

Paul Ellis Marik

Evidence-Based Critical Care

Third Edition

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Learning without thinking is useless. Thinking without learning is dangerous.

—Confucius, Chinese Philosopher (551–479 BC)

To cure sometimes, to relieve often, to comfort always.

—Hippocrates, Greek Physician, Father of Western Medicine (460–370 BC)

*This book is dedicated to the memory
of my father, Colin Sigmund Marik,
a man of great intellect and wit.*

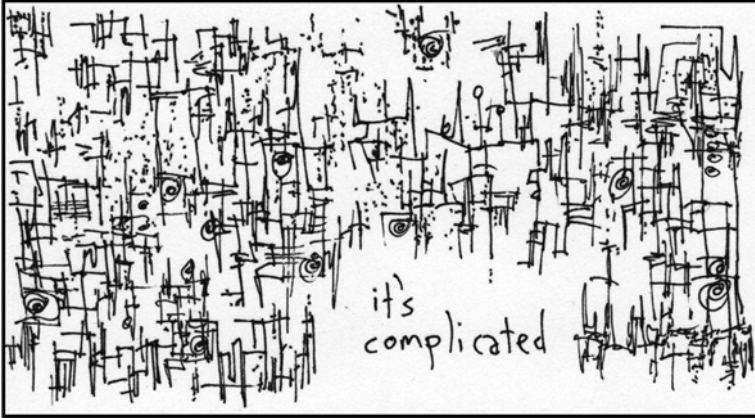


Preface to Third Edition

After completing the Second Edition of *The Handbook of Evidence Based Critical Care* in 2009, I swore that I would rather stick needles in both my eyes than author another updated version of the book. But here we are in 2015 with the Third Edition of *Evidence-Based Critical Care* (no longer a handbook). So what made me change my mind? Most importantly, you, my dedicated readers, have implored me to update the book; I was told, “Medicine as we know it would be incomplete without an updated version.” Your enthusiastic and positive feedback was the driving factors which led me to consider writing this revision. In addition, in the last 5 years we have witnessed a remarkable refinement in the management strategies of critically ill patients best characterized as “Less is More” (see Chap. 2). At the same time we have realized that while many of our patients survive their ICU stay, many have significant residual functional and cognitive disabilities. These changes in our approach and understanding of critical illness have necessitated the updated Third Edition of *Evidence-Based Critical Care*.

However, the basic guiding principles of Critical Care Medicine have not changed; compassionate, dedicated and thoughtful clinicians, who evaluate the functioning of the “whole” patient, ponder their disease processes and pathophysiology and provide the highest level of *Evidence-Based* interventions with the goal of restoring the patient to a quality of life which he/she values.

Due to the vast number of therapeutic interventions that ICU physicians make daily, the topics are presented as narrative summaries of the *best available evidence* rather than as systematic reviews of each and every intervention. In keeping with the goal of providing an evidence-based approach to critical care, references are provided to support the evidence presented. In writing this book my goal has been to take issues that appear complex and make them as simple as possible.



It appears to me that those who really don't have a good understanding of the complexities of physiology, pathophysiology and patient care make things so complicated that they themselves don't understand what they are trying to convey. This concept is exemplified by the following quotes:

Make everything as simple as possible, but not simpler
If you can't explain it simply, you don't understand it well enough

Albert Einstein, Theoretical Physicist, 1879–1955

Evidence-Based Critical Care is not a reference text but presents a practical *evidence-based approach* to the management of critically ill ICU patients. The focus of this book is on issues that pertain specifically to the ICU. As such, the reader is referred to standard medical and surgical texts as well as online resources for more complete information on the wide spectrum of conditions and diseases from which ICU patients may suffer. While all attempts have been made to be current, due to the exponential growth of medical knowledge some of the information presented may already be outdated when this book comes to print. The reader should therefore keep up-to-date with the current medical literature.

The guidelines presented in the book are not meant to replace clinical judgment, but rather to provide a framework for patient management. Individual clinical situations can be highly complex and the judgment and wisdom of an experienced and knowledgeable intensivist with all available information about a specific patient is essential for optimal clinical management.

Norfolk, VA, USA

Paul Ellis Marik

Acknowledgements

This book recognizes my mentors and students who have taught me everything I know and inspired me to learn even more.

A Note to the Reader

The author and publisher have made every attempt to check information and dosages for accuracy. Because information and the science of pharmacology is continually advancing, our knowledge base continues to expand. Therefore, we recommend that the reader check all information and all product information for changes, especially changes in dosages or administration before administering any medication.

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