Contents

| | Foreword by Sanjeev Mishra | vii | |
|---|--|------|--|
| | Foreword by Soniya Nityanand | viii | |
| | Preface | ix | |
| | List of Contributors | xi | |
| | Competencies | xvii | |
| | | | |
| Section 1 Anaesthesiology as a Speciality | | | |
| 1. | Evolution of Anaesthesiology Soumya Sankar Nath | 3 | |
| 2. | Role of Anaesthesiologist in the Medical Profession Soumya Sankar Nath | 9 | |
| 3. | Ethics in Anaesthesiology Soumya Sankar Nath | 13 | |
| 4. | Prospects of Anaesthesiology as a Career Soumya Sankar Nath | 17 | |
| | | | |
| | Section 2 Cardiopulmonary Resuscitation | | |
| E | | 01 | |
| Э. | Adult Life Support Soumya Sankar Nath | 21 | |
| 6. | Basic Life Support in Children and Infants and Pediatric Advanced Life Support Neha Thakur Rai | 36 | |
| 7. | Oxygen Therapy Soumya Sankar Nath | 46 | |

vii

| Section 3 Preoperative Care | | | | | | |
|--------------------------------|---|-----|--|--|--|--|
| 8. | Principles of Preoperative Evaluation Manoj Giri, Manoj Tripathi | 59 | | | | |
| 9. | Premedication Soumya Sankar Nath, Manoj Giri | 67 | | | | |
| Section 4 General Anaesthesia | | | | | | |
| 10. | Anatomy of the Airway Shilpi Misra | 77 | | | | |
| 11. | Pharmacology of General Anaesthesia Drugs I Induction Agents, Opioids and Anticholinesterases Shilpi Misra | 85 | | | | |
| 12. | Pharmacology of General Anaesthesia Drugs II Neuromuscular Junction, Physiology and Blockers Sujeet Rai, Shilpi Misra | 98 | | | | |
| 13. | Principles and Practical Aspects of General Anaesthesia Manoj Tripathi, Shilpi Misra | 107 | | | | |
| 14. | Maintenance of Vital Functions during General Anaesthesia Shilpi Misra | 112 | | | | |
| 15. | Monitoring Mamta Harjai, Manoj Tripathi, Shilpi Misra | 116 | | | | |
| 16. | Principles and Technique of Daycare Anaesthesia Shilpi Misra | 123 | | | | |
| 17. | Principles and Technique of Anaesthesia Outside the Operating Room Shilpi Misra | 128 | | | | |
| Section 5 Regional Anaesthesia | | | | | | |
| 18. | Correlative Anatomy of Subarachnoid, Epidural Spaces and Brachial Plexus Virendra Kumar, Soumya Sankar Nath | 137 | | | | |
| 19. | Pharmacology of Drugs Used in Regional Anaesthesia Virendra Kumar, Sujeet Rai | 143 | | | | |
| 20. | Principles of Regional Anaesthesia Shishir Agrawal | 151 | | | | |
| 21. | Central Neuraxial Block I (Spinal and Epidural) Virendra Kumar | 156 | | | | |
| 22. | Central Neuraxial Block II (Caudal Epidural) Shishir Agrawal | 164 | | | | |
| 23. | Overview of Peripheral Nerve Block Shishir Agrawal | 168 | | | | |

| Contents | χV |
|----------|----|
| | |

| Section 6 Post Anaesthesia Recovery | | | | | |
|--|---|-----|--|--|--|
| 24. | Resuscitation in Recovery Room Manoj Tripathi | 179 | | | |
| 25. | Management of Acute Postoperative Pain Manoj Tripathi | 182 | | | |
| 26. | Contents of Crash Cart and Equipment Used in the Recovery Room Soumya Sankar Nath | 188 | | | |
| 27. | Common Complications during Recovery Manoj Tripathi | 195 | | | |
| | Section 7 Intensive Care Management | | | | |
| 28. | Functions of an Intensive Care Unit Mamta Harjai | 205 | | | |
| 29. | Management of an Unconscious Patient Mamta Harjai | 210 | | | |
| 30. | Basics of a Ventilator Mamta Harjai | 214 | | | |
| 31. | Approach to a Case of Poisoning Deepak Malviya, Shilpi Misra | 222 | | | |
| | Section 8 Pain and its Management | | | | |
| 32. | Anatomy and Physiology of Pain Shivani Rastogi, Anurag Agarwal | 231 | | | |
| 33. | Assessment of Pain Shivani Rastogi, Anurag Agarwal | 237 | | | |
| 34. | Pharmacology of Drugs Used in the Management of Pain Shivani Rastogi, Anurag Agarwal | 244 | | | |
| 35. | Principles of Management of Chronic Pain Anurag Agarwal, Shivani Rastogi | 253 | | | |
| 36. | Principles of Pain Management in Palliative Care Anurag Agarwal, Shivani Rastogi | 259 | | | |
| Section 9 Venous Access, Infusion, and Transfusion | | | | | |
| 37. | Venous Access Samiksha Parashar | 267 | | | |

| xvi | Textbook of Anaesthesiology | | | | | |
|---|---|-----|--|--|--|--|
| 38. | Fluid Therapy Samiksha Parashar | 274 | | | | |
| 39. | Blood and Component Therapy Samiksha Parashar | 279 | | | | |
| | Section 10 Patient's Safety | | | | | |
| 40. | Hazards in the Perioperative Period Samiksha Parashar | 287 | | | | |
| 41. | Common Medical and Medication Errors in Anaesthesia Samiksha Parashar | 294 | | | | |
| 42. | Role of Communication in Patient Safety Samiksha Parashar | 297 | | | | |
| Section 11 Management of Trauma | | | | | | |
| 43. | Basics of Management of Trauma Patients Neha Thakur (Rai) | 303 | | | | |
| 44. | Management of Life-threatening Chest Injuries Sujeet Rai, Praveen Kumar Das | 311 | | | | |
| Section 12 | | | | | | |
| Investigation of Anaesthesia-related Deaths | | | | | | |
| 45. | Investigation of a Case of Suspected Anaesthesia-related Death Soumya Sankar Nath | 319 | | | | |

323

340

349

Multiple Choice Questions Suraj Kumar

Answers Index