

Contents

PART A DRUG DISCOVERY AND GENERAL PHARMACOLOGY

SECTION 1 Drug Discovery and Man

- 1. Drug Discovery and Man 3

SECTION 2 General Pharmacology

- 2. Routes of Administration and Dosage Forms 9
- 3. Clinical Pharmacokinetics 26
- 4. Pharmacodynamics 40
- 5. Chronopharmacology 47

PART B CLINICAL PHARMACOLOGY OF ORGAN SYSTEMS

SECTION 3 Autonomic Nervous System

- 6. Adrenergic System: Receptors and Agonists 55
- 7. Adrenergic System: Antiadrenergics 63
- 8. Cholinergic System: Receptors and Agonists 71
- 9. Cholinergic System: Anticholinergics 77
- 10. Skeletal Muscle Relaxants (Neuromuscular Blocking Agents) and Drugs for Muscle Spasms 80

SECTION 4 Renal and Cardiovascular System

- 11. Diuretics and Antidiuretics 85
- 12. Antianginal Drugs 92
- 13. Antihypertensives 101
- 14. Pharmacotherapy of Heart Failure 115
- 15. Antiarrhythmics 123
- 16. Pharmacotherapy of Shock 132

SECTION 5 Central Nervous System

- 17. General Anaesthetics 137
- 18. Local Anaesthetics 143

19. Sedatives and Hypnotics.....	147
20. Antiepileptics.....	152
21. Drugs Used in Psychiatric Disorders.....	161
22. Opioid Analgesics.....	173
23. Drug Therapy of Parkinsonism.....	179
24. Drug Therapy of Alzheimer's Disease and Drugs in Amyotrophic Lateral Sclerosis.....	185
25. Drugs Used in Multiple Sclerosis.....	188
SECTION 6 Respiratory System	
26. Drugs Used in Cough	195
27. Drugs Used in Bronchial Asthma.....	199
SECTION 7 Haemopoietic System	
28. Iron Therapy	208
29. Antiplatelet Drugs (Antithrombotics).....	212
30. Anticoagulants.....	216
31. Thrombolytic Agents.....	223
32. Haematopoietic Growth Factors, Vitamin B ₁₂ and Folic Acid.....	227
33. Lipid Lowering Drugs (Hypolipidemic Agents)	231
SECTION 8 Gastrointestinal System	
34. Drugs in Peptic Ulcer Disease	238
35. Drugs in Diarrhoea and Constipation	243
36. Drugs in Nausea and Vomiting	249
37. Drugs in Inflammatory Bowel Disease, Flatulence, Irritable Bowel Syndrome and Cholelithiasis.....	252
SECTION 9 Endocrine System	
38. Antidiabetics	257
39. Insulin therapy	274
40. Drugs in Thyroid Disorders.....	281
41. Corticosteroids.....	286
42. Drugs Used in Osteoporosis	292
SECTION 10 Reproductive System	
43. Drugs and the Male Reproductive System	299
44. Drugs and the Female Reproductive System.....	305
45. Hormonal Contraceptives	315
46. Drugs and Sexual Dysfunction.....	320
SECTION 11 Autacoids and Inflammation	
47. Antihistaminics and Histamine Agonists	327
48. Prostaglandins and 5-Hydroxytryptamine	330
49. Non-steroidal Anti-Inflammatory Drugs	334
50. Pharmacotherapy of Migraine	340
51. Pharmacotherapy of Gout.....	344
52. Drugs in Rheumatoid Arthritis	349

PART C CHEMOTHERAPY AND IMMUNOPHARMACOLOGY

SECTION 12 General Considerations of Chemotherapy

53. General Considerations of Chemotherapy	357
--	-----

SECTION 13 General Chemotherapy

54. Sulfonamides, Trimethoprim and Cotrimoxazole	367
55. Penicillins	371
56. Cephalosporins	378
57. Carbapenems and Monobactams	384
58. Aminoglycosides	388
59. Fluoroquinolones	392
60. Macrolides and Ketolides	397
61. Tetracyclines, Chloramphenicol, and Glycylcyclines	402
62. Lincosamides, Glycopeptides, Novobiocin, Dalfopristin-Quinupristin, Oxazolidinones, Lipopeptides and Polypeptides	406

SECTION 14 Antiviral and Antifungal Chemotherapy

63. Antiviral Drugs (Non-Retroviral)	413
64. Antiretroviral Drugs	420
65. Antifungal Drugs	430

SECTION 15 Specific Chemotherapy (Microbial Infections)

66. Chemotherapy of Tuberculosis	438
67. Chemotherapy of Leprosy	446
68. Chemotherapy of Urinary Tract Infection	451
69. Chemotherapy of Sexually Transmitted Diseases (STDs)	455
70. Drugs in Acne	458

SECTION 16 Specific Chemotherapy (Parasitic Infections)

71. Chemotherapy of Malaria	462
72. Chemotherapy of Amoebiasis	472
73. Chemotherapy of Helminthiasis	476

SECTION 17 Antimalignancy Chemotherapy

74. Antimalignancy Chemotherapy	483
---------------------------------------	-----

SECTION 18 Immunomodulators

75. Immunomodulators	498
----------------------------	-----

PART D APPLIED PHARMACOLOGY

SECTION 19 Drug Use in Pregnancy and Lactation

76. Drug Use in Pregnancy and Lactation	506
---	-----

SECTION 20 Drug Use in Special Situations

77. Drug Use in Special Situations	516
--	-----

SECTION 21 Drug Use at Extremes of Age

78. Drug Use at Extremes of Age	520
---------------------------------------	-----

SECTION 22 Ocular Pharmacology

79. Ocular Pharmacology	528
-------------------------------	-----

PART E COMMUNITY PHARMACOLOGY AND HERBAL MEDICINES**SECTION 23 Community Pharmacology**

80. Pesticides and Insect Repellants	536
81. Pollutants	540

SECTION 24 Herbal Medicines

82. Nutraceuticals, Dietary Supplements and Herbal Medicines	545
83. Food Adulterants	550

PART F SPECIAL TOPICS IN PHARMACOLOGY**SECTION 25 Adverse Drug Reactions**

84. General Concepts.....	556
85. Systemwise Adverse Drug Reactions.....	561

SECTION 26 Drug Interactions

86. General Concepts.....	591
87. Clinically Important Drug Interactions.....	597
88. Drug Interactions with Food/Nutrients.....	601

SECTION 27 Drugs of Abuse, Drug Promotion and Drug Ethics

89. Drugs of Abuse and Drug Dependence	607
90. Designer Drugs (Legal Highs).....	616
91. Spurious Drugs	623
92. Drug Promotional Literature	627

SECTION 28 Toxicology

93. Toxicology.....	631
---------------------	-----

SECTION 29 Drugs and their Indications

94. Drugs with Single Indication	637
95. Drugs with Multiple Indications.....	641

SECTION 30 Clinical Evaluation and Research

96. Clinical Trials	646
97. Ethics and Human Experimentation	649
98. Banned and Unsafe Drugs	653
99. Role of Ethics Committees in Clinical Research.....	657

SECTION 31 Therapeutic Drug Monitoring and Pharmacoeconomics

100. Therapeutic Drug Monitoring and Pharmacoeconomics	663
--	-----

SECTION 32 Rational Use of Drugs

101. Fixed Dose Combinatios	667
102. Off-Label Use of Drugs.....	674
103. Rational Use of Antimicrobials	680

	104. Prescription Errors in Clinical Practice	683
	105. Guidelines to Prescribing: Points to Remember	689
	106. Common Prescriptions in Practice	697
<i>Appendix I</i>	Winners of Nobel Prize for their Contribution to Pharmacology	705
<i>Appendix II</i>	New Drugs Approved by CDSCO India (2018–2020)	707
Bibliography		709
Index		711