Foundation Module - Year 3 Semester 1

Duration: 03 Weeks (15 days)

Topic & Concepts	Objectives	Time	Department	T/L activity
	At the end of the learning session the student should be able:			
2006-3/SBM-1/15				
Cont. Neoplasia and Carcinogenesis				
a. Introduction to neoplasia and oncogenesis	1. to describe the fact that DNA alteration in a cell can lead to tumours and dysplasia 2. to describe in detail* the process of carcinogenesis and concepts of dysplastic and premalignant lesions 3. descibe in detail* the different types of tumours and their pathogenesis and morphology and differences in behaviour	3h	Pathology	Lectures & Museum class
b. Clinical features of tumours	4. to describe in detail* the mechanisms of clinicopathological features associated with benign and malignant tunours.(including local effects and paraneoplastic syndromes)	2h	Pathology	SGLA (2hr)
c. Early diagnosis of screening of tumours	5. to describe the methods of diagnosis and screening of tumours.	1h	Pathology	Lecture
d. Clinicopathological coorelation of tumours of important sites	6. to explain the clinical effects due to physical presence of tumours in important sites. Eg: brain, lungs, GIT, liver, etc.	1h	Pathology	SGD
2006-3/SBM-1/17				
Haematology and clinical pathology				
a. Identification of specimen collection and laboratory errors	1. Identification of laboratory errors in the reports issued (problems in collection of the specimen (collection into the incorrect container, haemolized sample, delayed separation of plasma, exposure of the sample to sunlight, specimen collection from drip arm	1h	Pathology	Tutorial (1h)

b. Interpreting haematological investigations	2. to know the tests included in a full blood count 3. to know the commonly requested haematological investigations 4. to know the physiological changes of haemoglobin value in neonate, infant, childhood, adult male & female& in pregnancy 5. to know the changes in the red cell count (e.g. polycythaemia, anaemia) 6. to know the definition of anaemia and classification of anaemia according to the morphology and red cell indices 7. to know the physiological changes of WBC/DC in a neonate, infant, child below 6 yrs, adult & pregnancy 8. to know the clinical significance and common causes of leucopenia, neutropenia, neutrophil leucocytosis, lymphocytosis (absolute and relative) 9. to know the clinical significance of platelet count and causes of abnormally high and low platelet counts 10. to know the clinical significance of erythrocyte sedimentation rate (ESR) and causes of high ESR 11. to know the tests included in a coagulation profile i.e. bleeding time (BT), clotting time (CT), prothrombin time(PT), activated partial thromboplastin time (APTT) & platelet count 12. to know the importance of reticulocyte count 13. to know the basic laboratory tests necessary for investigation of haemolytic anaemia	2h	Pathology	Lectures
c. Clinical Enzymology	1. to know the enzyme kinetics, isoenzymes and causes of increased enzyme levels 2. to know the use of enzymes in the diagnosis of various diseases	2h	Pathology	Lectures
c. Interpreting urine laboratory reports	1. to know the commonly requested urine tests (urine sugar, urine albumin, urine deposit, urine full report, creatinine clearance, urine for specific gravity, 24 hour urinary protein excretion, creatinine clearance, urine for micro albuminuria) 2. to know the advice given to the patients and importance of preparation of the patients for these investigations 3. to know the basic procedure for performing urine ward tests 4. to know the importance of abnormalities of urine deposit (different types of cells and casts) 5. to know how to relate the urine biochemical tests with the urine deposit and the causes for likely incompatibilities 6. to know the common special urine tests (urine for Bence Jones proteins, urine for haemosiderinuria, urinary protein electrophoresis)	1h	Pathology	Lectures
e. CSF Examination	1. to demonstrate the normal function and composition of CSF 2. to know the alteration in CSF in different clinical conditions 3. to know how to send CSF specimens to the laboratory for CSF analysis	2h	Pathology	Lectures

f. Specimen collection and transport in Histology, Cytology and Frozen section	1. to know the proper collection and transport method specimen for histological, cytological and frozen section investigations	1h	Pathology	Lecture
J. Spleen	1. recall general pathology 2. to describe the causes of splenomegaly	1h	Pathology	Lecture
K. Lymphnode	1. describe the causes of lymphadenopathy	1h	Pathology	Lecture
2006-3/SBM-1/18				
Awareness of commonly prescribed drugs and their effects in a tertiary care hospital **a. Learning clinical pharmacology in a Hospital setting**	1. recall the generic names of at least 10 commonly prescribed drugs in the following wards (a) general medical (b) general surgical (c) Gyn. & Obs. (d) Paediatrics 2. classify each drug in objective-1 under the dosage form: (a) tablet (b) capsule (c) dermal patches (e) suppository (f) creams/ointments (g) respiratory fluid (h) aerosol (I) powder (j) injections (k) Syrups 3. state the route/s of administration of each dosage form listed in objective -2 under the following modes: (a) oral (b) intravenous (c) intramuscular (d) subcutaneous (e) per-rectal (f) intravaginal (g) inhalation (h) sublingual (i) topical 4. recall the abbreviations relevant in prescribing drugs, and use this knowledge in collecting information relevant to objective-5.1 5. obtain information on dosage regimens (from the BHT/Drug card), with respect to drug/s listed in objective-1 and write (a)dosage (b) route (c) times and frequency of administration (d) duration of medication 6. identify and record the following aspects of the drugs listed in objective-1 prior to administration, (a) active ingredient (b) physical appearance (c) expiry date (d) notes on storage		Pharmacology	Hospital based assignment
	7. name the drugs requiring storage in the (a) cold (b) away from sunlight and observe and note how heat-labile drugs are stored correctly in the refrigerator noting the different locations assigned to different drugs.		Pharmacology	Hospital based assignment

	8.1 list 3 intravenous fluids commonly used in a medical/surgical unit 8.2 list the constituents in each of the above mentioned intravenous fluids 8.3 list 2 common indications for use of intravenous fluids mentioned in 5.8.1 9. name the drugs requiring reconstitution prior to administration, observe and make notes on the reconstitution procedure by observing the ward Nurse/Pharmacist. 10. state the (a) clinical methods and (b) laboratory methods, where applicable, used to monitor the effectiveness of the drugs listed in objective-1 11. name the drugs that would have caused an untoward reaction/adverse effect by obtaining information from the BHT and from the doctor. 12. list the drugs that are administered in clinical emergencies and make notes under (a) name of drug (b) the emergency (c) dosage form (d) dosage regimen (e) route of administration (f) method/s of monitoring clinical improvement of the emergency.			
b. Drug delivery systems: Formulations, devices	1. identufy the different drug delivery systems used in clinical practice 2 state the advantages and disadvantages of each drug delivery system	50 min.	Pharmacology	Demonstration
2005-3/SBM-1/19				
Drug Information	1. identify different sources of drug information 2. differentiate unbiased information from promotional material.	1h + 1h	Pharmacology/ Medicine	Lecture+ Assignment
a. Sources, Reliability and Interpretation	3. critically analyse the information in a given source of drug information 4. carry out a literature search on drug information			
2006-3/SBM-1/20				
a. Drug Discovery and Development	1. state the history of drug discovery 2. list the sources from which new drugs are developed 3. describe the different stages of the development of a new drug	2 hours	Pharmacology/ Forensic Medicine	Lecture
b. Drug Regulation	1. explain the components of the (i) Drug Policy (ii) Cosmetic Devices and Drugs Act of Sri Lanka	50 min.	Pharmacology/ Forensic Medicine	Lecture

2006-3/SBM-1/21				
Antimicrobial Agents	1. define an "antimicrobial agent" 2. explain the basis of using antimicrobial agents in human infection 3. classify antimicrobial agents based on their chemical structure/mechanism of action with examples under following headings. (I). Antibacterial agents (ii). Antifungal agents (iii). Antiviral agents (iv). Antiprotozoal agents (v). Antihelminthics 4. describe mechanism of action, pharmacokinetics, clinical uses, adverse effects, interactions and limitations for the use of (I). antibacterial agents a. Penicillins (Benzylpenicillin, Phenoxymethylpenicillin, Penicillinase-resistant penicillins, Broad-spectrum penicillins, Antipseudomonal penicillins, Mecillinams, Depot penicillins, newer penicillins) b. Cephalosporins, Cephamycins and other beta lactams c. Tetracyclines d. Aminoglycosides e. Macrolides f. Clindamycin g. Chloramphenicol, Fusidic acid, Vancomycin h. Sulphonamides and trimethoprim I. Antituberculous drugs j. Antileprotic drugs k. Metronidazole and tinidazole l. Quinolones m. Antimicrobials used in lower urinary-tract infections (ii). antifungal agents and principles of Antifungal Therapy a. Amphotericin, Azoles, Griseofulvin, Nistatin (iii). antiviral agents and principles of antiviral therapy a. drugs in HIV Infection (Nucleoside reverse transriptase inhiditors eg: Zidovudine; Protease inhibitors eg: indinavir,amprenavir) b. drugs in herpesvirus infection (Acilovir, Valacilovir, Famcilovir c. drugs in viral hepatitis (iv). antiprotozoal agents a. Antimalarials b. Amoebicides c. Trichomonacides d. Antigiardial drugs	9h	Pharmacology	Lecture/ Tutorial

	e. Leishmaniacides f. Trypanocides g. Drugs for toxoplasmosis h. Drugs for pneumocystis pneunonia			
	(v). antihelminthics a. Drugs for threadworms b. Ascaricides c. Drugs for tapeworm infections d. Drugs for hookworms e. Schistosomicides f. Filaricides g. Drugs for cutaneous larva migrans h. Drugs for strongyloidiasis 5.define chemoprophylaxis and explain the basis of chemoprophylaxis of infections (I). describe the drug therapy of a. acute attack of malaria in endemic and non-endemic areas (including chloroquine-resistant malaria) b. severe complicated malaria c. malaria in pregnancy d. malaria in G6PD deficiency e. chemoprophylaxis of malaria (ii). acute pyogenic meningitis (iii). acute respiratory tract infections (iv). urinary tract infections (v). tuberculosis		Pharmacology	Lecture/ Tutorial

Foundation Module - (Year 3 Semester 1)
Module Summary

Department	Lectures/ Tutorials (hrs)	SGD (hrs)	Tutorial (hrs)	Total (hrs)
Pathology	14	1	1	16
Pharmacology	11	4		15
Total	**25**	**5**	1	**31**

Names and the departments of the teachers involved in the teaching programme:

Dept. of Pathology
Prof. N. Ratnatunga
Dr. Dhammika Manike Dissanayake
Dr. R. Gunawardena
Dr. Sulochana Wijetunge
R. Waduge
Dr. E. Siriweera

Dept. of Pharmacology
Dr. U. Dangahadeniya

Dept. of Microbiology
Prof. V. Thevanesam

Examination Format

Module	Credits	MCQ	SAQ	Viva
FCP & Foundation	8	2	2	Viva