Study Guideline for General Medicine

Theme: Clinical Data Collection:

Subtheme: Interviewing Skills & History Taking,

1.Understands the importance of knowing patients identification, age, and gender, educational and social background.

2. Observes the social and cultural norms of the community

3. Approaches the patients or information provider politely and without annoying him or her.

4. Respects patient's confidentiality, beliefs and privacy.

5. Learns to gather all relevant information from patient, relatives, attendants and healthcare givers.

6. Knows common presenting symptoms such as Pain, fever, breathlessness, cough, diarrhea, weakness etc. and applies relevant anatomical and physiological aspects to pin point the likely mechanism of the symptoms.

7. Asks the appropriate questions to know the relevant organ or system which may be causing symptoms.

8. Can correlate different symptoms to make a list of probable diagnosis.

Theme: Patient Examination & Looking for Physical signs

Sub Theme: General Physical examination

1. **Understands the difference between symptoms & signs**
2. **Knows normal vital signs**
3. **Can record vital Signs**
4. **Knows the path physiologic basis of fever, tachycardia, Pallor, Jaundice, Cyanosis, Edema, Clubbing etc.**
5. **Knows the importance of head to toe observation of patient.**
6. **Can demonstrate general physical signs applying the correct methodology and without any discomfort to patient.**
7. **Can Interpret and correlate the abnormal physical findings.**

Theme: Physical Examination of GIT, Abdomen and Liver

Subtheme: Symptoms of Gastrointestinal and liver diseases

1. **Knows the pathologic basis of common Gastrointestinal symptoms such as , Diarrhea, constipation, Malabsorption, hematemesis, Pain epigastrium, Acute vs. Chronic abdominal pain, ascites, Jaundice, Dysphagia etc.**
2. **Can interpret and correlate various symptoms to make a list of differential diagnosis**

Subtheme: Examination of GIT & Abdomen

1. **Can perform detailed physical examination of mouth, and abdomen applying correct clinical methods without any harm and discomfort to the patient.**
2. **Can notice abnormal physical appearances and findings such as abdominal distension, skin manifestations**

Theme: Physical Examination of Cardiovascular System

Subtheme: Symptoms of Cardiovascular Disease

1. **Knows the various phases of cardiac cycle**
2. **Can explain the generation of normal and abnormal heart sounds and murmurs**
3. **Understands the pathogenesis of Atherosclerosis**
4. **Can formulate the questions to assess the symptoms of chest pain, Angina, breathlessness, swelling of feet, cyanosis,**
5. **Understands the concepts of left and right ventricular failure.**
6. **Can differentiate between bronchial and cardiac asthma.**

Subtheme: Clinical Examination of Cardiovascular System

1. **Can perform cardiovascular examination applying the appropriate clinical methods.**
2. **Can interpret normal and abnormal heart sounds and murmurs.**
3. **Performs the relevant examination of bases of the lungs and abdomen to make a composite diagnosis**
4. **Can suggest appropriate investigations to aid the clinical diagnosis such as ECG, Echocardiography, ETT,**

Chest X-Ray

Theme: Physical Examination of Respiratory System

Subtheme: Symptoms of Respiratory Diseases

1. **Understands the nervous and mechanical control of respiration and primary and accessory muscles of respiration.**
2. **Understands the concept of ventilation and respiration, gas exchange**
3. **Can formulate appropriate questions to evaluate the symptoms of cough, hemoptysis, wheezing, breathlessness, COPD,bronchial asthma**
4. **Can correlate respiratory symptoms to make a list of possible causes of patient symptoms.**

Subtheme: Clinical Examination of Respiratory system

1. **Can perform the physical examination of respiratory system applying appropriate clinical methods of inspection, palpation and percussion and auscultation.**
2. **Has clear concept of breath sounds like vesicular and bronchial breathing, Crepitations and ronchi.**
3. **Can explain basis of physical findings in common respiratory diseases such as pneumonia, pleural effusion, Asthma, fibrosis and pneumothorax.**
4. **Can pick up and interpret abnormal physical findings such as dull percussion note, bronchial breathing, deviation of trachea etc.**
5. **Can correlate various physical findings to make a list of differential diagnosis.**

Theme: Examination of Nervous System

Subtheme: Symptoms of Neurological diseases

1. **Understands the concepts of upper and lower motor neurons.**
2. **Knows the motor and sensory pathways and corticospinal and extrapyramidal pthways.**
3. **Can formulate relevant questions for symptoms of headache, weakness of a limb or part, fits, ataxia, altered conscious level, difficulty in speech, double vision and difficulty in swallowing.**
4. **Can correlate various physical symptoms and signs to make a list of differential diagnosis.**

Subtheme: Clinical Examination of nervous system

1. **Can perform systematic examination of cranial nerves**
2. **Can perform the systematic examination of motor system in upper and lower limbs.**
3. **Can check various sensory modalities in a dermatomal pattern**
4. **Can perform physical examination to check cerebellar signs.**
5. **Can assess and interpret gait abnormalities**
6. **Can localize the site of neurologic lesion in CNS.**
7. **Can correlate various neurologic symptoms and signs to make a list of differential diagnosis**

Infectious Diseases

Cause, clinical presentation, investigations, management & complications

Cause, clinical presentation, investigations, management & complications

Cause, clinical presentation, investigations, mode of transmission, management & complications

Cause, clinical presentation, investigations, management & complications

Details about Dengue fever, its cause, mode of spread, signs & symptoms, complications and management with special emphasis on prevention

Cause, clinical presentation, investigations, management & complications

Cause, clinical presentation, investigations, management & preventive measures

Cause, clinical presentation, investigations, management & complications. Special instructions in preventing its transmission

Definition, causes, how to investigate and reach to a diagnosis

Causes of sepsis, responsible organisms, how to investigate different etiologies and lines of management

Etiology, modes of transmission, presentation, investigations and management with special emphasis on multi-drug resistant enteric fever

Causes, clinical presentation, workup, management and complications affecting different organs

Types, causative organisms, mode of transmission, prevention, management, complications. Detailed discussion about Syphilis and Gonorrhea

Cause, clinical features, diagnosis, differential diagnosis including E.Coli & other enteric organisms and details of management

Cause, signs and symptoms, diagnostic investigations, management. Brief discussion about the outbreaks and how to prevent these

Cause, clinical presentation, investigations, management & complications

Cause, clinical presentation, investigations, management & complications

Epidemiology, types of parasites, mode of transmission, clinical presentation, investigations, differential diagnosis, management, complications and special emphasis on prophylaxis and prevention

Epidemiology, types of parasites, mode of transmission, clinical presentation, investigations, differential diagnosis, management, complications and special emphasis on prophylaxis and prevention

THEME: HEMOTOLOGY & ONCOLOGY

COGNITIVE / KNOWLEDGE DOMAIN

1.Discuss symptoms and signs of anemias
2.Describe types of anemias
3. Enlist differential diagnosis of hypochromic microcytic anemias
4. Discuss etiology and clinical features of iron deficiency anemia
5.Describe types of Macrocytic anemias
6. Enlist causes of Macrocytosis without megaloblastic changes
7.Discuss investigations for anemia

8.Discuss causes and clinical features of aplastic anemia
9.Enlist differential diagnosis of pancytopenia
10. Enlist causes and clinical features of hemolytic anemia
11. Describe types and clinical features of Thalassemias
12. Discuss clinical features and complications of sickle cell anemia

PSYCHMOTOR / SKILL
1.Able to perform general physical & relevant systemic examination of anemic patient*
ATTITUDE / AFFECTION
1. Describe possible complications and management of specific types of anemia to the patient *

COGNITIVE / KNOWLEDGE DOMAIN
1.Discuss symptoms and signs of polycythemias
2. Enlist causes and clinical features of polycythemia
3.Discuss criteria for polycythemia vera
4.Discuss investigations for polycythemia
PSYCHMOTOR / SKILL
1.Able to perform general physical & relevant systemic examination of patient*
ATTITUDE / AFFECTION
1.Describe possible complications and management plan of polycythemia to the patient *

COGNITIVE / KNOWLEDGE DOMAIN
1 Enlist causes and clinical features of thrombocytopenia
2.Discuss investigations for Immune thrombocyte-penicpurpura
PSYCHMOTOR / SKILL
1.Able to perform general physical & relevant systemic examination of patient*
ATTITUDE / AFFECTION
1.Describe management plan of Immune thrombocyte-penicpurpura to the patient *

COGNITIVE / KNOWLEDGE DOMAIN
1 Enlist types of Coagulation Disorders
2.Discuss clinical features of Hemophilia
3. Discuss clinical features of Von Willibrand,s disease
4.Discuss investigations for congenital and acquired Coagulation Disorders
PSYCHMOTOR / SKILL
1.Able to perform general physical & relevant systemic examination of patient*
ATTITUDE / AFFECTION
1.Describe management plan of Immune thrombocytopenic purpura to the patient *

COGNITIVE / KNOWLEDGE DOMAIN
1 Enlist types of Hematological malignancies
2.Differentiate between Hodgkin and Non Hodgkin lymphoma
3. Discuss clinical features of Acute leukemias

4. Discuss clinical features of Multiple myeloma
5 Discuss investigations for lymphomas
6. Discuss investigations for Acute leukemias
7. Discuss investigations for Multiple myeloma
PSYCHMOTOR / SKILL
1.Able to perform general physical & abdominal examination of patient*
ATTITUDE / AFFECTION
1.Describe management plan of specific hematological malignancy to the patient *

THEME: RENAL,WATER,ACID BASE,ELECTROLYTE METABOLISM

COGNITIVE / KNOWLEDGE DOMAIN
1 Enlist causes of Acute Renal failure
2. Discuss clinical features of Acute renal failure
3.Discuss investigations for acute renal filure
4.Differentiate between pre-renal and renal azotemia
PSYCHMOTOR / SKILL
1.Able to perform general physical & abdominal examination of patient*
ATTITUDE / AFFECTION
1.Describe management plan of Acute renal failure to the patient *

COGNITIVE / KNOWLEDGE DOMAIN
1 Enlist causes of Chronic Renal failure
2. Discuss clinical features and complications of Chronic renal failure
3.Discuss investigations for chronic renal failure
4.Differentiate between acute and chronic renal failure
5.Interprete lab data of patient suffering from chronic renal failure
PSYCHMOTOR / SKILL
1.Able to perform general physical & abdominal examination of patient*

ATTITUDE / AFFECTION
1.Describe management plan of end stage renal failure (ESRD) to the patient *

COGNITIVE / KNOWLEDGE DOMAIN
1 Enlist causes of Nephrotic syndrome
2. Discuss clinical features and complications of Nephrotic syndrome
3.Discuss investigations for Nephrotic syndrome
PSYCHMOTOR / SKILL
1.Able to perform general physical & abdominal examination of patient*

ATTITUDE / AFFECTION
1.Describe management plan of Nephrotic syndrome
to the patient *

THEME : CNS

COGNITIVE / KNOWLEDGE DOMAIN
1.Describe anatomy of brain
2.Differentiate between hemorrhagic and ischemic stroke.
3. Enlist investigations for Stroke
4.Discuss treatment options of various types of stroke
PSYCHMOTOR / SKILL

1.Able to perform neurological examination.*

ATTITUDE / AFFECTION

1.Discuss the problem nature of Stroke with patient.

2. Discuss the complications of stroke with patient or family*

COGNITIVE / KNOWLEDGE DOMAIN

1.Describe types of movement disorders

2.Enumerate physical signs of Parkinson,s disease.

3.Discuss treatment options of Parkinson,s disease

PSYCHMOTOR / SKILL

1.Able to perform neurological examination.*

ATTITUDE / AFFECTION

1.Discuss the problem nature of Parkinson,s with patient.*

COGNITIVE / KNOWLEDGE DOMAIN

1.Discuss triggering factors for epilepsy

2.Enlist types of seizures

3.Discuss treatment options of epilepsy

PSYCHMOTOR / SKILL

1.Perform neurological examination of patient*

ATTITUDE / AFFECTION

1.Discuss the prognosis of epilepsy with patient.*

COGNITIVE / KNOWLEDGE DOMAIN

1.Enlist types of nervous system infections

2.Differentiate between pyogenic and tuberculous meningitis

3.Discuss treatment options of different types of meningitis

PSYCHMOTOR / SKILL

1.Able to perform neurological examination.*

ATTITUDE / AFFECTION

1. Discuss the complications of Meningitis with patient or family*

COGNITIVE / KNOWLEDGE DOMAIN

1.Describe anatomy of spinal cord

2.Differentiate between upper and lower motor neuron lesions

3. Enlist causes of spastic and flaccid paraplegia

4.Discuss investigations for paraplegia

5. Describe approach to treatment of a patient with paraplegia

PSYCHMOTOR / SKILL

1.Able to perform neurological examination.*

ATTITUDE / AFFECTION

1.Discuss the prognosis and complications of paraplegia with patient.*

COGNITIVE / KNOWLEDGE DOMAIN

1.Enlist types of neurodegenerative disorders

2.Enumerate causes of Dementia

3. Describe clinical features of Dementia

4.Discuss treatment options for Alzhiemer.s disease

PSYCHMOTOR / SKILL

1.Able to perform neurological examination.*

ATTITUDE / AFFECTION

1. Discuss the prognosis and management plan of Dementia with patient or family*

COGNITIVE / KNOWLEDGE DOMAIN

1.Define polyneuropathy
2.Describe types of polyneuropathy
3. Enlist physical signs of peripheral neuropathy
3.Discuss treatment options for peripheral neuropathy

PSYCHMOTOR / SKILL

1.Able to perform neurological examination.*

ATTITUDE / AFFECTION

1. Discuss the prognosis and management plan of polyneuropathy with patient or family*

COGNITIVE / KNOWLEDGE DOMAIN

1.Enlist causes of unconsciuoness
2. Describe responses of Glasgow coma scale
3.Discuss investigations for a comatosed patient

PSYCHMOTOR / SKILL

1.Able to perform neurological examination.*

ATTITUDE / AFFECTION

1. Discuss the complications of coma with family*

COGNITIVE / KNOWLEDGE DOMAIN

1.Enlist differential diagnosis of headache
2. Differentiate between cluster headache and tension headehce
3.Describe triggering factors and pathological mechanisms in Migrain
4.Differentiate between primary and secondary headache

PSYCHMOTOR / SKILL

1.Able to perform neurological examination.*

ATTITUDE / AFFECTION

1. Describe preventive measures and management of migraine to the patient *

THEME : PULMONARY MEDICINE

COGNITIVE / KNOWLEDGE DOMAIN

1.Define COPD
2.Enlist forms of COPD
3. Enumerate physical signs of COPD
3.Differentiate between chronic bronchitis and emphysema
4. Differentiate between cardiac asthma and bronchial asthma

PSYCHMOTOR / SKILL

1.Able to perform examination of respiratory system.*

ATTITUDE / AFFECTION

1. Describe possible complications ,preventive measures and management of COPD to the patient *

COGNITIVE / KNOWLEDGE DOMAIN

1.Discuss pathogenesis of Pulmonary tuberculosis
2.Enlist factors leading to reactivation of tuberculosis
3. Enumerate clinical manifestations of tuberculosis

3.Discuss investigations for tuberculosis
4. Describe treatment of tuberculosis

PSYCHMOTOR / SKILL

1. Able to perform examination of respiratory system.*

ATTITUDE / AFFECTION

1. Describe possible complications ,preventive measures and management of tuberculosis to the patient *

COGNITIVE / KNOWLEDGE DOMAIN

1.Define bronchial asthma
2.Enlist triggering factors of bronchial asthma
3. Enumerate physical signs of asthma
4. Describe classification of asthma severity
5. Differentiate between COPD and bronchial asthma on chest x rays

PSYCHMOTOR / SKILL

1. Able to perform examination of respiratory system.*

ATTITUDE / AFFECTION

1. Describe preventive measures and management of asthma*

COGNITIVE / KNOWLEDGE DOMAIN

1.Enlist types of pneumonia
3. Enumerate physical signs of pneumonia
3.Differentiate between typical and atypical pneumonia
4. Discuss complications of pneumonia
5. Enlist microorganism causing pneumonia

PSYCHMOTOR / SKILL

1. Able to perform examination of respiratory system.*

ATTITUDE / AFFECTION

1. Describe possible complications ,preventive measures and management of pneumonia to the patient *

COGNITIVE / KNOWLEDGE DOMAIN

1.Enumerate physical signs of interstitial lung disease
2.Discuss clinical features of interstitial lung disease
3. Discuss complications of interstitial lung disease

PSYCHMOTOR / SKILL

1.Able to perform examination of respiratory system.*

ATTITUDE / AFFECTION

1. Describe prognosis and management of interstitial lung disease to the patient *

COGNITIVE / KNOWLEDGE DOMAIN

1.Enlist classification of lung tumors
2.Enumerate physical signs of bronchogenic carcinoma
3. Discuss investigations for bronchogenic carcinoma

PSYCHMOTOR / SKILL

1.Able to perform examination of respiratory system.*

ATTITUDE / AFFECTION

1. Describe possible complications and management of bronchogenic carcinoma with the patient *

COGNITIVE / KNOWLEDGE DOMAIN

1.Differentiate between transudative and exudative pleural effusion
2.Enumerate causes of pleural effusion
3. Enlist physical signs of pleural effusion
4.Discuss clinical features of pleural effusion

PSYCHMOTOR / SKILL

1.Able to perform examination of respiratory system.

ATTITUDE / AFFECTION*

1. Discuss the management plan of pleural effusion with patient or family*

COGNITIVE / KNOWLEDGE DOMAIN

1.Enumerate causes of pneumothorax

2. Enlist physical signs of pnuomthorax

3.Discuss clinical features of pnumothorax

PSYCHMOTOR / SKILL

1.Able to perform examination of respiratory system.*

ATTITUDE / AFFECTION

1. Discuss the management plan of pneumothorax with patient or family*

Cardiovascular system

Theme: Chest pain & Angina

1. Knows the Risk factors and Pathophysiology of atherosclerosis and coronary ischemia
2. Knows the coronary vascular anatomy
3. Can differentiate between cardiac and noncardiac causes of chest pain
4. Can read the ECG and is familiar with ETT and other diagnostic such as coronary angiography, thallium scan etc.
5. Can describe treatment of angina pectoris
6. Knows when to refer the patient to hospital and further work up
7. Can advise preventive measures in high risk individuals

Theme: Myocardial Infarction

1. Can differentiate between Angina and MI from symptom duration and severity
2. Knows the different types of MI like STEMI and NSTEMI, Acute coronary syndrome and Unstable Angina.
3. Can Identify ECG changes during MI/ACS and can localize area of infarct like Anterior, lateral and Inferior wall MI
4. Can describe the immediate and later on investigations for a patient with MI
5. Knows the algorithms for management of ACS, STEMI and NSTEMI
6. Knows how to risk stratify patients with MI and identify those who need immediate referral to CCU/Cardiology.
7. Knows about primary and secondary coronary interventions (PCI).
8. Knows the importance of door to needle and door to balloon time
9. Knows the risks and benefits of thrombolysis.
10. Knows the indications, contraindications and adverse effects of the medicines prescribed for management of myocardial infarction
11. Can describe immediate and late complications of Myocardial infarction and their management
12. Can counsel the patient and care giver for rehabilitation and secondary preventive measures after MI.

Theme: Acute Pulmonary Edema

1. Knows the pathophysiology of heart failure
2. Can identify acute precipitating factors for acute heart failure such as ischemia, arrhythmia, anemia, infections, accelerated hypertension etc.
3. Can examine the patient and pick up physical findings such as irregular pulse, additional heart sounds and murmurs, crepitations, elevated JVP
4. Knows the differences between cardiogenic and non cardiogenic pulmonary edema (ARDS).
5. Knows how to differentiate between cardiac and respiratory causes of severe dyspnea and importance of BNP
6. Can read and describe ECG, X-Ray findings in acute pulmonary edema
7. Is familiar with Echocardiographic findings in acute heart failure
8. Can prescribe appropriate medicines for ER and subsequent management of heart failure.

Theme: Chronic Congestive Heart Failure

1. Knows the pathophysiology of chronic heart failure
2. Knows differences between Systolic and Diastolic heart failure
3. Understands terms like heart failure with preserved and reduced ejection fraction,
4. Can enumerate different causes of chronic heart failure like IHD, cardiomyopathy, Rheumatic heart disease, hypertension, degenerative and infiltrative heart disease etc.
5. Can identify precipitating factors for acute on chronic heart failure such as ischemia, arrhythmia, anemia, infections, accelerated hypertension etc.
6. Can examine the patient and pick up physical findings such as irregular pulse, additional heart sounds and murmurs, crepitations, elevated JVP
7. Knows how to differentiate between cardiac and respiratory causes of severe dyspnea and importance of BNP
8. Can read and describe ECG, X-Ray findings in patients with heart failure
9. Is familiar with Echocardiographic findings in heart failure
10. Can prescribe appropriate medicines for ER and subsequent management of heart failure.
11. Can counsel patients about diet and physical activity restrictions.

Theme: Mitral Valve disease

1. Knows the etiology and progression of rheumatic fever leading to Valvular damage in long run
2. Can explain the hemodynamic changes resulting from stenosed or incompetent mitral valve.
3. Can perform the required clinical examination of CVS and relevant systems in a stepwise fashion.
4. Can pick up and describe the clinical findings in a patient with MS or MR.
5. Can suggest relevant Laboratory investigations such as ECG, Echocardiography, chest X-Ray etc.
6. Can read abnormal ECG and X-ray showing atrial fibrillation, RVH, LVH, LAH pulmonary congestion
7. Can assess the clinical severity of Mitral Stenosis and/or regurgitation.
8. Can describe the appropriate medical and surgical treatment for MS and MR.
9. Can counsel patient and attendant for life long follow up and need for prophylaxis of Rheumatic fever and Endocarditis.

Theme: Aortic Valve Disease

1. Knows various causes of aortic valve disease such as congenital, rheumatic, degenerative, connective and elastic tissue disorders.
2. Can explain the hemodynamic changes resulting from aortic valve malfunction such as LVH and LV dilatation.
3. Can perform the systematic and CVS and relevant examination required.
4. Can pick up and interpret abnormal clinical findings on palpation and auscultation.
5. Can suggest relevant laboratory investigations such as ECG, CXR, Echocardiography.
6. Can read abnormal ECG and X-ray showing, LVH, LAH, Cardiomegaly and pulmonary congestion
7. Can assess the clinical severity of Aortic Stenosis and/or regurgitation.
8. Can describe the appropriate medical and surgical treatment for AS and AR.
9. Can counsel patient and attendant for life long follow up and need for prophylaxis of Rheumatic fever and Endocarditis.

Theme: Hypertension Diagnosis & Work up

1. Understands the pathophysiology of hypertension and importance to recognize essential & secondary hypertension.
2. Can record BP applying the appropriate size of cuff.
3. Can perform a systematic clinical examination to detect target organ damage caused by hypertension including retinal examination.
4. Can suggest relevant laboratory investigations to know the cause and effect of hypertension such as Urine, ECG, USG, Echocardiography, RFTs , Blood sugar and Lipid profile etc.
5. Can interpret abnormal laboratory findings in hypertensive patients
6. Knows about work up for secondary hypertension

Theme: Hypertension management guidelines & complications.

1. Knows the classification of antihypertensive medications including specific indications and contraindications.
2. Is familiar Hypertension treatment guidelines.
3. Can prescribe appropriate antihypertensive medication for a patient with specific indications
4. Knows about complications of hypertension such as LVH and LVF, IHD, PVD, Stroke, CKD and Retinopathy.
5. Can counsel patient /Attendant about dietary modification and lifestyle changes for prevention of HTN.

Theme: Pulmonary Hypertension

1. Knows the pathophysiology of both secondary and primary pulmonary hypertension.
2. Understands the importance of finding evidence of underlying lung disease in cor-pulmonale.
3. Can perform systematic physical examination and picks up findings such as Cyanosis, clubbing, raised JVP, RVH, TR, PR, edema etc.
4. Can suggest relevant Investigations such as CXR, ECG, ABGs, PFT's, Echocardiography, CBC etc.
5. Can interpret abnormal findings in ECG, CXR etc.
6. Can prescribe appropriate medications as per patient's clinical condition and guidelines.
7. Can counsel patient /Attendant about dietary modification and lifestyle changes such as quitting smoking, need for domiciliary oxygen and lifelong follow up.

Theme: Pericarditis & Pericardial effusion

1. Knows the pericardial anatomy and pathophysiology of pericardial effusion.
2. Knows different causes of pericardial effusion such as Post MI, TB, CT disorders, Renal diseases and malignancies.
3. Can perform relevant clinical examination in a patient with suspected pericardial disease.
4. Can describe similarities and differences between Constrictive pericarditis and restrictive cardiomyopathy.
5. Can describe clinical findings in suspected cardiac temponade.
6. Can suggest and interpret the abnormal investigations in pericardial effusion and constrictive pericarditis
7. Can suggest the appropriate management including need for paracentesis and pericardiectomy.

Theme: Acute and sub acute Endocarditis

1. Knows various congenital and rheumatic lesions prone to develop endocarditis
2. Knows the microbial agents causing endocarditis
3. Can perform a systematic clinical examination in a patient with suspected endocarditis.
4. Can suggest relevant laboratory investigations such as Echocardiography, Blood cultures, CBC, Urine R/E
5. Can apply Duke's criterion for diagnosis of endocarditis.
6. Can interpret abnormal clinical and laboratory findings.
7. Can suggest appropriate antibiotics with route, dose and duration of therapy for different microbial organisms causing endocarditis.
8. Knows about endocarditis prophylaxis for different clinical settings.

Endocrinology & DM

Theme: DM-I, DM-II, GDM

1.Knows the Risk factors and Pathophysiology of DM

2.Knows the Types of DM (type1, type2 & GDM etc.

3.Can gather all the relevant information from a diabetic patient including compliance, co morbidities and complications.

4.Can perform targeted physical examination of a diabetic patient.

5.Is familiar with glucometers and can check blood sugar level.

6.Is familiar with pharmacology of oral medicines for the management of DM.

7.Is familiar with various types of insulins including their indication for use and duration of actions.

8.Is familiar with new treatment options in DM like GLP agonists etc.

9.Can identify and describe management of acute complication of DM including hypoglycemia, DKA, HONK, HHGS etc.

10.Can describe surveillance for chronic micro and macrovascular complications of DM and their management.

11.Knows when to refer the patient to hospital and further work up

12.Can advise preventive measures in high risk individuals

13.Can perform counseling of DM patients and their care givers.

Theme: Endocrinology

1. Student is familiar with different endocrine glands of human body
2. Knows about hypothalamus pituitary axis and role of pituitary as master gland.
3. Knows the work up for an endocrine disorder through stimulation and suppression of specific gland.
4. Knows all the hormones released from pituitary gland and their negative and positive feedback regulation.
5. Is familiar with different biochemical tests and radiologic procedures including CT scan, MRI and Isotope scanning for different endocrine diseases.
6. Knows the indications and contraindications for different diagnostic tests and procedures in endocrine diseases.

Sub Theme:Anterior pituitary

Growth hormone disorders

1. Knows all the hormones released from anterior pituitary and their negative and positive feedback regulation.
2. Knows the pathophysiology ofAcromegaly and its management
3. Knows the pathophysiology of Gigantism and its management
4. Knows the pathophysiology of Short stature and its management
5. Knows the pathophysiology of Infertility and its management

Sub Theme: Diseases of hypothalamus and posterior pituitary

1. Knows the pathophysiology & management of

   Empty sella syndrome, Diabetes insipidus, Syndrome of inappropriate ADH secretion (SIADH)
2. Can Explain the osmotic regulation of blood through pituitary and kidneys
3. Can describe water deprivation test for work up of diabetes Insipidus.

Sub Theme: Thyroid gland.

Knows the pathophysiology & management

1. Hyperthyroidism (thyrotoxicosis) including Grave's disease
2. Knows different types of thyroiditis and their work up & treatment.
3. Can demonstrate signs and symptoms of suspected Hypothyroidism (myxedema, cretinism).
4. Can perform relevant physical examination of suspected hyperthyroidism and grave's disease.
5. Can describe the work up for a patient with thyroid pathology including lab tests and isotope scanning.
6. Knows the uses doses and side effects of anti -thyroid drugs and radiotherapy.
7. Knows the dosage and use of thyroxin.ƒ
8. Is familiar with different benign and malignant tumors of thyroid.

Sub Theme: Adrenal Gland

Knows the pathophysiology & management

1. Cushing Syndrome ƒ
2. Aldosteronism Primary/Secondary.
3. Hirsutism. ƒ
4. Addison's disease ƒ
5. Acute Addisonian crisis
6. Inflammatory lesions ƒ
7. Adrenocortical tumors including Pheochromocytoma

Sub Theme : Gonads

Knows the pathophysiology & management

1. Sexual precocity ƒ
2. Heterosexual precocity ƒ

3. Gynaecomastia ƒ
4. Inflammations ƒ
5. Tumours

Diseases of GIT, Liver, Pancreas, Medical Emergencies and Poisoning

- Definition of GERD and Achalasia
- Signs and symptoms of GERD and Achalasia
- Etiology and Causes
- Pathophysiology of GERD AND Achalasia
- Diagnosis and treatment of GERD and Achalasia

- Definition of dysphagia
- Physiology of swallowing
- Causes of dysphagia and esophageal tumors
- Pathophysiology of common causes of dysphagia and esophageal tumor
- Evaluation of dysphagia
- Management of Dysphagia and esophageal tumors

- Causes of dyspepsia
- Risk factors of recurrent peptic ulcer disease
- Role of h. pylori in the pathogenesis of peptic ulcer
- Disease and its relationship to ulcer relapses
- Role of available drugs for the treatment of dyspepsia
- Recognize the indications for long term maintenance therapy
- Manage patients with PUD and concomitant high CVD risk needing antiplatelet therapy

- Definition of acid peptic disease
- Pathophysiology of APD

- Signs and symptoms of APD
- Evaluation and diagnosis of APD
- Management of APD

- Definition and Causes of UGIB
- Sign and symptoms of UGIB
- Pathophysiology of UGIB
- Approach to UGIB
- Management of UGIB

- Understand definition of tropical sprue and celiac disease
- Discuss causes and mechanism of tropical sprue and celiac disease
- Approach to the tropical sprue and celiac disease
- Management of tropical sprue and celiac disease

- Identify and characterize the major pathophysiologic causes of malabsorption
- Discuss mechanisms responsible for different causes of malabsorption and be able to differentiate between them.
- Construct a differential diagnosis for a patient with malabsorptive diseases
- Approach to malabsorptive syndromes
- Management of malabsorptive syndromes

- Definition of IBS
- Aetiology of IBS
- Pathophysiology of IBS
- Clinical Features of IBS
- Diagnosis and approach to IBS
- Treatment
- Prognosis +/- of IBS

- Definition of acute and chronic diarrhea
- Identify and characterize the major pathophysiologic causes of diarrhea
- Discuss mechanisms responsible for secretory and osmotic diarrhea and be able to differentiate between them
- Construct a differential diagnosis for a patient with diarrhea in order of likelihood
- Identify a sequence of tests to determine the causes of diarrhea depending on the presenting symptoms
- Management of Diarrhea

- Describe the disease process of Crohn's versus Ulcerative colitis
- Identify the clinical presentation of a patient with Crohn's disease and Ulcerative colitis
- Discuss the various diagnostic workups and how they may differentiate Crohn's from other GI ailments
- Select appropriate treatments for a patient with Crohn's disease and Ulcerative colitis

- Describe adenocarcinoma of the stomach in terms of etiology, epidemiology,
- signs and symptoms, diagnosis, treatment and prognosis.
- List the risk factors for development of Colorectal carcinoma
- Outline the pathophysiologic development of colorectal cancer

- Describe the following inheritable factors and syndromes of colorectal carcinoma
- Describe the workup and preventive measures
- Discuss the treatment of various tumors

- Discuss basic physiology of Pancreas
- Etiology
- Clinical presentation
- Diagnosis of pancreatitis
- Management of pancreatitis
- Complications of pancreatitis

- Causes of Chronic pancreatitis
- Pathogenesis of chronic pancreatitis
- Clinical presentation of chronic pancreatitis
- Investigation helpful in chronic pancreatitis
- Treatment of Chronic pancreatitis

- Definition of Jaundice
- Anatomy of hepatobiliary tree
- Biochemistry of bilirubin
- Types of jaundice
- Causes and etiology of jaundice
- Approach to diagnosis of jaundice
- Management of jaundice

- Brief overview of hepatitis
- To describe the anatomy and physiology of the liver
- To define hepatitis A,B, C, D and E
- Pathophysiology of each viral hepatitis
- Overview of drug therapy for hepatitis
- Diagnosis and labs tests specific for each viral hepatitis
- Management of acute viral hepatitis

- Definition of autoimmune hepatitis
- List the epidemiologic factors
- Pathophysiologic mechanisms of the disease
- Different clinical presentations of the disease
- Diagnosis and prognosis
- Management of autoimmune hepatitis
-

- What is Wilson disease
- Pathophysiology of Wilson disease
- Sign and symptoms
- Diagnosis and specific labs for Wilson disease
- Management of Wilson disease

- Introduction of Chronic hepatitis B
- Mode of transmission of hepatitis B
- Clinical features of hepatitis B
- Investigation specific for hepatitis B
- Treatment for hepatitis B
- Prevention for hepatitis B

- Introduction of Chronic hepatitis C
- Mode of transmission of hepatitis C
- Clinical features of hepatitis C
- Investigation specific for hepatitis C
- Treatment for hepatitis C
- Prevention for hepatitis C

- Causes of ascites and SBP
- Pathophysiology of ascites and SBP
- Diagnosis for the ascites and SBP
- Management of ascites
- Management of SBP and primary prophylaxis of SBP

- To describe the pathophysiology and etiology of cirrhosis and it's associated complications (ascites, SBP, portal HTN, varicral bleeding, HE)
- To assess a patient who presents with clinical signs and symptoms, as well as laboratory findings, indicative of complications of liver disease, and make appropriate treatment recommendations and monitoring plans to resolve drug related problems

- Describe hematochromatosis
- Discuss pathophysiology of hemachromatosis
- Discuss evaluation and management of hemochromatosis
- Discuss screening for hemochromatosis

- Introduction and background of PBC
- Epidemiology, risk factors, and etiology
- Clinical presentation of PBC
- Diagnosis, workup and differentials
- Management of PBC

- Introduction of drugs metabolism
- Normal liver metabolism
- Liver disease and drugs contraindicated in disease
- Dosage calculations in case of liver disease

- Pathophysiology of liver disease leading to HCC
- Approach to HCC
- Management of HCC
- Prognosis of HCC
- Indications for liver transplant

- Pathophsiology leading to electric shock
- List signs and symptoms of electric shock
- Steps in the emergency medical care of a patient with signs and symptoms of electric shock
- Prevention from electric shock

- Develop a systemic approach to the patient with hypotension
- Recognize the difference between hypotension and shock
- Identify the causes of the shock

• Define the stages of the SIRS scale • Initial management of the septic patient.
○ Definition ○ Causes and factors leading to heat stroke ○ Prevention and control of Heat stroke ○ Management of heat stroke
• Types of Common poison • Initial assessment of poisoning ingestion or administration • Describe the general management principles for ingestion and toxic exposures • Prevention and control measures
• Introduction and Classification • Etiology and epidemiology • Signs and symptoms of snake bite • Management for the snake bite • Prevention and Control measures