An Introduction to Clinical Emergency Medicine is a much-needed resource for individuals practicing this challenging field. This textbook is novel in its approach to emergency medicine topics. It describes in detail the best and most current methods to care for patients in the emergency department, including initial evaluation, generation of differential diagnoses, problem solving, and management of challenging conditions based on presenting symptoms. Unlike other textbooks, in which the diagnosis is known, this textbook approaches clinical problems as clinicians manage patients — without full knowledge of the final diagnosis. It provides an understanding for how to approach patients with undifferentiated conditions, ask the right questions, gather historical data, utilize physical examination skills, and order and interpret appropriate laboratory and radiographic tests. This textbook also provides current management and disposition strategies with controversies presented, including pearls, pitfalls, and myths for topics covered. Chapters are written by nationally- and internationally-respected clinicians, educators, and researchers in the field of emergency medicine. An Introduction to Clinical Emergency Medicine offers just the right combination of text, clinical images, and practical information for students, residents, physician assistants, nurse practitioners, and experienced physicians in all medical disciplines. The overriding goal of this textbook is to improve the practitioner’s understanding of emergency medicine principles and practice, directly benefiting patient care in a variety of emergency settings.
An Introduction to

Clinical Emergency Medicine

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Foreword

Emergency medicine represents the unique combination of rapid data gathering, simultaneous prioritization, and constant multi-tasking in a time-constrained fish bowl — with all decisions subject to second-guessing by others. It is a patient complaint-oriented specialty in which stabilization based on anticipation supersedes lengthy differentials and diagnostic precision.

In light of these unique aspects and attributes of clinical practice, one would expect the textbook-based literature supporting this specialty to be uniquely written and reflective of its singular approach. This has rarely been the case, a fact that has puzzled me for almost 30 years. It is true that sequential prose does not accurately represent the parallel processing necessary to practice effective and efficient emergency medicine. Still, it would seem the ideas of priority diagnoses, stabilization, initial assessment, prioritized differential diagnosis, and the rest that follows could be delineated and emphasized within the limitations of the printed word. I am pleased and delighted to find and convey to the reader that this text succeeds in translating this untraditional emergency medicine approach into a textbook format.

This text, edited by two academicians, Swaminatha V. Mahadevan, MD and Gus M. Garmel, MD from one of the nation’s premier academic institutions and leading health care organizations, fulfills what I have long believed is the correct and necessary pathway to understanding the approach and thought processes that drive clinical decision-making in emergency medicine. The focus of the text is appropriately “presenting complaint-oriented,” with a thorough coverage of the chief complaints responsible for the majority of emergency department visits. Each chapter is structured in a consistent manner that allows the experienced and uninitiated alike to clearly track the thought process needed to bring one to a successful prioritized conclusion of care, even when a specific diagnosis has not been made.

The range of authorship is excellent, reflecting the talents and capabilities of an entire new generation of emergency physicians trained in the specialty. These authors clearly understand emergency medicine’s unique principles.

It is a rare gift to witness and participate in the passing of our unique specialty’s visions onto the capable hands of these you have had the opportunity to train and know. Due to this textbook’s organization and content, I am pleased to finally “rest in peace,” at least academically. Drs. Garmel and Mahadevan demonstrate their clear understanding and literary virtuosity in conveying the truth about our specialty to others.

It is my pleasure to congratulate them on a successful venture, to warn them that having started on this path serial additions and subsequent editions will rule their life for as long as they, the publisher, and the sales last, and to express a personal sense of satisfaction and pride in their accomplishment. To the reader, I say enjoy yourself. Take much away from this text and welcome the truth as we currently know it, presented in a manner that accurately reflects the way we practice.

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A special thank you goes to Dr. Glenn Hamilton for writing our preface and confidently “passing the torch” to us as medical educators. The diligent efforts by our contributors, who produced the most updated and comprehensive chapters possible, was astonishing. Several friends and colleagues assisted in reviewing chapters and should be recognized: Drs. George Sternbach, Greg Moran, Darius Moshfeghi, and Robert Norris. Drs. Amal Mattu, Steven Shpall, and R. Brooke Jeffrey contributed ECGs, dermatologic images, and radiographs, respectively, at our request. Other authors granted us permission to use images from their own textbooks: Drs. Lawrence Stack, Basil Zitelli, Diku Mandavia, and Ron Walls. Finally, we are grateful to Chris Gralapp, MA, CMI (Medical and Scientific Illustration, www.biolumina.com), whose original art is not only stunning but also certain to assist the readers’ understanding of the challenging concepts presented in this textbook.
Dedication

Swaminatha V. Mahadevan, MD, FACEP, FAAEM

To my parents, Sarojini and M.S. Venkatesan, and my grandparents: thank you for your continual sacrifices for the sake of your children.

To my mentors: thank you for teaching me not to follow blindly but to ask, question, and discover.

To the residents and medical students: I am continually inspired by your genuine desire to learn, and marvel at your ideas, enthusiasm and accomplishments. It is a privilege to teach, advise, and befriend each one of you.

To Gus: without you, this book would have remained another good idea (and wasted opportunity).

To my wife Rema and my children, Aditya and Lavanya: thank you for allowing me to pursue and fulfill my goals and dreams, both in and out of medicine. You fill me with strength, hope and happiness.

Gus M. Garmel, MD, FACEP, FAAEM

To my parents, siblings, and extended family: thanks for your unconditional love and support.

To my friends and physician colleagues, who share my passion for life and emergency medicine.

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To Maha, who, in collaboration, made this vision a reality.

And to Laura: my spouse, partner, and best friend. You are my oxygen.