

Section 1: ADVANCED PRINCIPLES FOR THE ECHOCARDIOGRAPHER

1. 3D Echocardiographic Image Acquisition, Display, and Analysis
2. Principles of Myocardial Mechanics and Strain Imaging
3. Contrast Echocardiography
4. Quantitative Analysis of Left Ventricular Anatomy and Systolic Function
5. Left Ventricular Diastolic Function
6. Right Ventricular Anatomy and Function

Section 2: ECHOCARDIOGRAPHY BEST PRACTICES

7. Diagnostic Echocardiography Laboratory: Structure, Standards, and Quality Improvement
8. The Comprehensive Diagnostic Transthoracic and Transesophageal Echocardiogram
9. Intraoperative Echocardiography
10. Interventional Echocardiography
11. Focused Cardiac Ultrasound at the Bedside

Section 3: CARDIOMYOPATHIES, TUMORS, AND PERICARDIAL DISEASE

12. Dilated Cardiomyopathy
13. Hypertrophic Cardiomyopathy
14. Restrictive Cardiomyopathy
15. Cardiac Transplantation
16. Cardiac Assist Devices
17. Pericardial Disease
18. Cardiac Tumors and Cardio-oncology

Section 4: ISCHEMIC HEART DISEASE

19. Stress Echocardiography for Detecting Coronary Ischemia
20. Non-exercise Stress Echocardiography for Diagnosis of Coronary Disease
21. Role of Echocardiography in Patients with an Acute Coronary Syndrome

Section 5: VALVULAR HEART DISEASE

22. Aortic Stenosis (Including Evaluation for TAVI)
23. Aortic Regurgitation
24. Mitral Regurgitation

- 25. Transesophageal Echocardiography for Surgical Repair of Mitral Regurgitation
- 26. Transcatheter mitral valve repair: role of echocardiography in patient selection, procedural guidance, and evaluation of outcomes
- 27. Mitral Stenosis
- 28. Right-Sided Valve Disease in Adults
- 29. Endocarditis
- 30. Fluid Dynamics of Prosthetic Valves
- 31. Echocardiographic Recognition and Quantitation of Prosthetic Valve Dysfunction

Section 6: VASCULAR AND SYSTEMIC DISEASES

- 32. Acute Aortic Syndromes
- 33. Inherited Connective Tissue Disorders
- 34. Hypertensive Heart Disease and Nutritional and Metabolic Disorders
- 35. The Athletic Heart on Echocardiography
- 36. Pulmonary Hypertension
- 37. Systemic Diseases Characterized by Immune-Mediated Injury
- 38. Echocardiographic Evaluation of Patients with a Systemic Embolic Event
- 39. Echocardiography in Patients with Atrial Fibrillation and Flutter

Section 7: ADULT CONGENITAL HEART DISEASE and THE PREGNANT PATIENT

- 40. Heart Disease in Pregnancy
- 41. Congenital Shunts
- 42. Left Heart Anomalies
- 43. Right Heart Anomalies
- 44. Complex Conotruncal Anomalies Including Tetralogy of Fallot
- 45. Transposition of the Great Arteries
- 46. Single Ventricles