

Contents

<i>About the Authors</i>	iii
<i>The Advisory Board</i>	vii
<i>Reviewers</i>	ix
<i>Preface</i>	xi
<i>Acknowledgments</i>	xiii
<i>Special Features of the Book</i>	xv
<i>Syllabus</i>	xix
Chapter 1 Introduction to Pharmacology	1–42
• Introduction	3
• Definitions	3
• Sources of Drugs	4
• Systems of Measurement	5
• Types of Dosage Forms	6
• Classification of Drugs	8
• Routes and Principles of Administration of Drugs	9
• Pharmacokinetics	14
• Drug Interactions	22
• Pharmacodynamics	23
• Drug Potency and Efficacy	27
• Combined Effects of Drugs	28
• Factors Affecting Drug Action	30
• Adverse Drug Effects	32
• Indian Pharmacopoeia	36
• Rational Use of Drugs	36
Chapter 2 Drugs Acting on Autonomic Nervous System	43–86
• Nervous System	45
• Components and Functions of Autonomic Nervous System	45
• Divisions of Autonomic Nervous System	47
• Cholinergic and Anticholinergic Drugs	47
• Adrenergic System and Drugs	61
• Antiadrenergic Drugs	67
• Skeletal Muscle Relaxants	73
Chapter 3 Cardiovascular Pharmacology	87–158
• Introduction	89
Cardiotonic Agents	89
• Cardiac Glycosides	89
• Phosphodiesterase-3 Inhibitors	91

Antihypertensives and Vasodilators 93

- Diuretics 94
- Drugs Acting on Renin-Angiotensin-Aldosterone System (RAAS) 95
- Calcium Channel Blockers (CCBs) 98
- Sympatholytic Drugs 101
- Vasodilators 103

Antiarrhythmics 105

- Class-I Antiarrhythmic Drugs (Na⁺ Channel Blockers) 106
- Class-II Antiarrhythmic Drugs (β-Blockers) 109
- Class-III Antiarrhythmic Drugs (K⁺ Channel Openers) 109
- Class-IV Antiarrhythmic Drugs 110
- Other Antiarrhythmic Drugs 111
- Choice of Antiarrhythmics for Cardiac Arrhythmias 111

Coagulants and Anticoagulants 113

- Coagulation 113
- Coagulants 115
- Anticoagulants 117
- Oral Anticoagulants 122

Antiplatelets and Fibrinolytics 124

- Antiplatelets 125
- Fibrinolytics (Thrombolytics) 128

Hypolipidemic Drugs 130

- Classification of Hypolipidemic Drugs 131
- HMG-CoA Reductase Inhibitors 131
- Bile Acid Sequestrants 133
- Lipoprotein-Lipase Activators 134
- Niacin (Nicotinic Acid) 134
- Cholesterol Absorption Inhibitors 135
- Omega-3 Fatty Acids 136

Hematinics 137

- Iron 139
- Folic Acid and Vitamin-B₁₂ 142
- Erythropoiesis Stimulating Agents 142

Plasma Expanders 143

- Human Albumin 144
- Dextran 144
- Degraded Gelatin Polymer or Polygeline 145
- Hydroxyethyl Starch or Hetastarch 145
- Polyvinyl Pyrrolidone (PVP) 145

Drugs for Ischemic Heart Disease or Antianginal Agents 146

- Nitrates 147
- β-Blockers 149
- Calcium Channel Blockers 150
- Potassium Channel Openers 151
- Others 151

Chapter 4	Neuropharmacology	159–227
	- Anesthetics 161 - Anesthesia 161 - Gases (Oxygen, Nitrous Oxide, Carbon Dioxide) 177 - Tranquilizers or Anxiolytic Drugs and Hypnotics 181 - Anticonvulsants 190 - Antidepressants 199 - Antipsychotics or Major Tranquilizers or Neuroleptic Drugs 208 - Central Nervous System Stimulants 216 - Mood Stabilizers 218 - Drugs for Deaddiction 220	
Chapter 5	Disorders of Movement	229–245
	- Introduction 231 - Classification of Antiparkinsonian Drugs 231 - Drugs Acting on Dopaminergic System 232 - Drugs Acting on Cholinergic System 239 - Newer Agents for Parkinson's Disease 240 - General Guidelines while Treating Parkinson's Disease 240 - Antiepileptic Drugs 242 - Spasticity and Skeletal Muscle Relaxants 242	
Chapter 6	Inflammatory/Immune Diseases	247–288
	- Analgesics 249 - Nonsteroidal Anti-inflammatory Drugs (NSAIDs) 249 - Opioid Analgesics and Antagonists 265 - Steroids and Anabolic Steroids 274 - Drugs Used in the Treatment of Neuromuscular Immune/Inflammatory Diseases 282	
Chapter 7	Drugs Acting on the Respiratory System	289–314
	- Asthma 291 - Antiasthmatics 292 - Mucolytics 301 - Decongestants 303 - Expectorants 305 - Antitussives 306 - Bronchoconstrictors 309 - Antihistaminics 309	
Chapter 8	Drugs Acting on the Gastrointestinal System	315–351
	- Drugs for Peptic Ulcer Disease 317 - Antihistamines 318 - Proton Pump Inhibitors 320 - Ulcer Protectives 321 - Drug Therapy for <i>Helicobacter pylori</i> Infection 322 - Gastroesophageal Reflux Disease 323 - Antacids 325	

	• Antifoaming Agents 326 • Purgatives and Laxatives 327 • Antidiarrheals 333 • Emetics and Antiemetics 341	
Chapter 9	Drugs Acting on the Endocrine System	353–396
	• Diabetes Mellitus 355 • Insulin and Insulin Analogs 356 • Oral Hypoglycemic Agents 361 • Hormones 368 • Calcium Salts 382 • Thyroid Supplements and Suppressants 387	
Chapter 10	Chemotherapy	397–428
	• Antimicrobials 399 • Anticancer Drugs 421 • Immunosuppressant Drugs 422	
Chapter 11	Drug Acting on Renal System	429–447
	• Renal Physiology 431 • Diuretics 431 • Antidiuretics 441	
Chapter 12	Geriatric Pharmacology	449–466
	• Introduction 451 • Pharmacokinetic Changes of Geriatric Patients 451 • Pharmacodynamic Changes of Geriatric Patients 451 • Adverse Drug Reactions and Geriatric Patients 452 • Factors Causing Decreased Medication Adherence 452 • Improving Patients' Medication Adherence 453	
Chapter 13	Miscellaneous Topics	467–502
	• Drugs for Acne Vulgaris 469 • Vaccines and Sera 469 • Antisera and Immunoglobulins 473 • Drugs Used in Cardiopulmonary Resuscitation and Emergency 475 • Antidotes 478 • Antivenom 480 • Antiseptics and Disinfectants 482 • Vitamins 483 • Minerals 496	
	<i>Further Readings</i>	<i>503–503</i>
	<i>Most Important Mnemonics</i>	<i>505–507</i>
	<i>Index</i>	<i>509–516</i>