

7th EDITION

ROSEN'S EMERGENCY MEDICINE

CONCEPTS AND CLINICAL PRACTICE

Marx Hockberger Walls

Adams, Barsan, Biros, Danzl, Gausche-Hill, Ling, Newton



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Volume 2

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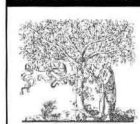
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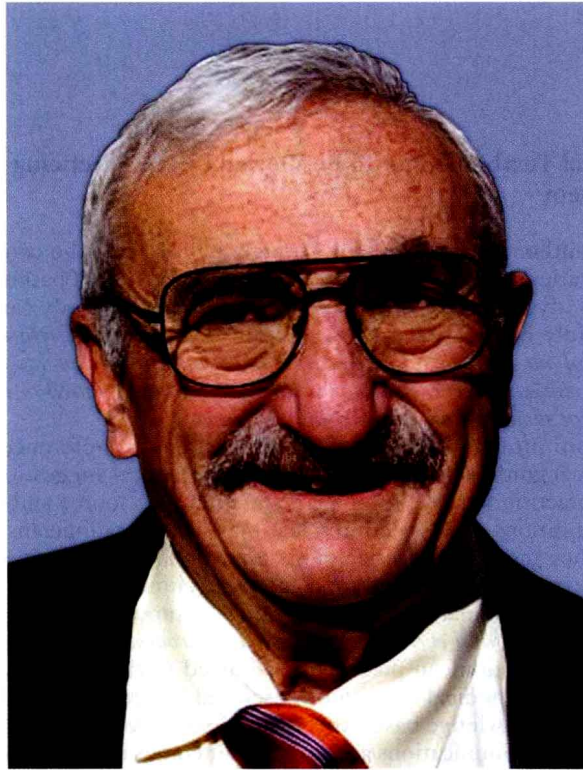
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We wish to dedicate this 7th edition to Peter Rosen, MD, the founder of this textbook and its Editor-in-Chief through the first four editions. Thirty-one years ago, in 1978, Peter came to the belief that an emergency medicine textbook should be written by emergency physicians, and 5 years later, in 1983, he was the first to carry out that mission when the inaugural edition of this textbook was published. While this eponymous work is significant, Peter is more widely acknowledged as one of the true fathers of academic emergency medicine. He continues to leave his imprimatur on numerous programs and innumerable medical students, residents, and faculty members throughout the country and indeed the world. Many of these individuals, like ourselves, have tried to emulate his unbending leadership, his passion for teaching, and his reverence for emergency medicine and the patients we have the great privilege to serve.

This textbook represents just one of many exemplary accomplishments of one extraordinary man. We are indebted to Peter for his vision and his wisdom. We are unspeakably grateful for the honor of continuing this work, ever humbled by the responsibility of carrying his legacy forward, and beholden to him for helping craft our specialty into what it is today.

*John A. Marx
Robert S. Hockberger
Ron M. Walls*

How this Medical Textbook Should Be Viewed by the Practicing Clinician and the Judicial System

The editors and authors of this textbook strongly believe that the complex practice of medicine, the vagaries of human diseases, the unpredictability of pathologic conditions, and the functions, dysfunctions, and responses of the human body cannot be defined, explained, or rigidly categorized by any written document. *Therefore, it is neither the purpose nor intent of our textbook to serve as an authoritative source on any medical condition, treatment plan, or clinical intervention, nor should our textbook be used to rigorously define a standard of care that should be practiced by all clinicians.*

Our written word provides the physician with a literature-referenced database, and a reasonable clinical guide, which is combined with practical suggestions from individual experienced practitioners. We offer a general reference source and clinical roadmap on a variety of conditions and procedures that may confront clinicians who are experienced in emergency medicine practice. This text cannot replace physician judgment; cannot describe every possible aberration, nuance, clinical scenario, or presentation; and cannot define rigid standards for clinical actions or procedures. *Every medical encounter must be individualized, and every patient must be approached on a case-by-case basis.* No complex medical interaction can possibly be reduced to the written word. The treatments, procedures, and medical conditions described in our textbook do not constitute the total expertise or knowledge base expected to be possessed by all clinicians. Finally, many of the described complications and adverse outcomes associated with implementing or withholding complex medical and surgical interventions may occur, even when every aspect of the intervention has been standard or performed correctly.

The editors and authors of *Rosen's Emergency Medicine: Concepts and Clinical Practice*, 7th Edition

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