

TOPICS
FOR THE PROMOTION EXAM ON ASSISTANT PROFESSOR
POSITION 18
PRECLINICAL DISCIPLINES DEPARTMENT
PHARMACOLOGY I si II

1. Introduction in pharmacology: history, definitions, branches, drug definition. General pharmacology: General pharmacokinetic of drugs : the absorption ,the transport , the distribution, the biotransformation and the excretion of drugs.
2. General pharmacology: General pharmacodynamics: doses, drugs receptors, mechanism of drug action, receptors and regulatory mechanisms, relations between drug dose and clinical response; agonists, antagonists, drug interactions.
3. General pharmacotoxicology. Introduction to antimicrobial agents. Beta-lactam antibiotics: The Penicillins.
4. Beta-lactam antibiotics: Cephalosporins and cephamycins. Other beta-lactam antibiotics: monobactams, carbapenemes. Glycopeptide antibiotics. Other cell wall or membrane active agents
5. Tetracyclines, Chloramphenicol. Macrolides. Lincosamides. Polypeptide antibiotics. Streptogramins and Oxazolidinones.
6. Aminoglycosides and Spectinomycin. Agents used in the treatment of tuberculosis. Drugs used in leprosy.
7. Sulfonamides, Trimethoprim. Quinolones. Nitrofurans. Methenamine. Antiseptics and disinfectants.
8. Antiviral agents. Antifungal agents.
9. Treatment of malaria. Other antiprotozoal agents. Chemotherapy of helminthiasis.
10. Cancer chemotherapy. Immunopharmacology.
11. Pharmacology of the Cholinergic Nervous System: definition, structure, synthesis, storage, release of acetylcholine, cholinergic receptors; cholinergic –activating and cholinesterase inhibiting drugs.
12. Pharmacology of the Cholinergic Nervous System: cholinergic-blocking drugs.

13. Pharmacology of the Adrenergic Nervous System: definition, structure, synthesis, storage, release of catecholamines, adrenergic receptors. Natural catecholamines. Adrenoreceptor agonists.

14. Pharmacology of the Adrenergic Nervous System: Adrenoreceptor antagonists' drugs.

1. Adrenergic nervous system: Adrenolytics. Pharmacology of the CNS (central nervous system): General Anesthetics.

2. Pharmacology of the CNS (central nervous system): Local Anesthetics. Hypnotics. Sedatives. Tranquilizers.

3. Pharmacology of the CNS (central nervous system): Neuroleptics. Antidepressants.

4. Pharmacology of the CNS (central nervous system): Stimulants of the Central Nervous System. The treatment of Extraparal disorders. Antiepileptic Drugs.

5. Pharmacology of the CNS (central nervous system): Opioid Analgesics. Drugs of abuse.

6. Nonsteroidal Antiinflammatory Drugs. Analgesic agents.

7. Histamine, Serotonine, Prostagandins and related compounds.

8. Pharmacology of the cardiovascular system: Cardiac glycosides and other drugs used in congestive heart failure. Antiarrhythmic drugs.

9. Pharmacology of the cardiovascular system Antihypertensive drugs. Treatment of angina pectoris.

10. Diuretic agents and antidiuretics. Hypolipidemic drugs.

11. Drugs used in Disorders of Coagulations

12. Agents used in Anemias. Hematopoietic Growth factors. Endocrine drugs: Hypothalamic and pituitary hormones, Thyroid and anti-thyroid drugs, Corticosteroids and antagonists

13 Endocrine drugs: Gonadal hormones and inhibitors, Pancreatic hormones, anti-diabetics and hypoglycemic drugs, Drugs that affect bone mineral homeostasis.

14. Drugs used in Gastrointestinal diseases. Drugs used in Bronchial Asthma.

Bibliography

1. B.G. Katzung, Basic and Clinical Pharmacology, 13th edition, Appleton & Lange, Stamford, Connecticut.
2. L. Jacob, Pharmacology, 4th edition, Infomed, Waverly Info-med Ltd.
3. Goodman & Gilman's – The Pharmacological Basis of Therapeutics, 13th edition.

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