Contents

List of Contributors ix
About the Companion Website xi

Part One 1

1 How to Access the Cephalic Vein Using a Cut-down Approach 3
   Carola Gianni, Pasquale Santangeli, Andrea Natale, and Amin Al-Ahmad

2 Extrathoracic Subclavian Vein Access 9
   Paul C. Zei and Javid Nasir

3 Subcutaneous Implantable Cardioverter-Defibrillator 17
   Anil Rajendra and Michael R. Gold

4 Internal Jugular Venous Access and Lead Implantation for Cardiac Implantable Electronic Devices 23
   Michael G. Katz and David T. Huang

5 Implantation of the Left Ventricular Lead 27
   Shrinivas Hebsur and Edward Platia

6 How to Place a Lead in the Azygos Vein 37
   Jason S. Bradfield, Daniel H. Cooper, Noel G. Boyle, and Kalyanam Shivkumar

7 Alternative Site Pacing: A Guide to Implantation Techniques 45
   Michael C. Giudici

8 How to Maximize CRT Response at Implant 55
   Attila Roka, Gaurav Upadhyay, Jagmeet Singh, and E. Kevin Heist

9 How to Perform Sub-pectoral Device Implants 63
   Gurjit Singh and Claudio Schuger

10 Device Extractions 69
    Sean D. Pokorney, Donald D. Hegland, and Patrick M. Hranitzky

11 How to Extract Pacemaker and Defibrillator Leads from the Femoral Approach 79
    Leenhapong Navaravong and Roger A. Freedman

12 How to Extract Leads from the Jugular Approach 89
    Maria Grazia Bongiorni, Andrea Di Cori, Luca Segreti, Giulio Zucchelli, Ezio Soldati, Stefano Viani, and Luca Paperini
13 How to Perform Venoplasty for Access 97
  Seth J. Worley

14 How to Perform Defibrillation Threshold Testing 111
  Chad Brodt and Marco V. Perez

15 Use of Chest X-ray, Computed Tomography and 3-D Imaging to Evaluate Lead Location 119
  Brett D. Atwater

16 How to Evaluate Postoperative Device Complications 133
  Dan Sorajja and Win-Kuang Shen

Part Two 145

17 How to Program Pacemakers for Patients With Sinus Node Disease 147
  Carsten W. Israel and Lucy Ekosso-Ejangue

18 How to Interpret Pacemaker Electrocardiograms 159
  Giuseppe Bagliani, Stefania Sacchi, and Luigi Padeletti

19 How to Perform Pacemaker Troubleshooting 173
  Brian Olshansky and Nora Goldschlager

20 How to Program an ICD to Program ATP, and Program for VT/VF Storm 187
  P. Pieragnoli, G. Ricciardi, Margherita Padeletti, Stefania Sacchi, Alessio Gargaro, and Luigi Padeletti

21 How to Troubleshoot An ICD 195
  Advay G. Bhatt, Santosh C. Varkey, and Kevin M. Monahan

22 Management of ICD Device and Lead Failures and Recalls 207
  Yousef Bader and N.A. Mark Estes III

23 How to Program an ICD to Minimize Inappropriate Shocks 213
  Paul J. Wang and Winston B. Joe

24 How to Perform CRT Optimization 221
  Kevin P. Jackson and James P. Daubert

25 How to Manage Device Infections and When to Reimplant After Device Extraction 233
  Giosuè Mascioli

26 How to Implement a Remote Follow-up Program for Patients with Cardiac Implantable Electronic Devices 241
  George H. Crossley, April Bain, and Rachel Tidwell

27 How to Set Up an HF Monitoring Service 255
  Edoardo Gronda, Emilio Vanoli, Margherita Padeletti, and Alessio Gargaro

28 How to Deactivate Cardiac Implantable Electric Devices in Patients Nearing the End of Life and/or Requesting Withdrawal of Therapies 263
  Rachel Lampert

Index 269