

Preface

Modern neurocritical care probably started with the polio epidemics of 1916, and the introduction of the iron lung in the late 1920s, to provide ventilatory support to patients with weak respiratory muscles. At that time, neurologists were the primary treating physicians of these patients. However, the advent of polio vaccines and subsequent eradication of this disease from the Western Hemisphere led to a decline of interest in critical care within the neurological community. At the same time, a lack of important developments in neurosurgical techniques helped foster a nihilistic approach to critically ill neurologic and neurosurgical patients. For the last 20 years, we have seen significant enhancement of neurocritical care as a result of improved monitoring techniques, microsurgical approaches, and therapies for various complex neurologic and neurosurgical conditions.

Critical Care Neurology and Neurosurgery begins with recommendations for the organization of a modern and efficient neurosciences critical care unit, which is followed by discussions of intracranial physiology, and current neuromonitoring techniques. The concepts reviewed are paramount to understanding the management of critically ill neurologic and neurosurgical patients. Subsequently, we discuss the latest developments in monitoring of different body systems, emphasizing the management of cardiorespiratory complications and other medical conditions that may threaten the patient's life. This part serves as a useful guide for physicians caring for these patients who are faced with difficult dilemmas, agitated or nutritionally at-risk patients.

The last chapters of the book deal with commonly encountered conditions in the neurosciences critical care unit for which we have several therapeutic alternatives and the importance of good nursing care in our units. *Critical Care Neurology and Neurosurgery* concludes with a discussion on outcomes research in this field and an Appendix of different useful equations for neurointensivists and house officers caring for these patients.

I would like to acknowledge all the contributors who were chosen because of their recognized achievements in furthering our understanding of neurocritical care.

Jose I. Suarez, MD