physicians, nurses, and respiratory therapists, though the book's depth and detail make it appear to be written for the neonatologist or the neonatal respiratory therapist.

The first chapter provides a fascinating review of the history of assisted ventilation for neonates. The second chapter should be considered required reading: it covers the physiologic principles of pulmonary mechanics, gas transport, oxygenation, and ventilation in a comprehensive, yet easily digestible, fashion. The third chapter comprehensively reviews the physiology of ventilatory control and the pathophysiology of apnea, including both general discussion and disease-specific information. My only criticism of the first 2 chapters is of the last section of the first chapter, in which the authors oversimplify ventilator classification and refer to outdated reports that classified ventilators by "cycling mode," which I found cumbersome and confusing.

Chapter 4 briefly discusses neonatal asphyxia and gives an excellent summary of the guidelines of the American Heart Association and American Academy of Pediatrics Neonatal Resuscitation Program for resuscitating neonates. Chapter 5 is short (only 10 pages), but it provides some historical insight and a good overview on the ethical and legal issues of resuscitation and assisted ventilation of neonates.

Chapters 6 and 7 (on pulmonary and nursing care) contain information that is redundant to other chapters. Chapter 6 contains word usage errors (page 94, column 2, lines 2-4), incorrect technique description of Miller blade insertion (page 95, column 1, bullet item 4), and outdated references (and

concepts) for bronchopulmonary hygiene for neonates. The figures used to illustrate bronchopulmonary hygiene for neonates (page 100) shows a model of a 6–8 month old infant, not a neonate. Chapter 7 contains a nice overview of general nursing care of the newborn, but most of the information can be found in other areas of the text and the chapter adds little overall.

Chapter 8 provides a comprehensive overview of continuous positive airway pressure (CPAP). The authors provide a brief introduction of various methods and devices and then take an evidence-based approach to case studies, cohort comparisons, and randomized, controlled trials that used CPAP. The chapter concludes with a brief review of nasal ventilation, other CPAP applications, hazards, adverse events, and complications of CPAP, and CPAP optimization and weaning.

Chapters 9 (on pressure-controlled ventilation), 10 (on volume-controlled ventilation), and 11 (on high-frequency ventilation) should also be required reading for any clinician responsible for assisted ventilation of neonates. These chapters compare the advantages and disadvantages of those 3 ventilation modes, and each chapter ends with a section on implementation and weaning strategies. In chapter 9 there are tables that identify the advantages and disadvantages of each ventilator control component (eg, peak inspiratory pressure, positive end-expiratory pressure) of pressure-controlled ventilation, and these tables will make excellent teaching tools for residents, fellows, and novice neonatal therapists. In Figure 9-7 (page 163) I noted that bullet points 2 and/or 3 in the box for infants < 1,500 g appear to be in error: they conflict with one another. The disease-specific, evidence-based sections of the chapter on high-frequency ventilation are clinically relevant and should be helpful for teaching purposes.

Chapters 12 through 15 address special ventilatory techniques and modalities for neonates. For many years patient-triggered ventilation has been advocated as being extremely beneficial for adults, but we only recently gained the ability to provide patient-triggered ventilation to neonates. Chapter 12 discusses neonatal patient-triggered ventilation, synchronized intermittent mandatory ventilation, and pressure-support ventilation, including potential problems. The chapter concludes with a look at the available equipment for neonatal patient-triggered ventilation.

Chapter 13 details concepts and theories behind lung-protective strategies and liquid ventilation. Lung-protective strategies begin in the delivery room with resuscitation and continue into the nursery, and the chapter discusses the history and current approaches to neonatal mechanical ventilation. This section reiterates and expands on some of the concepts in Chapters 9 through 12 and introduces some newer treatment concepts, such as nitric oxide and tracheal gas insufflation. The remainder of Chapter 13 discusses the history and current clinical trials of liquid ventilation.

Chapter 14 takes a closer look at the use of inhaled nitric oxide with neonates. The chapter authors summarize initial patient evaluation and clinical experiences with inhaled nitric oxide in near-term and term infants suffering hypoxic respiratory failure. Centers that use inhaled nitric oxide may find the sections on treatment strategies, dose, duration of treatment, weaning, and discontinuation especially helpful. The authors conclude the chapter with a brief discussion on the controversies regarding: inhaled nitric use at centers that do not use extracorporeal membrane oxygenation; patient transport with inhaled nitric oxide; and off-label and potential future uses of nitric oxide with other patient populations in the nursery.

Chapter 15 uses the concepts, theories, and devices discussed and debated in Chapters 8 through 14 to review neonatal assisted-ventilation strategies, with an emphasis on lung protection. The chapter begins with a general conceptual approach and finishes with suggested strategies that target disease-specific conditions.

The book then shifts its focus from assisted ventilation technologies and strategies to adjuncts that play a vital role in managing neonates who require assisted ventilation. Chapter 16 comprehensively surveys extracorporeal membrane oxygenation; the chapter includes excellent graphics and sections on management, weaning, decannulation, and follow-up.

Chapter 17 concisely summarizes the technical aspects and interpretation of neonatal blood gas analysis. The chapter includes a brief section on noninvasive measurement (eg, pulse oximetry and transcutaneous and end-tidal carbon dioxide monitoring).

Chapter 18 provides a general overview of pulmonary graphics and pulmonary functions as clinical adjuncts in the management

of ventilated neonates. The chapter's good description of those adjuncts is supported by some excellent graphics. The chapter includes 5 case studies, also with supporting graphics.

Chapter 19 discusses the frequently used drugs (not discussed elsewhere in the text), including sedatives, analgesics, muscle relaxants, cardiotoxic agents, pulmonary vasodilators, bronchodilators, mucolytics, diuretics, steroids, and respiratory stimulants. Chapter 20 gives an evidence-based review of exogenous surfactant therapies.

Chapter 21 covers ventilation complications, including bronchopulmonary dysplasia, air leak syndromes, and retinopathy of prematurity. Chapters 22 through 28 concern, respectively: surgical management of the airway; cardiovascular aspects; nutritional support; central nervous system morbidity; intraoperative management; transport of ventilated infants; and pulmonary outcomes and follow-up. Chapter 29 will be a valuable teaching tool for the previous chapters: it provides 8 ventilatory management scenarios. The appendices are clearly designed and are valuable resources and quick-reference guides to many aspects of neonatal care.

Though the text is over 500 pages, it is fairly concise and quickly read, with many excellent graphics that effectively illustrate and clarify the text. The editors did a great job in minimizing redundancy among the chapters. Overall the book is a valuable resource to bedside clinicians working with newborns who require assisted ventilation in the neonatal intensive care unit.

**Timothy R Myers RRT-NPS**

Department of Pediatrics,  
Pulmonary Division  
Rainbow Babies and Children's Hospital  
Case Western Reserve University  
Cleveland, Ohio

#### **An Atlas of Infant Polysomnography.**

David H Crowell PhD and the Collaborative Home Infant Monitoring Evaluation Study Group. (The Encyclopedia of Visual Medicine Series). New York: Parthenon. 2003. Hard cover, illustrated, 168 pages, \$129.95.

Electrographic and polygraphic recordings of newborns and infants have been performed for almost half a century. The pioneering studies provided information on the development of the central nervous system. Electroencephalographic and behavioral