



The Pediatric Procedural Sedation Handbook

Cheryl K. Gooden, Lia H. Lowrie, Benjamin F. Jackson (Editors). Oxford University Press, 2018, paperback, 504 pages. ISBN: 978-0-19-065911-0

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This comprehensive text, *The Pediatric Procedural Sedation Handbook*, is an easy, enjoyable read. Although written for a wide audience, it specifically targets sedation practice in the United States. Consequently, some aspects of a “sedation service” that are discussed are not relevant to all readers, and some of the medications recommended are not available in every country. The handbook has a consistent format, however, with each chapter providing background information on the relevant topic and then concisely summarizing the latest publications using easily understood tables and/or charts. The reader can refer to a section of interest and glean many substantial gems. It is a more up-to-date version of a similar, previous handbook on the subject – *Pediatric Procedural Sedation and Analgesia*.¹

The handbook is divided into three main Parts: 1. Fundamentals of Sedation, 2. Procedural Sedation, and 3. Beyond Sedation. Each Part has several chapters, with some containing several sub-chapters that explore the specific topic in more detail. The book concludes with a useful appendix containing all the medications cited in the handbook.

Part 1. Fundamentals of Sedation focuses on topics that are important to consider before a sedative is administered. The chapters place enormous emphasis on preparation, airway and patient assessment, and monitoring to ensure the patient's safety. The reader is repeatedly reminded to value the experience as an important objective for both patient and parent, from the pre-sedation assessment through recovery. We, as providers, must minimize psychological trauma and fear (of both patient and parent) to ensure that any future procedures are tolerated

as well as possible. I was particularly captured by the coverage in Chapter 3, Sedation as a Continuum, and Sub-Chapter 6.4, Fasting and Aspiration Risk in Procedural Sedation. As an anesthesiologist, I have struggled with the fine line between deep sedation and general anesthesia. These chapters clearly set out the various levels of sedation and encourage the reader to use new ways to explain the sedation level to parents and trainees. Also, the detailed comparison of patients' fasting status with respect to acceptable depths of sedation and the associated statistical references reinforces safe sedation practice.

Part 2, Procedural Sedation, discusses every conceivable procedure that might require sedation, recommending the various medication options and their optimal route of administration. It also highlights the contributions of child life specialists (an entire sub-chapter in Part 3 is devoted to this subject) in facilitating the least-traumatizing, most successful experience. Two chapters specifically focus on children with autism spectrum disorder and cerebral palsy, respectively, addressing some of the latest publications on these conditions. The chapters were full of refreshing new information and instilled a sense of empathy in recognizing the difficulties with which these families must cope and how our professionalism could ease their fears.

Part 3, Beyond Sedation, emphasizes the administrative aspects of implementing a professional sedation service, including provider assessment, credentialing, and even billing. Although the chapters in Part 3 are most specific for the US reader, there were still many important concepts and principles that are applicable to any sedation service. Sub-Chapter 16.3, Child Life Specialists, is particularly enlightening, complementing several chapters in Part 2.

The book was written by some very well-known authors, each responsible for only one chapter, thus creating various silos of information. As a result, however, there is considerable overlap and little cross-referencing among the chapters. For example, if one wants to research

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neonatal apoptosis, Sub-Chapter 9.5, Risks, provides an excellent review, but Sub-Chapter 11.4, The Premature Infant, fails to reference it. Similarly, laryngospasm is discussed as a moderate complication in Sub-Chapter 9.3, Moderate Events, without reference to Sub-Chapter 9.6, Methods of Rescue and Response, where the rescue protocol is described in detail. Consequently, the reader must make an extra effort to collate all the information. Perhaps in the next edition the editors could design it so the handbook is easier to use and more efficient.

I was disappointed not to see the combination of propofol and remifentanyl discussed as a sedation option. A mixture of propofol and remifentanyl ($2.5 \mu\text{g mL}^{-1}$) infused at up to $200 \mu\text{g.kg}^{-1}\text{min}^{-1}$, is an extremely useful method to induce moderate-to-deep sedation for a host of minimally painful procedures. The child breathes spontaneously and recovers quickly. The provider, however, must be comfortable with the use of propofol as the main agent of sedation.

All in all, *The Pediatric Procedural Sedation Handbook* is useful and concise. I would recommend a copy of this book for any pediatric sedation service, especially as a reference source for trainees to consolidate their knowledge. In particular, it could be referenced when planning sedation for a complex patient as it provides excellent roadmaps for navigating these situations.

Conflicts of interest None declared.

Editorial responsibility This submission was handled by Dr. Hilary P. Grocott, Editor-in-Chief, *Canadian Journal of Anesthesia*.

Reference

1. B. Krauss, R.M. Brustowicz. *Pediatric Procedural Sedation and Analgesia*. Lippincott Williams & Wilkins; 1999.

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