PHARMACOLOGY - II

Including Fundamentals of Prescribing Module

DESCRIPTION: This course is designed to enable students to acquire understanding of Pharmacodynamics, Pharmacokinetics, principles of therapeutics & nursing implications. Further it develops understanding of fundamental principles of prescribing in students.

COMPETENCIES: On completion of the course, the students will be able to

- 1. Explain the drugs used in the treatment of ear, nose, throat and eye disorders.
- 2. Explain the drugs used in the treatment of urinary system disorders.
- 3. Describe the drugs used in the treatment of nervous system disorders.
- 4. Explain the drugs used for hormonal replacement and for the pregnant women during antenatal, intra natal and postnatal period.
- 5. Explain the drugs used to treat emergency conditions and immune disorders.
- 6. Discuss the role and responsibilities of nurses towards safe administration of drugs used to treat disorders of various systems with basic understanding of pharmacology.
- 7. Demonstrate understanding about the drugs used in alternative system of medicine.
- 8. Demonstrate understanding about the fundamental principles of prescribing.

COURSE OUTLINE

$\boldsymbol{T-Theory}$

Unit	Time (Hrs)	Learning Outcomes	Content	Teaching/ Learning Activities	Assessment Methods
I	4 (T)	Describe drugs used in disorders of ear, nose, throat and eye and nurses' responsibilities	Drugs used in disorders of ear, nose, throat & Eye Antihistamines Topical applications for eye (Chloramphenicol, Gentamycin eye drops), ear (Soda glycerin, boric spirit ear drops), nose and buccal cavity-chlorhexidine mouthwash Composition, action, dosage, route, indications, contraindications, drug interactions, side effects, adverse effects, toxicity and role of nurse	Lecture cum Discussion Drug study/ presentation	Short answer Objective type
П	4 (T)	Describe drugs acting on urinary system & nurse's responsibilities	Pharmacology of commonly used drugs ○ Renin angiotensin system ○ Diuretics and antidiuretics ○ Drugs toxic to kidney ○ Urinary antiseptics ○ Treatment of UTI – acidifiers and alkalinizers Composition, action, dosage, route, indications, contraindications, Drug interactions, side effects, adverse effects toxicity and role of nurse	 Lecture cum Discussion Drug study/ presentation 	 Short answer Objective type
III	10 (T)	Describe drugs used on nervous system & nurse's responsibilities	 Drugs acting on nervous system Basis & applied pharmacology of commonly used drugs Analgesics and anaesthetics Analgesics: Non-steroidal anti-inflammatory (NSAID) drugs Antipyretics Opioids & other central analgesics ✓ General (techniques of GA, pre anesthetic medication) & local anesthetics ✓ Gases: oxygen, nitrous, oxide, carbon-dioxide & others Hypnotics and sedatives Skeletal muscle relaxants Antipsychotics Mood stabilizers 	Lecture cum Discussion Drug study/ presentation	Short answer Objective type

Unit	Time (Hrs)	Learning Outcomes	Content	Teaching/ Learning Activities	Assessment Methods
IV	5 (T)	Describe drugs used for hormonal disorder & supplementation, contraception & medical termination of	 and supplementation, contraception and medical termination of pregnancy Estrogens and progesterones 	 Lecture cum Discussion Drug study/ presentation 	Short answerObjective type
		pregnancy & nurse's responsibilities	 Oral contraceptives and hormone replacement therapy Vaginal contraceptives Drugs for infertility and medical termination of pregnancy Uterine stimulants and relaxants Composition, actions dosage route indications contraindications, drugs interactions, side effects, adverse effects, toxicity and role of nurse 		
V	3 (T)	Develop understanding about important drugs used for women before, during and after labour	 Drugs used for pregnant women during antenatal, labour and postnatal period Tetanus prophylaxis Iron and Vit K1 supplementation Oxytocin, Misoprostol Ergometrine Methyl prostaglandin F2-alpha Magnesium sulphate Calcium gluconate 	 Lecture cum Discussion Drug study/ presentation 	Short answerObjective type
VI	10 (T)	Describe drugs used in deaddiction, emergency, poisoning, vitamins & minerals supplementation, drugs used for immunization & immune-suppression & nurse's responsibilities	Down and for deadlines	 Lecture cum Discussion Drug study/ presentation 	Short answerObjective type

Unit	Time (Hrs)	Learning Outcomes	Content	Teaching/ Learning Activities	Assessment Methods
VII	4 (T)	Demonstrate awareness of common drugs used in alternative system of	 Ipecac Antidotes, Anti-snake venom (ASV) Vitamins and minerals supplementation Vaccines & sera (Universal immunization program schedules) Anticancer drugs: Chemotherapeutic drugs commonly used Immuno-suppressants and Immunostimulants Introduction to drugs used in alternative systems of medicine Ayurveda, Homeopathy, Unani and 	 Lecture cum Discussion Observational visit 	Short answerObjective type
		medicine	Siddha etc.Drugs used for common ailments		
VIII	20 (T)	Demonstrate understanding about fundamental principles of prescribing	 Fundamental principles of prescribing Prescriptive role of nurse practitioners: Introduction Legal and ethical issues related to prescribing Principles of prescribing Steps of prescribing Prescribing competencies 	Completion of module on Fundamental principles of prescribing	 Short answer Assignments evaluation

Bibliography: (Pharmacology)

- 1. Satoskar, Bhandarkar, Ainapure: Pharmacology and pharmacotherapeutics, 18 Edition Popular Prakashan Mumbai.
- 2. M M Das: Pharmacology, Books & Allied (p) Ltd, 4 Edition 2001.
- 3. Linda, Skidmore Roth: Mosby's 2000 Nursing Drug Reference, Mosby Inc, Harcourt Health Sciences Company, Missouri 2000.
- 4. Ramesh Karmegan: First aid to Pharmacology for undergraduates, Paras Medical publishers, Hyderabad, India, 1 Edition 2003.
- 5. K D Tripathi: Essentials of medical pharmacology, 4 Edition, Jaypee Brothers, Bangalore.
- 6. Govoni & Hayes: Drugs and nursing implications, 8 Edition, Appleton & Lange Newyork.
- 7. Rodman & Smith: Clinical pharmacology in nursing, 2 Edition, J B Lippincott company, Philadelphia.
- 8. Richard A Lehne: Pharmacology for nursing care, 3 Edition, W B S aunderers company, Philadelphia, 1990.
- 9. Lalit Mishra: Drug Today, Vol 12, No 12, Lorina publications Inc. Delhi 2004