Contents

SECTION 1: CLINICAL

1. **ACC/AHA Cholesterol Guidelines: How to Handle the High-risk Patients?** 3
   Bhavuk Jaiswal, GS Wander
2. **Consensus of ESC Lipid Guidelines: What is Applicable for Indians?** 9
   Saumitra Ray
3. **Familial Hypercholesterolemia** 14
   JPS Sawhney, Ayush Kumar, Kushal Madan
4. **Understanding and Applying Latest Lipid Guidelines in Clinical Practice** 18
   Manotosh Panja, Madhumanti Panja
5. **What are Top 6 Cardiovascular Prevention Trials on Lipid Lowering?** 25
   Archit Dahiya, Rajeev Sharma, Tushar Wadhawan, Rajeev Agarwal
6. **Targets in Lipid-lowering Therapy Today** 30
   Ram Manohar Talupula, S Ramakrishnan
7. **Update on Lipid Management for ASCVD Prevention: What is New in the Cholesterol Guidelines?** 35
   Vaibhav Bandil, Suman Bhandari
8. **The Nuances of Statin Therapy for ASCVD in Clinical Practice** 44
   PC Manoria, Pankaj Manoria, Piyush Manoria
9. **Controversies to Consensus in Classification of Hyperlipidemias and Importance of Statins** 50
   Rajeev Gupta
10. **How to Enhance Practice and Implementations of Lipid-lowering Guidelines and Adherence?** 61
    K Venugopal
11. **Comparison of Cholesterol Guidelines in Secondary Prevention and CVD Outcome: What is the Consensus Today?** 65
    Geevar Zachariah, Deepak Nandan
12. **Current Status, Efficacy, Safety, and Outcome Data of Statin: Atorvastatin versus Rosuvastatin in CVD Outcome** 72
    Saumitra Ray, Biswarup Sarkar
13. **Current Place of Rosuvastatin/Ezetimibe Combination in Management of Hypercholesterolemia** 76
    HK Chopra, Ravi R Kasliwal, JPS Sawhney, Manish Bansal, Himani Malhotra
14. **Risk Factors of Dyslipidemia** 81
    Harsh Wardhan, Archit Dahiya
15. **Pathophysiology of Dyslipidemia** 85
    Hanumanth K Reddy, Ravi Komatireddy, Prachi Pophali, Abhishek Bhandiwad, Muhammad Shabbir Ijaz
16. **Pleiotropic Effects of Statins and CVD Outcomes** 91
    Ajay Kr Sinha, Vikas Singh, Sanjeev Kumar, Pramod Kumar
17. **Dyslipidemia in Diabetes: Management Strategies** 96
    Vidyut Jain, Avani Jain
18. **High-dose versus Low-dose Statins in Cardiovascular Diseases** 102
    Praveen Jain, Tanul Jain, Mohammad Jibran
19. **Statin for Primary Prevention of Cardiovascular Disease** 108
    Satyanarayan Routray, DR Das
20. **Statin for Tertiary Prevention of Cardiovascular Disease** 114
    Jabir Abdullakutty, Musna PJ, Vijin Joseph VF, Jimmy George

21. Dyslipidemia and Statin: An Overview 122
Vishal Batra, Girish MP, Mohit D Gupta, Shweta Goswami, Rajni Saijpaul

22. Efficacy, Safety, and Promising of Atorvastatin versus Rosuvastatin in LDL Cholesterol Reduction Potential and CVD Protection 126
Viveka Kumar, Virbhan Balai

23. Statins and Angiogenesis 132
Geetha Subramanian, J Cecily Mary Majella

24. Statin in Stress-induced Dyslipidemia 135
Satish Kr Gupta, Rahul Gupta

25. Statin in Polyvascular Disease 143
Somasundaram M, Sharada Sivaram K, Jacob Abraham Ruram

26. Statin and Sexual Dysfunction 146
Deepak Jumani

27. Statin and Erectile Dysfunction 152
AK Pancholia

28. Statin and Nonalcoholic Steatohepatitis 156
Amrish Sahney, Manav Wadhawan, Ajay Kumar

29. Statins and Hyperthyroidism 162
Hemraj B Chandalia

30. Lipid Lowering in Nonalcoholic Fatty Liver Disease 164
AK Pancholia, Dipesh Kothari

31. Statins in Cushing's Syndrome 169
Vinod Mittal

32. Statin and Gallstones Disorder 172
Sachin Ambekar, Aayushi Gupta

33. Dyslipidemia in Pregnancy 174
JPS Sawhney, Vyom Mori, Saurabh Bagga, Kushal Madan

34. Statins and Inflammatory Markers 178
Srikant Sharma, Pratik Katyayan, HK Chopra, Soumit Sharma, Akash Kashyap

35. Grow younger and Live Longer with Statin: Effect on Vascular Age 183
Srikant Sharma, Aayushi Gupta, HK Chopra, Ankush Bansal

36. Oxidative Stress and Statin Therapy 190
Jostol Pinto, A George Koshy

37. Impact of Statins on Endothelium and Vascular Biology 194
Shishu Shankar Mishra, Biswaranjan Mishra, Satyavir Yadav, Satyanarayan Routray

38. Exercise, Dyslipidemia, and Statin Therapy 200
Chetan Shah, Charan Reddy KV

39. Role of Statin Drugs for Polycystic Ovary Syndrome 204
Vidya Pancholia, AK Pancholia

40. Statin in Dyslipidemia and Hearing Loss 208
Chanchal Pal

41. Statins Intolerance: Is it Really a Problem? 212
AK Pancholia, Mugdha Lakhotia, Rajesh Meena

42. New Insights into Managing Symptoms during Statin Therapy 218
A Muruganathan

43. Nutrition versus Statins: Where do we Stand? 224
SC Manchanda, Kushal Madan

44. Cholesterol Confusion and Statin Controversy 227
Vitull K Gupta, Meghna Gupta, Varun Gupta

45. **Statin Therapy in the Perioperative Period** 232
Ajmer Singh, Gagandeep S Wander, Yatin Mehta

46. **Statin Therapy in Cardiac Intensive Care** 235
Poonam Malhotra Kapoor

47. **Pharmacogenomics of Statin Response** 242
Prerna Kapoor, Anindya Ghosh, Aditya Kapoor

48. **Advances in Statin Therapy and Beyond in Dyslipidemia-inflicted CAD Mortality Reduction** 247
Anindya Ghosh, Aditya Kapoor

49. **The Controversy of a Wider Statin Utilization** 257
BP Singh, Rahul M Gutte, Chandrashekhar Pandey, Neeraj Kumar

50. **Gender Disparity in Statin Therapy** 261
VV Muthusamy, S Sathish Kumar, LN Meena

51. **How Much Statin Intervention is Enough?** 266
Vijay Bang, Charan Reddy KV

52. **Balancing Primary Prevention and Statin-induced Diabetes Prevention** 271
SB Gupta

53. **Statin Effect on Atherosclerotic Plaque** 275
VK Katyal, Nidhi Yadav, Sandeep Goyal, Deepinder Singh

54. **All for "Statins" and Statins for All: An "Update"** 279
Rakesh Varma, Anwar H Ansari, Gaurav Arora

55. **Triglycerides Reduction Strategies to Prevent CV Events** 289
Jamshed J Dalal, Tabassum Khan

56. **Statin above the Age of 75 Years: Is it Relevant?** 296
Rajan Joseph Manjuran

57. **Do Lp(a) Levels Contribute to CVD Risk? What are the Effects of Statin, PCSK9i, LDL Apheresis, and ASOs Therapy?** 299
Jayagopal PB, SKM Sarjun Basha

58. **Morbidity and Mortality Benefits of Statin Therapy in CVD** 303
Jayagopal PB, SKM Sarjun Basha

59. **Novel and Emerging Nonstatin Lipid-lowering Drugs** 307
Peeyush Jain, Abdul Allam Khan

60. **Diagnostic and Prognostic Markers of Dyslipidemia in CVD** 311
Satya Nand Pathak

SECTION 2: STATINS AND CORONARY ARTERY DISEASE

61. **ACS and Statins: Role of Statins in Acute Coronary Syndrome** 317
Pawan K Sharma, HK Chopra

62. **Advances in Statin Therapy in Acute Coronary Syndrome with Comorbidities** 320
Viveka Kumar, Pradipta K Nayak, Sangeeta Dhir, Vidhya Natrajan

63. **Advances in Statin Therapy in NSTEMI with Familial Dyslipidemia** 328
Balakumaran Jeyakumaran, Lijo Varghese, Thomas Alexander

64. **Role of Statins in Chronic Coronary Syndrome** 332
Rohit Tandon, Jasvinder Singh

65. **Familial Dyslipidemia with Triple Vessel Disease Management Strategies** 337
Satyendra Tewari, Harshit Khare

66. **Statin for Plaque Passivation in NSTEMI** 342
Arup Dasbiswas, Debasri Dasbiswas, Harshveer Singh Malhi

67. **Statin after PCI in STEMI with Dyslipidemia** 347
Brian Pinto, Yogesh Kolamkar

68. Advances in Statin Therapy and Beyond in Dyslipidemia with MVD 351
Rony Mathew Kadavil, Jimmy George

69. Statin Intolerance Management Strategy 355
D Prabhakar

70. Statin with PCSK9 or Inclisiran in TVD, Diabetes, and Dyslipidemia 361
Justin Paul Gnanaraj, Anne Princy S, Karthikaa Saminathan, Sabarish Sankaran

71. Advances in Statin and Beyond in Polyvascular Intervention with Familial Dyslipidemia 367
Subhasish Dey, Debabrata Roy

72. Statin Effect on Coronary Calcium Score 371
Manish Shaw, Aprateem Mukherjee, Priya Jagia

73. Advances in Statin Therapy for CABG 374
Nikhil Pachpande, OP Yadava

74. Statin Therapy in Takotsubo Syndrome with Dyslipidemia 378
Amit O Singh, Rajesh A Matta, Prafulla G Kerkar

SECTION 3: STATINS AND HYPERTENSION

75. Advances in Statin Therapy in Young with Hypertension 385
Mohan Bhargava, Mohit M Bhagwati, Neha Israni Bhargava

76. Advances in Statins Therapy in Elderly with Hypertension 390
Amrish Agrawal, Vishal Agrawal, Afzalhussein Yusufali, Abdulla Shehab

77. Statins in Hypertension 397
CK Ponde, Rohan Sonawane

78. Promise of Statins in Early Onset and Late Onset of Hypertension with Comorbidities 402
HK Chopra, Anil Pareek, Anu Grover, AK Pancholia, Shiv Chopra

SECTION 4: STATINS IN HEART FAILURE

79. Statins with HFpEF 415
Sandeep Bansal, Anunay Gupta, Gaurav Kumar Divani

80. Statins in Heart Failure with Comorbidities 418
Sanjay Mittal, Roopam Singh

SECTION 5: STATIN IN ARRHYTHMIA

81. Advances in Statin Therapy in Atrial Fibrillation 429
Rabin Chakraborty, Arindam Pande

82. Advances in Statin Therapy in Ventricular Tachycardia Storm in Coronary Artery Disease with Familial Dyslipidemia 433
Pawan Suri, Vanita Arora

83. Advances in Statin Therapy in Coronary Artery Disease and Post Pacemaker Implantation Patient with Familial Dyslipidemia 436
Surendra Chutani, Arun Chutani, Aarti Shah, Bharat Kantharia

84. Advances in Statin after Device Therapy in Heart Failure 441
Surendra Chutani, Arun Chutani, Arti Shah, Bharat Kantharia

SECTION 6: STATIN IN AORTIC DISEASE

85. Unmet Needs of Statin Therapy in Aortic Atherosclerosis 447
Anil Dhall, Kunal Mahajan

86. Advances in Statin Therapy in Aortic Diseases 456
Swarnika Srivastava, Anil Bhan

SECTION 7: STATIN AND STROKE

87. Advances in Statin Therapy in Multiple Lacunar Infarcts 465
Neeraj Tyagi

88. **Advances in Statin Therapy in Thrombotic Stroke** 468
Vinit Suri, Kunal Suri, Kanika Suri

89. **Advances in Statin Therapy in Stroke with Diabetes** 473
Joy Dev Mukherji, Mukesh Kumar

SECTION 8: STATIN AND CAROTID ARTERY DISEASE

90. **Advances in Statin Therapy in Patients with Increased IMT of Carotid Artery Disease** 481
Naveen Garg, KK Kapur

91. **Advances in Statin Therapy in Carotid Artery Stenosis** 486
Narendra Nath Khanna, Suparna Rao

SECTION 9: PERIPHERAL VASCULAR DISEASE

92. **Advances in Statin Therapy and Beyond: In Peripheral Vascular Disease and after Peripheral Vascular Intervention with Dyslipidemia** 493
Narendra Nath Khanna, Suparna Rao

SECTION 10: STATIN IN RENOVASCULAR DISEASE

93. **Statin after Renovascular Intervention** 505
Nagendra S Chauhan, Praveen Chandra

SECTION 11: STATIN IN DIABETES

94. **Statins in Young Diabetics** 509
Vinod Mittal

95. **Advances in Statins in Elderly Diabetics** 515
Subhash Kumar Wangnoo, Varsha Kachroo, Khwaja Mohammad Usman, Mohammad Asim Siddiqui

96. **Statin-induced Diabetes: Evidence, Mechanisms, and Implications** 520
Anil Pareek, Peeyush Jain, Ravi Tejraj Mehta

97. **Advances in Statin Therapy in Diabetes with and without Comorbidities** 527
Supriya Datta, Viswanathan Mohan

98. **Statin in Diabetes with CVD: Outcome Data** 533
Om J Lakhani, Surender Kumar

99. **Statins for Diabetes: A Polyvascular Disease** 537
Yash Pal Munjal, Vijesh Vijayan, Ghan Shyam Pangtey

100. **Advances in Statin Therapy in Diabetes with Obesity** 542
Anuj Maheshwari, Anubha Srivastava, Dinesh Lalwani, Dinesh Kumar

101. **Advances in Statin Therapy in Diabetic Women: Is the Outcome Different?** 547
Sarita Bajaj

SECTION 12: STATIN AND OBESITY

102. **Role of Statins in Obesity** 553
J Cecily Mary Majella, Surenderan GD, Geetha Subramanian

SECTION 13: STATIN AND KIDNEY

103. **Statins in Nephrotic Syndrome** 561
Arunkumar S, Dipankar Bhowmik

104. **Statins after Renal Transplant** 565
Himanshu Verma, Uttayan Chakrabarti, Rashi Verma

105. **Role of Statin in CKD** 569
Ramesh Hotchandani, Abhimanyu Bhatia

106. **Statin in Diabetic Nephropathy** 573
Vidyarani Mohankumar, Vijay Viswanathan

SECTION 14: ECHOCARDIOGRAPHIC EVALUATION OF STATIN EFFECT AND OUTCOME

107. Echocardiographic Evaluation of Carotid Intima-media Thickness Regression with Statin Therapy 581
Mansi Kaushik, Manish Bansal, Ravi R Kasliwal, HK Chopra

108. Statin-induced Regression of Atherosclerosis: Validation by Ultrasound Modalities 588
Aakash Hans, Navin C Nanda, Harvinder Dod, HK Chopra

109. Echocardiographic Vascular Stiffness Evaluation after Statins 594
Kamal Sharma, Prashant Vazirani, Jignesh Patel

110. Echocardiographic Evaluation of Carotid Plaque Passivation after Statin Therapy 597
Rahul Mehrotra, Raj Kumar, Mohit M Bhagwati

111. Echocardiography in Evaluation of Left Ventricular and Left Atrial Remodeling on Statin Therapy 601
Shahzad Ahmad, John Davis, Masood Ahmad

112. Echocardiographic Assessment of Aortic Valve Calcification and Role of Statin Therapy 606
Hardeep Kaur Grewal, Manish Bansal, Ravi R Kasliwal, HK Chopra

113. The Plaque Paradox 610
S Shanmugasundaram, U Ilayaraja, S Saravanakumar, V Malathi

114. Statins and Pleiotropic Actions 617
G Vijayaraghavan

115. Echocardiographic Assessment of Mitral Annular Calcification and Role of Statin Therapy 622
Ravi R Kasliwal, Manish Bansal, HK Chopra

116. Echocardiographic Evaluation of LV Dysfunction after Statin Therapy 626
Aniruddha De

117. Statins in Heart Failure 635
CK Ponde, Sahil Sareen

118. Evaluation of Statin Effect on Left Ventricular Hypertrophy and Left Ventricular Mass 638
Srikanth KV, Satish C Govind

119. 3D Echo Evaluation of Statin Effect on LA and LV Strain 642
V Amuthan, RVA Ananth

120. Echocardiographic Evaluation of Statin Effect on Left Ventricle and Left Atrium Strain in Heart Failure with Coronary Artery Disease 654
Tahmid Rahman, On Chen, Smadar Kort

121. Echocardiographic Evaluation of Statin Therapy on Carotid Plaque 657
Rekha Mishra, Manisha Sharma, Geetika Agarwal

SECTION 15: AORTIC ATHEROSCLEROTIC STATIN EFFECT EVALUATION

122. CTA Evaluation of Statin Effect on Aortic Atherosclerosis 667
Manish Shaw, Aprateem Mukherjee, Priya Jagia

123. MRA Evaluation of Statin Effect on Aortic Atherosclerosis 670
Mona Bhatia, Parveen Kumar

SECTION 16: STATIN EFFECT EVALUATION IN RENOVASCULAR DISEASE

124. Role of Echo in Evaluation of Renovascular Disease after Statin Therapy 679
Naveen Garg, KK Kapur

125. Color Doppler Evaluation of Erectile Dysfunction after Statin Therapy 683
Naveen Garg, KK Kapur

SECTION 17: NUCLEAR IMAGING IN VASCULAR ATHEROSCLEROSIS

126. Nuclear Imaging Evaluation of Statin Effect on Vascular Atherosclerosis 691
GN Mahapatra

127. Nuclear Imaging in Evaluation of Statin Effects on Vascular Atherosclerosis with Dyslipidemia 699
Prabhu Ethiraj, Sai Supriya Prabhu, G Manohar, MS Senthilkumar

SECTION 18: NUTRITION AND DYSLIPIDEMIA

128. Omega-3 Fatty Acids in the Treatment of High Triglycerides 707
Pawan K Sharma, HK Chopra

129. Coenzyme Q_{10} and Statins: Role of CoQ_{10} in Congestive Heart Failure 711
Pawan K Sharma, HK Chopra

130. Role of Red Yeast Rice and Phytosterols in Dyslipidemia 715
Pawan K Sharma, Paul N Hopkins, HK Chopra

131. New Ways for Healthy Edible Oils: Blends 722
Sudhakar Mhaskar, Shashank Joshi

SECTION 19: STATIN AND PEDIATRIC

132. Evidence-based Approach to the Use of Lipid-modifying Drugs 733
Ahmed Adel Elamragy, Mostafa Mahmoud Abdrabou, Sonia Ali El-Saiedi

133. Therapeutic Management of Pediatric Dyslipidemia 747
Antoine F Abdelmassih, Rabiba-Allah Ismail, Sonia Ali El-Saiedi

134. Children with Dyslipidemia: Preventive Strategies 752
Hosam Rashwan, Hala El Marsafawy

135. Statins in the Management of Familial Hypercholesterolemia 757
IB Vijayalakshmi

SECTION 20: STATIN AND EYES

136. Role of Statins in Glaucoma 765
Preetinder Kaur

137. Statin and Cornea 767
Monika Nadar

138. Statins in Vitreoretinal Disorders 770
Krishna Vaitheeswaran

139. Statin in Uveitis and Inflammatory Eye Disease 774
Shalini Garg

SECTION 21: STATIN AND SKIN

140. Cutaneous Manifestations of Disorders of Lipid Metabolism 779
Hilary Modir, Mary Thomas, Payal Gupta

SECTION 22: STATIN AND PULMONARY DISORDERS

141. Statins and Pulmonary Disorders 785
Bhagwan Mantri, Pawan Kumar Mangla, Aayushi Gupta

SECTION 23: ATORVASTATIN AND CVD PREVENTION

142. Atorvastatin and CVD: Indications, Contraindications, and Outcome Consensus 793
Ranjit Kumar Nath, Rajeev Bharadwaj

SECTION 24: ROSUVASTATIN AND CARDIOVASCULAR DISEASE PREVENTION

143. Rosuvastatin in Coronary Artery Disease: Indications, Contraindications, and Outcome Consensus 801
Neeraj Pandit, Puneet Aggarwal, Kaushal Choudhari, Vatsal Kayal

SECTION 25: SYSTEMIC INFLAMMATORY RESPONSE SYNDROME

144. Statin in Sepsis 809
Surabhi Awasthi, Ashish Arora

145. Role of Statins in Coronavirus Disease Crisis 815
Sanghamitra Sinha, Aakashneel Bhattachrya, Ashish Arora, Surabhi Awasthi

146. Statins in Critical Care: Cautious Optimism 820
Ashish Arora, Surabhi Awasthi, Aakashneel Bhattachrya, Sanghamitra Sinha

SECTION 26: DYSLIPIDEMIA, YOGA AND STATIN THERAPY

147. Dyslipidemia, Yoga and Statin Therapy 827
SC Manchanda, Kushal Madan

SECTION 27: STATIN IN CARDIO-ONCOLOGY

148. Promise of Statin Therapy in Dyslipidemia Inflicted Stroke in Head and Neck Cancer 833
Kanika Sood Sharma, Aditi Tanwar, VVS Shobana

SECTION 28: BEYOND STATIN

149. PCSK9 Inhibitors: New Lipid Lowering Agents 839
Pawan K Sharma, HK Chopra

150. PCSK9 Inhibitors in Diabetes Mellitus 842
Sudeep Kumar, Smarak Ranjan Rout, Aditya Kapoor

151. New Therapies of Dyslipidemia and their Benefits: Inclisiran and Bempedoic Acid 848
Pawan K Sharma, HK Chopra

SECTION 29: FUTURE DIRECTIONS

152. Review of Recent Trials on Statin and Vascular Protection 855
V Pavan Teja, YK Subhash Singh, Nitish Naik

153. Past, Present, and Future of Familial Dyslipidemia Management in CAD Management 859
Bhushan Shah, Purneshwar Pandey, Mohit D Gupta, Girish MP

154. PCSK9 Inhibitors Therapy in Dyslipidemia CVD Protection Potentials: Where are We Today? 866
Aseem Basha, Neil Bardoloi

155. PCSK9 Inhibitors Therapy in Dyslipidemia: Present Status and Future Directions 871
Dayasagar Rao V, Rajesh Natuva

156. When to use Statin Therapy, Bempedoic Acid, and Inclisiran, and How Effective is Icosapent Ethyl? 878
Kirandeep Kaur, Sandeep Kaushal, GS Wander

157. PCSK9 Inhibitors in Dyslipidemia with Coronary Artery Disease 882
Viveka Kumar, Mitendra Singh Yadav

158. Advances in Bempedoic Acid and Inclisiran Therapy in Dyslipidemia 891
Vinod Sharma, Ruchi Sharma

159. Recent Trials of Inclisiran in Dyslipidemia 900
I Sathyamurthy, KN Srinivasan

160. Inclisiran in Dyslipidemia for Indians 905
SS Iyengar, V Subash Chandra

161. New Drugs for Dyslipidemia in the Future 909
Surendra Kumar Naik, S Ramakrishnan

162. Advances in Lipid Therapy Beyond Statin: How far PCSK9 Inhibitors Trials Impacted the Clinical Practice? 914
J Sharma, MK Das, Moitry Das

163. Role of Bariatric Surgery in Dyslipidemia with CVD 918
Pradeep Chowbey

Index *923*