Contents

Section I — Basic Sciences

1. Definitions and Epidemiology **3**

Himsweta Srivastava, Bindiya Gupta

Demographics **3**
Stages of Reproductive Aging **5**
Age of Menopause **5**
Epidemiology of Menopausal Symptoms **11**

2. Pathophysiology of Menopause **16**

Bindiya Gupta, Neha Gami, Ragini Parashar

Follicle Population **16**
Ovarian-Pituitary-Hypothalamic Axis **16**
Perimenopause **17**
Hormonal Changes During Menopause **19**
Impact of Estrogen Deficient Endocrinopathy **20**

3. Symptoms and Signs **27**

Bindiya Gupta, Neerja Goel, Geetanjali Sharma

Perimenopause **27**
Menopause **30**
Measurement of Menopausal Symptoms **34**

4. Cancer Screening **37**

Bindiya Gupta, Neha Gami, Sarika Gupta

Screening of Cancer Cervix **37**
Screening for Endometrial Cancer **41**
Screening for Ovarian Cancer **44**
Screening of Breast Cancer **47**

Section II — Hormone Therapy

5. Pretreatment Evaluation **59**
Bindiya Gupta, Bhanupriya
Patient Assessment **59**

6. Guidelines for Hormone Therapy **63**
Neerja Goel, Richa Agarwal, Kanika Gupta
Estrogens **64**
Progestogen **68**
Doses and Estrogen: Progestogen Regimens **71**
Starting Hormone Therapy **73**
Monitoring **74**
Duration **75**
Discontinuing Hormone Therapy **75**
Hormone Therapy Trials **76**
Androgen Therapy **78**
Tibolone **79**
Role of Oral Contraceptives During the Perimenopause **80**
Bioidentical Hormone Therapy **81**
Benefits of Hormone Therapy **82**
Adverse Effects of Hormone Therapy **84**
Hormone Therapy in Special Conditions **86**

7. Vasomotor Symptoms **95**
Nutan Agarwal
Incidence **95**
Pathophysiology of Hot Flushes **96**
Management **96**

8. Osteoporosis **101**
Balkesh Rathi, Neerja Goel
Epidemiology **102**
Pathophysiology **102**
Risk Factors for Osteoporotic Fracture **104**
Evaluation **108**
Management **111**

9. Urogenital and Sexual Symptoms **132**
Nilanchali Singh, Bindiya Gupta
Prevalence **132**
Pathophysiology **132**
Symptomatology **134**
Patient Evaluation **134**
Treatment **137**
Patient Counseling and Follow-up **140**
Summaries of Various Menopause Societies on Management of Urogenital and Sexual Symptoms in Menopause **141**

10. End Organ and Connective Tissues **144**
Rashmi Malik, Bindiya Gupta
Menopause and Skin **144**
Menopause and Hair **151**
Menopause and Oral Cavity **154**
Menopause and Eye **158**

11. Follow-up of Hormone Therapy **168**
Neerja Goel, Rachna Agarwal, Narang Yam
Frequency of Follow-up **168**
Assessment of Effectiveness and Risk Benefit Ratio **169**
Management of Side-Effects **169**
Switching from Cyclical Hormone Therapy to Continuous Combined Hormone Therapy **171**
Duration of Use and Associated Risks **171**
Discontinuation of Hormone Therapy **172**

Section III — Special Issues

12. Menopausal Transition: A Signal to Prevent and Offset Sarcopenic Obesity **177**
Rama Vaidya, Mona Shah, Ashok Vaidya
Sarcopenic Obesity **178**
Resistance Exercise **179**
Diet **180**

13. Cancers and Hormone Therapy **186**
Shalini Rajaram, Nilanchali Singh
Risk of Malignancies in Patients on Hormone Therapy **186**
Starting Hormone Therapy after Cancer Treatment **192**
Reducing Cancer Risks of Hormone Therapy **194**

14. Cardiac Disease and Menopause **198**
Ranjana Sharma
Gender Differences in Coronary Artery Disease **198**
Change in the Risk of Cardiovascular Disease after Menopause **198**
Menopausal Hormone Therapy and Heart Disease **200**
Counseling Patients **201**

15. Menopause and Cognitive Function **204**
Neerja Goel, Anshuja Singla, Rajlaxmi Mundhra
The Estrogens and Brain **204**
Alzheimer's Disease and Dementia **205**
Current Guidelines **206**
Alternative Therapies to Help Improve Cognitive Function **206**

16. Nonpharmacological Management of Menopause **210**
Sandhya Jain, Neerja Goel, Sneha Shree
Problem Statement **210**
Vasomotor Symptoms **210**
Sleep and Mood Disturbance **216**
Genitourinary Symptoms **216**
Musculoskeletal Symptoms **219**
Cardiovascular Disease **220**
Other Complementary Interventions **220**

17. Contraception in Perimenopause **225**
Neerja Goel, Megha Swami
Perimenopause **225**
Need of Contraception During Perimenopause **226**
Choices for Contraception **227**

Stopping Contraception **242**
Hormone Therapy and Contraception **243**
Follow-Up **244**

18. Perimenopausal and Postmenopausal Obstetrics: Current Scenario **246**
Amita Suneja, Apoorva Reddy
Infertility in Perimenopausal Women **246**
Treatment Options for Perimenopausal Women **247**
Achieving Pregnancy in Postmenopausal Women **248**
Pregnancy Complications in Peri- and Postmenopausal Women **250**
Points to Ponder **252**

19. Abnormal Menopause **256**
Alpana Singh, Bindiya Gupta, Shipra Singla
Premature Menopause **256**
Surgical Menopause/Induced Menopause **261**
Delayed Menopause **262**

Section IV — Dispensing Hormone Therapy

20. Counseling **267**
Neerja Goel, Anshuja Singla
Relationship **268**
Grief and Personal Loss **269**
Emotional Chaos **269**
Early Menopause **269**

21. Prescription Writing **271**
Meeta Singh
Terminology in Hormone Therapy **271**
Indications for Estrogen Therapy/Estrogen Progestogen Therapy **272**
Contraindications and Precautions **273**
Hormonal Preparations **273**

Should Progestins be Administered to Women after Hysterectomy? **276**
Regimens of Hormone Therapy **276**
Follow-Up **276**
Prescribing Hormone Therapy **277**

Section V — Appendices

Appendix A: Hormonal Drugs **285**

Appendix B: Nonhormonal Drugs **287**

Appendix C: Contraception **289**

Index *291*