Foundation in Clinical Pathology (Year 3 Semester 1)

Credits: 4.5 – Foundation in Pathology
Credits: 1.0 – Foundation in Clinical Pathology

Duration: 3 weeks (15 days)

Topic & Concepts	Objectives	Time	Dept.	T/L activity	Comments
	At the end of the learning session the student should be able:				
3/SBM-1/23					
Cont. Neoplasia and Carcinogenesis					
a. Introduction to neoplasia and oncogenesis	1. to describe the fact that DNA alteration in a cell can lead to the occurance of tumours and dysplasia	3h	Pathology	Lectures & Museum class	This will be supplemented by clinical demonstrations and will be done by the clinicians (1h)
	2. to describe in detail* the process of carcinogenesis				
	3.describe the concepts of dysplastic and premalignant lesions				
	4. descibe in detail* the different types of tumours and their pathogenesis and morphology and differences in behaviour				
					This will be supplemented by clinical demonstrations in the wards during the introductory clinical appointments, and will be done by the clinicians. The clinicians should be informed of the topics during each week.
b. Clinical features of tumours	5. 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 and screening of tumours	6. to describe the methods of diagnosis and screening of tumours.	1h	Pathology	Lecture	
d. Clinicopathological coorelation of tumours of important sites	7. to explain the clinical effects caused by physical presence of tumours in important sites. Eg: brain, lungs, GIT, liver, etc.	1h	Pathology	SGD	
3/SBM-1/24					
Haematology and clinical pathology					detailed objectives are given.
a. Identification of specimen collection and laboratory errors	1.To identify the 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, etc.	1h	Pathology	Tutorial (1h)	
b. Interpreting haematological investigations	2.List the tests included in a full blood count	2h	Pathology	Lectures	
	3. List the commonly requested haematological investigations				

	4. State the physiological changes of haemoglobin value in neonate, infant, childhood, adult male & female& in pregnancy				
	5. State 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. Describe the physiological changes of WBC/DC in a neonate, infant, child below 6 yrs, adult & pregnancy				
	8. Describe the clinical significance and common causes of leucopenia, neutropenia, neutrophil leucocytosis, lymphocytosis (absolute and relative)				
	9. Describe the clinical significance of platelet count and causes of abnormally high and low platelet counts				
	10. Describe the clinical significance of erythrocyte sedimentation rate (ESR) and causes of high ESR				
	11. List 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. State the importance of reticulocyte count				
	13. List the basic laboratory tests necessary for investigation of haemolytic anaemia				
c. Clinical Enzymology	1. Explain the enzyme kinetics, isoenzymes and causes of increased enzyme levels	2h	Pathology	Lectures	
	2. Describe the use of enzymes in the diagnosis of various diseases				
d. 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)	1h	Pathology	Lectures	
	2. State the advice given to the patients and importance of preparation of the patients for these investigations				
	3. Describe the basic procedure for performing urine ward tests				
	4. Describe the importance of abnormalities of urine deposit (different types of cells and casts)				
	5. Describe how to relate the urine biochemical tests with the urine deposit and the causes for likely incompatibilities				
	6. Describe the common special urine tests (urine for Bence Jones proteins, urine for haemosiderinuria, urinary protein				

	electrophoresis)				
e. CSF Examination	1. Describe the normal function and composition of CSF	2h	Pathology	Lectures	
	2. Describe the alteration in CSF in different clinical conditions				
	3. Describe how to send CSF specimens to the laboratory for CSF analysis				
f. Specimen collection and transport in Histology, Cytology and Frozen section	1. Describe the proper collection and transport method specimen for histological, cytological and frozen section investigations	1h	Pathology	Lecture	
J. Spleen		1h	Pathology	Lecture	Recall general Pathology
	2. to describe the causes of splenomegaly				
K. Lymphnode	1. describe the causes of lymphadenopathy	1h	Pathology	Lecture	

Foundation in Pathology (End of Year 2 Semester 2) & Foundation in Clinical Pathology (Year 3 Semester 1)
Module Summary

Department	Lectures (hrs)	SGD (hrs)	Museum Class (hrs)	Tutorials (hrs)	Practical Demonstration (hrs)	Total (hrs)
Pathology	64	1	11	1	2	79
Biochemistry					4	4
Total	**64**	**1**	**11**	**1**	**6**	**83**

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

Dept. of Pathology
Prof. N.V.I. Ratnatunga
Dr. Dhammika Manike Dissanayake
Dr. Rukmani Gunawardena
Dr. Roshitha Waduge
Dr. Sulochana Wijetunga

Dept. of Biochemistry
Prof. R. Sivakanesan