Book Reviews

Nunn's Applied Respiratory Physiology, 5th ed.
Andrew B. Lumb. Butterworth-Heinemann, 2000.
 687 pages. \$115.00 (US). ISBN 0-7506-3107-4

With this 5th edition, John Nunn's classic analysis of respiratory physiology as applied to anesthesia passes into the hands of a new craftsman, Andrew Lumb. It is a job well done. Minor surgery has been performed throughout to make room for new discoveries, so don't throw out your old editions until you make sure your favourite diagrams are still there!

A new section titled *Physiology of Pulmonary Disease* now pulls together the pathophysiology and treatment previously scattered throughout the book, as well as adding a chapter on airway diseases. Many chapters look very familiar, but all bear evidence of thorough revision. In many cases CT, MR or 3D reconstructed images have replaced the artists' sketches of the past. Chapter 5 is substantially revised with an excellent summary of non-chemical reflex inputs to the respiratory centre. Chapter 7 contains increased coverage of active modulators of pulmonary tone - including NO. NO now appears extensively throughout. Alpha stat and pH stat issues have been added to the discussion of hypothermia in Chapter 10. The use of blood substitutes and issues of critical oxygen delivery have been updated. Chapter 18 presents new material on respiration in closed environments, including submarines, space travel and life in a biosphere! Chapter 21 contains an excellent section on ventilatory control covering current controversial data on the effects of subanesthetic agent concentrations on the acute ventilatory response to hypoxia. Chapter 27 discusses changing concepts of O₂-induced hypercapnia in COPD. Overall, this 5th revision is laudable for thoroughness, readability and up-to-date referencing. It's weakest sections were those on management of artificial ventilation, both neonatal and adult, in acute respiratory failure. In neonates, (Chapter 13) the interaction between the restoration of aerated lung volume and the efficacy of NO in the treatment of hypoxemia was ignored, as was extensive evidence over the past 10 yr on the role of high frequency ventilatory techniques in reducing the need for ECMO in neonates and infants. Again, the section on ventilator-induced lung injury in Chapter 31 is so brief it misses the crux of the most active area of ventilation-related research in our ICUs today. Such deficiencies are

inevitable in a book that has tried to broaden its coverage of an already huge field. Perhaps covering the pathophysiology of pulmonary disease is a sufficient and valuable goal, and treatment should be left to other venues? Despite these minor reservations this 5th edition unquestionably continues to be the premier respiratory physiology resource for our specialty.

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Manual of Emergency Airway Management
Ron M. Walls (Ed.). Lippincott Williams & Wilkins,
 2000. 240 pages. \$42.95 (US). ISBN 0-7817-2616-6

A textbook on airway management, specifically intended for Emergency physicians is desperately needed, since, as the book's Editor-in-Chief writes "Airway management defines the specialty of emergency medicine...and [it is] often the emergency physician alone, who is...ready to respond immediately to a life-threatening airway crisis." I confess—it was difficult to remain dispassionate about this book after such an affront to otolaryngologists and anesthesiologists.

This book is a companion to the National Emergency Airway Management course, developed and administered by its authors. The course, like their book, provides an algorithmic approach to emergency airway management and, while the book contains helpful illustrations and tables and provides a number of useful mnemonics, the complexity of the algorithms is staggering and unmanageable.

They identify a number of generic settings including the "crash airway", the "difficult airway" and the "failed airway". But the cornerstone for emergency airway management is the "rapid sequence intubation". This is not surprising given that virtually all Emergency Department (ED) patients have full stomachs, but Walls states that there "are no absolute contraindications [to rapid sequence intubation]. Difficult intubation per se is not a contraindication to RSI..." In support of this statement, they invoke an abstract from the National Emergency Airway Registry describing a 99% success rate in 4000 ED RSI intubations.

The recommended management of the "failed airway" is simple: if the oxygen saturation is greater than 90%, techniques such as the intubating laryngeal mask, the Combitube, lightwand and fiberoptic intu-

bation can be considered; if the saturation is less than 90% a surgical airway is recommended. I would recommend that additional attention be paid to the training of direct laryngoscopy. Unfortunately, this is described superficially and an unconventional technique (intended for use a straight blade) is recommended for all laryngoscopes, without any evidence to support its efficacy.

While this book may meet the needs of the Emergency Room physician, I was frustrated by unsupported, contentious statements, excessively complex algorithms and insufficient attention to direct laryngoscopy and adjunctive techniques.

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