Textbook of Neuroanesthesia and Neurocritical Care

Volume II - Neurocritical Care Hemanshu Prabhakar Zulfiqar Ali *Editors*



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Hemanshu Prabhakar • Zulfiqar Ali Editors

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Volume II - Neurocritical Care



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Foreword

Neuroanaesthesia and neurocritical care continue to evolve and develop as specialities, presenting those of us responsible for patient care with ever more challenges. Within the operating theatre, technological advances in surgical techniques and imaging have necessitated changes both in the way we work and also where we work. Advances in interventional neuroradiology have led to a greater demand for anaesthetic and critical care input outside of the operating theatre, often in remote sites, with all the associated challenges. An ever-increasing number of surgical procedures of greater complexity alongside an aging population have led to increased demands on the neurocritical care unit. Fortunately, advances in neuroanaesthesia, neurocritical care and neuromonitoring have recognised and facilitated these changes.

It has often been said that neuroanaesthesia is a speciality where the knowledge and skill of the anaesthetist directly influences patient outcome. This remains true today. To this end, the *Textbook of Neuroanaesthesia and Neurocritical Care* edited by Hemanshu Prabhakar covers all aspects of patient care. Volume I rightly begins with the fundamentals of neuroanaesthesia including anatomy, physiology and pharmacology, an understanding of which is essential to underpin good care. There is detailed guidance on the process of anaesthesia for neurosurgery including coexisting problems, special considerations, pain management and near misses. A special topics section includes recent innovations such as robotic surgery, gene delivery and expression, intra-arterial drug delivery and simulation in neuroanaesthesia. In volume II, the complexities of critical care are thoroughly addressed, starting with the fundamentals of neurocritical care through to the intensive care management of specific conditions, neuromonitoring, pain management, ethical considerations and near misses. Again, there is a special topics section on recent advances including research and evidence-based practice.

This comprehensive textbook is an authoritative and practical clinical text. It covers the breadth and depth of the complex specialities of neuroanaesthesia and critical care and includes chapters by many leading names in neuroanaesthesia who have lent their expertise to this work. It will be essential reading for trainees, clinicians and researchers involved in neurosciences. Despite the ever-increasing challenges facing us, this book should provide the reader with the necessary knowledge to enhance their practice and provide optimal neuroanaesthesia and neurocritical care.

Consultant Neuroanaesthetist, Department of Anaesthesia St George's University Hospitals NHS Foundation Trust, London, UK Judith Dinsmore

Preface

The editors feel pleased to present the first edition of *Textbook of Neuroanesthesia and Neurocritical Care*. This book has tried to cover the basic concepts of neuroanaesthesia and neurocritical care along with the major changes that have evolved in the field of neurosciences in the last decade. An attempt has been made by the authors to present an updated presentation of the subject. The book is available in two volumes: volume I focuses on the foundation of neuroanaesthesiology, and volume II focuses on the understanding of the neurocritical care. We hope that this book will be of immense use for readers, who are more focused on gaining an advanced understanding in the field of neurosciences.

We thank the authors for doing an outstanding job of producing authoritative chapters. We feel privileged to have compiled this first edition and are enthusiastic about everything it offers to our readers. We learned much in the process of editing this textbook and hope that you will find this textbook a valuable source of educational resource in the field of neurosciences.

New Delhi, India Srinagar, India Hemanshu Prabhakar Zulfigar Ali

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