ELECTIVES IN PATHOLOGY 2023 BATCH UG MBBS

Sl No	Name of Elective	Names of Preceptor	Number of Students
1.	Analysis and interpretation of histograms of common haematological conditions(10 cases)	Dr.Resmi Rajeev, Dr.Lovely Jose	2
2.	Clinicopathological study of Breast Carcinoma including Immunohistochemistry(10 cases)	Dr. Suma M.T,Dr.Nimi Shabeer	2
3.	Clinicopathological study of common gastrointestinal lesions(15 cases)	Dr.Bhavya.P.Mohan,Dr.Freena Rose	2
4.	Cytological analysis of 30 PAP smears	Dr Jilsa,Dr.Lekshmi .V	2
5.	Clinicocytological corelation of common thyroid lesions(10 cases)	Dr.Anjit,Dr.Jilsa	2
6.	Peripheral smear preparation, staining and reporting of common haematological conditions(10 cases)	Dr.Lovely Jose,Dr.Surekha Vijayan	2
7.	Clinicopathological correlation of common thyroid disorders-(10 cases)	Dr.Jini .L.Valooran,Dr.Saidha Thajudeen	2

Elective 1

Name of the block	Block 1 – Pathology
Name of the elective	Analysis and interpretation of histograms of common haematological conditions
Location of the laboratory	Clinical Pathology Lab , Central Lab , NMCH
Internal preceptor	Dr.Resmi Rajeev, Dr.Lovely Jose
External Preceptor	
Learning Objectives	To learn the principles of Automated blood counting instruments List the different parameters in 3 part and five part analysers Interpret the different parameters of RBCs, WBC and Platelets given Analysis of histograms of various haematological conditions Learn about flagging in values given and correlation with Peripheral smear findings
No. Of Students	2
Prerequisites	Students should know the normal values of the different parameters They should know the conditions causing changes in the parameters
Learning Resources	Dacie And Lewis Text book of Practical Hematology, The ABC of CBC
List of activities	During the study period 1 Observe the sample collection and entry in the computer system 2 observe the procedures in lab 3.Study a normal histogram 4. Interpret atleast 30 CBC values along with its histogram 5.Correlate histogram findings with clinical picture

Portfolio entries	The principles of Automated blood counting instruments The reported parameters in 3 part and five part analysers The different parameters of RBCs, WBC and Platelets given Histograms of common hematological conditions
Logbook Entries	Analyse and record 10 cases with their clinical findings, peripheral smear picture, CBC values and Histograms
Assessment	Presentation on utility of histograms. Assignments to be submitted after 2 weeks Overall grading based on activities, portfolio, logbook, attendance and presentation

Elective 2

Name of the block	Block 1 Pathology
Name of the elective	Clinicopathological study of Breast Carcinoma including Immunohistochemistry
Location of the laboratory	Histopathology lab,IHC lab,NMCH
Internal Preceptor	Dr Suma MT,Dr Nimy
External Preceptor	-
Learning objectives	1. To learn all steps starting from reception of specimens to reporting of 10 breast carcinoma cases 2.To learn morphological(gross and microscopy) findings of breast carcinoma 3.To correlate clinical ,radiological and histopathological findings . 4.To record the histologic types,grades and staging breast carcinoma 5.To record immunohistochemical findings in 10 cases of breast carcinoma
No. of students	2
Prerequisites	Students should have basic knowledge of pathology of breast carcinoma, radiological findings and immunohistochemical markers used in breast carcinoma
Learning resources	Robbins and Cotrans Pathologic Basis of Diseases,Bancroft's theory and practice of histological techniques
List of activities	1. Observe grossing of Mastectomy specimens. 2. Observe processing and H & E staining of tissue sections 3.Observe Immunohistochemistry procedure 4. To observe and record morphological findings of 10 cases of Breast carcinoma. 5.Correlate clinical ,radiological and Pathological findings 6. Record Immunohistochemical findings in 10 cases of breast carcinoma
Portfolio entries	1. Complete case history and investigation of 10 cases of Breast carcinoma 2. Processing & H & E staining procedure 3. Interpretation of Immunohistochemical markers in breast carcinoma 4. Gross and Microscopy of 10 cases of breast carcinoma 5. Immunohistochemical findings in 10 cases of breast carcinoma
Logbook entries	Descriptive account of activity on daily basis
Assessment	Overall grading based on activities,portfolio,logbook,attendance and presentation

Elective 3

Name of the block	Block 1 Pathology
Name of the elective	Clinicopathological study of common gastrointestinal lesions (15 cases)
Location of the laboratory	Histopathology lab, NMCH
Internal Preceptor	Dr.Bhavya P.Mohan/Dr.Freena Rose
External Preceptor	-
Learning objectives	1. To learn all steps starting from reception of specimens to reporting of 15 common gastrointestinal lesions 2. To understand the morphological (gross and microscopy) findings of common gastrointestinal lesions 3.To develop the ability to correlate clinical, endoscopic, radiological and histopathological findings (with serological, immunohistochemistry findings in relevant cases) 4.To get familiarize with and record the TNM staging components and prognostic factors of - A. Oral squamous cell carcinoma B. Gastic adenocarcinoma C. Colon carcinoma D. Gastrointesinal stromal tumor 5.To record clinico-endoscopic and morphological details of gastritis, ulcers,intestinal polyps, infections, inflammatory bowel disease and other malignant lesions
No. of students	2
Prerequisites	Students should have basic knowledge of classification and pathology of common gastrointestinal lesions, their clinical and endoscopic findings
Learning resources	Robbins and Cotran Pathologic Basis of Diseases

List of activities	1.Observe grossing of small gastrointestinal biopsies, specimens of oral cavity wide excision, GIST(gastrointestinal stromal tumor) excision, gastrectomy and colectomy 1. Observe processing and H & E staining of tissue sections and 2. Observe IHC procedure 4.Observe upper and lower GI endoscopy procedures and collection of histopathology samples 5. To observe and record morphological findings of 15 cases of common gastrointestinal lesions 6.To correlate their clinical,endoscopic, radiological and morphological findings 7. To record the reporting format and relevance of each component in 4 different cases of common gastrointestinal malignancies 8.To do a power-point presentation on the suggested topic
Portfolio entries	1. Complete case history and investigations (including endoscopy) of 15 cases of common gastrointestinal lesions 2. Gross and Microscopy of 15 cases of common gastrointestinal lesions, including a minimum of 4 common gastrointesinal malignancies 3. Processing & H & E staining procedure 4. Interpretation of Immunohistochemical markers in gastrointestinal stromal tumor, oral cavity and colon carcinomas 5. Reporting format with TNM staging of minimum four
	common gastrointestinal malignancies
Logbook entries	Descriptive account of activity on daily basis

Assessment	Overall grading based on activities,portfolio,logbook,attendance and presentation

Elective 4

Name of the block	Block 1- Pathology
Name of the elective	Cytological analysis of 30 PAP smears
Location of the laboratory	Cytology lab, Central lab
Internal Preceptor	Dr.Jilsa,Dr.Lekshmi
External Preceptor	-
Learning objectives	To learn about the Papanicolau (PAP)stain, Fixation of slides, Method of Staining, Basic cell types and their appearance, Basic interpretation and clinical utility
No. of students	2
Prerequisites	Student should know the indications for doing PAP smear and method of collection
Learning resources	The 2022 BETHESDA SYSTEM FOR REPORTING CERVICAL CYTOLOGY
List of activities	1. List the indications of doing PAP smear in our hospital 2. Observe the procedure of collection, fixation and transport to cytology lab 3. Observe/ Stain the slides with Pap Stain . Observe under microscope for adequacy and 4. identify the basic cell types and note the colours of various types of squamous cells. Note inflammation in the smear.Other organisms if any. 5. Write comments regarding Adequacy, Presence of the 4 types of squamous cells, and note any variations from normal morphology, inflammation (severity and type) and any other infectious agents
Portfolio entries	Indications of PAP Smear,Principle of PAP stain, Steps in the procedure, Format for their interpretation and final diagnosis in Bethesda 2022 hand book of Cervical cytology
Logbook entries	List of cases and their indication for PAP SmearPAP Smear report – Adequacy, Cell Types, Any deviation in Morphology from normal , Inflammation, Other infectious agents.

Name of the block	Block 1- Pathology
Name of the elective	Peripheral smear preparation, staining, reporting and correlation in common hematologic conditions
Location of the laboratory	Clinical pathology lab,Central lab
Internal Preceptor	Dr.Lovely Jose, Dr Surekha Vijayan
External Preceptor	-
Learning objectives	1. To prepare and stain a peripheral smear from the blood sample received in the clinical pathology lab. 2.Interpretation of Peripheral smear
No. of students	2
Prerequisites	Student should be able to prepare an ideal smear with maximum 2 attempts and stain the smear from a blood sample received in the lab.
Learning resources	Dacie and Lewis Practical Hematology
List of activities	1. Prepare a peripheral smear 2. Stain the smear 3. Reporting of the smear 4. Correlation with CBC findings
Portfolio entries	1.Peripheral smear preparation and staining procedure 2.Peripheral smear reporting format 3.Reporting of 10 cases of common hematologic conditions
Logbook entries	List of patients whose peripheral smear was done with diagnosis All daily activities Topic presentation
Assessment	Overall grading based on activities, portfolio, logbook, attendance and presentation
Assessment	Viva voce Assignment to be submitted after two weeks

Elective 6

Name of the block	Block 1- Pathology
Name of the elective Elective 5	Peripheral smear preparation, staining, reporting and correlation in common hematologic conditions
Location of the laboratory	Clinical pathology lab,Central lab
Internal Preceptor	Dr.Lovely Jose, Dr Surekha Vijayan
External Preceptor	-
Learning objectives	1. To prepare and stain a peripheral smear from the blood sample received in the clinical pathology lab. 2.Interpretation of Peripheral smear
No. of students	2
Prerequisites	Student should be able to prepare an ideal smear with maximum 2 attempts and stain the smear from a blood sample received in the lab.
Learning resources	Dacie and Lewis Practical Hematology
List of activities	5. Prepare a peripheral smear 6. Stain the smear 7. Reporting of the smear 8. Correlation with CBC findings
Portfolio entries	1.Peripheral smear preparation and staining procedure 2.Peripheral smear reporting format 3.Reporting of 10 cases of common hematologic conditions
Logbook entries	List of patients whose peripheral smear was done with diagnosis All daily activities Topic presentation
Assessment	Overall grading based on activities, portfolio, logbook, attendance and presentation

Name of the block	Block 1 Pathology
Name of the elective Elective 7	Clinicocytological correlation of common thyroid lesions
Location of the laboratory	FNAC clinic,NMCH
Internal Preceptor	Dr Anjit ,Dr Jilsa
External Preceptor	-
Learning objectives	1.To learn FNA procedure 2.To learn pap staining procedure 3.To correlate clinical and cytological findings to make a diagnosis 4.To understand the categories of Bethesda classification of thyroid lesions
No. of students	2
Prerequisites	Students should have basic knowledge of pathology of thyroid diseases,clinical presentation and examination of thyroid lesions
Learning resources	Robbins and Cotrans Pathologic Basis of Diseases,Orell's cytology,Bethesda thyroid cytology
List of activities	1.Observe and assist FNA procedure 2. Assist the technician in pap staining 3. To observe cytological reporting of smears and categorising the lesions based on Bethesda classification 4.Correlate clinical and cytological findings to make a diagnosis
Portfolio entries	1. Complete case history and investigation including FNAC diagnosis of 1 patient per day. 2. FNAC procedure 3. Pap staining procedure 4. Bethesda classification
Logbook entries	Descriptive account of activity on daily basis
Assessment	Overall grading based on activities,portfolio,logbook,attendance and presentation