GROW MORE INSTITUTE OF NURSING, HIMMATNAGAR

**PHARMACOLOGY**

**Placement: Second Year** **Time: Theory 45 Hours**

**Course Description:**

This course is designed to enable students to acquire understanding of pharmaco-dynamics, pharmacokinetics, principle of therapeutics and nursing implications.

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| **Unit** | **Time** |  | **Content** |
|  | **(Hrs)** |  |  |
| I | 3 | **Introduction to pharmacology** |
|  |  |  | Definition |
|  |  |  | sources |
|  |  |  | Terminology used |
|  |  |  | Types: Classification |
|  |  |  | Pharmacodynamics: action, therapeutics, |
|  |  |  | Adverce, toxic |
|  |  |  | Pharmacokinetics: absorption, distribution, metabolism, interaction, excretion |
|  |  |  | Review: Routs and principles of administration of drugs |
|  |  |  | Indian pharmacopoeia: Legal issues |
|  |  |  | Rational use of drugs |
|  |  |  | Principle of therapeutics |
|  |  |  |  |
| II | 6 | **Chemotherapy** |
|  |  |  | Pharmacology of commonly used; |
|  |  |  | Penicillin |
|  |  |  | Cephalosporins |
|  |  |  | Aminoglycosides |
|  |  |  | Macrolide & Broad Spectrum Antibiotics |
|  |  |  | Sulfonamides |
|  |  |  | Quinolones |
|  |  |  | Antiamoedic |
|  |  |  | Antimalarials |
|  |  |  | Anthelmintics |
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|  |  |  | Antiscribes agents |
|  |  |  | Antiviral & anti-fungal agents |
|  |  |  | Antitubercular drugs |
|  |  |  | Anti leprosy drugs |
|  |  |  | Anticancer drugs |
|  |  | Immuno-suppressants |
|  |  | Composition, action, dosage, route, indications, contraindications, druginteractions, side |
|  |  | effects, adverse effects, toxicity and role of nurse |
|  |  |  |
| III | 2 | **Pharmacology of commonly used Antiseptics, disinfectants, insecticides** |
|  |  |  | Antimetics; |
|  |  |  | Composition, action, dosage, route, indications, contraindications, |
|  |  |  | druginteractions, side effects, adverse effects, toxicity and role of nurse |
|  |  |  | Disinfectants |
|  |  |  | Insecticides |
|  |  |  |
| IV | 2 | **Drugs acting on Gastro Intestinal system** |
|  |  | Pharmacology of commonly used |
|  |  |  | Antimetics, |
|  |  |  | Emitics |
|  |  |  | Purgatives |
|  |  |  | Antacids |
|  |  |  | Cholinergic |
|  |  |  | Anti Cholinergics |
|  |  |  | Fluid and electrolyte therapy |
|  |  |  | Anti diarrhoeals |
|  |  |  | Histamines |
|  |  | Composition, action, dosage, route, indications, contraindications, druginteractions, side |
|  |  | effects, adverse effects, toxicity and role of nurse |
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| V | 2 | **Drugs used on Respiratory system** |
|  |  |  | Pharmacology of commonly used |
|  |  |  | Antiasthmatics |
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|  |  |  | Mycolytics |
|  |  |  | Decongestants |
|  |  |  | Expectorants |
|  |  |  | Antitussives |
|  |  |  | Bronchodilators |
|  |  |  | Broncho constrictors |
|  |  | Antihistamines |
|  |  | Composition, action, dosage, route, indications, contraindications, druginteractions, side |
|  |  | effects, adverse effects, toxicity and role of nurse |
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| VI | 2 | **Drugs used on Urinary system** |
|  |  |  | Pharmacology of commonly used |
|  |  |  | Diuretics and antidiuretics |
|  |  |  | Urinary antiseptics |
|  |  | Cholinergic and |
|  |  |  | Anti Cholinergics |
|  |  | Acidifiers and alkalanizers |
|  |  | Composition, action, dosage, route, indications, contraindications, druginteractions, side |
|  |  | effects, adverse effects, toxicity and role of nurse |
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| VII | 4 | **Miscellaneous** |
|  |  |  | Drug used in de-addition |
|  |  |  | Drug used in CPR and emergency |
|  |  |  | vitamins & minerals |
|  |  |  | immunosuppresants |
|  |  |  | Antidotes |
|  |  |  | Antivenom |
|  |  |  | Vaccines and sera |
|  |  |  |
| VIII | 1 | **Drugs used on skin and mucous membranes** |
|  |  |  | Topical applications for skin, eye, ear, nose, and buccal cavity Antipruritics |
|  |  | Composition, action, dosage, route, indications, contraindications, druginteractions, side |
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effects, adverse effects, toxicity and role of nurse



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| IX |  | 8 | **Drugs acting** | **on Nervous system** |
|  |  |  | Basic & applied Pharmacology of commonly used: |
|  |  |  |  | Analgesics and Anaesthetics |
|  |  |  |  | Analgesics |
|  |  |  |  | -Non steroidal anti-inflammatory(NSAID) drugs |
|  |  |  |  | Antipyretics |
|  |  |  |  | Hypnotics and sedatives |
|  |  |  |  | -Opioids |
|  |  |  |  | -Non-Opioids |
|  |  |  |  | -Tranquilizers |
|  |  |  |  | -General & local anesthetics |
|  |  |  |  | -Gases: oxygen, nitrous oxide, carbon-dioxide |
|  |  |  |  | Cholinergic and |
|  |  |  |  | Anti Cholinergics: |
|  |  |  |  | Muscle relaxants |
|  |  |  |  | Major tranquilizers |
|  |  |  |  | Anti-psychotics |
|  |  |  |  | Antidepressants |
|  |  |  |  | Anticonvulsants |
|  |  |  |  | Adrenergic |
|  |  |  |  | Noradregenics |
|  |  |  |  | Mood stabilizers |
|  |  |  |  | Acetylcholine |
|  |  |  |  | Stimulants |

Composition, action, dosage, route, indications, contraindications, druginteractions, side effects, adverse effects, toxicity and role of nurse



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| X | 5 | **Cardiovascular Drugs** |
|  |  |  | Haematinics |
|  |  |  | Cardiotonics, |
|  |  |  | Anti anginals |
|  |  |  | Anti-hypertensives &Vasodilators |
|  |  |  | Anti-arrhythmics |
|  |  |  | Plasma expanders |
|  |  |  | Coagulants & anticoagulants |
|  |  |  | Antiplatelets & thrombolytics |
|  |  |  | Hypolipidemics |

Composition, action, dosage, route, indications, contraindications, druginteractions, side

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|  |  | effects, adverse effects, toxicity and role of nurse |
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| XI | 4 | **Drugs used for hormonal disorders and supplementation, contraception and** |
|  |  | **medical termination of pregnancy** |
|  |  | Insulins & Oral hypoglycemics |
|  |  | Thyroid supplements and suppresants |
|  |  |  | Steroids, Anabolics |
|  |  |  | Uterine stimulants |
|  |  |  | and relaxants |
|  |  |  | Oral contraceptives |
|  |  | Other estrogen-progestrone preparations |
|  |  |  | Corticotrophine & Gonadotropines |
|  |  |  | Adrenaline |
|  |  |  | Prostaglandins |
|  |  |  | Calcitonins |
|  |  |  | Calcium salts |
|  |  |  | Calcium regulators |
|  |  | Composition, action, dosage, route, indications, contraindications, druginteractions, side |
|  |  | effects, adverse effects, toxicity and role of nurse |
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| XII | 6 | **Introduction to drugs used in alternatives sustem of medicine** |
|  |  | Ayurveda, Homeopathy, Unani and Siddha etc |
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