

# Preface

Today, treatment decisions are expected to be evidence-based, and the pursuit of excellence in clinical practice is an essential element for achieving success in the current health care environment.

Perioperative care of patients with central nervous system diseases is evolving rapidly as increasing numbers of operative interventional techniques and strategies are developed. Physicians, nurses, nurse practitioners and physician assistants treat patients throughout the immediate perioperative period, including during diagnostic procedures and interventional radiology procedures, and frequently participate in critical care treatment for this patient population.

We believe that the broad spectrum of neuroanesthesiology and neurocritical care providers should have a clear understanding of (1) the disease process including pathophysiology, specific diagnostics, and treatment options, (2) the concepts and relevant details of the available neurosurgical interventions, techniques, and (3) means necessary to provide safe and comfortable anesthesia and perioperative care for these patients.

This handbook, entitled *Essentials of Neurosurgical Anesthesia & Critical Care*, is intended to serve as a quick reference guide for those involved in the perioperative care of neurosurgical patients. It is not meant to substitute for a full-length textbook in this field.

Our handbook focuses on day-to-day clinical practice and supports the first-line healthcare provider by anticipating problems and complications in neurosurgical anesthesia and critical care and suggesting solutions and appropriate management. All chapters are dedicated to a single area of concern and designed to walk the reader from the problem to the solution, using a structured algorithmic approach. In addition, each chapter summarizes key knowledge for the practitioner in the field, as necessary, and tables and illustrations are included for quick and easy reference. At the end of each chapter, the most important elements are highlighted for the reader, and references for further reading are provided.

Our handbook is perceived and edited out of the strong belief that perioperative medicine is a true multi-specialty discipline and that patient care is best delivered with a genuine collaborative approach. Therefore, we hope that this handbook will be useful for all healthcare providers involved in the perioperative treatment of neurosurgical patients including trainees in anesthesiology and neurosurgical critical care as well as faculty members in both fields, physician assistants, nurse practitioners, nurse anesthetists, and perioperative nurses.

We believe the handbook format is best because it allows the clinician to have immediate access to solutions to problems in the operating room, post-anesthesia care unit, intensive care unit, or wherever they may occur. Even if the practitioner has the best reference on their office shelf, it is not helpful when acute problems occur at the bedside. This handbook, however, will be portable to every place of practice and will make it easy for the practitioner to identify or quickly review several good solutions for a given problem at anytime.

We have been fortunate that several international leaders in the fields agreed to contribute to our project, and we are convinced that clinicians in both private practice and academic medicine will benefit from the concise information provided from multiple institutions from around the world.

We hope that this book may help to improve further the safety and comfort of our patients who unfortunately have to undergo risky procedures to receive relief from diseases affecting the central nervous system.

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