

hospital-based RT would benefit from learning about the nuances (some subtle, some not so) of LTOT and the importance of ameliorating the life-threatening effects of chronic hypoxemia. Home-care RTs would also benefit, by sharing the LTOT user vignettes with their LTOT users, thereby enhancing how they manage and care for such patients. I also highly recommend the book for all RT education programs to help future RTs understand the vital role of LTOT in the care and management of COPD.

In the final analysis, **Adventures of an Oxy-Phile 2** is a fitting tribute to a giant in the pulmonary community, who always placed his patients at the forefront. With the publication of this book, I'm pleased to note that Dr Petty's commitment to his patients will endure long after his passing.

Patrick J Dunne MEd RRT FAARC
HealthCare Productions
Fullerton, California

REFERENCES

1. Petty TL. *Adventures of an oxy-phile*. AARC, Irving, Texas, 2004.
2. Mularski RA, Asch SM, Shrank WH, Kerr EA, Setodji CM, Adams JL, et al. The quality of obstructive lung disease care for adults in the United States as measured by adherence to recommended processes. *Chest* 2006;130(6):1844-1850.
3. Jencks SF, Williams MV, Coleman EA. Re-hospitalizations among patients in the Medicare fee-for-service program. *N Engl J Med* 2009;360(14):1418-1428.

The author has disclosed no conflicts of interest.

DOI: 10.4187/respcare.01208

Neonatal Respiratory Care Handbook. Elgloria A Harrison MSc RRT-NPS. Sudbury, Massachusetts: Jones & Bartlett. 2011. Soft cover, spiral bound, 272 pages, \$32.95.

The neonatal and pediatric intensive care units (ICUs) are important areas dedicated to the treatment of acute and chronic illness of neonatal and pediatric patients. Respiratory therapists must have unique skills to meet the challenges created by these patients. The vast array of procedures, strategies, and equipment used in neonatal and pediatric ICUs creates an environment of continuous learning. In an era focused on competence and precision when applying advanced medical technology, the **Neonatal Respiratory Care Handbook** functions

as an excellent adjunct resource for therapists to reference at the bedside and enhance key concepts specific to the neonatal and pediatric environment.

The **Neonatal Respiratory Care Handbook** is a pocket-size book organized into chapters that represent key primary pathophysiologic conditions specific to pediatric and neonatal patients and the treatments that they require. The book provides an opportunity to enhance the knowledge base of entry-level and advanced therapists who might be looking for additional information that applies to a specific clinical situation, targeted treatment, or the function of a specific piece of equipment.

The book utilizes easy-to-recognize, color-coded headings and accompanying outlines located on the first page of each chapter. Chapter outlines include the goals and objectives dedicated to each topic. Each chapter follows a consistent format divided into sections, including primary definitions of each condition, a description of clinical presentation, differences between the primary subject matter and similar clinical conditions, research supporting each section, and relevant treatment options and strategies. A list of key terms is located on the first page of each chapter to help identify important subject-related language or phrases associated with and found within the content of the chapter. References are documented by means of end notes within the content of each chapter, and corresponding references are found at each chapter's conclusion. Finally, a glossary with 13 pages of simple sentences and additional explanations is found at the back of the book, to allow immediate orientation to a subject, condition, or term that might be used in any part of the book.

Chapter size averages approximately 24 pages and includes a combination of colored illustrations, diagrams, and figures. Figures or diagrams of equipment setups are crisp, easy to interpret, and have the textbook appearance of clarity. Diagrams range from actual photographs of caregivers delivering therapy to computer-generated drawings of equipment setups, with or without mannequins. Tables are also available and list additional information about disease classification, treatment options, or medication administration. Some of the tables have very small print and are difficult to read.

An introduction paragraph explains a scenario surrounding the need for a respiratory

therapist's attention to the chapter subject. Personal experience accounts are found in this section and in other areas throughout the book to help the therapist understand the importance of the subject. The rationale and background information surrounding the key topic found in the introduction help identify the primary goal and objective of the chapter.

Chapter definitions for each condition are written in succinct 1–3 paragraph format and easy-to-understand language that could be straightforwardly interpreted by therapists who have a basic foundation in respiratory care practice. In most chapters, definitions are accompanied by a historical fact, a clinical note, used to explain a specific portion of the definition (such as clinical signs of respiratory distress of the newborn) or a table or figure used to improve the understanding of the condition's definition.

Descriptions are presented in well-organized paragraph format, followed by concise bullet-pointed subject matter for quick and easy identification of key factors. These factors include the patient population affected, causes, clinical signs and symptoms, presentation of the disease, and basic definitive testing procedures used in diagnosis of the condition. Figures and tables are used to represent classification of some disease entities based on its severity. For example, in the description of asthma in chapter 3, a table was used to identify asthma triggers, medical history, and aggravating factors, while another table described the classification of asthma identified by the National Asthma Education and Prevention Program (NAEPP) and asthma severity score. Clinical pearls or "take-home messages" are present in the book. These are also helpful for the inexperienced clinician who may be seeking the interpretation of the topic's significance.

"Distinguish" is a section used to explain the similarities and differences between the chapter's pathophysiologic condition and other clinical situations that may mimic it. This is valuable for the clinician, as it compares conditions by name, clinical presentation, and diagnostic test for easier identification and understanding. In chapter 1, "Acute Respiratory Distress Syndrome," a clinical case review is used to clarify individual phases of the disease, initial presentation, recommendations for phase identification, and the therapist's response.

The research section includes both historical and current references that address

the foundation of treating disease and the evolution of change based on a number of studies conducted over a long period of time. Research content also includes a brief description of some current peer-reviewed literature that supports the underlying subject, including some evidenced-based practices. References supporting the research topics are located at the end of each chapter, in organized format to allow access to additional information.

The treatment section provides information on standard and alternative treatments for each clinical condition. There are brief collaborative treatment techniques discussions, followed by individual therapy details, presented in an ordered format. Treatments involving specific machinery are displayed by diagrams with accompanying explanations of the equipment and setup. While complete policies and procedures are not employed, overall descriptions are short and helpful to the bedside caregiver. "Food for Thought," a section found sporadically throughout the handbook, shares authentic clinical experience with the therapist, as noted in the treatment section of chapter 3. The example that discusses setting up heliox for an asthma patient is helpful to the therapist who is not quite sure whether this specific setup or treatment should be compromised to accommodate a request. Knowing your equipment, being able to speak up and educate the multidisciplinary team on the proper use and implementation of it, is critically important to appropriate care of the patient. This section provides valuable advice, especially in the absence of clinical experts to consult with at your facility.

Chapter summaries include highlights of baseline diagnosis, risk factors and treatment of the clinical condition at hand. Key points in the summary are identified by a check mark located to the left of the statement. These chapter highlights are the backbone of the chapter and are easily recognized in this design. References are listed in order of how they appear within the context of the chapter and recognized by their standard format.

The handbook is well organized and of high quality. It is attractive to the bedside clinician by nature of its content. It is easy to find a specific disease entity without needing to scour through the entire book. The content is straightforward, not overwhelming, and easily accessible when situations are critical. It is especially beneficial to the caregiver during a particular bedside clinical

situation. In the preface it is stated that the handbook contains a large amount of pediatric as well as neonatal information, and was also acknowledged as a pediatric ICU reference. It appeals to practitioners working in both the neonatal and pediatric environment, and should have perhaps bore the title of Neonatal and Pediatric Respiratory Care Handbook instead.

The analysis of acute respiratory distress syndrome represents an up-to-date point of view and includes most currently used strategies and applications for treatment that are available in today's academic environment: treatment applications such as high-frequency ventilation, inhaled nitric oxide administration, extracorporeal membrane oxygenation, and heliox administration. There is reference to practices recommended by the Acute Respiratory Distress Syndrome Network and options for management that are all-inclusive. The diagrams and explanations of specific equipment in this chapter are excellent and comprehensive.

The chapter on infant respiratory distress syndrome describes the 5 key conditions of premature and term infants that appear as characteristic neonatal ICU admissions on a daily basis. Treatment summaries are simply stated and in quick reference form. Overall the chapter covers the highlights of managing the high-risk infant. There is little to no mention of the oxygen index, despite routine references often made to it in determining surfactant administration and inhaled nitric oxide delivery, but it is included in the extracorporeal-membrane-oxygenation criteria in another chapter. The sequel to this chapter, "Management of Chronic Lung Disease of the Newborn," delivers a comprehensive explanation and viewpoint for managing these difficult patient cases. The treatment options and medication dosages for the affected infants are most helpful when faced with the complications from early interventions and management.

Perhaps the most widely sought pediatric chapters in this text represent the pearls of today's pediatric clinical practice. The asthma and congenital heart disease chapters contain figures, tables, and diagrams that are specific to classification, definition, and delineation between the severity and clinical diagnosis. The NAEPP asthma guidelines are found in this chapter. The 6 steps for access control used in patients younger than 12 years and the asthma severity score used in patients older than

12 years found in the research and treatment sections identify asthma classification by age and symptom. Medication management and alternative treatments are also discussed and are important standards that are consulted frequently by all caregivers. The congenital heart disease figures enhance the understanding of diagnosis and treatment of the disease.

The overview of cystic fibrosis is concise and depicts a practical viewpoint about the disease in the 21st century. Current practice therapies for cystic fibrosis are referenced by the American College of Chest Physicians from the 2006 article on non-pharmacologic airway-clearance therapies. Airway clearance devices used in treating this disease process have been used for many years, but evidence and efficacy are still in question for some. However, this description reflects the authenticity and uncertainty of some facets of clinical practice. Standard treatment medications found in the chapter, including antibiotic options, are limited to two in this chapter. Perhaps the list is not as comprehensive as expected.

The chapters on upper-airway inflammatory disease, bronchiolitis, and neuromuscular disease review standard explanations and treatments for each condition. Historical facts, radiologic images, tables, and diagrams complement the explanations, making it easier to understand these hard-to-treat conditions. Because these disease processes are challenging and clinical presentation varies slightly each time a patient presents to the hospital, this overview serves to prepare the clinician for most anticipated situations. In the chapter on neuromuscular disease it is evident and duly noted that the disease process often progresses to a requirement for noninvasive ventilation, especially in the later phases. Perhaps the successes of specific noninvasive ventilation strategies used in pediatric spinal muscle atrophy could have been added for additional caregiver reference.

The air-leak syndrome review represents a fairly comprehensive explanation of the indications for and initiation of high-frequency ventilation. The discussion of basic protocols for initiation of high-frequency ventilation, popular equipment selections, and preparation and initiation of this modality is outstanding. Colored pictures of equipment, start-up settings, and troubleshooting tables provide a resource that is unparalleled.

My expectation of this handbook was not that it contain every detail, concept, or procedure, but instead be a condensed resource that could be used at the bedside when needed. There are a few minor limitations. Although it is nearly impossible to include all choices in this format, only the most commonly used pieces of equipment used in pediatric situations were identified. In addition, resuscitation practices and airway management of the acute care patient and difficult-to-manage airway scenarios are quite common in pediatrics. In the upper-airway inflammatory diseases chapter, two of the primary airway conditions are mentioned. Basic management of other acute airway problems, such as retropharyngeal abscess, tracheal web, and others referring

to general lesions leading to obstruction would have been beneficial. It is, however, evident that the author was careful not to tie the name of a specific piece of equipment to the actual concept presented. For example, the heated high-humidity nasal cannula system was not referred to as one specific manufactured brand nor referred to as the equivalent of continuous positive airway pressure, as is sometimes mistakenly interpreted as a comparable alternative.

Clinicians often rely on department- or institution-specific policies and procedures to implement practice. However, a basic resource that includes background information, basic understanding of technology, and application of therapy is needed. For therapists or other caregivers practicing in re-

mote areas this inexpensive resource provides the ability to improve confidence in theory, practice, and practical application. It may also serve as a preparatory review for the National Board for Respiratory Care neonatal-pediatric specialty examination for the therapist who wishes to go to the next level in providing care.

**Kathleen Deakins MSHA
RRT-NPS FAARC**

Pediatric Respiratory Care
Rainbow Babies and Children's Hospital
Cleveland, Ohio

The author has disclosed no conflicts of interest.

DOI: 10.4187/respcare.01177