

Preface

Acknowledgments

Editor Biographies

List of Contributors

1 The Global Burden of Pleural Diseases

Erik Vakil, Niloofar Taghizadeh and Alain Tremblay

2 Pleural Diseases: Historic Perspective

Andrew DeMaio and David Arnold

3 Setting Up a Pleural Practice

Geri Lynch, Ardian Latifi, Erik Vakil, Fifian Ka-yan Chiang and Nick Maskell

4 Training in Pleural Disease

Hans Lee and Abhishek Sarkar

5 Pleural Embryology and Gross Structure, Circulation, Lymphatics and Nerves

Beenish Iqbal and Najib M. Rahman

6 Pleural Mesothelial Cells in Pleural Inflammation and Fibrosis

Steven E. Mutsaers, Cecilia M. Prêle, Veena B. Antony, Galina Florova, Bettina Wilm, Sarah E. Herrick, Andrey A. Komissarov, Steven Idell and Torry A. Tucker

7 Pleural Liquid Turnover in Normal and Disease States

Ilana R. Krumm and V. Courtney Broaddus

8 Insights from the Omics Analysis of Pleural Disease

Callum Flanagan, Alistair Nash and Jenette Creaney

9 Pleural Pharmacokinetics

Natalia Popowicz and David Arnold

10 Experimental Models of Pleural Diseases

Marianthi Iliopoulou, Georgios T. Stathopoulos, Y. C. Gary Lee and Ioannis Kalomenidis

11 Approach to Patients with Pleural Effusions

Sean B. Smith, Christine A. Argento and Momen Wahidi

12 Pleural Fluid Analysis

José M Porcel

13 A Practical Approach to the Diagnostic Pleural Biopsy

Celia Green and Amanda Segal

14 Pleural Manometry

David J. Feller-Kopman

15 Pleural Ultrasound

Christian Laursen and Rahul Bhatnagar

16 Imaging for Pleural Disease

Anthony Edey, Roslyn Francis and Robert Foley

17 Image-Guided Thoracentesis, Chest Tube Drainage and Closed Pleural Biopsy

Jane A. Shaw, Anne V. Gonzalez and Coenraad F. N. Koegelenberg

18 Medical Thoracoscopy

Pyng Leevi Contents

19 Tunneled Pleural Catheters

Muhammad Sajawal Ali and Majid Shafiq

20 Pleurodesis

Philip Evans and Helen E. Davies

21 Surgery for Pleural Diseases

Alexander Gregor and Kazuhiro Yasufuku

22 Pleural Procedural Complications and Safety Measures

Luke Garske and Claire Tobin

23 Spontaneous Pneumothorax: Aetiology

Fariha Alam, Stefan J Marciniak and Rajesh Thomas

24 Spontaneous Pneumothorax: Management

Eleanor Barton, Steve Walker and Rob Hallifax

25 Iatrogenic and Traumatic Pneumothorax

Christopher M. Kapp, James Foley, Ed Carlton and Lonny Yarmus

26 Effusions from Cardiovascular Diseases and Cardiac Surgery

José M Porcel

27 Effusion from Malignant Causes

Nai-Chien Huan, Minh Phuong Theresa Nguyen, Rajesh Thomas and Y. C. Gary Lee

28 Effusions from Infections: Parapneumonic Pleural Effusion and Empyema

Eihab O. Bedawi and Najib M. Rahman

29 Pleural Tuberculosis

Verena Faehling, Luke C. Strnad, Madhukar Pai and Claudia M. Denking

30 Effusions in Immunocompromised Hosts and Less Common Infections

Andrew J. Burke and Timothy J. Whitmore

31 Chylothorax and Cholesterol Pleural Effusion

Greta Joy, Udit Chaddha, Abhinav Agrawal and Fabien Maldonado

32 Pleural Involvement from Connective Tissue Diseases

Rahul Bhatnagar and Uffe Bødtger

33 Effusions Caused by Drugs

Eleanor Barton, Vasileios Skouras and Ioannis Kalomenidis

34 Effusions from Hepatic Hydrothorax and Gastrointestinal Diseases

Samira Shojaee and Christopher R Gilbert

35 Effusions Associated with Gynecologic and Obstetric Conditions

Benjamin C. H. Kwan

36 Other Uncommon Pleural Effusions

Dagny K. Anderson, Craig E. Daniels and Jay H. Ryu

37 Pleural Effusions in Paediatric Patients

William A. Yuen, Anne B. Chang and Miriam P. L. Cameron

38 Mesothelioma

Kevin G. Blyth

39 Benign Asbestos-Related Pleural Diseases

Fraser J. H. Brims

40 Immunotherapy in Pleural Diseases

Rachel Keogh and Patrick M. Forde

41 Gene Therapy in Pleural Diseases

Antonio L. Velez and Daniel H. Stermann

42 Future Directions

Nick Maskell, David J. Feller-Kopman and Y. C. Gary Lee