

B) GENERAL PHARMACOLOGY: (N=7 ± 2)

Pharmacokinetics: Absorption, Distribution, Biotransformation, Elimination (n=3)
 Pharmacodynamics: Principles of Drug Action, Mechanisms of drug action,

Receptors (Nature, Types, Theories, Principles, Regulation) (n=1)

Application to pharmacotherapeutics: Relevance of Pharmacokinetics and dynamics

in clinical practice, Sequale of repeated administration of drug (n=2)

Adverse Drug Reactions (n=1)

C) AUTONOMIC PHARMACOLOGY: (N= 8 ± 2)

General Considerations (n=1)

Adrenergic agonists (n=1)

Adrenergic antagonists I: -blockers (n=1)

Adrenergic antagonists II: -blockers (n=1)

Cholinergic agonists (n=1)

Anticholinesterases (n=1)

Antimuscarinic drugs (n=1)

Skeletal muscle relaxants (n=1)

A) CARDIOVASCULAR SYSEM INCLUDING DRUGS AFFECTING COAGULATION AND THOSE ACTING ON KIDNEYS: (N=14 ± 2)

General Considerations and Overview of antihypertensive therapy;
 Diuretics (n=2)

Angiotensin Converting Enzyme (ACE) inhibitors (n=1)

Sympatholytics & vasodilators (n=1)

Management of hypertension

Antianginal: Nitrates & others (n=1)

Calcium channel blockers (n=1)

Pharmacotherapy of chest pain

Anticoagulants & Coagulants
 Thrombolytics & Antiplatelet Agents (n=2)

Drugs for CCF: Digitalis glycosides, Others agents (n=2)

Management of CCF

Antiarrhythmic Agents (n=1)

Agents used for the management of shock (n=1)

Hypolipidaemic drugs (n=1)

Role of Nitric oxide and endothelin to be covered in CVSDK

E) HAEMATINICS AND HAEMATOPOIETIC FACTORS: (N=1)

Agents used in therapy of iron deficiency anaemia and megaloblastic anaemia;
 Erythropoietin,
 GM-CSF (n=1)

Management of anaemia

F) NEUROPSYCHIATRIC PHARMACOLOGY INCLUDING INFLAMMATON, PAIN & SUBSTANCE ABUSE (N=15 ± 2)

General Considerations (n=1)

Sedative-Hypnotics (n=2)

Psychopharmacology: Antianxiety; Antipsychotics; Antidepressants (n=3)

Antiepileptics (n=2)

Therapy of neurodegenerative disorders:

Anti-Parkinsonian agents; cerebral vasodilators/nootropics (n=1)

Local anaesthetics (n=1)

Analgesics: Opioids; NSAIDs (n=3)

Pharmacotherapy of pain including migraine

Pharmacotherapy of rheumatoid arthritis and gout

Substance abuse: Management of opioid, alcohol and tobacco addictions (n=1)

G) MISCELLANEOUS TOPICS - I: (N=6 ± 2)

Autocoids (*to be covered before pain lectures*) (n=1)

Antiallergics: Antihistaminics (n=1)

Drugs used for bronchial asthma (n=1)

Pharmacotherapy of cough

Drugs acting on immune system:

Immunostimulants, immunosuppressants; pharmacology of vaccines & sera (n=1)

Drugs acting on the uterus (n=1)

H) CHEMOTHERAPY INCLUDING CANCER CHEMOTHERAPY: (N=22 ± 2)

General considerations (n=1)

Antimicrobial agents: (n=7)

- Sulphonamides & Cotrimoxazole
- Quinoline derivatives
- Penicillins, Cephalosporins & Other β Lactams
- Aminoglycosides
- Macrolides
- Tetracyclines & Chloramphenicol

Pharmacotherapy of UTI

General principles of Antimicrobial use (n=1)

Antimycobacterial therapy: Anti-Kochs agents; Anti-leprotic agents (n=3)

Pharmacotherapy of tuberculosis

Antiprotozoal agents:

Antiamoebic, Antimalarials and Anti Kala azar (n=3)

Pharmacotherapy of malaria

Anthelmintics (n=1)

(against intestinal Nematodes and Cestodes; extra intestinal Nematodes and Trematodes)

Antifungal agents (n=1)

Antiviral agents including antiretroviral agents (n=2)

Pharmacotherapy of STDs (n=1)

Principles of cancer chemotherapy and their adverse drug reactions (n=1)

(individual agents and regimes need not be taught)

I) ENDOCRINOLOGY: (N=12 ± 2)

VEER NARMAD SOUTH GUJARAT UNIVERSITY, SURAT.**S.Y. M.B.B.S.****Introduction to endocrinology**

(including Hypothalamic and Anterior Pituitary hormones) (n=1)

Steroids (n=2)

Glucocorticoids: Use and Misuse

Oestrogens & antagonists (n=1)

Progestins & antagonists (n=1)

Oral contraceptives & pro-fertility agents (n=1)

Testosterone & anabolic steroids (n=1)

Fertility control

Thyroxine and antithyroid agents (n=2)

Agents affecting calcification (n=1)

Antidiabetic agents: Insulin; Oral antidiabetic drugs (n=2)

Pharmacotherapy of Diabetes Mellitus**J) AGENTS USED IN GASTROINTESTINAL DISORDERS: (N=2)**

Pharmacotherapy of nausea & vomiting (n=1)

Pharmacotherapy of peptic ulcer (n=1)

Management of dyspepsia***Management of diarrhoea and constipation*****K) PERIOPERATIVE MANAGEMENT: to be covered as a case study**

Preanaesthetic medication

Preparation of surgical site: antiseptics etc.

Local Anaesthetics

Skeletal muscle relaxants

Drugs used in post-operative period: analgesics, antiemetics etc.

L) MISCELLANEOUS TOPICS – II (N=5-7)

Drug-Drug Interactions (n=1)

Drug use at extremes of age, in pregnancy & in organ dysfunction (n=2)

Use of chelating agents in heavy metal poisonings; Environmental & occupational toxicants and principles of management (particularly cyanide and CO) (n=1)

Ocular pharmacology (n=1)

Dermatopharmacology (n=1)

General Anaesthetics...DK***Pharmacotherapy of glaucoma and conjunctivitis***

M) RATIONAL PHARMACOTHERAPY:**(N=4)**

Prescription writing and P-drug concept
Rational Drug Use; Essential Drug List (EDL)

Criticism with reference to Fixed Drug Combinations (FDCs)

Use and misuse of commonly used preparations: vitamins, antioxidants, enzymes etc.

d. Term-wise distribution**I term**

Introduction
General pharmacology
Autonomic pharmacology
Drugs acting on cardiovascular system including drugs affecting coagulation and those acting on the kidneys

II term

Prescription writing and P-drug concept
Rational use of drugs; Essential drug list
Neuro-psychiatric pharmacology including inflammation, pain and substance abuse
Miscellaneous topics - I
Chemotherapy
Endocrinology

III term**Agents used in gastro-intestinal disorders**

Peri operative management

Miscellaneous topics**Criticism with reference to FDCs**

Use and misuse of commonly used preparations: vitamins, antioxidants, enzymes etc.

e. Practicals: Total hours, number & contents

Total hours: 120

Number: 18

Contents:

I term practicals**(N=7)**

Introduction to Practical Pharmacology, Prescription Writing, Pharmacokinetics I, Routes of Administration: Oral, Routes of Administration: Topical, Routes of Administration: Parenteral, Pharmacokinetics II: Applied Pharmacokinetics

II term practicals**(N=7)**

Pharmacodynamics I (Isolated Tissue, Cat NM junction), Pharmacodynamics II (Dog: BP and Respiration), Screening Techniques for New Drugs, Adverse Drug Reactions, Rational Pharmacotherapy I, Rational Pharmacotherapy II, Sources of Drug Information including scrutiny of Promotional Literature

III term practicals**(N=4)**

Case Study 1, Case Study 2
Revision Practicals (n=2)

f. Books recommended :

1. Basic & Clinical Pharmacology. Katzung BG (Ed), Publisher: Prentice Hall International Ltd., London.
2. Pharmacology & Pharmacotherapeutics. Satoskar RS, Bhandarkar SD (Ed), Publisher: Popular Prakashan, Bombay.
3. Essentials of Medical Pharmacology. Tripathi KD (Ed), Jaypee Brothers, publisher: Medical Publishers (P) Ltd.
4. Clinical Pharmacology. Laurence DR, Bennet PN, Brown MJ (Ed). Publisher: Churchill Livingstone

Reference books :

2. Goodman & Gilman's The Pharmacological Basis of Therapeutics. Hardman JG & Limbird LE (Ed), Publisher: McGraw-Hill, New York.
3. A Textbook of Clinical Pharmacology. Roger HJ, Spector RG, Trounce JR (Ed), Publisher: Hodder and Stoughton Publishers.

5. Evaluation***a. Methods***

Theory, Practical & viva

b. Pattern of Theory Examination including Distribution of Marks, Questions & Time

Nature of Question Paper

- i) Total duration - 4 hrs (each paper of 2 hrs or 120 minutes)
- ii) Each paper of 3 sections