

## **Section I. Introduction**

1. Evolution of the Coronary Care Unit: Past, Present, and Future
2. Ethical Issues of Care
3. Physical Examination

## **Section II. Scientific Foundation of Cardiac Intensive Care**

4. The Role of the Cardiovascular System in Coupling the External Environment to Cellular Respiration
5. Regulation of Cardiac Output
6. Coronary Physiology and Pathophysiology
7. Pathophysiology of Acute Coronary Syndromes: Plaque Rupture and Atherothrombosis
8. Regulation of Hemostasis and Thrombosis

## **Section III. Coronary Artery Disease**

### *Acute Myocardial Infarction*

9. Diagnosis of Acute Myocardial Infarction
10. Use of the Electrocardiogram in Acute Myocardial Infarction
11. Reperfusion Therapies for Acute ST- Elevation Myocardial Infarction
12. Adjunctive Pharmacologic Therapies in Acute Myocardial Infarction

### *Complications of Acute Myocardial Infarction*

13. Post-Myocardial Infarction Cardiogenic Shock
14. Right Ventricular Infarction
15. Mechanical Complications of Acute Myocardial Infarction
16. Supraventricular and Ventricular Arrhythmias in Acute Myocardial Infarction
17. Conduction Disturbances in Acute Myocardial Infarction

### *Complications of Percutaneous Interventional Procedures*

## **Section IV. Noncoronary Diseases: Diagnosis and Management**

18. Acute Heart Failure and Pulmonary Edema
19. Acute Fulminant Myocarditis

20. Stress (Takotsubo) Cardiomyopathy
21. Distributive Shock
22. Cardiorenal Syndrome
23. Sudden Cardiac Death
24. Diagnosis and Treatment of Ventricular Tachycardia
25. Diagnosis and Treatment of Unstable Supraventricular Tachycardia
26. Acute Presentations of Valvular Heart Disease
27. Hypertensive Emergencies
28. Acute Aortic Syndromes: Diagnosis and Management
29. Acute Pericardial Disease
30. Acute Respiratory Failure
31. Massive Acute Pulmonary Embolism
32. Pulmonary Hypertension
33. Hemodynamically Unstable Presentations of Congenital Heart Disease in Adults
34. Overdose of Cardiotoxic Drugs

#### **Section V. Pharmacologic Agents in the Cardiac Intensive Care Unit**

35. Anticoagulation: Antithrombin Therapy
36. Anti-platelet Therapy
37. Inotropic and Vasoactive Agents
38. Intensive Diuresis and Ultrafiltration
39. Antiarrhythmic Electrophysiology and Pharmacotherapy
40. Analgesics, Tranquilizers, and Sedatives
41. Pharmacologic Interactions

#### **Section VI. Advanced Diagnostic and Therapeutic Techniques: Indications and Technical Considerations**

42. Central Venous Access Procedures
43. Temporary Pacing

44. Pericardiocentesis
45. Invasive Hemodynamic Monitoring
46. Temporary Mechanical Circulatory Support Devices
47. Ventricular Assist Device Therapy in Advanced Heart Failure
48. Heart Transplantation for Advanced Heart Failure
49. Emergency Airway Management
50. Mechanical Ventilation
51. Cardiopulmonary Cerebral Resuscitation after Cardiac Arrest
52. Palliative Care