

discussion of noninvasive ventilation, especially given the rapidly growing use of this modality. Understanding the uses of bi-level positive airway pressure (BiPAP) is important, but I would have liked a more explicit discussion on when not to use this modality, and when it could in fact be harmful.

Primary physicians and mid-levels will appreciate section VI, a discussion of common respiratory symptoms and their causes. While I doubt that the chapter on chronic cough will do much to slow the onset of referrals to my own practice for this complaint, it was both concise and well written. The infectious diseases chapters are also very well done, with the chapter on opportunistic infection being an especially good review. I would recommend it for residents in training, or even for hospitalists treating immunocompromised patients, as a worthwhile read. The discussions on cystic fibrosis and lung cancer were also excellent, with good graphics and tables being especially important when reviewing lung cancer staging.

Though almost all the radiographs were clear and well reproduced, Chapter 69 had exceptions; the discussion of pleural disease and pneumothorax was superb, but the radiographs were less clear. I found it difficult to appreciate the issues being described in some of the representative films, which in this chapter is an important point. I also found a relative dearth of such pictures; when referencing radiographic abnormalities, I would have found more films helpful. For example, discussing tension pneumothorax is important, but showing a representative film of it should be even more so (to aid in clinical recognition). Why the films in Chapter 1 were so much better and more numerous is unclear; hopefully, this can be addressed in a subsequent edition.

Among the other chapters I will probably be borrowing for teaching purposes is Chapter 71. Acute respiratory distress syndrome remains a common problem in the intensive care unit, and I remain astonished at the number of centers that do not use lung-protective ventilation for this clinical condition. While I accept that there are different perspectives on our current body of literature, I have yet to see an alternative ventilatory strategy demonstrate a mortality benefit for acute respiratory distress syndrome. If anything, the authors of this chapter “soft-sell” this point, although they do include a discus-

sion of the controversies about lung-protective ventilation at the end of the chapter. A thorough discussion of other potential modalities, with mention of alternative ventilatory modes, rounds out this chapter, which I regard as a must-read for respiratory therapists and pulmonary clinicians.

As mentioned previously, I found the discussions on controversies at the ends of the chapters to be most enlightening; however, when it came to the discussion of diffuse lung diseases (interstitial lung disease), I thought that more attention could have been paid to this topic. Overall a good discussion was held in Chapter 50, dealing with the idiopathic interstitial pneumonias. I especially appreciated the computed tomography images placed next to the pathology slides, to allow for a better visual relationship between the two. However, I would have liked more information about the many things we don't understand about usual interstitial pneumonia and interstitial pulmonary fibrosis. For example, how important is a tissue diagnosis? What data support the American Thoracic Society's treatment recommendations, when the authors admit that there is no “established optimal treatment”? One might mention that there is no basis in evidence for any treatment whatsoever, although anecdotal case studies abound (interstitial pulmonary fibrosis is admittedly a difficult entity to study). Are there circumstances when the risks of treatment outweigh the benefits? From a clinician's perspective, the interstitial lung diseases in general (and interstitial pulmonary fibrosis in particular) remain poorly understood; I would have liked this basic framework to shape the chapter's discussion.

These points notwithstanding, I overall found the third edition of **Clinical Respiratory Medicine** to be a remarkably well written and well organized textbook. It is an impressive work, with appropriate and thorough discussions of complex topics, written in such a way as to remain approachable for neophytes and experienced clinicians alike. This can be a difficult balance to strike, and perhaps one that was not always accomplished perfectly, but one that was managed overall quite admirably. I would recommend this work to respiratory therapists, nurses, resident physicians, and even primary care physi-

cians looking to expand their knowledge of pulmonary medicine.

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The author has disclosed no conflicts of interest.

**Bronchopulmonary Dysplasia.** Steven H Abman, editor. *Lung Biology in Health and Disease* series, volume 240, Claude Lenfant, executive editor. New York: Informa Healthcare. 2010. Hard cover, 512 pages, illustrated, \$269.95.

Bronchopulmonary dysplasia (BPD), also referred to as chronic lung disease, is the most important respiratory complication of prematurity. Despite the advent of antenatal corticosteroid therapy, exogenous surfactant replacement therapy, sophisticated mechanical ventilation, and continuous monitoring techniques, 30–40% of infants with birth weight < 1,500 g develop BPD. Its incidence is inversely related to gestational age, and its etiology and pathogenesis are clearly multifactorial and incompletely understood.

**Bronchopulmonary Dysplasia** is the latest volume in the *Lung Biology in Health and Disease* series and comprehensively examines 4 aspects of this disorder: mechanisms of lung growth and development, mechanisms of disrupted lung development and repair in the pathobiology of BPD, clinical aspects of BPD and its management, and emerging therapies. The monograph has 27 chapters, each authored by different contributors. Abman certainly enlisted an all-star cast of 50 contributors, who are international and multidiscipline in scope, including neonatologists, pediatric pulmonologists, basic scientists, and epidemiologists.

The book appears to be written for pulmonologists, critical care specialists, and pediatricians who care for infants with BPD. The first half of the work deals primarily with basic science and genetic and inflammatory mediators that play important roles in the pathogenesis of the disease. These are well written, and although they set the stage for translational research, they may be a bit too complex for the average reader, especially those unfamiliar with the language of molecular biology. Nevertheless, they are an excellent reference source.

Clinicians will find the last half of the book to be particularly valuable. Chapter 12, by Bancalari and Claure, provides a current overview of evolving clinical features, and the following chapter, by Van Marter, is an excellent review of the epidemiology of BPD.

One of the most difficult obstacles in both the conduct and interpretation of clinical research has been our inability to standardize the definition of BPD. Walsh, who also describes strategies for benchmarking to compare outcomes, addresses this. Chapter 16, by Vento and Saugstad, nicely summarizes the role of oxygen toxicity in the development of BPD and provides delivery-room management strategies for its avoidance, which are based on sound clinical evidence.

The role of mechanical ventilation is discussed in 2 chapters. In the first, Leone and Finer propose early strategies to decrease the incidence of BPD, using a summary of meta-analytical data to recommend limitation of ventilation wherever possible, and what is a good common sense approach to ventilation based on a sound understanding of pathophysiology. In the second chapter, Castile and Nelin propose a strategy for mechanical ventilation of infants with estab-

lished BPD, that is based on lung function, structure, and physiology.

The chapter by Mourani and Abman on the pulmonary vascular disease in BPD was especially good, covering an important aspect challenging clinicians who treat infants with well established disease. Halliday comprehensively reviews pharmacologic therapies for BPD, and clinicians would be wise to heed his conclusion that few drugs provide long-term efficacy, despite short-term benefits.

The remainder of the clinical section includes chapters on abnormal lung function, an excellent review on long-term pulmonary outcomes (by Greenough), and long-term neurodevelopmental outcomes of infants with BPD. These are clinically focused and provide current information that is relevant to practice.

The final section contains 5 chapters that examine pharmacologic treatment or prevention of BPD, including inhaled nitric oxide (the jury is still out), vitamin A (it works, but why don't people use it?), antioxidants (promising, but more work is needed), and low-dose glucocorticoids (always end with controversy; it might stimulate a future edition). This section would have been strength-

ened by inclusion of additional therapies that are being actively investigated, such as late surfactant replacement therapy, and agents used to treat pulmonary hypertension, such as sildenafil or inhaled prostacyclin.

In general, this book comprehensively covers an important subject. It flows well, the chapters are generally similarly formatted, the figures and tables are easy to read, and repetition is minimal. It is heavily weighted to basic science, and as such, it may have limited appeal to clinicians and respiratory therapists. At nearly \$300, it is quite pricey and will probably be relegated to library purchases, where it will be a worthwhile addition to reference materials on neonatal lung injury.

I congratulate Dr Abman for putting this all together.

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The author has disclosed no conflicts of interest.