

RAPID SEQUENCE INTUBATION & Rapid Sequence Airway: An Airway 911 Guide

By Darren Braude, MD, EMT-P

Reviewed by Kevin Nooner, RN, MSN, CFRN, CEN, EMT-P

Darren Braude, MD, EMT-P, has written an easy-to-read, meat and potatoes text focusing exclusively on rapid sequence intubation and rapid sequence airway. As acknowledged in the preface, this is not a comprehensive airway text, but it is a great resource for these specific procedures for any level of provider.

The text reads more like a conversation with a personal mentor than an airway reference book, including some candid comments expected in an open discussion. Its format leaves wide margins, allowing ample room for the reader's notes. The use of color-coded icons easily identifies specific material, such as evidence-based medicine, caution warnings for potential pitfalls and green keys for important information. Additionally, blue boxes are used to discuss controversial material that could be confusing to practitioners not well-versed in RSI.

The eight chapters conclude with a bulleted list of take-home points. Many of the chapters also contain a case study in which Braude leads the reader through an airway scenario, providing insight to his thoughts on each step of the procedure. Dedicated chapters include basic principles, pharmacology, difficult and missed airways, the actual steps of an RSI and rapid sequence airways. A separate chapter focuses on legal issues surrounding RSI, documentation and the necessary quality assurance program.

The author describes the components of an RSI as "The 10 Ps of Rapid Sequence Intubation." These begin with pre-oxygenation of the patient and conclude with post-intubation management. Step four is "ponder." This is a time to consider if this is the best option for this patient and to ensure that you have backup plans. Another of these steps is positioning, which is covered throughout the book, giving some techniques that can maximize the success potential of each intubation attempt.

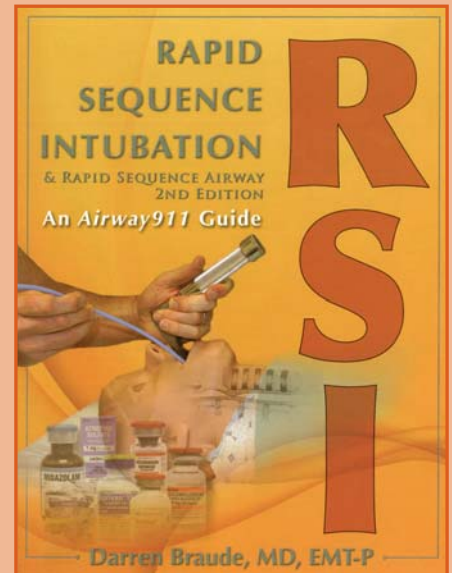
Braude also introduces the concept of rapid sequence airway. This technique uses all of the steps and medications used with an RSI, but the goal is to place an extraglottic airway device—such as a laryngeal mask airway, Combitube or King airway—and not to place an endotracheal tube. Since these devices are inserted without laryngoscopy, the procedure can be performed more quickly. It can be utilized for those patients who desaturate quickly or during short transport times.

The airway pharmacology provides a good review for the medications most commonly encountered during an RSI. There is a text box which identifies the dose, peak onset, duration, adverse effects, contraindications and uses for each of the medications. Premedications, induction agents, paralytics, sedatives and analgesics are discussed.

The difficult airway chapter presents some methods to predict a difficult airway. A focus is maintained on optimizing each intubation attempt. This may be accomplished by patient positioning or the use of additional devices, such as using video laryngoscopy.

The use of backup airway devices and alternative airways is also discussed. This chapter includes many illustrations of specific adjuncts or procedures to help aid in the reader's understanding. An algorithm for multiple attempts is presented, with a focus on recognizing the difficult airway and getting assistance.

Those not familiar with the RSI procedure should find this a good introduction, while experienced providers will find it a good review and discussion of current controversial items and new techniques. From nurses at the stretcher side to those performing laryngoscopy, I would encourage anyone who is involved in this procedure to read this text. As the author states, "The airway is just too damn important."



This book can be purchased by visiting the ENA Marketplace at www.ena.org/store or by calling Member Services at 800-243-8362 between 8:30 a.m. and 5:00 p.m. (Central time, weekdays).

ENA Member Price: \$45

Non-member Price: \$50

Violence Surveillance Study Update

Continued from page 11

- Approximately 15.4 percent of emergency nurses in the study who indicated being victims of workplace physical violence sustained a physical injury.
- Nurses who worked in a facility that did not have a zero tolerance policy for workplace violence were significantly more likely to have indicated experiencing workplace violence (57.9 percent) as compared to nurses who worked in a facility that had such a policy (42.2 percent).
- Of the emergency nurses who indicated experiencing physical violence, almost half (49.0 percent) reported that no action was taken against the perpetrator(s) as a result of the violence, and a quarter (25.5 percent) reported that the perpetrator was given a warning.

REVIEWS OF BOOKS, VIDEOS, CDs, AUDIOTAPES, WEB SITES, AND MORE, WRITTEN BY EMERGENCY NURSES

Media Reviewer: Scott DeBoer, RN, MSN, CEN, CPEN, CCRN, CFRN, EMT-P, Chicago, IL

Rapid Sequence Intubation (RSI) and Rapid Sequence Airway: An Airway911 Guide. 2nd ed.

By Darren Braude, MD, EMT-P

Albuquerque (NM): Airway911; 192 pp, \$50, ISBN 978-0-578-00903-2

In his preface, the author says, “All I ask from you is not to let this book sit on the shelf; the airway is just too damn important.” As an emergency and flight nurse for more than 15 years, I loved this book. It is a great resource for those in emergency, critical care, or transport nursing. Even if you are not the person actually performing the intubation or placing the advanced alternate airway, this book is a wonderful review of the critical measures associated with emergency airway management. This book was written by a paramedic who later became an emergency and flight physician. His mix of real-life prehospital and ED experiences is especially evident when the author describes past airway management adventures.

Eight chapters make up this very user-friendly guide: (1) Introduction; (2) Basic Principles; (3) Pharmacology; (4) The Difficult and Missed Airway; (5) Pediatric Considerations; (6) The 10 P’s of Rapid Sequence Intubation; (7) Rapid Sequence Airway; and (8) Legal Stuff and Quality Assurance. Most chapters also include the author’s practical “take home points.” The author uses real-life case scenarios throughout the book to summarize the previously presented information. In addition, the majority of paragraphs have one or more icons to the reader as to Evidence-based medi-

cine (self explanatory); caution (highlighting potential pitfalls); or key (author’s most important points.)

One of the most helpful features I found was the use of “blue boxes” throughout the book. The author describes the information in these boxes as “Advanced, Controversial, or Otherwise Supplementary Material.” The information in these boxes is written in a question and answer format, with such questions as: “Why does it seem like everyone eats and drinks right before their accident?,” “Is it possible to suffocate someone with a bag-valve-mask?,” and “I’ve heard that Fentanyl does not cause hypotension, but I swear I’ve seen it. Is that possible?” These boxes are a great way to summarize the medication, procedure, and equipment controversies in a very short and sweet manner.

The author provides a non-biased review of traditional and new-to-the-market airway toys, medications, and placement confirmation devices. In addition, the concept of rapid sequence intubation versus rapid sequence airway is discussed at length. Rapid sequence airway is a vital addition to the current airway management armamentarium as more and more prehospital and emergency/critical care settings are now embracing this concept.

The book, with more than 100 sharp, full-color pictures, is written in a style that is very easy to understand, and more importantly, very easy to remember. It is almost as if you were sitting down and talking about airway management with an experienced mentor. In summary, this book is an invaluable resource to emergency, critical care, and transport professionals, all of whom should remember the American Lung Association’s current motto, “If you can’t breathe...Nothing else matters!”—*Scott DeBoer, RN, MSN, CEN, CPEN, CCRN, CFRN, EMT-P*

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Rapid Sequence Intubation & Rapid Sequence Airway: An Airway 911 Guide

By Darren Braude, MD, EMT-P

Publisher: Department of Emergency Medicine University of New Mexico Health Sciences Center, 2009

By the author's own admission, this isn't a comprehensive airway management text but is instead designed as an adjunct to a rapid sequence intubation (RSI) course. The text is written in a very relaxed, conversational tone and presents the fundamental elements of RSI and rapid sequence airway (RSA) management. RSA differs from RSI in that it deals with the placement of non-visualized airways, such as the Combitube and King airway, instead of the endotracheal tube.

The basic steps of RSI are clearly laid out with abundant illustrations, and case scenarios throughout the chapters provide excellent examples of particular points and should stimulate discussion. The sections on failed attempts are well written, and the author provides excellent suggestions for improving success on the next attempt.

The book perfectly describes the various devices and adjuncts used to perform intubation and improve first pass success; however, the Airway 911 course is based on the premise that a provider may have three failed attempts at intubation before going to a rescue airway device. This

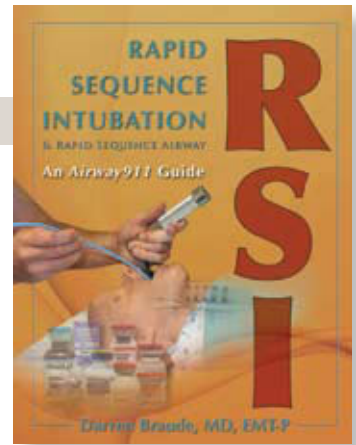
concept is very controversial, particularly in the prehospital arena. The text doesn't mention how to modify this for your service; therefore, anyone using this resource would be well served to read it thoroughly before adopting it outright.

I commend the author for his passion to provide prehospital providers with another resource for learning this high-acuity procedure, but I caution readers that Dr. Braude states several professional opinions that may be inconsistent with those of your medical director. Also, although icons within the chapters indicate associated texts are "evidenced based," they aren't specifically referenced to the bibliography.

The search for the pre-hospital airway management Holy Grail continues but Dr. Braude and other should be commended for their efforts. The bottom line is that no text stands alone without authoritative didactic interaction and skilled, hands-on practice.

—**Keith Wesley**, MD, is the State EMS Medical Director for Minnesota and the medical director for Health East Medical Transportation in Minnesota.

JEMS



RAPID SEQUENCE INTUBATION & RAPID SEQUENCE AIRWAY,
2ND ED.

By Darren Braude, MD, EMT-P.

Albuquerque, NM: Department of Emergency Medicine,
University of New Mexico Health Sciences Center, 2009;
192 pp; \$50.00 (softcover).

It has been said that the active management of the airway is the most important clinical skill that emergency physicians must possess.¹ As such, providers in the emergency department and out-of-hospital settings must be fully prepared to manage the difficult airway. Appropriate training is the key to meeting this critical challenge. Over the past several years, a number of textbooks have been published to provide a comprehensive reference on the approach to airway management. However, Dr. Darren Braude, Director of EMS Services at the University of New Mexico School of Medicine, and co-director of the emergency airway training program course “Airway911,” freely admits that his slightly-larger-than-pocket-sized handbook, *Rapid Sequence Intubation & Rapid Sequence Airway, 2nd Edition*, is not one of them. In the second edition of this exceptional work, Braude seeks to incorporate the important elements of emergency airway control into a very manageable guide for out-of-hospital and emergency care providers.

The 192-page paperback is organized into eight chapters (basic principles, basic pharmacology, difficult and missed airway, pediatric considerations, 10 Ps of rapid sequence intubation, rapid sequence airway, legal issues, and quality assurance). It also has a nice bibliography that is arranged by chapter. A special feature of this book is that the author includes a series of icons and text colors to identify the important points. For example, sections of text that are pulled directly from recent literature appear in blue ink and have a small icon (a blue textbook with the letters “EBM” on it) to alert the reader of an evidence-based pearl. Additionally, potential pitfalls in airway management are highlighted in red and have an icon—a diamond-shaped red sign with “caution” written on it—appearing next to it. The most important points within each chapter appear in green ink, along with a green key icon that appears alongside the text. Advanced topics or otherwise supplementary information regarding a topic appear within blue text boxes scattered throughout the book. Additionally, the author lists the major take-home points of each chapter. Finally, between many of the chapters, the author presents a case scenario and then describes his step-by-step approach to each case based on a “LEMONS” assessment,² as well as the 10 Ps of rapid sequence intubation.

Despite its brevity, the handbook has an impressive number of illustrations, photos, and diagrams that compliment the written text. For example, when discussing the role of external laryngeal manipulation in helping to optimize the visibility of the vocal cords, having before-and-after airway photos that demonstrate the technique was truly priceless. On the other hand, however, a few topics deserve additional commentary. For example, the author briefly notes that many providers do not use a curved-blade laryngoscope correctly during intubation. He cites a few reference texts to readers for additional reading on this topic. In the next edition of this text, I would suggest the author includes a separate “blue box” to address this point in further detail. Overall, I find very few faults in this book, which provides a succinct step-by-step guide of rapid sequence intubation for students of all levels.

The author suggests that the book can readily be completed within a short time frame. I could not agree more. I brought the book along with me to this year’s Society for Academic Emergency Medicine Annual Meeting. Despite the frenzy of attending a conference in New Orleans, I was able to finish the book by the time I returned home. Although it should not take the place of a definitive text on emergency airway control, I would certainly recommend this book for out-of-hospital personnel, specifically paramedics or paramedic trainees, as well as other allied health providers who manage critical care patients. I also believe this book would be quite useful for emergency medicine residents or attending-level emergency physicians as a handy, concise review of the core competencies necessary for emergency airway management.

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2. Braude D. Difficult airways are “LEMONS”: updating the LEMON mnemonic to account for time and oxygen reserve. *Ann Emerg Med.* 2006; 47:581.

Rapid Sequence Intubation and Rapid Sequence Airway, 2nd Edition

Review by Francis X. Guyette, MD

Massachusetts Eye and Ear Infirmary Illustrated Manual of Ophthalmology, 3rd

Review by Daniel J. Dire, MD

0196-0644/\$-see front matter

Rapid Sequence Intubation and Rapid Sequence Airway, 2nd Edition

Braude D

Department of Emergency Medicine University of New Mexico Health Sciences Center, 2009

192 pages, \$50

ISBN 978-0-578-00903-2

The author addresses rapid sequence intubation and has created an excellent primer for any provider learning about rapid sequence intubation. The book is easy to understand and generally well written in a conversational style. The material is focused on those providing emergent airway management and is particularly useful for out-of-hospital providers. This is not, nor does it claim to be, a definitive text for airway management. The ideal audiences for this book are providers with some understanding of airway management who are ready to learn about rapid sequence intubation. This includes paramedics, nurses, respiratory therapists, physician trainees and those physicians who practice emergency airway management who may not have had formal training in the technique.

The book is divided into 8 chapters covering the basic principles of airway management, pharmacology, difficult airway, pediatric airways, methods, rescue and alternative airways, and quality assurance. Each chapter ends with a case scenario to demonstrate the concepts presented. Key concepts and pitfalls are noted with icons in the margin of the text. The author incorporates evidence-based principles into the text although footnotes to specific references are not provided.

Dr. Braude also makes an effort to address several key concepts and misconceptions perpetuated in airway management. He describes the dangers of sedation-assisted intubation and the advantages of extra-tracheal manipulation over older techniques like BURP (Backwards, Upwards, Rightward Pressure). Some of the nomenclature is not widely used but it is adequately explained both in the text and in the glossary. Dr. Braude also advocates the use of the 10 P's, a checklist for intubation to ensure adequate preparation of equipment and personnel prior to intubation attempts. On occasion, the author provides the reader with opinions and personal preferences but always sites them within the context of the range of interventions accepted as standard of care. Chapter 7 covers rapid sequence airway, a technique growing in popularity in which a supraglottic airway is chosen over endotracheal intubation due to the patient's condition, the

provider experience, or the circumstances of the intubation. This important concept has the potential to greatly improve patient safety during out-of-hospital airway management.

Rapid sequence intubation and rapid sequence airway are an excellent introduction to advanced airway management using induction agents and paralytics. The book covers all the salient points necessary to perform emergent airway management and would be an excellent companion for formal airway training. While written with out-of-hospital providers in mind, physician trainees and midlevel providers would also find this book useful.

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Massachusetts Eye and Ear Infirmary Illustrated Manual of Ophthalmology, 3rd

Friedman NJ, Kaiser PK, Pineda R

Saunders, 2009

634 pages, \$120.00

ISBN 978-1-4160-6175-5

This soft cover book is a concise manual that covers a broad variety of ophthalmic disorders, many of which will be encountered in the emergency department (ED). This atlas is presented in a user-friendly design that is divided into 12 chapters, the first 11 of which are based on anatomic regions from external to internal (orbit, cornea, anterior chamber, etc) and the last chapter is on visual acuity, refractive procedures, and sudden vision loss. The reader is quickly guided through the diagnosis and management. I really liked the color-coded tabbing of each chapter and the highlighting of key components. For example, where appropriate, sections have red-bordered boxes listing "Ophthalmic Emergency." These boxes highlight immediate actions to be taken to treat the condition. Additionally, there are "Management" boxes for quickly finding treatment recommendations of the authors for most of the non-emergency conditions.

One drawback of the book's format is that there are only 2 pages devoted to the differential diagnosis of common eye "complaints; however, this is new from the last edition

Scott DeBoer RN,MSN, EMT-P
Flight nurse, University of Chicago
From the *Journal of Emergency Nursing*:

“As an emergency and flight nurse for over 15 years, I loved this book...with over 100 sharp, full-color pictures, is written in a style that is very easy to understand, and more importantly, very easy to remember. It is almost as if you were sitting down and talking about airway management with an experienced mentor. In summary, this book is an invaluable resource to emergency, critical care, and transport professionals...”

Mel Herbert, MD
Emergency Physician, LAC-USC
Founder and Editor, *EM-Rap*
From *EM-Rap*, August 2009, CD 1

“It is a really fun book. It’s very full of pictures and lots of good information... I am going to suggest it to people because it’s very readable. It is pretty and well put together. Well done...”

Irvin Smith, MD
Anesthesiologist and EMS Medical Director, Paducah, Kentucky

“I just finished studying the RSI textbook. All I can say is "WOW", great job to you and your colleagues. Trust me, I have read a lot of stuff on "airway management" in the past 30 years. Most everything that I can get my hands on in both the Anesthesiology and EMS literature. Your text is the best, most concise treatment of RSI and pre-hospital advanced airway management that I have seen. It is easy to read and hard to put down. I especially like your idea of putting EBM topics in blue print that stands out. I did not have to use a yellow highlighter, as all the material was important. Anyone who steps up to the plate to manage an airway, either on the street, in the ED, OR or ICU will benefit from this text.”

Daniel Davis, MD
Emergency Physician and Airway Researcher, University of San Diego

“I very much like the broad scope, that underscores the philosophical approach to airway management...I think you did an outstanding job of avoiding the controversial pitfalls but addressing the critical issues that seem to generate them.”

Bryan Bledsoe, MD
Emergency Physician, Educator, Author

“I have looked through the book and think you and the University did an excellent job. It is well-written, well laid out, and nicely composited.”

Asher Brand, MD
Emergency Physician and EMS Medical Director, Virginia
From Amazon.com

“This is a great review and a must read for anyone who manages or assists in emergency airway management. It should be required reading at every EM and Anesthesia residency!”

Paul Bearce, EMT-P
EMS Battalion Chief, Rio Rancho Fire Department, New Mexico
From Amazon.com

“As an EMS manager, I feel that this book is a must-read for all street providers. Even if your service is not currently performing RSI, there is great information about good airway management that will benefit anyone who is providing patient care. Dr. Braude has a unique writing style that neither talks down to, nor confuses the reader. The chapters are easy to follow and his key points, cautions and evidence-based tags help to guide the reader.”