

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

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 <ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Lecture cum Discussion • Drug study/ presentation 	<ul style="list-style-type: none"> • Short answer • Objective type
II	4 (T)	Describe drugs acting on urinary system & nurse's responsibilities	Drugs used on urinary system <ul style="list-style-type: none"> • Pharmacology of commonly used drugs <ul style="list-style-type: none"> ○ 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 	<ul style="list-style-type: none"> • Lecture cum Discussion • Drug study/ presentation 	<ul style="list-style-type: none"> • Short answer • Objective type
III	10 (T)	Describe drugs used on nervous system & nurse's responsibilities	Drugs acting on nervous system <ul style="list-style-type: none"> • Basis & applied pharmacology of commonly used drugs • Analgesics and anaesthetics <ul style="list-style-type: none"> ○ Analgesics: Non-steroidal anti-inflammatory (NSAID) drugs ○ Antipyretics ○ Opioids & other central analgesics <ul style="list-style-type: none"> ✓ 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 	<ul style="list-style-type: none"> • Lecture cum Discussion • Drug study/ presentation 	<ul style="list-style-type: none"> • Short answer • Objective type

Unit	Time (Hrs)	Learning Outcomes	Content	Teaching/ Learning Activities	Assessment Methods
			<ul style="list-style-type: none"> • Antidepressants • Antianxiety Drugs • Anticonvulsants • Drugs for neurodegenerative disorders & miscellaneous drugs • Stimulants, ethyl alcohol and treatment of methyl alcohol poisoning • Composition, action, dosage, route, indications, contraindications, drug interactions, side effects, adverse effects toxicity and role of nurse 		
IV	5 (T)	Describe drugs used for hormonal disorder & supplementation, contraception & medical termination of pregnancy & nurse's responsibilities	Drugs used for hormonal, disorders and supplementation, contraception and medical termination of pregnancy <ul style="list-style-type: none"> • Estrogens and progesterones <ul style="list-style-type: none"> ○ Oral contraceptives and hormone replacement therapy • Vaginal contraceptives • Drugs for infertility and medical termination of pregnancy <ul style="list-style-type: none"> ○ Uterine stimulants and relaxants • Composition, actions dosage route indications contraindications, drugs interactions, side effects, adverse effects, toxicity and role of nurse 	<ul style="list-style-type: none"> • Lecture cum Discussion • Drug study/ presentation 	<ul style="list-style-type: none"> • Short answer • Objective type
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 <ul style="list-style-type: none"> • Tetanus prophylaxis • Iron and Vit K1 supplementation • Oxytocin, Misoprostol • Ergometrine • Methyl prostaglandin F2-alpha • Magnesium sulphate • Calcium gluconate 	<ul style="list-style-type: none"> • Lecture cum Discussion • Drug study/ presentation 	<ul style="list-style-type: none"> • Short answer • Objective type
VI	10 (T)	Describe drugs used in deaddiction, emergency, poisoning, vitamins & minerals supplementation, drugs used for immunization & immune-suppression & nurse's responsibilities	Miscellaneous <ul style="list-style-type: none"> • Drugs used for deaddiction • Drugs used in CPR and emergency- adrenaline, Chlorpheniramine, hydrocortisone, Dexamethasone • IV fluids & electrolytes replacement • Common poisons, drugs used for treatment of poisoning <ul style="list-style-type: none"> ○ Activated charcoal 	<ul style="list-style-type: none"> • Lecture cum Discussion • Drug study/ presentation 	<ul style="list-style-type: none"> • Short answer • Objective type

Unit	Time (Hrs)	Learning Outcomes	Content	Teaching/ Learning Activities	Assessment Methods
			<ul style="list-style-type: none"> ○ 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 		
VII	4 (T)	Demonstrate awareness of common drugs used in alternative system of medicine	Introduction to drugs used in alternative systems of medicine <ul style="list-style-type: none"> ● Ayurveda, Homeopathy, Unani and Siddha etc. ● Drugs used for common ailments 	<ul style="list-style-type: none"> ● Lecture cum Discussion ● Observational visit 	<ul style="list-style-type: none"> ● Short answer ● Objective type
VIII	20 (T)	Demonstrate understanding about fundamental principles of prescribing	Fundamental principles of prescribing <ul style="list-style-type: none"> ● Prescriptive role of nurse practitioners: Introduction ● Legal and ethical issues related to prescribing ● Principles of prescribing ● Steps of prescribing ● Prescribing competencies 	<ul style="list-style-type: none"> ● Completion of module on Fundamental principles of prescribing 	<ul style="list-style-type: none"> ● Short answer ● Assignments evaluation

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