

Contents

List of contributors page x

Preface xii

Abbreviations xiii

SECTION 1 Pre-operative considerations

- 1 **Thoracic anatomy** 3
DAVID MORRICE
- 2 **Respiratory physiology** 9
CAIT P. SEARL
- 3 **Respiratory pharmacology** 15
CAIT P. SEARL
- 4 **Respiratory diseases** 19
CAIT P. SEARL
- 5 **Pre-operative assessment of the thoracic surgical patient** 33
SION BARNARD AND DOUGLAS AITCHISON
- 6 **Lung isolation** 41
DAVID PLACE
- 7 **Management of one-lung ventilation** 52
LEENA PARDESHI AND IAN CONACHER

SECTION 2 Anesthesia for operative procedures

- 8 **Anesthetic implications of bronchoscopy** 59
IAN CONACHER
- 9 **Anesthesia for tracheal surgery** 64
TAJ DHALLU
- 10 **Anesthesia for mediastinoscopy and mediastinal surgery** 68
DAVID C. SMITH

CONTENTS

- 11 **Anesthesia for video-assisted thoracoscopic surgery** 75
MAHESH PRABHU
- 12 **Anesthesia for lung resection** 81
JOHN JERSTICE
- 13 **Surgical treatment options for emphysema** 86
CHRISTOPHER WIGFIELD AND CAIT P. SEARL
- 14 **Lung transplantation** 91
CAIT P. SEARL AND STEPHEN CLARK
- 15 **Anesthesia for pulmonary endarterectomy** 99
KAMEN VALCHANOV AND ALAIN VUYLSTEKE
- 16 **Anesthesia for esophageal surgery** 105
ABDALLA BANNI
- 17 **Anesthesia for pleural and chest wall surgery** 114
CAIT P. SEARL
- 18 **Anesthetic implications for management of thoracic trauma** 118
SAMEENA T. AHMED
- 19 **Pediatric thoracic procedures** 129
TIM MURPHY AND JONATHAN HAYDEN SMITH
- 20 **Significance of age in practice of thoracic anesthesia** 137
VIJAY JEGANATH AND JAYANTA NANDI
- 21 **Management of the morbidly obese patient** 145
SAMEENA T. AHMED
- 22 **Management of thoracic surgical emergencies** 151
SAMEENA T. AHMED

SECTION 3 Post-operative management

- 23 **Peri-operative intravenous fluid management** 161
SAMEENA T. AHMED
- 24 **General post-operative management** 166
SAMEENA T. AHMED
- 25 **Management of post-operative respiratory problems** 171
CAIT P. SEARL
- 26 **Extracorporeal membrane oxygenation (ECMO) and related technologies** 177
JONATHAN HAYDEN SMITH
- 27 **Management of bronchopleural fistula** 186
O. P. SANJAY AND SAMEENA T. AHMED
- 28 **Pain management after thoracotomy** 190
ALEXANDER NG AND CHRISTINE TAN

29 **Chronic pain after thoracic surgery** 196

SAMEENA T. AHMED

30 **Arrhythmias after thoracic surgery** 203

SAMEENA T. AHMED

Index 208