

**Principles and Practice of Sleep Medicine**, 4th edition. Meir H Kryer MD, Thomas Roth PhD, and William C Dement MD PhD. Philadelphia: Elsevier Saunders. 2005. Hard cover, illustrated, 1,517 pages (text with continually updated online reference), \$259.

Every specialty in medicine has a textbook that is considered to be the field's classic tome. In sleep disorders medicine, **Principles and Practice of Sleep Medicine**, affectionately referred to as "P&P," holds this honor. In 1989 the first edition was the only comprehensive text in this new field and served to educate an entire generation of sleep specialists. Now in its 4th edition, this multi-author text has kept pace with the explosive growth of the field of sleep disorders medicine. Despite the publication of many new texts over the last 15 years, in my opinion this newest edition continues to be the most encyclopedic reference for sleep medicine specialists.

The ideal textbook of sleep medicine would serve the needs of basic scientists, sleep physicians, trainees studying for board certification, sleep technologists, respiratory therapists, and primary care physicians. The book would be extensively referenced with reviews of sleep physiology/pathophysiology, descriptions of all the clinical syndromes, recommendations for treatment, an atlas of normal and abnormal polysomnographic fragments, and technical manuals for performing clinical laboratory testing. The book would include clinical pearls and tables/diagrams that could be quickly accessed by a busy clinician. **Principles and Practice of Sleep Medicine** approaches but does not quite meet this high standard.

The book is divided into 2 main sections. Part 1 is devoted to the basic science of sleep and comprises 47 chapters. Part 2, "Practice of Sleep Medicine," is a clinical textbook and includes 11 sections and 77 chapters. The sections and chapters are well organized in a thoughtful and useful fashion. Each chapter begins with an abstract and concludes with a 1 or 2 sentence clinical pearl. I found the abstracts quite helpful, but the clinical pearls

were too brief to be of practical value. The bibliographies remain exhaustive, despite being pared down to include only the most relevant references, which was done to make room for new chapters without increasing the overall length of an already large book, which is about 6 cm thick and weighs 3.6 kg. Its 1,517 pages use a small font, and the figures are pale blue, which make them hard to read unless you are at a well lit desk.

I was impressed with the quality of the editing. There was a consistent writing style among the chapters, written by 174 preeminent sleep scientists and clinicians. There is variability in the quality of the figures and tables. I was disappointed by the paucity of high-quality polysomnogram fragments to demonstrate normal and abnormal phenomenon and technical artifacts. This is a substantial deficiency, given the importance of polysomnograms to the clinical practice of sleep medicine. I found no typographic errors, but did find one incorrect reference.

The basic science chapters exemplify the strengths of this book. The chapters on rapid-eye-movement sleep physiology and the phylogeny of sleep regulation are concise but comprehensive reviews of their respective subjects. The chapters on acute and chronic sleep deprivation, melatonin, public health/policy, jet lag, sleep apnea and metabolic dysfunction, continuous positive airway pressure (CPAP) treatment, and fibromyalgia are well written. They all clearly summarize the literature on their respective topics, but I found them occasionally lacking in firm clinical recommendations. The chapter on fibromyalgia was an excellent review of this difficult subject. The section on pulmonary hypertension was terse and misrepresented the preponderance of evidence on this topic.

I then evaluated the book in my sleep center for its usefulness in researching clinical questions posed during our busy clinical practice. My colleagues provided additional questions relevant to their daily work. There were several helpful references about the effects of alcohol on sleep and sleepiness. I was able to develop an extensive differential diagnosis for a patient with recurrent, stereotypical hypno-

gogic hallucinations in the absence of hypersomnia. My neurologist sleep colleague was interested in CPAP tolerance in patients with Parkinson's disease and in algorithms for second/third-line therapy for periodic limb movements. I did not find any information on CPAP in Parkinson's patients. Treatment for periodic limb movements was not indexed, but there was a superb treatment summary in the chapter on restless legs.

My general internist sleep physician was interested in residual hypersomnia in sleep apnea patients who are otherwise well treated with CPAP. It took a few minutes, but I found excellent advice about his clinical situation. My doctorate sleep laboratory director was interested in technical standards for the multiple sleep latency tests and for analysis of actigraphy. I was very disappointed in the lack of detailed information about these very important clinical tests. The book cited references to some of his questions but did not itself provide the specific information. One of our hospital-based respiratory therapists was interested in the relationship between CPAP/BiPAP (bi-level positive airway pressure) and cardiac function, and in strategies to improve acceptance and compliance in patients being started on CPAP/BiPAP. I easily found an answer to her first question, but practical advice about CPAP was lacking. There were no specifics about custom mask fitting or clinical tips to improve compliance.

In summary, this state-of-the-art comprehensive textbook is an excellent reference for information about the physiology and pathophysiology of sleep disorders, but is not an ideal clinical handbook or technical manual for sleep technologists, sleep clinicians, or respiratory therapists. Every sleep specialist and sleep center should own a copy, but I would not recommend it for pulmonologists or respiratory therapists who do not specialize in sleep medicine.

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