

**GENERAL MEDICINE STUDY GUIDE**



**Quaid-e-Azam Medical College, Bahawalpur**

## Contents

VISION & MISSION.....	2
Vision Statement:.....	2
Mission Statement:.....	<b>Error! Bookmark not defined.</b>
Outcomes .....	3
POLICIES AND PROCEDURES .....	4
Message From The Dean & Chairman:.....	6
Curriculum Map.....	<b>Error! Bookmark not defined.</b>
LEARNING OBJECTIVES.....	9
LECTURE BASED .....	9
Clinical Clerkship Outcomes .....	24
Assessment: .....	30
Ward based objectives.....	27
Tutorial based objectives .....	29
CHEST X-RAY INTERPRETATION COURSE .....	31
Teaching Plan:.....	31

**Vision:**

Our vision is to be a global leader in transformative medical education and healthcare delivery.

**Mission:**

To advance the art and science of medicine through innovative medical education, research, and compassionate healthcare delivery, within available resources, in an environment that advocates critical thinking, creativity, integrity, and professionalism.

## OUTCOMES OF THE medicine PROGRAM

**By the end of this year, The Quaid-e- Azam Medical College graduate will be able to:**

- Write and report focused history, perform physical examination, formulate a diagnosis and management plan for common health problems.
- Utilize knowledge of basic and clinical sciences for patient care.
- Apply evidence-based practices for protecting, maintaining and promoting the health of individuals, families and community.
- Identify problems, critically review literature, conduct research and disseminate knowledge
- Lead other team members as per situational needs for quality health service.
- Acquire professional behaviors that embodies lifelong learning, altruism, empathy and cultural sensitivity in provision health care service.

## POLICIES AND PROCEDURES

Code of Conduct and Maintenance of Discipline of Students Regulations:

All University students shall be under the full disciplinary control of the University. No students shall be allowed to participate in politics. The action against the act of indiscipline shall include fines, debarring from attending class and cancellation of admission, depending on the gravity of indiscipline.

The following shall constitute acts of indiscipline for which action may be taken against the student or students:

- (a) Breach of any rule public morals, such as:  
Use of indecent or filthy language; Use of immodest dress,  
Use of undesirable remarks or gestures and Disorderly

behavior, such as shouting, abusing, quarrelling, fighting and insolence.

- (b) Defiance of authority
- (c) . Action, defamatory of and derogatory to Islam
- (d) Immorality
- (e) Being found under the effect of an intoxicant or misuse of drugs including marijuana, LSD dope and other opioids.
- (f). False personation or giving false information or willful suppression of information, cheating or deceiving.
- (g) Inciting or staging a walk-out, a strike or an unauthorized procession.
- (h) Shouting of slogans derogatory to the prestige of the college or the reputation of its officers or teachers.
- (i) , Visiting without a pass places which are not to be visited without a pass.
- (j) . Visiting places declared out of bounds for students

Every student must carry his / her Identity Card which will be open to examination and will be demanded at the time of entrance to the various college Faculties and functions.

No. student will be admitted to the facilities of the library, transport or the canteen unless he /she is in possession of the college Identity Card

## MESSAGE FROM THE DEAN OF MEDICINE:

Dear Student physician, Assalam-o-Alaikum

Welcome to Final year Medicine Rotation. This study guide provides you an overall picture of your rotation. This will prepare you well advance to acquire the necessary knowledge. The learning objectives prior to a specifically designed section will help you to learn and retain most of the things required as a doctor.

Your study plan during your rotation comprised of following

- a) Classroom Lecture
- b) Clinical Clerkship
- c) Ward Rounds & OPD with consultant
- d) Structured Tutorial
- e) Evening and Night duties with residents

The material accompanying this document outlines our objectives, expectations & grading criteria for the course. Please take a moment to review them.

You are expected to work up at least one patient per long & short call day & submit written reports to your immediate consultant. Being a Final Year MBBS student, the most important section of these reports will be assessment & plan.

Please review "Preparing & Presenting a case". It provides important guidelines.

Additionally, you have received a ward meeting & journal club schedule. It is mandatory to attend these meetings.

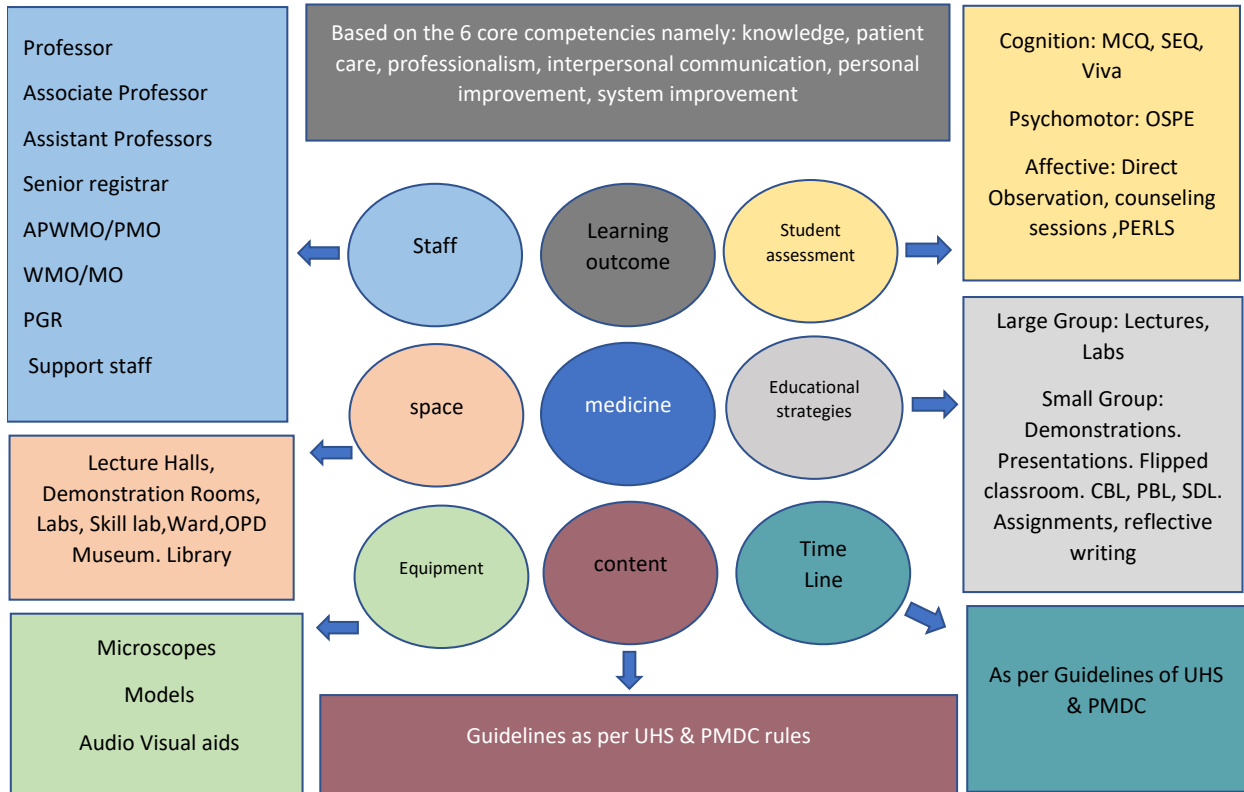
Ask for feedback early & often. Take advantage of teaching situations & make sure your facilitators understand what you want out of the rotation.

Enjoy your clerkship. Your learning experience will be dependent upon your enthusiasm & availability. Feel free to contact me & your coordinator any time & please let us know as soon as problems arise so that we may deal with them early.

Professor Dr. Mazhar Faiz Alam

Dean of Medicine

# Curriculum map of Department of Medicine





# LEARNING OBJECTIVES

## LECTURE BASED

At the end of 1 hour lecture, the students should be able to:

### ACUTE HEPATITIS

- Define hepatitis and differentiate between acute and chronic hepatitis
- Quote regarding etiologic factors of acute hepatitis including viruses and other microbial infection as well as systemic diseases and drugs.
- Discuss the pathophysiology of hepatitis
- Enlist the clinical features with which patient present
- Formulate a proper plan for diagnosis of hepatitis as well as specific investigations to explore the etiology as well as tests to determine possible complications
- Prescribe symptomatic as well as curative treatment

### CHRONIC HEPATITIS

- Define hepatitis and differentiate between acute and chronic hepatitis
- Quote regarding etiologic factors of chronic hepatitis including microbes, drugs as well as systemic diseases effecting liver

- Enlist the names of viruses causing chronic hepatitis mainly hepatitis B and C
- Discuss the pathogenesis of chronic hepatitis.
- Enlist the clinical presentation of chronic hepatitis
- Discuss the investigations which are required to for confirmation of the diagnosis as well as evaluation of patients with chronic hepatitis B and C infections
- Formulate a proper management plan to treat both infection

### CHRONIC LIVER DISEASE

- Discuss etiology and pathophysiology of chronic liver disease

- Recite the possible symptoms and signs in patient both compensated and non-compensated disease

- Enlist the possible complications of the chronic liver disease

- Formulate a proper diagnostic plan including serological as well radiological tests

- Discuss child pugh scoring of chronic liver disease

- Demonstrate all possible treatment options including pharmacological as well as interventional measures

- Counsel the patient and family regarding the possible complications in which patient should be immediately taken to emergency room of a tertiary care hospital

## **FATTY LIVER**

- Enlist etiological factors including alcohol abuse, life style factors and diseases as well as drugs likely to produce fatty liver disease

- Discuss the pathophysiology of the disease

- Enlist the possible signs and symptoms

- Describe test required to diagnose fatty liver diseases

- Prescribe treatment options for the disease

- Counsel the patient regarding required life style changes as well as inform patient about the possible complications which can occur if these measures are not taken

## **HYPERTENSION**

- Define hypertension

- Explain etiology pathogenesis and staging of hypertension

- Outline various clinical presentations and devices used to check blood pressure

- Demonstrate proper procedure of checking blood pressure using sphygmomanometer
- Evaluate hypertensive patients with laboratory, electrophysiology and radiological tests
- Recite the drugs available to manage hypertension, discussing clinical indications, dosing and side effects and formulate a proper treatment plan of a given scenario
- Counsel the patient regarding the fact that it is a disease which cannot be cured but can be managed and discuss the patient regarding life style measures which should be carried out to prevent complications

### **ISCHEMIC HEART DISEASE**

- Define ischemic heart disease and enlist multiple modifiable and nonmodifiable risk factors for the disease
- Discuss the pathogenesis of chronic hepatitis.
- Enlist the various clinical presentation of ischemic heart disease from angina to myocardial infarction
- Discuss the investigations which are required to for confirmation of the diagnosis including radiology, laboratory, electrophysiological tests as well as interventional evaluation procedures

- Formulate a proper treatment plan regarding acute presentation of ischemic heart disease with unstable angina and myocardial infarction in emergency room
- Design a proper management scheme for the patient including life style measures and pharmacological as well as interventional treatment
- Counsel the patient to follow the advised life style measures

### **CHRONIC HEART FAILURE**

- Define heart failure and acute pulmonary edema
- Discuss etiology and pathophysiology of CCF
- Describe both the left and right ventricular failure as well a systolic and diastolic failure
- Recite the possible symptoms and signs in patient suffering from CCF

- Enlist the possible complications
- Formulate a proper diagnostic plan including electrophysiology, radiology and laboratory testing
- Demonstrate all possible treatment options including pharmacological as well as interventional measures
- Formulate a treatment plan for patient presenting with acute pulmonary edema
- Counsel the patient and family regarding the possible complications in which patient should be immediately taken to emergency room of a tertiary care hospital.

## **ASTHMA**

- Define asthma and discuss various types of asthma
- Quote regarding etiologic as well as precipitating factors for the disease
- Discuss the pathogenesis of asthma
- Enlist the clinical presentation of asthma both acute attack and chronic disease

- Describe the clinical staging of acute asthmatic attack as well as classify chronic disease as mild, moderate and severe
- Discuss the investigations which are required to for confirmation of the diagnosis
- Formulate a proper management plan to treat both acute attacks and chronic disease
- Counsel patient regarding the importance of daily drug dosing through inhalational solutions, and should be trained to use inhaler and nebulizers with a proper technique

## **CHRONIC OBSTRUCTIVE PULMONARY DISORDERS**

- Discuss etiology and pathophysiology of COPD Including all the possible factors which result in development of the disease
- Discuss clinical classification of COPD as blue bloaters and pink puffers
- Recite the possible symptoms and signs in patient both during acute phase and chronic illness
- Enlist the possible complications of the disease

- Formulate a proper diagnostic plan including serological, spirometric as well radiological tests

- Demonstrate all possible treatment options including pharmacological as well as interventional measures

- Counsel the patient to stop smoking and carry out required life style changes and need for continuous oxygen delivery

## **PNEUMONIA**

- Recalls the list of common viruses, parasites and bacteria causing pneumonia

- Review the pathophysiology linked with the infection

- Identify common clinical presentation of patient suffering from pneumonia

- Describe CURB 65 scoring of pneumonia patients

- Enlist and interpret laboratorial as well as radiological investigations required to diagnose the disease

- Design and outline proper plan of management according to their severity and whether he should be treated in outpatient or inpatient basis

## **PULMONARY TUBERCULOSIS**

- Discuss etiology and pathophysiology of tuberculosis generally as well as for pulmonary tuberculosis

- Recite the possible symptoms and signs in patient of the disease manifestations

- Enlist the possible complications of the disease

- Formulate a proper diagnostic plan including serological, sputum, radiological as well as interventional studies

- Discuss a proper treatment plan including name of drugs which should be given for the disease and their dosing as well as duration of treatment

- Counsel the patient regarding the severity of disease and life style measures which should be taken to prevent disease spread to family members and close contacts

- Counsel the family regarding prophylactic methods available for contact including drugs.

## **ACID PEPTIC DISEASE**

- Describe basic etiology and pathophysiology of the acid peptic disease including gastritis, peptic ulcer disease and functional dyspepsia

- Detect the patient at risk for the disease, and appraise the predisposing factors

- Review various clinical presentations of the acid peptic disease

- select appropriate investigations to diagnose the disease and judge its results using laboratory and endoscopy services along with microscopic evaluation of tissue taken the gut

- Determine a proper management plan for the patient including pharmacological and non pharmacological treatment options and life style measures

- Counsel the patient to change his nutritional and life style habits to aid in treatment process

## **ABDOMINAL TUBERCULOSIS**

- Describe pathophysiology of abdominal tuberculosis and discuss its intestinal,

- peritoneal and lymphadenopathy forms

- Relate appropriate signs and symptoms with the various clinical presentation of the disease

- Prescribe the required laboratory and radiographic test along with interventional procedures, to support the diagnosis

- Select the drugs used in intensive and continuous phases of treatment with their dosing and total duration of treatment of both phases in accordance with world health organization TB guidelines.

- Counsel the patient for the required interventional procedures including endoscopy, peritoneal paracentesis and tissue biopsy

- Counsel the patient to take appropriate doses of drug before breakfast and persuade him from skipping the dose.

## **IRRITABLE BOWEL SYNDROME**

- Define the disease according to Rome4

- Discuss the pathophysiology of disease process and select the patient at risk for disease

- Recite symptoms and signs in the patient suffering from the disease with its both clinical forms

- Illustrate the Rome 4 criteria for the diagnosis of irritable bowel syndrome
- Prescribe and interpret the investigations required to support the diagnosis
- Decide a proper treatment plan in accordance with clinical presentation

## **INFLAMMATORY BOWEL DISEASE**

- Describe basic etiology and pathophysiology linked with the disease including both ulcerative colitis and crohn's disease.
- Identify predisposing factors of the disease
- Review signs and symptoms of the disease and relate these to specific clinical form
- Enlist and analyze the investigations needed to support the diagnosis including radiology, and laboratory tests along with interventional procedures required for final diagnosis
- Determine a proper management plan for the patient presenting in

- exaggerated phase and schedule pharmacological treatment for the chronic disease process along with monitoring of the disease process
- Restat various clinical complications

## **DIABETESE MELLITIUS**

- □ Describe pathogenesis of diabetes and its effect on metabolism of body.
- Classify diabetes into primary and secondary type and then type 1and type 2 diabetes mellitus
- Identify patients at risk for the disease
- Various signs and symptoms associated with the disease and its complications
- Prescribe the investigations required to support the diagnosis and tabulate the diagnostic criteria for diabetes mellitus according to current guidelines
- Develop a proper treatment plan to manage the disease including nutritional factors along with drugs with regular monito ring of patient with random and blood sugar levels
- Evaluate the patient on every visit to detect any possible microvascular and macrovascular complications including nephropathy, neuropathy, retinopathy and select a appropriate treatment plan
- Counsel the patient to strictly follow the advises regarding diet, life style and treatment plan

## • **HYPERTHYROIDISM**

- Describe pathophysiology of and the endocrine dysfunction associated with over functioning of thyroid gland
- Identify the clinical manifestations of disease and confirm the diagnosis by hematological and Nuclear radiology services
- Choose appropriate treatment plan to control and eradicate the disease process
- Counsel the patient regarding the disease morbidity and mortality

## **HYPOTHYROIDISM**

- Discuss the etiology and pathophysiology of the under functioning of thyroid gland

- Recognize signs and symptoms associated with disease and confirm the diagnosis with the help of hormonal assays and nuclear radiology studies
- Select an appropriate treatment plan for management of hypothyroidism including drugs as well as surgical strategies to rectify the clinical effects.
- Counsel the patient regarding the endocrine disorder

## **PITUATRY DISORDERS**

- Ascertain the pathophysiology of both over and under functioning of pituitary gland
- Associate the signs and symptoms with specific disorders including excess or deficiency of pituitary hormones
- Confirm the diagnosis with the help of hormone analysis and nuclear radiology
- Employ accurate treatment steps to eradicate the endocrine disturbance
- Counsel the patient regarding the disease associated morbidity and mortality

## • **ADRENAL DISORDERS**

- Describe the endocrine disorders associated with the adrenal glands including diseases resulting in hypo and hypoadrenalism
- Enlist etiological factors responsible for the malfunctioning of adrenal gland
- Recognize signs and symptoms associated with both disorders
- Schedule investigational plan including both hematological and radiological tests
- Design an appropriate treatment plan to manage the disease



- Counsel the patient regarding the disease morbidity and mortality

## **ACUTE KIDNEY INJURY**

- Review pathogenesis of acute kidney injury
- Identify all the drugs, toxins and diseases which precipitate the acute kidney failure.
- Recite symptoms and signs which points towards risk of acute kidney nury
- Prescribe and interpret the investigations confirming diagnosis using laboratory as well as radiology tests.
- Determine a proper management plan for the patient including

- Pharmacological and non pharmacological treatment options including hemodialysis

- Counsel the patient regarding his disease and in severe cases for the need of hemodialysis to aid the treatment process.

## **CHRONIC KIDNEY FAILURE**

- Summarize the etiology and pathophysiology of the disease
- Specify the diseases and disorders causing chronic kidney failure
- Discuss various clinical features with which the patient presents including encephalopathy and pulmonary edema
- Prescribe the required radiology, electrophysiology and laboratory tests to confirm the diagnosis and interpret the results of these tests.
- Determine a proper management plan for the patients which are not a candidate for renal replacement therapy including fistula preparation and vaccinations.
- Identify the patient at need of renal replacement therapy in form of hemodialysis and kidney transplantation.
- Counsel the patient and family for the need of hemodialysis and renal transplantation therapy

## **RHEUMATOID ARTHRITIS**

- Review the pathogenesis of rheumatoid arthritis in association with autoimmunity
- Critique various sign and symptoms associated with the diseases along with features indicating complications

- Appraise the ACR criteria for diagnosis of Rheumatoid arthritis
- Select appropriate investigations to diagnose the disease and judge its results using laboratory and radiology services
- Sketch a treatment schedule to manage patients disease including pharmacological as well as non pharmacological mechanisms of disease control
- Counsel the patients regarding the disease associated morbidity

## **SYSTEMIC LUPUS ERYTHROMATOTUS**

- Describe basic pathophysiology of the autoimmune diseases in general and

- SLE in particular.
- Enlist the other common autoimmune diseases
- Review signs and symptoms relating to autoimmune disease as well as various clinical manifestations of SLE
- Enlist and analyze the serological test required to confirm the autoimmunity and other specific investigations for each autoimmune disease
- Review investigations needed to support the diagnosis of SLE including radiology and laboratory tests.
- Appraise the ACR criteria for diagnosis of SLE and other autoimmune disorders
- Determine a proper management plan for the patient including pharmacological and non pharmacological treatment options for both acute exaggerations and chronic phases for SLE and other autoimmune diseases
- Counsel the patient t regarding relapsing remitting of diseases and the importance of pharmacological treatment during the chronic possibly asymptomatic phase.

## **DIABETESE MELLITIUS**

- Describe pathogenesis of diabetes and its effect on metabolism of body.
- Classify diabetes into primary and secondary type and then type 1and type 2 diabetes mellitus
- Identify patients at risk for the disease
- Various signs and symptoms associated with the disease and its complications
- Prescribe the investigations required to support the diagnosis and tabulate the diagnostic criteria for diabetes mellitus according to current guidelines

- Develop a proper treatment plan to manage the disease including nutritional factors along with drugs with regular monitoring of patient with random and blood sugar levels
- □Evaluate the patient on every visit to detect any possible microvascular and macrovascular complications including nephropathy, neuropathy, retinopathy and select a appropriate treatment plan
- Counsel the patient to strictly follow the advises regarding diet, life style and treatment plan

## **ADRENAL DISORDERS**

- Describe pathophysiology of adrenals and the endocrine dysfunction associated with malfunctioning or over functioning of adrenal gland
- Classify adrenal disease into 2 major group hypoadrenalism (and hyperadrenalism (Cushing syndrome)
- Identify the other endocrine disorders associated with the adrenal disease and the diseases resulting in hypo and hyper adrenalism
- Various signs and symptoms associated with both disease and its complications
- Prescribe the investigations required to support the diagnosis

## **MALARIA**

- Describe the pathophysiology associated with plasmodium species infection
- Classify the plasmodium species into 4subtypes
- Review symptoms and signs associated with the malaria in all 4 types of infection along with the severity analysis
- Enlist hematology and microscopy tests required to confirm the diagnosis
- Determine appropriate anti plasmodial drugs used for treatment in accordance to severity of the disease

## **ENTERIC FEVER**

- Summarize the etiology and pathophysiology of the infection caused by salmonella species
- Discuss the clinical presentation and complication of disease
- Prescribe and interpret the required hematology, microscopy and culture studies to confirm the diagnosis.

- Determine a proper management plan for the patients including antibacterial drug use along with symptomatic therapy.

## **DENGUE FEVER**

- Identify the etiological virus and the pathophysiology associated with this viral disease
- Discuss signs and symptoms associated with the disease and review possible complications.

- Categorize the disease as mild, moderate or severe hemorrhagic fever on the basis of signs and symptoms

- Enlist and interpret the laboratory tests including serology and antigen detection test

- Determine appropriate antiviral drugs for treatment of the disease

- Notify the case to infection control department.

## **ANEMIA**

- Define anemia

- Classify anemia on the basis of cellularity, nutrient deficiency, bone marrow disorders including aplasia and leukemia, inflammation, genetic disorders and hemolysis.

- Review pathophysiologic processes associated with each and every specific types

- Enlist signs and symptoms with which patient of anemia present and the clinical features differentiating between various types of anemia

- Arrange a proper investigational plan for diagnosing each specific types including basic biochemical tests, serological testing as well as bone marrow studies if needed.

- Discuss treatment plan of various subtypes individually

- Design a treatment plan reviewing all therapeutic options including blood transfusions, parenteral and enteral drug treatment options as well as options of bone marrow and cellular transplantation.

- Counsel patient and family regarding the disease

## **LEUKEMIA**

- Describe pathogenesis of leukemia both acute and chronic disease

<ul style="list-style-type: none"> <li>• Classify the types of acute and chronic myeloid leukemia</li> </ul>
<ul style="list-style-type: none"> <li>• Enlist presenting signs and symptoms and the clinical staging of acute and chronic leukemia</li> </ul>
<ul style="list-style-type: none"> <li>• Enlist investigation required for diseases including hematological, radiological tests.</li> </ul>

<ul style="list-style-type: none"> <li>• Demonstrate procedure of bone marrow aspiration and biopsy along with tissue histopathology.</li> </ul>
<ul style="list-style-type: none"> <li>• Design plot of management according to clinical staging of the disease Including chemotherapy, radiotherapy along with surgical therapy as well as bone marrow transplantation</li> </ul>
<p>Counsel family regarding the disease process and its morbidity, available treatment options as well as mortality risk with and without treatment</p>

## **LYMPHOMA**

<ul style="list-style-type: none"> <li>• Describe etiology and pathophysiology of various types of lymphoma</li> </ul>
<ul style="list-style-type: none"> <li>• Demonstrate clinical features of the various types and clinical staging of disease according to standard criteria</li> </ul>
<ul style="list-style-type: none"> <li>• Design a series of investigation to confirm the diagnosis utilizing hematological, radiological tests as well as histopathological evaluation of disease</li> </ul>
<ul style="list-style-type: none"> <li>• Formulate a treatment plan according to clinical stage including excision and debulking of lymphomatous tissue including chemotherapy, radiotherapy and stem cell transplantation.</li> </ul>
<ul style="list-style-type: none"> <li>• Counsel patient and family regarding the disease process and associated morbidity and mortality and possible treatment strategies.</li> </ul>

## **THROMBOCYTOPENIA**

<ul style="list-style-type: none"> <li>• Define thrombocytopenia and describe its complications</li> </ul>
<ul style="list-style-type: none"> <li>• Enlist the diseases and drugs which can result in thrombocytopenia</li> </ul>
<ul style="list-style-type: none"> <li>• Demonstrate signs and symptoms associated with the disease process</li> </ul>
<ul style="list-style-type: none"> <li>• Prescribe important biochemical tests, serological tests as well as required radiological studies</li> </ul>
<ul style="list-style-type: none"> <li>• Determine treatment of thrombocytopenia including blood transfusions, parenteral and enteral drug treatment options as well as options of bone marrow transplantation.</li> </ul>

- Counsel patient and family regarding thrombocytopenia and its hazards.

## **STROKE**

- State basic definition of stroke and transient ischemic attack

- Enlist predisposing factors, and discuss pathophysiology lined with both diseases

- Appraise distinguished clinical features with which patients suffering from these disease present

- Assemble the list of investigations required to diagnose the disease including both radiological and laboratory tests.

- Formulate pharmacological and nonpharmacological measure in the acute phase of disease

- Formulate proper management plan for the patient for stroke prophylaxis, which

- Should include lifestyle measures, and nonpharmacological as well as pharma cological treatment options

## **EPILEPSY**

- Defines seizure and epilepsy and discuss seizure classification into partial and generalized types

- Discuss regarding predisposing factors, etiology as well as pathophysiology of seizure

- Comprehend regarding specific clinical features occurring during a seizures episode of both partial and generalized types

- Enlist the investigations required for the evaluation of seizures and epilepsy which should include electrophysiology, radiography and laboratory testing

- Illustrate the management steps which should be carried out when patient presents in the emergency with fits.

- Discuss the indications and administration of antiepileptic drugs

- Select an antiepileptic drug for the patient in various circumstances including pregnancy and lactation along with the pharmacological monitoring of drugs levels.

- Counsel the family of the patient regarding the illness, and in house immediate measures to deduct the morbidity and trauma during the attack, as well as report before planning conception

## **CNS INFECTION**

- Recalls the list of common viruses, parasites and bacteria causing CNS infections.

- Review the pathophysiology linked with these infections.

- Identify common clinical presentation of patients presenting with CNS infections as well as Distinguishing features which can help the physician to differentiate between encephalitis, meningitis and cerebral malaria.

- Enlist and interpret laboratorial as well as radiological investigations required to diagnose the disease

- Design and outline proper plan of management according to their diagnosis.

- □ Counsel the family of patient regarding morbidity and mortality associated with disease

## **MYASTHENIA GRAVIS**

- □ Define myasthenia gravis and comprehend basic pathophysiology linked with the disease

- State regarding clinical presentation of these patients

- Outline an investigational plan to diagnose the disease in suspected cases, including electrophysiological and laboratory tests.

- Design a management plan for the treatment of patient including symptomatic, transient immunomodulation and chronic immunosuppressive treatment options

- Counsel the patient and family regarding the disease its complications and treatment options including thymectomy

## **POISONING**

- Classify various types of poisons used for suicidal and homicidal use

- Determine the basic pathophysiology linked with the disease

- Identify clinical features of disease

- Draw a plan for diagnosis including hematological and urine tests

<ul style="list-style-type: none"><li>• Employ treatment steps including symptomatic and anti dose administration</li></ul>
<ul style="list-style-type: none"><li>• Counsel the patient and family accordingly</li></ul>
<ul style="list-style-type: none"><li>• Notify to security services of the country</li></ul>
<ul style="list-style-type: none"><li>• Schedule psychoanalysis of patient and utilize then counseling and drug for treatment</li></ul>

## Clinical Clerkship Outcomes

### Aims:

To acquire core curriculum knowledge and develop clinical and communication skills through supported and supervised patient contact.

### Essential Skills to be learnt:

1. Taking a proper history from patient & perform clinical examination.
2. Deciding management plan & discussing any problem in management with consultant in a proper way
3. Case presentation skills.
4. Deal with medical emergencies.
5. ECG interpretation.
6. Reporting chest radiograph.

### Desired outcomes:

- Be able to take and record a patient's medical history and recognize the role of taking a focused history.
- Be able to present a coherent and comprehensive medical history along with a precise summary.
- Be able to take and record a patient's medical history and recognize the role of taking a focused history.
- Be able to present a coherent and comprehensive medical history along with a precise summary.



- Attain competence in the basics of physical examination and key systems examinations, namely cardiovascular, respiratory, abdominal, neurological and musculoskeletal examinations.
- Learn to apply theoretical knowledge to clinical practice.
- Demonstrate effective communication skills with patients and with professionals
- Within the multidisciplinary team.
- Recognize the importance of a holistic approach, with particular reference to disease management and palliative care
- Achieving and demonstrating a positive and appreciable change in attitude.
- Be able to debate ethical issues with patients, attendants and the multidisciplinary team.
- Recognize the importance of a holistic approach, with particular reference to disease management and palliative care.
- Achieving and demonstrating a positive and appreciable change in attitude.
- Be able to debate ethical issues with patients, attendants and the multidisciplinary team

### Ward based objectives

At the end of the 2-hour ward session, the student should be able to:

<b>General Physical Examination</b>
<ul style="list-style-type: none"> <li>• Perform the examination in a methodical manner</li> </ul>
<ul style="list-style-type: none"> <li>• Detect the abnormal findings</li> </ul>
<ul style="list-style-type: none"> <li>• Interpret the clinical finding</li> </ul>
<ul style="list-style-type: none"> <li>• Comment on the logical outcome</li> </ul>
<b>Cardiovascular Examination</b>

- Locate and comment on the strength of the following pulses: radial, brachial, carotid, popliteal, dorsalis pedis, posterior tibial, femoral pulses.

- take blood pressure manually and using automated methods

- Recognize and assess the JVP

- conduct full cardiac examination including aortic and mitral maneuvers

## **Respiratory System**

- Record a pertinent history from the given patient so as to be able to reach a working diagnosis

- Demonstrate the logics, sequential steps of chest examination on a given patient. Comprised of :
  1. Inspection- See- movement and symmetry at foot end of the bed, shape elliptical, barrel, pigeon, use of accessory muscles, in drawing of supra and infra clavicular fossae, and sternal notch, tracheal tug, pulsation including apex beat, mass, venous engorgement, scars etc
  2. Palpation - Feel, trachea, apex beat, chest expansion, tactile vocal fremitus, tenderness, mass, etc
  3. Percussion- Tap, both side of the chest equally resonant, hyper resonant, dull, stony dull, upper border of liver, area of cardiac dullness etc
  4. Auscultation- Listen, breath sounds, normal vesicular, vesicular with prolonged expiratory phase or bronchial. Added sounds, cackles, wheeze, pleural rub, vocal resonance etc.

## **Gastroenterology**

- Record a related history from the patient so as to be able to formulate a working diagnosis.

- Illustrate the logical, sequential steps of abdominal examination on a

- given patient has includes:
  1. Inspection- See, movement, shape flat, distended, scaphoid, any pulsation, mass,
  2. venous engorgement peristaltic activity, hernial orifices et
  3. Palpation - Feel, tenderness, mass, visceromegaly etc
  4. Percussion- Tap, lie bodes, shin dullness, fluid thill etc
  5. Auscultation-Listen, gut sound, bruits etc
  6. DRE Digital rectal examination

- Correlate the information in history taking with the findings of the physical examination to formulate a working diagnosis.

### **Central nervous system:**

- Record a complete history from the given patient so as to draw a likely working diagnosis.

- Employ the logical and sequential steps of higher mental functions , cranial nerves , upper and lower limb examination both motor and sensory, signs of cerebella dysfunction, extra pyramidal system, signs of meningeal irritation

- □Ophthalmoscopy

### **Musculo-Skeletal System**

- Inspect and palpate movement of joints

## Tutorial based objectives

### **Introduction to ECG leads & ECG recording**

- Identify three planes of electrocardiography: Standard limb leads, augmented leads, precordial leads

- Describe components of normal 12-lead ECG

### **Normal wave pattern of ECG**

<ul style="list-style-type: none"> <li>Describe electrical pathway of heart</li> </ul>
<ul style="list-style-type: none"> <li>Describe components of normal 12-lead ECG</li> </ul>
<b>Abnormalities of P-wave &amp; PR- interval</b>
<ul style="list-style-type: none"> <li>Describe systemic approach to interpretation of 12-lead ECG</li> </ul>
<ul style="list-style-type: none"> <li>Determine presence of conduction abnormalities ( Heart block)</li> </ul>
<ul style="list-style-type: none"> <li>Recognize chamber enlargement</li> </ul>
<b>Abnormalities of QRS complex, ST segment T-waves</b>
<ul style="list-style-type: none"> <li>Relate coronary artery anatomy to myocardial perfusion</li> </ul>
<ul style="list-style-type: none"> <li>Recognize common ECG patterns associated with various locations of injury/infarction</li> </ul>
<ul style="list-style-type: none"> <li>Determine presence of conduction abnormalities ( Heart block &amp; Bundle branch block)</li> </ul>
<ul style="list-style-type: none"> <li>Recognize chamber enlargement</li> </ul>
<b>Discuss tachyarrhythmia</b>
<ul style="list-style-type: none"> <li>Determine probability of Supraventricular (SVT) Vs Ventricular tachycardia (VT)</li> </ul>
<b>Practice session</b>
<ul style="list-style-type: none"> <li>Learner should be able to evaluate and interpret basic 12 lead ECG.</li> </ul>
<b>Practice session</b>
<ul style="list-style-type: none"> <li>Learner should be able to evaluate and interpret basic 12 lead ECG.</li> </ul>
<b>Assessment</b>
<ul style="list-style-type: none"> <li>Learner should be able to evaluate and interpret basic 12 lead ECG.</li> </ul>

## CHEST X-RAY INTERPRETATION COURSE

### Learning Outcome:

- As a result of this course learner should be able to evaluate and interpret CXR in different views.

**Learning Objectives:**

CHEST X-RAY INTERPRETATION COURSE FINAL YEAR MBBS Upon

conclusion of this course, students should be able to:

- Recognize normal anatomy of chest radiographs in different views.
- Identify different CXR views & describe when they are helpful as well as limitations of each
- List different pathologies that can produce opacity on CXR
- Recognize pleural effusion & pneumothorax on CXR
- Recognize mediastinal & hilar abnormalities
- Recognize cardiac abnormalities on CXR

**Teaching Plan:**

Small group discussion is arranged of one hour duration, every day. In initial sessions, students are taught Normal anatomy of CXR & common abnormalities followed by practice sessions in which different CXR from ward record/online resources are displayed & discussed. Details of every session is mentioned below:

<b>Normal CXR</b>
□ Recognize normal anatomy of chest radiographs in different views.
□ Identify different CXR views & describe when they are helpful as well as limitations of each
<b>Opacities in lung fields+ Pleural effusion+ Pneumothorax</b>

<input type="checkbox"/> List different pathologies that can produce opacity on CXR
<input type="checkbox"/> Recognize pleural effusion & pneumothorax on CXR
<b>Mediastinum &amp; Hilar abnormalities on CXR</b>
<input type="checkbox"/> Recognize mediastinal & hilar abnormalities
<b>Heart on CXR</b>
<input type="checkbox"/> Recognize cardiac abnormalities on CXR
<b>Practice session</b>
<input type="checkbox"/> Learner should be able to evaluate and interpret CXR in different views.
<b>Practice session</b>
<input type="checkbox"/> Learner should be able to evaluate and interpret CXR in different views
<b>Assessment</b>
<input type="checkbox"/> Learner should be able to evaluate and interpret CXR in different views.

## Assessment:

Assessment tools:

### 1. Formative assessment

Students will be given feedback on their case presentation at the end of every day, the submitted case histories will be assessed and marked along with feedback by the faculty.

At the end of clinical rotation, each batch will take OSPE , short case and long case examination, . the result/feedback of which will be conveyed to them prior to end of ward rotation.

Three term exams will be held in an academic year which will be included in the internal assessment of the students.

### 2. Summative assessment:

An exit exam of UHS comprising theory paper , MCQs and SEQs and OSPE ,long case & short case will be held as per UHS datasheets.

## **Distribution of subjects**

### **Paper-I All except Paper-II**

#### ***Paper-II will include:***

- |                                   |                                     |
|-----------------------------------|-------------------------------------|
| 1.Infectious Diseases<br>Diabetes | 7.Endocrinology including           |
| 2.Metabolic Diseases              | 8.Genitourinary System              |
| 3.Immunology                      | 9. Genetics                         |
| 4.Oncology                        | 10.Water and Electrolyte<br>Balance |
| 5. Acid and Base Balance          | 11.Psychiatry                       |
| 6. Dermatology                    |                                     |

Following skills will be tested towards the end of posting in OSCE.

- 1) History Taking 10%
- 2) Physical Examination 25%
- 3) Patient counselling 5%
- 4) ECG interpretation 10%
- 5) Chest Radiographs 10%
- 6) Medical procedures 5%
- 7) Medical emergencies 10%
- 8) Lab data interpretation 25%

## **RECOMMENDED BOOKS:**

1. **Practice of Medicine** by Davidson.
2. **Clinical Medicine** by Parveen J Kumar & Michael, Clark

3. **Hutchison's Clinical Methods** by Michael Swash. 21<sup>st</sup> edition
4. **Basic psychiatry** by Myre Sim, e. B. Gordon
5. **Oxford Text Book of Psychiatry**
6. **ABC of Dermatology.** Latest Edition.
7. **Smith's General Urology** by Emil A. Tanagho and Jack W. McAninch  
15<sup>th</sup> edition. 2007
8. **Online Journals and Reading Materials** through HEC Digital Library Facility