# Contents

## Section 1: The Emergency Department

1. **How to Evaluate Dyspnea in the Emergency Department**
   
   W Frank Peacock, Dick Kuo, Sandra Williams

2. **Heart Failure Disposition: When to Admit, When to Observe, and When to Discharge Home**
   
   Phillip D Levy, Vijaya A Kumar

3. **The Treatment of Acute Heart Failure in the Emergency Department**
   
   Lora AlKhawam, Peter S Pang

4. **Management of Atrial Fibrillation in Patients with Heart Failure and Preserved and Low Ejection Fractions**
   
   Brian S Wasserman, Tyler W Barrett

5. **How to Use Natriuretic Peptides in the Emergency Department**
   
   Yang Xue, Jeffrey Chan, Sonal Sarkariya, Erik A Green, Alan S Maisel

6. **How to Use New Biomarkers in the Emergency Department**
   
   Navaid Iqbal, Rajiv Choudhary, Erin Higginbotham, Fatima Khusro, Alan S Maisel

7. **The Role of Ultrasound in the Management of Acute Heart Failure**
   
   Luna Gargani

8. **Use of Bioelectrical Impedance Vector Analysis in the Dyspneic Patient**
   
   Salvatore D Somma, Silvia Navarin

9. **Mechanical Ventilation in Acute Heart Failure: The Role of Noninvasive Ventilation**
   
   Josep Masip

10. **Emergency Department Observation Unit: Management of Congestive Heart Failure**
    
    Basem Khishfe, Rashid Kysia

11. **When to Employ Cardiac Magnetic Resonance Imaging and Cardiac Computed Tomography in the Evaluation of Heart Failure**
    
    Joel R Wilson

12. **When to Discharge the Heart Failure Patient**
    
    Benjamin A Kipper, Matt M Kawahara
Section 2: Heart Failure in the Hospital

13. How to Use Natriuretic Peptides in the Inpatient Setting?  
   Jeffrey Chan, Abhishek S Shah, Alan S Maisel  
   109

14. Approaches to Diuretics in the Hospital  
   Meghana G Halkar, WH Wilson Tang  
   117

15. Vasodilators in Acute Heart Failure  
   Shiro Ishihara, Alexandre Mebazaa  
   127

16. When and How to Use Inotropes?  
   John T Parissis, Vassiliki Bistola  
   130

17. New Cardiovascular Disease Biomarkers in Hospital Medicine: Neutrophil Gelatinase-associated Lipocalin  
   Jeffrey Chan, Alan S Maisel  
   139

18. Practical Approach to Hyponatremia in Heart Failure  
   Hirsch S Mehta, Rajeev C Mohan, J Thomas Heywood  
   143

19. Heart Failure and Acute Coronary Syndrome  
   Jeffrey Chan, Kevin S Shah, Alan S Maisel  
   151

20. The ABCs of Isolated Venovenous Ultrafiltration in Fluid-overloaded Heart Failure Patients  
   Maria R Costanzo, Connie Huberty, Jennifer LaCorte  
   158

21. Who Should Receive a Pulmonary Artery Catheter  
   Robert T Cole, Javed Butler  
   178

Section 3: Chronic Heart Failure in the Outpatient Setting

22. Outpatient Follow-up—What Should We Monitor  
   Tina Baykaner, Yu Xie, Michelle Schlueter, Barry Greenberg  
   187

23. Echocardiography: Getting It Right  
   Daniel G Blanchard  
   197

   Eugene C DePasquale, Gregg C Fonarow  
   203

25. Initiation of Angiotensin-converting Enzyme Inhibitors and Beta Blockers in Heart Failure: Putting Evidence into Practice  
   Jeffrey Chan, Alan S Maisel  
   213

26. Mineralocorticoid Receptor Antagonists in Patients with Heart Failure and a Reduced Left Ventricular Ejection Fraction: How to Do It Right  
   Bertram Pitt  
   218

27. Atrial Fibrillation Done Right  
   Amir A Schricker, David E Krummen  
   225

28. Ventricular Tachycardia Done Right  
   Gautam G Lalani, David E Krummen  
   232

29. Issues in Anticoagulation  
   Christos Dresios, Gregory YH Lip  
   238
30. Management of the Patient with Heart Failure with Preserved Ejection Fraction
   Alan S Maisel, Gerasimos S Filippatos, Kevin S Shah, Jeffrey Chan

31. Implantable Cardioverter-defibrillator and Cardiac Resynchronization Therapy in
   Heart Failure Patients: How to Choose the Right Device for the Right Patients
   Khwaja S Alim, Erik A Green

32. Clinical Decision-making in the Outpatient Setting: The Use of Galectin-3
   Allart R van der Velde, Wouter C Meijers, Rudolf A de Boer

33. Guiding Heart Failure Care with Natriuretic Peptides
   James L Januzzi Jr

34. ST2: How to Really Do It Right
   Lori B Daniels

35. Using Cardiac Troponin to Assist in the Management of Patients with
   Congestive Heart Failure—A Practical Guide
   Affan Irfan, Wayne L Miller, Allan S Jaffe

36. Biomarkers on the Horizon for Chronic Heart Failure
   Christian Prinz

Section 4: Special Issues in Heart Failure

37. Sex Differences in Heart Failure: Implications for Clinical Practice
   Nancy J Gardetto, Denise D Barnard

38. Chronic Heart Failure in Geriatric Patients
   José Tallaj, Kanan Patel, Ali Ahmed

39. How to Diagnose and Treat Anemia in Patients with Heart Failure
   Ewa A Jankowska, Piotr Ponikowski

40. Diabetes Management in Heart Failure
   Rajiv Choudhary, Alan S Maisel

41. Heart Failure in Europe
   John GF Cleland, Pierpaolo Pellicori, Benjamin Dicken, Ahmad Shoaib,
   Sunaina Parsons, Riet Dierckx

42. Heart Failure in Southeast Asia
   Raymond CC Wong, Carolyn SP Lam

43. Heart Failure in India
   Ajay Bahl, Inder S Anand

44. Heart Failure in India: Clinical Perspective
   Hardeep K Grewal, Manish Bansal, Ravi R Kasliwal

45. Heart Failure in China
   Yuhui Zhang, Jian Zhang

46. Heart Failure from the US Veterans Health Administration Perspective:
   A Patient-centered Approach to Care
   Robert L Jesse
Heart Failure The Expert’s Approach

47. Heart Failure in the Nursing Home Setting
   Corrine Y Jurgens, Mary A Dolansky, Harleah G Buck
   407

48. Heart Failure from the Nursing Perspective
   Nancy M Albert
   415

49. Developing Heart Failure Service in a Developing Nation:
   Borneo Malaysia Perspective
   Houng-Bang Liew, Siow-Yen Liau, Jia Hoong Chi
   425

---

Section 5: Advanced Heart Failure

50. Approach to the End-stage Heart Failure Patient
    Joyce W Wald, Mariell Jessup
    437

51. Left Ventricular Assist Device Versus Transplantation: How to Decide
    Patrick McCann, Eric Adler
    443

52. Approach to Left Ventricular Assist Devices and Follow-up
    in Advanced Congestive Heart Failure
    Anthony Choi, Keshav R Nayak, Brian E Jaski
    451

53. How to Approach Palliative and End-of-life Care
    Tiny Jaarsma, Anna Strömberg
    461

54. Percutaneous Mechanical Circulatory Support in Cardiogenic Shock
    Scott Hopkins, Justin Cox, Keshav R Nayak
    468

---

Section 6: Cardiomyopathies: Practical Recommendations to Diagnosis and Management

55. New Onset Cardiomyopathy: Biopsy or MRI and Other Imaging Modalities
    Khwaja S Alim, Matt M Kawahara
    477

56. Hypertrophic Cardiomyopathy
    Christian Prinz, Lothar Faber, Alan S Maisel
    485

57. Takotsubo Cardiomyopathy
    Andrew C Morley-Smith, Alexander R Lyon
    494

58. Myocarditis
    Michel Noutsias
    506

59. When is Genetic Testing Necessary?
    Nupoor Narula, Maurizia Grasso, Alessandra Serio, Takahide Kodama, Eloisa Arbustini
    522

60. AIDS-induced Cardiac Abnormalities and Heart Failure
    Khwaja S Alim, Herminieh Aramin, Minal V Patel, Elizabeth Lee
    541

61. Prohormone Levels in Heart Failure
    Navaid Iqbal, Rajiv Choudhary, Fatima Iqbal, Erik A Green, Alan S Maisel
    546

Appendix
Index
551
555