Alan Jay Schwartz, M.D., M.S.Ed., Editor

Applied Anatomy for Anaesthesia and Intensive Care.

Edited by Andy Georgiou, F.R.C.A., D.I.C.M., E.D.I.C., F.F.I.C.M., Chris Thompson, F.R.C.A., E.D.R.A., James Nickels, F.R.C.A. Cambridge, United Kingdom, Cambridge University Press, 2014. Pages: 195. Price: $105.

The fundamental challenge—and, conversely, the inherent joy—of anesthesiology flows from its multidisciplinary nature. Every day, we are called upon to synthesize the basic sciences of anatomy, physiology, and pharmacology and apply them to our patients, whose every organ system—yes, even those beyond the immediate focus of our surgical colleagues—will be affected by our decisions. Although we must study and have access to texts dedicated to highly specific components of our practice, it can also be helpful to have a more general guidebook that ties multiple aspects together and provides a sense of the forest for the trees. A welcome addition to the latter group is the recently released *Applied Anatomy for Anaesthesia and Intensive Care*.

As the title implies, this book provides an overview of basic anatomy and covers a panoply of procedural interventions based on this knowledge. Regional neuraxial blocks receive top billing, but also included are a wide range of central neuraxial techniques, venous cannulation sites, and even a few surgical maneuvers, such as cricothyroidotomy. The chapters are arranged geographically, in the manner of a basic medical school anatomy course; in order, the authors cover the spine, head, neck, thorax, upper limb, abdomen, and lower limb—the final chapter is a brief overview of fetal circulation that, while interesting, does not feel integral to the material. Of greater utility are the summary of anticoagulation guidelines and general overview of the nervous system presented at the outset, both of which provide an excellent framework for understanding and employing the rest of the text.

Within each section, the authors present an overview of the major anatomical structures—skeletal, vascular, and neural—as well as a light treatment of relevant physiology. Although the illustrations are not always of the same breathtaking quality as those found in an old hard copy of Netter, they are lucidly displayed and color coded, with a clear goal of comprehension and utility—the use of an outline of Queen Elizabeth as a model for cutaneous distribution of the trigeminal nerve is particularly inspired. The procedures are each individually presented in discrete boxes, with a standard description of indications, contraindications, and the different approaches and techniques employed.

It is this last feature that makes this book particularly commendable. Without being either verbose or terse, the procedural sections show how ultrasound-guided and landmark techniques can be separately successful while also showing how they support one another. Particularly at this moment in time—when a generation of attendings primarily schooled in landmark technique is supervising a group of residents almost exclusively trained in ultrasound—a resource that succinctly compares and unifies these schools is immensely valuable.

Of course, the downside of brevity is that some valuable material will inevitably miss the cut. Of note, there is essentially no discussion of the evidence behind different approaches of the same procedures; the reader is left to wonder, for example, whether one of the four landmark approaches to the sciatic nerve—Labat, Mansour, Raj, and Beck—has been shown to be more efficacious, or whether it is simply dependent upon the provider. Likewise, there is no mention of what medications and doses are most commonly employed for various blocks. One could say that these are beyond the scope of this work, but it would nonetheless be helpful to the novice to get at least get a rough sense of these issues. Finally, it would be helpful to have a separate index specifically for the procedures themselves, as this might help the anesthesiologist seeking to quickly refresh their memory on a given intervention.

In their introduction, the authors state their desire to create a book for both "reference and core knowledge" as well as for readers to "revise and develop their procedural skills." I am happy to report that they succeed on both counts. Whether you are a new resident trying to learn about how to apply your anatomical knowledge to different procedures, a seasoned attending looking to review the underpinnings of your everyday practice, or someone on either side of the generational gap, eager to understand the philosophy in which the other side was trained, *Applied Anatomy for Anaesthesia and Intensive Care* is well worth your time.

Douglas Hale McMichael, M.D., Northwestern University Feinberg School of Medicine, Chicago, Illinois. douglas.mcmichael@northwestern.edu

(Accepted for publication April 20, 2016.)

Pediatric Anesthesiology: A Comprehensive Board Review.

Edited by Kai Matthes, M.D., Ph.D., Anjolie E. Laubach, M.D., Ellen Wang, M.D., T. Anthony Anderson, Ph.D., M.D. New York, Oxford University Press, 2015. Pages: 443. Price: $125.00.

Since the American Board of Anesthesiology (ABA) announced the subspecialty certification exam in pediatrics in 2013, board-eligible attending physicians and trainees have been scrambling to find a comprehensive question–based study aid. While many review courses and study outlines are available, often at a hefty price, few have had

 Anesthesiology 2016; 125:442-3

<zdoi;10.1097/ALN.0000000000001170>

accompanying questions to actually test knowledge. Rather, it has been up to individuals to gather together old-practice board review or Anesthesiology Continuing Education questions on their own in order to fill this gap. Finally, the board review book that people have been looking for has arrived! *Pediatric Anesthesiology: A Comprehensive Board Review* is a "high-yield study aid" that is composed of over 600 questions and full explanations of their answers. The authors organized the textbook based on the published ABA Pediatric Anesthesiology certification content outline, and each major topic within the outline is covered. This includes sections on basic science, organ-based basic and clinical sciences, clinical subspecialties, clinical sciences of anesthesia, and special problems or issues. Each section of the text is then further subdivided into chapters based on the subheadings of the ABA outline.

Questions have been developed in the ABA format, with a stem consisting of a clinical-based scenario followed by four answer choices. While some chapters have as few as 10 questions (Special Techniques and Situations), others have up to 98 questions (Cardiovascular System), depending on the breadth of the subject area. Even though some subjects have fewer questions devoted to them, the authors cover all of the topics in an appropriate amount of detail, seemingly taking into account their relative weight on the actual exam.

An answer key is included that is particularly helpful and detailed. Each question has an answer discussion in which the subject is explored in greater detail, with explanations of why an answer is correct, as well as why the other choices are incorrect. Often, succinct tables and figures are also included to consolidate the information. For instance, in Chapter 4 on the respiratory system, there are 24 questions and their answers presented. The answer key has several helpful images on lung volumes in infants and adults, the zones of lung perfusion, and flow-volume curves. Tables on maintenance of functional residual capacity, normal respiratory values, and techniques for single-lung ventilation are also reproduced, to just name a few. Between the written explanations and these high-yield figures, the vast majority of the ABA content outline on the respiratory system is covered.

To further help, important points in the text are bolded so that the reader can refer to these more easily in later review. A separate section, entitled "Key Facts," then follows each answer, with bullet points to reiterate the take home message of the question. Finally, references are provided to allow for further reading on a specific topic as needed. Often, these resources are the major pediatric anesthesiology textbooks, from which question writers for the actual exam are sourcing much of their information.

In conclusion, question-based format study resources have long been useful tools to prepare for the written certification exams in anesthesiology and its subspecialties. *Pediatric Anesthesiology: A Comprehensive Board Review* is the first of this kind in pediatrics. With hundreds of questions that have been developed according to ABA standards, it allows for all types of practitioners to test their knowledge on the majority of topics covered in the published content outline for the pediatric anesthesiology written examination. With explanations of the answers that highlight important facts and key points, this textbook provides a concise yet comprehensive review of the high-yield information one needs to know for the exam. As a special bonus, it costs about a quarter of the amount of many of the online review courses that are currently out there. With this text, the gap in question-based study resources in pediatric anesthesia has finally been filled.

Nina Deutsch, M.D., Children's National Medical Center, Washington, D.C. ndeutsch@cnmc.org

(Accepted for publication April 20, 2016.)