

MBBS 2019 : Regulations & Syllabus

PHASE II - CBME Syllabus (Theory, Practicals and Clinicals)

Volume 2

MBBS 2019 Regulations & Syllabus
PHASE II - CBME SYLLABUS
(Theory, Practicals and Clinicals)

VOLUME 2

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University Exam at the end of Phase III - Part II

GENERAL MEDICINE

PREAMBLE

The undergraduate medical education program is designed with a goal to create an “Indian Medical Graduate” (IMG) possessing requisite knowledge, skills, attitudes, values and responsiveness, so that she or he may function appropriately and effectively as a physician of first contact of the community while being globally relevant. Second Professional MBBS (12 months) is Entry level and hence has to be introductory in nature towards clinical medicine

Excerpts from GMER- Regulations on Graduate Medical Education (Amendment), 2019 and UG Curriculum Volumes 1, 2 & 3 have been utilized in preparing this syllabus document for Second Professional MBBS. Alignment / Integration between topics & subjects has been attempted.

As per GMER 2019, Table 2, page.no.68: Distribution of subjects by Professional Phase. Second Professional MBBS (12 months) includes the following:

- Pathology, Microbiology, Pharmacology, Forensic Medicine and Toxicology,
- Introduction to clinical subjects including Community Medicine
- Clinical postings
- Attitude, Ethics & Communication Module (AETCOM)

As per GMER 2019, table 9, page.no.75 - Year 2: Focus of Learner - Doctor Program is History taking, physical examination, assessment of change in clinical status, communication and patient education

Keeping the above format as guiding framework, the department of General Medicine plans to introduce Clinical Medicine to Second Professional MBBS students

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2. GOAL AND OBJECTIVES

Syllabus in Gen.Medicine for Second Professional MBBS (12 months)

GOAL:

The broad goal of the teaching of Second Professional MBBS undergraduate students in General Medicine is to introduce Clinical Medicine to Second Professional MBBS students so that students are oriented towards clinical medicine and go through a smooth transition towards clinical side

OBJECTIVES:

A) KNOWLEDGE

At the end of the Second Professional MBBS, undergraduate students in General Medicine should be able to describe a few diseases and their work-up & treatment pertaining to a few selected topics (see below) in General Medicine (*25 hours for Medicine*)

B) SKILLS (As per UG Curriculum document Vol 1, page.no.18: 3.1.5-8)

At the end of 2nd professional MBBS, the student should be able to:-

- Demonstrate ability to elicit and record from the patient, and other relevant sources including relatives and caregivers, a history that is complete and relevant to disease identification, disease prevention and health promotion.
- Demonstrate ability to elicit and record from the patient, and other relevant sources including relatives and caregivers, a history that is contextual to gender, age, vulnerability, social and economic status, patient preferences, beliefs and values.
- Demonstrate ability to perform a physical examination that is complete and relevant to disease identification, disease prevention and health promotion.
- Demonstrate ability to perform a physical examination that is contextual to gender, social and economic status, patient preferences and values

C) Attitude (Affective)

Communicate effectively with peers and teachers in various teaching/learning activities in a manner that encourages participation and shared decision-making.

Demonstrate ability to behave & communicate with sensitivity and due respect towards patients and their relatives during history taking & physical examination

D) INTEGRATION

At the end of 2nd year training he/she should be able to integrate the causes of disease and relationship of different etiological factors (social, economic and environmental) and that contribute to the natural history of diseases most prevalent in India and describe a few diseases and their work-up & treatment pertaining to a few selected topics (see below) in General Medicine and perform a physical examination that is contextual

OUTCOME

At the end of 2nd professional MBBS, Students would be oriented towards clinical medicine, patients & diseases and would have a smooth transition towards clinical side

3. TERMS AND TEACHING GUIDELINES

1. LECTURE

Is a teaching learning method which includes traditional and interactive sessions involving a large group.

25 hours in total for Gen. Medicine

2. SMALL GROUP DISCUSSION (BEDSIDE CLINICS/OPD Teaching as applied to CLINICAL POSTINGS in GENERAL MEDICINE)

Is an instructional method involving small groups of students in an appropriate learning context. (ward/opd teaching as applied to CLINICAL POSTINGS in GENERAL MEDICINE)

The clinical postings in the second professional will be 15 hours per week X 4 weeks (**3 hrs per day from Monday to Friday as per GMER 2019, page.no.69**) covering History taking, Symptomatology, GPE & Systemic examination pertaining to all major systems & disorders

3. Learner-doctor method of clinical training (Clinical Clerkship)

Provides learners with experience in longitudinal patient care being part of the health care team with Hands-on care of patients in outpatient and inpatient setting. The first clinical posting in second professional shall orient learners to the patient, their roles and the speciality (**as per GMER 2019, 9.5.1-2, page.no.74**).

4. CORE

A competency that is necessary in order to complete the requirements of the subject (traditional must know)

5. NON – CORE

A competency that is optional in order to complete the requirements of the subject (traditional nice (good) to know/ desirable to know.

Syllabus at a glance:

A. Number of teaching hours:

<u>Teaching method</u>	<u>Hours</u>
Lecture	25 (1hr X 25)
Clinical postings	60 (15 hours per week X 4 weeks - 3hrs per day from Monday to Friday)
Total	85

B. Topics

Lecture Classes:Anemia, Hypertension, IHD, Diarrheal disorders, Pneumonia, HIV, Leptospirosis, Thyroid disorders, Diabetes Mellitus

Clinical Postings:**Bedside Clinical Teaching(Bedside clinics, ward rounds & OPD,Skills lab ; DOAP)** covering History taking, Symptomatology, GPE & Systemic examination pertaining to all major systems & disordersplus Self-directed Learning towards History taking & Physical Examination (in the form of independent case taking).

AETCOM(integration):04 Procedures(Integrated):08

MINIMUM TEACHING HOURS

Sl.No	Topic	Number of competencies	Lecture (Hrs)
1	Anemia	11	03
2	Hypertension	13	04
3	IHD	12	04
4	Diarrheal disorders	13	02
5	Pneumonia	07	02
6	HIV	13	04
7	Thyroid disorders	07	02
8	Diabetes Mellitus	17	04
	Total		25

Clinical postings - 15 hours per week X 4 weeks - 3 hrs per day from Monday to Friday

Sl No	Topic	(Hrs)
1	Introduction, History taking	03
2	GPE	09
3	CVS – Symptom analysis,Physical examination	12
4	RS– Symptom analysis,Physical examination	09
5	Abdomen– Symptom analysis,Physical examination	09
6	CNS– Symptom analysis,Physical examination&	12
7	Locomotor system–Symptom analysis,Physical examination	06
	Total	60

Internal Assessment

16. First theory internal assessment examination in Gen.Medicine will be held after six months(end of block 2) and second internal assessment examination will be held after 9 months of Phase II (end of block 3)
17. There will be one clinical internal assessment at the end of clinical postings.

4. COMPETENCIES, SPECIFIC LEARNING OBJECTIVES, TEACHING LEARNING & ASSESSMENT METHODS

(CODE: IM; Competencies have been combined if they are similar)

Topic: 1. Anemia							
Number of competencies: (11) Number of procedures that require certification: (NIL)							
Number	Competency & SLOs (At the end of the session, student shall be able to:)	Doma in	Millers pyramid level	core	T&L Methods	Assessment methods	Integration
IM 9.1	Define, describe and classify anemia based on red blood cell size and reticulocyte count	K	KH	Y	Lecture	Long/short essay/MCQs	Pathology
	9.1.1. Define anemia 9.1.2. Define reticulocyte count and corrected reticulocyte count 9.1.3. Classify anemia based on size of RBC as microcytic, normocytic and macrocytic. 9.1.4. Classify anemia based on low, normal and high reticulocyte count						
IM 9.2	Describe and discuss the morphological characteristics, etiology and prevalence of each of the causes of anemia	K	KH	Y	Lecture	Long/Short essay/MCQs	Pathology
	9.2.1. Discuss and describe the types of anemias based on etiology. 9.2.2. List the prevalence of each of the causes anemia						

IM 9.7	Describe and discuss the meaning and utility of various components of the hemogram	K	KH	Y	Lecture	Short note/Short essay/MCQs	Pathology
	9.7.1. Describe the meanings of various components of hemogram 9.7.2. Discuss the utility of various components of hemogram						
IM 9.8	Describe and discuss the various tests for iron Deficiency	K	KH	Y	Lecture	Short essay/MCQs	Pathology
	9.8.1. Discuss the various tests for iron deficiency 9.8.2. Interpret the tests for iron deficiency						
IM 9.11	Describe the indications and interpret the results of a bone marrow aspirations and biopsy	K	KH	Y	Lecture	Short essay/MCQs	Pathology
	9.11.1. Describe the indications of bone marrow aspiration and biopsy 9.11.2. Interpret the results of bone marrow aspiration and biopsy						
IM 9.12	Describe, develop a diagnostic plan to determine the aetiology of anemia	K	KH	Y	Lecture	Short essay/MCQs	Pathology
	9.12.1. Develop a diagnostic plan to determine the etiology of anemia						

IM 9.13	Prescribe replacement therapy with iron, B12, Folate	S	SH	Y	Lecture	Short essay/MCQs	Pharmacology
IM 9.14	Describe the national programs for anemia Prevention	K	KH	Y	Lecture	Short essay/MCQs	Community Medicine
	9.14.1. Must be able to describe the national program for anemia prevention						
IM 9.17	Describe the indications for blood transfusion and the appropriate use of blood components	K	KH	Y	Lecture	Short essay/MCQs	Pathology
	9.17.1. Must be able to describe the indications for blood transfusion 9.17.2. Must be able to choose the appropriate use of blood components						
IM 9.18	Describe the precautions required necessary when performing a blood transfusion	K	KH	Y	Lecture	Short essay/MCQs	
	9.18.1. Must be able to describe the precautions required necessary when performing a blood						
IM 9.21	Determine the need for specialist consultation	K	KH	Y	Lecture	Short essay/MCQs	
	9.21.1. Must be able to describe the need for specialist consultation.						

Topic: 2.Hypertension Number of competencies: (13) Number of procedures that require certification: (NIL)							
Number	Competency & SLOs (At the end of the session, student shall be able to:)	Domain	Millers pyramid level	core	T&L Methods	Assessment methods	Integration
IM 8.1	Describe and discuss the epidemiology, aetiology and the prevalence of primary and secondary hypertension	K	KH	Y	Lecture	Short essay/MCQs	PATHOLOGY
	8.1.1 Enumerate the causes of primary and secondary hypertension. 8.1.2 Discuss the epidemiology of primary and secondary hypertension. 8.1.3 Discuss the prevalence of primary and secondary						
IM 8.2	Describe and discuss the pathophysiology of hypertension	K	KH	Y	Lecture	Short essay/MCQs	PATHOLOGY PHYSIOLOGY
	8.2.1 Describe patho-physiology of hypertension						
IM 8.3	Describe the genetic basis of hypertension	K	KH	Y	Lecture	Short essay/MCQs	PATHOLOGY

	8.3.1 Discuss and describe the genetic basis for Hypertension						
IM 8.4	Define and classify hypertension	K	KH	Y	Lecture	Short essay/MCQs	PATHOLOGY
	8.4.1 Define hypertension. 8.4.2 Describe the classification of hypertension						
IM 8.5	Describe and discuss the differences between primary and secondary hypertension	K	KH	Y	Lecture	Short essay/MCQs	PATHOLOGY
	8.5.1 Define Primary and Secondary Hypertension 8.5.2 Enumerate the differences between primary and secondary hypertension.						
IM 8.6	Define, describe and discuss and recognise hypertensive urgency and emergency	K	KH	Y	Lecture	Short essay/MCQs	
	8.6.1 Define hypertensive emergency and urgency 8.6.2 Describe the clinical signs and symptoms of hypertensive emergencies.						
IM 8.7	Describe, discuss and identify target organ damage due to Hypertension	K	KH	Y	Lecture	Short essay/MCQs	PATHOLOGY

	<p>8.7.1 Describe the effect of hypertension on Brain, heart, kidneysetc.</p> <p>8.7.2 Describe hypertensive heartdiseases.</p> <p>8.7.3 Describe hypertensive nephropathy.</p> <p>8.7.4 Describe hypertensiveretinopathy.</p>						
IM 8.8	Describe and discuss the clinical manifestations of the various etiologies of secondary causes of hypertension	K	KH	Y	Lecture	Short essay/MCQs	PATHOLOGY
	<p>8.8.1 List the etiology of secondaryhypertension</p> <p>8.8.2 Describetheclinicalmanifestationsof Secondaryhypertension.</p>						
IM 8.12	Describe the appropriate diagnostic work up based on the presumed aetiology	K	KH	Y	Lecture	Short essay/MCQs	
	<p>8.10.1 Describe the diagnostic workup ofprimaryhypertension.</p> <p>8.10.2 Describe the diagnostic workupof secondary hypertension.</p>						
IM 8.13	Enumerate the indications for and interpret the results of: CBC, Urine routine, BUN, Cr, Electrolytes, Uric acid, ECG	K	KH	Y	Lecture	Short essay/MCQs	
	8.11.1 Discuss the interpretations of CBC, uriner/e, RFT, uric acid and ECG in a case of hypertension.						
IM 8.14	Develop an appropriate treatment plan for essential hypertension	K	KH	Y	Lecture	Short essay/MCQs	PHARMACOL OGY
	8.12.1 Describe the treatment plan for hypertension.						

IM 8.15	Recognise, prioritise and manage hypertensive emergencies	S	SH	Y	Lecture	Short essay/MCQs	PHARMACOL OGY
	8.13.1 Describe the hypertensive emergencies. 8.13.2 discuss the management of hypertensive emergencies						
IM 8.20	Determine the need for specialist consultation	K	KH	Y	Lecture	MCQs	
	8.14.1 Discuss the need for specialist consultation in management of Hypertension						

Topic: 3.Ischemic Heart Disease/Acute MI							
Number of competencies: (12) Number of procedures that require certification: (NIL)							
Number	Competency & SLOs (At the end of the session, student shall be able to:)	Domain	Millers pyramid level	core	T&L Methods	Assessment methods	Integration
IM 2.1	Discuss and describe the epidemiology, antecedents and risk factors for atherosclerosis and ischemic heart disease	K	KH	Y	Lecture	Short essay/MCQs	PATHOLOGY PHYSIOLOGY COMMUNITY MEDICINE

	<p>2.1.1 Describe the epidemiology of Atherosclerosis and Coronary artery Disease(current -global and Indian trends)</p> <p>2.1.2 Describe the normal coronary anatomy correctly</p> <p>2.1.3 Describe the relationship between myocardial supply and demand in ischemic heart disease</p> <p>2.1.4 Enumerate the risk factors for atherosclerosis and ischemic heart disease correctly</p>						
IM 2.2	<p>Discuss the aetiology of risk factors, both modifiable and non-modifiable of atherosclerosis and IHD</p> <p>2.2.1 Describe the risk factors of Atherosclerosis and IHD</p> <p>2.2.2 Differentiate both modifiable and non-modifiable risk factors of atherosclerosis and IHD</p>	K	KH	Y	Lecture	Short essay/MCQs	PATHOLOGY
IM 2.3	<p>Discuss and describe the lipid cycle and the role of dyslipidemia in the pathogenesis of atherosclerosis</p> <p>2.3.1 Describe the lipid cycle correctly</p> <p>2.3.2 Enumerate the causes & classification of dyslipidemia</p> <p>2.3.3 Describe the role of dyslipidemia in the pathogenesis of atherosclerosis & IHD</p> <p>2.3.4 Describe the rationale of treatment</p>	K	KH	Y	Lecture	Long/Short essay/MCQs	PATHOLOGY BIOCHEMISTRY
IM 2.4	<p>Discuss and describe the pathogenesis, natural history, evolution and complications of atherosclerosis and IHD</p> <p>2.4.1 Describe the pathogenesis of atherosclerosis and IHD, correctly</p> <p>2.4.2 Describe the natural history & evolution of</p>	K	KH	Y	Lecture	Long/Short essay/MCQs	PATHOLOGY

	atherosclerosis and IHD, correctly 2.4.3 Describe the consequences and complications of atherosclerosis and IHD, correctly						
IM 2.5	Define the various acute coronary syndromes (ACS) and describe their evolution, natural history and outcomes	K	KH	Y	Lecture	Long/Short essay/MCQs	PATHOLOGY
	2.5.1 Classify ACS correctly 2.5.2 Define the various ACS correctly 2.5.3 Describe the evolution, natural history and outcomes of each ACS correctly						
IM 2.15	Discuss and describe the medications used in patients with an acute coronary syndrome based on the clinical presentation	K	KH	Y	Lecture	Short essay/MCQs	PHARMACOLOGY
	2.15.1 Describe the medications used in patients with an acute coronary syndrome, correctly						
IM 2.16	Discuss and describe the indications for acute thrombolysis, PTCA and CABG	K	KH	Y	Lecture	Short essay/MCQs	
	2.16.1 Describe the principles behind acute thrombolysis, PTCA and CABG 2.16.2 Discuss and describe the indications & contraindications for acute thrombolysis 2.16.3 Discuss and describe the indications for PTCA 2.16.4 Discuss and describe the indications for CABG						
IM 2.17	Discuss and describe the indications and methods of cardiac rehabilitation	K	KH	Y	Lecture	Short essay/MCQs	

	2.17.1 Discuss and describe the indications and methods of cardiac rehabilitation, correctly						
IM 2.18	Discuss and describe the indications, formulations, doses, side-effects and monitoring for drugs used in the management of dyslipidemia	K	KH	Y	Lecture	Short essay/MCQs	PHARMACOLOGY BIOCHEMISTRY
	2.18.1 Describe the indications, formulations, doses, side-effects and monitoring for drugs used in the management of dyslipidemia , correctly						
IM 2.19	Discuss and describe the pathogenesis, recognition and management of complications of acute coronary syndromes including arrhythmias, shock, LV dysfunction, papillary muscle rupture and pericarditis	K	KH	Y	Lecture	Short essay/MCQs	
	2.19.1 Describe the pathogenesis, recognition and management of complications of acute coronary syndromes (including arrhythmias, shock, LV dysfunction, papillary muscle rupture and pericarditis), correctly						
IM 2.20	Discuss and describe the assessment and relief of pain in acute coronary syndromes	K	KH	Y	Lecture	Short essay/MCQs	PHARMACOLOGY
	2.20.1 Describe the assessment of pain inACS 2.20.2 Describe pain relief (pain relieving medications) inACS						
IM 2.23	Describe the indications for nitrates, anti- platelet agents, gpIIb IIIa inhibitors, beta blockers, ACE inhibitors etc. in the management of coronary syndromes (almost same as IM2.15)	K	KH	Y	Lecture	Short essay/MCQs	PHARMACOLOGY
	2.23.1 Describe the indications for nitrates, anti-platelet agents, gpIIb IIIa inhibitors, beta blockers, ACE inhibitors etc. in the management of coronary syndromes, correctly						

Topic: 4.Diarrheal disorders Number of competencies: (13) Number of procedures that require certification: (NIL)							
Number	Competency & SLOs (At the end of the session, student shall be able to:)	Domain	Millers pyramid level	core	T&L Methods	Assessment methods	Integration
IM 16.1	Describe and discuss the aetiology of acute and chronic diarrhea including infectious and non-infectious causes	K	K	Y	Lecture	Short essay/MCQs	Microbiology
	16.1.1. Classify diarrhea based on the duration of symptoms. 16.1.2. Discuss the etiology of infectious and non-infectious causes of diarrhea						
IM 16.2	Describe and discuss the acute systemic consequences of diarrhea including its impact on fluid balance	K	K	Y	Lecture	Short essay/MCQs	
	16.2.1. Enumerate all the acute consequences of diarrhea. 16.2.2. Describe the impact of acute diarrhea on fluid balance.						
IM 16.3	Describe and discuss the chronic effects of diarrhea including malabsorption	K	K	Y	Lecture	Short essay/MCQs	
	16.3.1. Enumerate all the effects of diarrhea. 16.3.2. Describe in detail the chronic effects of diarrhea						

IM 16.6	Distinguish between diarrhoea and dysentery based on clinical features	S	KH	Y	Lecture	Short essay/MCQs	
	16.6.1. Describe the clinical features of diarrhoea 16.6.2 Describe the clinical features of dysentery 16.6.3 Differentiate between diarrhoea and dysentery based on clinical features						
IM 16.7	Generate a differential diagnosis based on the presenting symptoms and clinical features and prioritise based on the most likely diagnosis	S	SH	Y	Lecture	Short essay/MCQs	
	16.7.1. Enumerate all the clinical features of acute diarrhoea. 16.7.2. List the differential diagnosis for acute diarrhoea						
IM 16.8	Choose and interpret diagnostic tests based on the clinical diagnosis including complete blood count, and stool examination	S	SH	Y	Lecture	Short essay/MCQs	Microbiology, Pathology
	16.8.1. Discuss the investigation tests to be done in a case of acute diarrhoea 16.8.2 Based on the clinical diagnosis of acute diarrhoea, interpret the various diagnostic tests.						
IM 16.11	Enumerate the indications for stool cultures and blood cultures in patients with acute diarrhoea	K	KH	Y	Lecture	Short essay/MCQs	Microbiology

	16.11.1. Enumerate all the investigations in a case of acute diarrhoea 16.11.2. Describe the role of stool culture and blood culture in a case of acute diarrhoea.						
IM 16.12	Enumerate and discuss the indications for further investigations including antibodies, colonoscopy, diagnostic imaging, and biopsy in the diagnosis of chronic diarrhea	K	KH	Y	Lecture	Short essay/MCQs	Pathology General Surgery
	16.12.1. Describe the various serological tests in a case of chronic diarrhea and their indications. 16.12.2. Discuss the various imaging modalities and their indications in a case of chronic diarrhea. 16.12.3. Describe the role of biopsy in a case of chronic diarrhea						
IM 16.13	Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy for parasitic causes of diarrhea	K	K	Y	Lecture	Short essay/MCQs	Pharmacology, Microbiology
	16.13.1. Enumerate all the parasitic causes of diarrhea 16.13.2. Enumerate all the drugs used against parasites causing diarrhea. 16.13.3. Mention the side effects of the drugs used in the treatment against parasites causing diarrhoeas.						
IM 16.14	Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy for bacterial and viral diarrhea	K	K	Y	Lecture	Short essay/MCQs	Pharmacology, Microbiology

	16.14.1. Enumerate the bacterial and viral etiologic agents in diarrhea 16.14.2. Enumerate all the drugs used in cases of bacterial & Viral diarrheas. 16.14.3. Discuss their indications, pharmacology and side effects.						
IM 16.15	Distinguish based on the clinical presentation Crohn's disease from Ulcerative Colitis	S	SH	Y	Lecture	Short essay/MCQs	Pathology
	16.15.1. Describe the clinical manifestations of ulcerative colitis. 16.15.2. Describe the clinical manifestations of Crohn's disease. 16.15.3. Distinguish based on the clinical features between Crohn's disease and Ulcerative colitis						
IM 16.16	Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy including immunotherapy	K	K	Y	Lecture	Short essay/MCQs	Pharmacology
	16.16.1. Enumerate all the drugs used in the management of IBD. Add a note on their indications, pharmacology and side effects. 16.16.2. Discuss about immunotherapy in IBD						
IM 16.17	Describe and enumerate the indications for surgery in inflammatory bowel disease	K	K	Y	Lecture	Short essay/MCQs	General Surgery
	16.17.1. Enumerate the indications for surgery in IBD 16.17.2. Describe the various surgical procedures in IBD.						

Topic: 5.Pneumonia Number of competencies: (7) Number of procedures that require certification: (NIL)							
Number	Competency & SLOs (At the end of the session, student shall be able to:)	Domain	Millers pyramid level	core	T&L Methods	Assessment methods	Integration
IM 3.1	Define, discuss, describe and distinguish community acquired pneumonia, nosocomial pneumonia and aspiration pneumonia	K	KH	Y	Lecture	Short essay/MCQs	PATHOLOGY ANATOMY MICROBIOLOGY
	3.1.1 Define pneumonia 3.1.2 List the different types of pneumonia 3.1.3 Distinguish the different types of pneumonia based on presentation						
IM 3.2	Discuss and describe the aetiologies of various kinds of pneumonia and their microbiology depending on the setting and immune status of the host	K	KH	Y	Lecture	Short essay/MCQs	MICROBIOLOGY
	3.2.1 List the etiology of pneumonia(viral, bacterial, fungal) 3.2.2 Enumerate the typical and atypical organisms 3.2.3 Risk factors for CAP and possible pathogens 3.2.4 Risk factors for aspiration pneumonia and organisms causing the same 3.2.5 Risk factors for nosocomial pneumonia and organisms causing the same						
IM 3.3	Discuss and describe the pathogenesis, presentation, natural history and complications of pneumonia	K	KH	Y	Lecture	Short essay/MCQs	
	3.3.1 List and discuss the mechanical factors and immunological factors in host defence against pneumonia 3.3.2 Discuss the host inflammatory response to pathogens						

	3.3.3 Describe the pathological stages of pneumonia 3.3.4 Discuss the clinical presentation of pneumonia 3.3.5 Discuss the natural history of pneumonia 3.3.6 List and discuss the complications of pneumonia.						
IM 3.15	Describe and enumerate the indications for hospitalisation in patients with pneumonia	K	KH	Y	Lecture	Short essay/MCQs	
	3.15.1 Describe CURB 65 and PSI criteria for pneumonia. 3.15.2 Classify patients into OP/IP based on CURB 65 criteria. 3.15.3 Identify patients at risk of developing complication						
IM 3.16	Describe and enumerate the indications for isolation and barrier nursing in patients with pneumonia	K	KH	Y	Lecture	Short essay/MCQs	
	3.16.1 Define isolation and barrier nursing. 3.16.2 Indication for isolation of patient based on suspected pathogens and clinical presentation. 3.16.3 List the etiologies of highly communicable pneumonia.						
IM 3.17	Describe and discuss the supportive therapy in patients with pneumonia including oxygen use and indications for ventilation	K	KH	Y	Lecture	Short essay/MCQs	
	3.17.1 Define hypoxemia 3.17.2 List the indications for oxygen supplementation in pneumonia.						

	3.17.3 Discuss respiratory failure. 3.17.4 Enumerate the indications for ventilator in pneumonia.						
IM 3.19	Discuss, describe, enumerate the indications and communicate to patients on pneumococcal and influenza vaccines	S/C	KH	Y			Microbiology
	3.19.1 Enumerate the components of the vaccine and its schedule. 3.19.2 Discuss the routes of administration. 3.19.3 List the indications for vaccination.						

Topic: 6.HIV Number of competencies: (13) Number of procedures that require certification: (NIL)							
Number	Competency & SLOs (At the end of the session, student shall be able to:)	Doma in	Millers pyramid level	core	T&L Methods	Assessment methods	Integration
IM 6.1	Describe and discuss the symptoms and signs of acute HIV seroconversion	K	KH	Y	Lecture	Short essay/MCQs	Microbiology
	6.1.1. Define acute HIV seroconversion correctly 6.1.2. Describe the symptoms of Acute HIV seroconversion 6.1.3. Describe the signs of acute seroconversion correctly 6.1.4. Elicit the signs of acute HIV seroconversion accurately						

IM 6.2	Define and classify HIV/AIDS based on CDC criteria	K	KH	Y	Lecture	Short essay/MCQs	Microbiology
	6.2.1. Define HIV/AIDS 6.2.2. Describe the classification of HIV/AIDS depending on CDC criteria accurately 6.2.3. Classify a particular case into a group according to the CDC criteria correctly						
IM 6.3	Describe and discuss the relationship between CD4 count and the risk of opportunistic infections	K	KH	Y	Lecture	Short essay/MCQs	
IM 6.4	Describe and discuss the pathogenesis, evolution and clinical features of common HIV related opportunistic infections	K	KH	Y	Lecture	Short essay/MCQs	Microbiology
	6.4.1. List the common opportunistic infections accurately 6.4.2. Discuss the pathogenesis of the common opportunistic infections 6.4.3. Discuss the clinical features of the common opportunistic infections 6.4.4. Discuss the syndromic approach to the presentation of different opportunistic infections						
IM 6.5	Describe and discuss the pathogenesis, evolution and clinical features of common HIV related malignancies	K	KH	Y	Lecture	Short essay/MCQs	Pathology Microbiology

	6.5.1. List the common malignancies seen in HIV/AIDS correctly 6.5.2. Discuss the pathogenesis of common malignancies seen in HIV/AIDS 6.5.3. Discuss the clinical features of the common malignant conditions seen in HIV/AIDS						
IM 6.6	Describe and discuss the pathogenesis, evolution and clinical features of common HIV related skin and oral lesions	K	KH	Y	Lecture	Short essay/MCQs	Pathology Microbiology
	6.6.1. List the common skin and oral lesions seen in HIV/AIDS correctly 6.6.2. Discuss the pathogenesis of common skin and oral lesions seen in HIV/AIDS 6.6.3 Discuss the clinical features of the common skin and oral lesions seen in HIV/AIDS						
IM 6.9	Choose and interpret appropriate diagnostic tests to diagnose and classify the severity of HIV/AIDS including the specific tests of HIV	K	KH	Y	Lecture	Short essay/MCQs	Microbiology Pathology
	6.9.1. Discuss the concept of window period correctly 6.9.2. Discuss the role of CD4 count and HIV viral load in the pathogenesis of opportunistic infections accurately 6.9.3. Describe the different methods available in the diagnosis of HIV depending upon the clinical stage and the time of exposure to HIV correctly 6.9.4. Enumerate the different methods available in the diagnosis of different opportunistic infections depending on the systems involved correctly						

IM 6.10 & 6.12	Choose and interpret appropriate diagnostic tests to diagnose opportunistic infections including CBC, sputum examination and cultures, blood cultures, stool analysis, CSF analysis and chest radiographs, pulse oxymetry, ABG	S	KH	Y	Lecture	Short essay/MCQs	
	6.10.1. List the common opportunistic infections seen in HIV/AIDS correctly 6.10.2. Describe the different diagnostic tests available for different opportunistic infections depending upon the systems involved correctly 6.10.3. Interpret the results of the tests in relation to different CD4 levels (immunosuppression) correctly						
IM 6.11	In a patient with HIV, Enumerate the indications for and describe the findings in CT of the chest and brain and MRI	K	K	N	Lecture	Short essay/MCQs	Radiodiagnosis
IM 6.16	Discuss and describe the principles of HAART, the classes of antiretrovirals used, adverse reactions and interactions	K	K	Y	Lecture	Short essay/MCQs	Microbiology Pharmacology
	6.16.1. Discuss the life cycle of HIV correctly 6.16.2. Classify the antiretroviral medications correctly 6.16.3. Describe the mechanism of action of ART correctly 6.16.4. Enumerate the side effects of ART correctly 6.16.5. Discuss the drug interactions with the common medications that are used in HIV						
IM 6.17	Discuss and describe the principles and regimens used in post exposure prophylaxis	K	K	Y	Lecture	Short essay/MCQs	Microbiology Pharmacology

IM 6.18	Enumerate the indications and discuss prophylactic drugs used to prevent HIV related opportunistic infections	K	K	Y			
	6.18.1. Define primary and secondary prophylaxis correctly 6.18.2. List the opportunistic infections that can be prevented by Prophylaxis correctly 6.18.3. Define the indications for Prophylaxis in a given case depending on CD4 count and clinical condition 6.18.5. Discuss the drugs that are used for primary and secondary prophylaxis with their dosage						

Topic: 7.Thyroid disorders Number of competencies: (7) Number of procedures that require certification: (NIL)							
Number	Competency & SLOs (At the end of the session, student shall be able to:)	Domain	Millers pyramid level	core	T&L Methods	Assessment methods	Integration
IM 12.1	Describe the epidemiology and pathogenesis of hypothyroidism and hyperthyroidism including the influence of iodine deficiency and autoimmunity in the pathogenesis of thyroid disease	K	KH	Y	Lecture	Long/Short essay/MCQs	PATHOLOGY PHYSIOLOGY

	<p>12.1.1 Describe the epidemiology and pathogenesis of hypothyroidism accurately.</p> <p>12.1.2 Describe the epidemiology and pathogenesis of hyperthyroidism accurately.</p> <p>12.1.3 Describe the influence of iodine in the pathogenesis of hypothyroidism and hyperthyroidism correctly</p> <p>12.1.4 Discuss what is Jod basedow and Wolff chaikoff effect and their mechanism correctly</p> <p>12.1.5 Enumerate causes for iodine deficiency and iodine excess in an individual correctly.</p> <p>12.1.6 Autoimmunity in the pathogenesis of thyroid disorders (Hashimoto's, atrophic, graves') correctly.</p> <p>12.1.7 Enumerate the autoantibodies involved in the diseases correctly.</p> <p>12.1.8 Enumerate other autoimmune disease which can be associated with autoimmune thyroid disorders accurately.</p>						
IM 12.2	<p>Describe and discuss the genetic basis of some forms of thyroid dysfunction.</p> <p>12.2.1 Describe the genetic basis of hypothyroidism correctly.</p> <p>12.2.2 Name few common genetic causes of congenital hypothyroidism and their inheritance pattern correctly.</p> <p>12.2.3 Discuss the genetic basis of hyperthyroidism and enumerate most common genes responsible correctly</p>	K	KH	Y	Lecture	Short essay/MCQs	PATHOLOGY PHYSIOLOGY
IM 12.3	<p>Describe and discuss the physiology of the hypothalamopituitary-thyroid axis, principles of thyroid function testing and alterations in physiologic function</p>	K	K	Y	Lecture	Short essay/MCQs	PATHOLOGY PHYSIOLOGY

	<p>12.3.1 Describe and discuss the physiology of the hypothalamopituitary-thyroid axis accurately.</p> <p>12.3.2 Describe the principles of thyroid function testing and alterations in physiologic function and changes in pregnancy accurately.</p> <p>12.3.3 Enumerate the tests to determine the etiology of hypothyroidism and hyperthyroidism accurately.</p> <p>12.3.4 Discuss the normal values of T3 T4 TSH accurately and changes in the values in different thyroid disorders and in pregnancy accurately.</p> <p>12.3.5 Enumerate the causes for a given set of thyroid function test result accurately.</p>						
IM 12.4	<p>Describe and discuss the principles of radio iodine uptake in the diagnosis of thyroid disorders</p> <p>12.4.1 Describe the principles of radio iodine uptake in the diagnosis of thyroid disorders correctly.</p> <p>12.4.2 Enumerate the indications of radio iodine uptake studies correctly.</p> <p>12.4.3 Describe the results of radio iodine uptake and diagnose the thyroid disorder correctly</p>	K	KH	Y	Lecture	Short essay/MCQs	
IM 12.12	<p>Describe and discuss the iodisation programs of the government of India.</p> <p>12.12.1 Describe and discuss the iodization programs of the government of India-when and why it started, key elements of the program including goals and objectives, correctly.</p>	K	KH	Y	Lecture	Short essay/MCQs	COMMUNITY MEDICINE
IM 12.13	<p>Describe the pharmacology, indications, adverse reaction, interactions of thyroxine and antithyroid drugs</p>	K	KH	Y	Lecture	Long/Short essay/MCQs	PHARMACOLOGY

	<p>12.13.1 Describe the pharmacology, indications, adverse reaction, interactions of thyroxine correctly.</p> <p>12.13.2 Discuss dose initiation and titration in overt and subclinical hypothyroidism accurately</p> <p>12.13.3 Discuss tests for monitoring the appropriateness of therapy.</p> <p>12.13.4 Discuss the therapy in hypothyroidism in pregnancy accurately.</p> <p>12.13.5 Describe the pharmacology, indications, adverse reaction, interactions of antithyroid drugs.</p> <p>12.13.6 Discuss dose initiation and titration in overt and subclinical hyperthyroidism accurately.</p> <p>12.13.7 Discuss tests for monitoring the appropriateness of therapy</p> <p>12.13.7 Discuss the therapy in hyperthyroidism in pregnancy and safe drugs in different trimesters accurately.</p>						
IM 12.15	<p>Describe and discuss the indications of thionamide therapy, radio iodine therapy and surgery in the management of thyrotoxicosis</p> <p>12.15.1 Describe the indications of the thionamide therapy in the management of thyrotoxicosis accurately</p> <p>12.15.2 Describe the indications of radio iodine therapy in the management of thyrotoxicosis accurately</p> <p>12.15.3 Discuss the indications of surgery in the management of thyrotoxicosis accurately.</p>	K	KH	Y	Lecture	Short essay/MCQs	PHARMACOLOGY

Topic: 8.Diabetes Mellitus Number of competencies: (17) Number of procedures that require certification: (NIL)							
Number	Competency & SLOs (At the end of the session, student shall be able to:)	Domain	Millers pyramid level	core	T&L Methods	Assessment methods	Integration
IM 11.1 & 11.10	Define and classify diabetes;Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology 11.1.1 Define diabetes 11.1.2 Define the diagnostic criteria of diabetes mellitus 11.1.3 Enumerate the classification of diabetes	K	KH	Y	Lecture	Long/Short essay/MCQs	BIOCHEMISTRY PHYSIOLOGY
IM 11.2	Describe and discuss the epidemiology and pathogenesis and risk factors and clinical evolution of type 1 diabetes 11.2.1 Describe the epidemiology of type 1 diabetes 11.2.2 Enumerate the modifiable and non-modifiable risk factors of type 1 Diabetes 11.2.3 Describe the pathophysiology of type 1 diabetes and its complications	K	KH	Y	Lecture	Long/Short essay/MCQs	PATHOLOGY
IM 11.3	Describe and discuss the epidemiology and pathogenesis and risk factors economic impact and clinical evolution of type 2 diabetes	K	KH	Y	Lecture	Long/Short essay/MCQs	PATHOLOGY

	11.3.1 Describe the epidemiology of type 2 diabetes 11.3.2 Enumerate the modifiable and non-modifiable risk factors of Type 2 Diabetes 11.3.3 Describe the pathophysiology of type 2 diabetes and its complications						
IM 11.4	Describe and discuss the genetic background and the influence of the environment on diabetes	K	KH	Y	Lecture	Short essay/MCQs	PATHOLOGY
	11.4.1 Describe the genetic factors associated with diabetes 11.4.2 Describe the influence of the environmental factors contributing for the predisposition of diabetes						
IM 11.5	Describe and discuss the pathogenesis and temporal evolution of microvascular and macrovascular complications of diabetes	K	KH	Y	Lecture	Long/Short essay/MCQs	PATHOLOGY
	11.5.1 Describe the Pathophysiology and temporal evolution of complications of diabetes 11.5.2 Enumerate the various microvascular and macrovascular complications occurring in diabetes						
IM 11.11	Order and interpret laboratory tests to diagnose diabetes and its complications including: glucoses, glucose tolerance test, glycosylated hemoglobin, urinary micro albumin, ECG, electrolytes, ABG, ketones, renal function tests and lipid profile	K	KH	Y	Lecture	Long/Short essay/MCQs	
IM 11.16	Discuss and describe the pharmacologic therapies for diabetes their indications, contraindications, adverse reactions and interactions	K	KH	Y	Lecture	Long/Short essay/MCQs	PHARMACOL OGY

	<p>11.16.1 Enumerate and describe the various classes of oral hypoglycemic agents</p> <p>11.16.2 Describe the types of insulin, its usage and administration of insulin(K,KH)</p> <p>11.16.3 Describe the common complications of the above hypoglycemic drugs</p> <p>11.16.4 Discuss about drugs interacting with oral hypoglycemic drugs like steroids, quinolones, chloroquines</p>						
IM 11.17	<p>Outline a therapeutic approach to therapy of T2Diabetes based on presentation, severity and complications in a cost effective manner</p> <p>11.7.1 Describe the various oral hypoglycemic drugs and insulin treatment</p> <p>11.7.2 Discuss the usage of drugs in various clinical settings and their side effects</p> <p>11.7.3 Describe the various complications and its management in diabetes</p>	K	KH	Y	Lecture	Long/Short essay/MCQs	PHARMACOLOGY
IM 11.18	<p>Describe and discuss the pharmacology, indications, adverse reactions and interactions of drugs used in the prevention and treatment of target organ damage and complications of Type II Diabetes including neuropathy, nephropathy, retinopathy, hypertension, dyslipidemia and cardiovascular disease</p> <p>11.8.1 Describe the various drugs used in the prevention of complications of diabetes</p> <p>11.8.2 Describe the various drugs used in the treatment of Diabetic neuropathy</p> <p>11.8.3 Describe the various drugs used in the treatment of Diabetic nephropathy</p> <p>11.8.4 Describe the various drugs used in the treatment of Diabetes retinopathy</p> <p>11.8.5 Discuss the treatment of hypertension,</p>	K	KH	Y	Lecture	Long/Short essay/MCQs	PHARMACOLOGY

	Dyslipidemia or cardiovascular disease in diabetics						
IM 11.21	Recognise the importance of patient preference while selecting therapy for diabetes	K	KH	Y	Lecture	Long/Short essay/MCQs	PHARMACOLOGY
IM 11.6 & 11.9 & 11.14 & 11.22 & 11.23 & 11.24	Describe and discuss the pathogenesis and precipitating factors, recognition and management of diabetic emergencies; Describe and recognise the clinical features of patients who present with a diabetic emergency; Recognise the presentation of hypoglycaemia and outline the principles on its therapy; Enumerate the causes of hypoglycaemia and describe the counter hormone response and the initial approach and treatment. Describe the precipitating causes, pathophysiology, recognition, clinical features, diagnosis, stabilisation and management of diabetic ketoacidosis; Describe the precipitating causes, pathophysiology, recognition, clinical features, diagnosis, stabilisation and management of Hyperosmolar non ketotic state	K	KH	Y	Lecture	Long/Short essay/MCQs	
	11.6.1 Enumerate the complications of diabetes 11.6.2 Describe the various acute medical emergencies in diabetes 11.6.3 Describe the clinical features and diagnostic criteria of diabetic ketoacidosis 11.6.4 Discuss the importance of using normal saline, intravenous insulin administration(K,KH) 11.6.5 Describe the symptoms and signs of hypoglycemia and its management 11.6.6 Describe the importance and method of administering intravenous dextrose containing solution and glucagon administration 11.23.1 Describe the pathophysiology and causes						

	of Diabetic Ketoacidosis 11.23.2 Describe the symptoms and signs of diabetic ketoacidosis 11.23.3 Describe the various parameters used to diagnose Diabetic Ketoacidosis 11.23.4 Describe the management protocol for Diabetic ketoacidosis 11.24.1 Describe the pathophysiology and causes of HONK 11.24.2 Discuss and describe the signs and symptoms of HONK 11.24.3 Discuss the various parameters used in the diagnosis of HONK 11.24.4 Describe the management protocol for HONK						
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CLINICAL POSTINGS

Bedside Clinical Teaching(Bedside clinics, ward rounds & OPD,Skills lab ; DOAP) covering History taking, Symptomatology, GPE & Systemic examination pertaining to all major systems & disorders plus Self-directed Learning towards History taking & Physical Examination (in the form of independent case taking).

As per UG Curriculum document Vol 1, page.no.18: 3.1.5-8):

At the end of 2nd professional MBBS, the student should be able to:-

- Demonstrate ability to elicit and record from the patient, and other relevant sources including relatives and caregivers, a history that is complete and relevant to disease identification, disease prevention and health promotion.
- Demonstrate ability to elicit and record from the patient, and other relevant sources including relatives and caregivers, a history that is contextual to gender, age, vulnerability, social and economic status, patient preferences, beliefs and values.
- Demonstrate ability to perform a physical examination that is complete and relevant to disease identification, disease prevention and health promotion.
- Demonstrate ability to perform a physical examination that is contextual to gender, social and economic status, patient preferences and values

Topic: General Physical Examination; General Survey – Head to toe examination							
Number of competencies: (7) Number of procedures that require certification: (NIL)							
Number	Competency	Domain	Millers pyramid level	core	T&L Methods	Assessment methods	Integration
1	Examine Head, Nose and Throat	S	SH	Y	Bedside clinics	Skill assessment	
	i Examine head/ hair ii Perform inspection of nasal vaults iii Perform inspection of oral cavity and look for any cyanosis, oral hygiene and odour						
2	Examine the Eyes	S	SH	Y	Bedside clinics	Skill assessment	
	i Inspect bulbar conjunctiva for icterus ii Inspect palpebral conjunctiva for pallor						
3	Examine the Ears	S	SH	Y	Bedside clinics	Skill assessment	
	i Examine the external ears for any abnormality						
4	Examine the Neck	S	SH	Y	Bedside clinics/	Skill assessment	

	<ul style="list-style-type: none"> ii Palpate for lymph node for size, site, fixation to surrounding areas, consistency, tenderness in all areas iii Inspect thyroid from front or side of patient iv Palpate thyroid 						
5	Examine the Hands	S	SH	Y	Bedside clinics	Skill assessment	
	<ul style="list-style-type: none"> i Inspect the dorsal and palmar aspect of hands ii Inspect the nail from the side and observe the distal phalanges, nail and nail bed iii Assess the nail bed angle, shamroths window and fluctuation test for clubbing 						
6	Examine for oedema	S	SH	Y	Bedside clinics	Skill assessment	
	<ul style="list-style-type: none"> i Check for oedema in the ankles and legs and in the sacral region for bed bound patients 						
7	Assess General body proportions	S	SH	Y	Bedside clinics	Skill assessment	
	<ul style="list-style-type: none"> ii Assess for any abnormalities in stature and body proportions iii Measure height and weight and calculate BMI 						

Topic: Physical Examination of Vitals							
Number of competencies: (14) Number of procedures that require certification: (NIL)							
Number	Competency & SLO	Domain	Millers pyramid level	core	T&L Methods	Assessment methods	Integration
1	Examine the Pulse	S	SH	Y	Bedside clinics	Skill assessment	
	i Palpate the right radial artery and assess the rate and rhythm; condition of vessel wall						
	ii Palpate brachial artery and carotid artery to assess the volume/character of pulse						
	iii Examine all the peripheral pulses including femoral, popliteal, dorsalis pedis, etc.						
	iv Palpate both radial and radial with femoral to assess any delay						
2	Examine the Blood Pressure	S	SH	Y	Bedside clinics	Skill assessment	
	i Examine the blood pressure using appropriate size cuff in Right arm in supine position. Palpatory method before auscultatory						

	ii Examine the blood pressure using appropriate size cuff in Left arm in supine position iii Check for Orthostatic hypotension						
3	Examine Respiratory Rate	S	SH	Y	Bedside clinics	Skill assessment	
	i Examine the respiratory rate and pattern of respiration						
4	Assess the temperature	S	SH	Y	Bedside clinics	Skill assessment	
	ii Assess axillary/ oral temperature						

Topic: Physical Examination of Respiratory System							
Number of competencies: (9) Number of procedures that require certification: (NIL)							
Number	Competency & SLO	Domain	Millers pyramid level	core	T&L Methods	Assessment methods	Integration
1	Elicit document and present a medical history that includes: presenting complaints, duration, onset, progression of symptoms, accompanying symptoms, relevant negative history, risk factors, family history, past history	S	SH	Y	Bedside clinic	Skill assessment	
	i. Elicit relevant history, document and present the same						
2	Perform General Inspection	S	SH	Y	Bedside clinic	Skill assessment	
	i Perform general physical examination and inspect for clinical signs suggestive of underlying pathology (e.g. pallor, clubbing, lymphadenopathy, pedal edema, attitude and posture of the patient) and assess respiratory rate ii Inspectforclinicalsignssuggestiveofunderlyi ngpathology(e.g.cyanosis,shortnessof breath,cough,wheeze,stridor,pallor,oedema,						

	cachexia) iii Look for objects or equipment on or around the patient (e.g. oxygen delivery devices, sputum pot, walking aids, medical equipment)						
3	Examine the Hands	S	SH	Y	Bedside clinic	Skill assessment	
	i Inspect the hands (colour, tar staining, finger clubbing) ii Assess for fine tremor iii Assess for asterixis iv Assess and compare the temperature of the hands v Palpate and assess the radial pulse						
4	Examine the JVP	S	SH	Y	Bedside clinic	Skill assessment	
	i Measure JVP with the patient positioned correctly ii Elicit hepatojugular reflux if appropriate						
5	Perform Inspection of chest and Trachea	S	SH	Y	Bedside clinic	Skill assessment	
	i Assess tracheal position ii Assess cricosternal distance iii Inspect chest for chest expansion, scars and chest wall deformities, hollowing, flattening, drooping of shoulders etc.						
6	Perform palpation of the chest	S	SH	Y	Bedside clinic	Skill assessment	
	i Palpate the apex beat ii Assess the chest expansion						

7	Perform Percussion of the chest	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Percuss the chest – all areas ii Assess tactile vocal fremitus 						
8	Perform Auscultation of the chest	S	SH	Y	Bedside clinic Skills Lab	Skill assessment	
	<ul style="list-style-type: none"> i Auscultate all appropriate chest wall locations/areas ii Compare each location on each side while auscultating iii Assess vocal resonance 						
9	Present the case after summarizing the findings	S	SH	Y	Bedside clinic	Skill assessment	

Topic: Per Abdomen Examination		Number of competencies: (11)		Number of procedures that require certification: (NIL)			
Number	Competency & SLO	Domain	Millers pyramid level	core	T&L Methods	Assessment methods	Integration
1	Elicit document and present a medical history that includes: presenting complaints, duration, onset, progression of symptoms, accompanying symptoms, relevant negative history, risk factors, family history, past history	S	SH	Y	Bedside clinic	Skill assessment	
	i Elicit relevant history, document and present the same						
2	Perform General Inspection	S	SH	Y	Bedside clinic	Skill assessment	
	i Inspectforclinicalsignssuggestiveofunderlyingpathology(e.g.skin changes like ecchymoses or petechiae,spider naevi,testicular atrophy,gynaecomastia,loss of secondary sexual characters) ii Examine the cervical(especially supraclavicular),axillary and inguinal lymph nodes iii Check for peripheral oedema and signs of alcohol dependence and hepatic encephalopathy.						

3	Examine the Hands	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Inspect the hands (colour, koilonychia, leuconychia, palmar erythema, Dupuytren's contracture, flapping tremors, fingerclubbing) ii Assess capillary refill time (CRT) 						
4	Pulse and Blood Pressure	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Demonstrate peripheral pulse, volume, character and palpate all peripheral pulses ii Measure the blood pressure accurately 						
5	Examine the JVP	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Measure JVP with the patient positioned correctly ii Elicit hepatjugular reflux if appropriate 						
6	Perform Inspection of Abdomen	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Inspect for scars, ecchymotic patches, caput medusa, peristalsis and pulsations ii Inspect shape of abdomen and look for any localized distensions or fullness of flanks iii Assess movement of abdomen with respiration and hernia orifices on coughing 						

	iv Look for dilated or engorged veins and the direction of flow in standing position						
7	Perform palpation of the abdomen	S	SH	Y	Bedside clinic	Skill assessment	
	i Perform superficial palpation followed by deep palpation ii Asses for any mass or organomegaly						
8	Perform Percussion of the abdomen	S	SH	Y	Bedside clinic	Skill assessment	
	i Percuss abdomen to confirm hepatomegaly or splenomegaly ii Assess the presence for ascites by performing shifting dullness and check for a fluid thrill						
9	Perform Auscultation	S	SH	Y	Bedside clinic	Skill assessment	
	i Auscultate right of umbilicus for bowel sounds for 2 minutes ii Auscultate above umbilicus over the aorta for arterial bruits iii Auscultate lateral to umbilicus for bruits from renal artery stenosis iv Auscultate for hepatic bruits, splenic rub v Test for succussion splash						
11	Present the case after summarizing the findings	S	SH	Y	Bedside clinic	Skill assessment	

Topic: Physical examination of Central Nervous System

Number of competencies: (9) Number of procedures that require certification: (NIL)

Number	Competency & SLO	Domain	Millers pyramid level	Core	T&L Methods	Assessment methods	Integration
	Elicit document and present a medical history that includes: presenting complaints, duration, onset, progression of symptoms, accompanying symptoms, relevant negative history, risk factors, family history, past history	K	SH	Y	Bedside clinic	Skill assessment	
	i) Elicit relevant history, document and present the same						
	Perform General Inspection	S	SH	Y	Bedside clinic	Skill assessment	

	<p>i) Perform general physical examination and inspect for clinical signs suggestive of underlying pathology (e.g. pallor, clubbing, lymphadenopathy, pedal edema, attitude and posture of the patient)</p> <p>ii) Look for specific Neuro-cutaneous markers</p>						
	Examine for Higher Functions	S	SH	Y	Bedside clinic	Skill assessment	
	<p>i) Assess level of consciousness of the patient</p> <p>ii) Assess appearance and behaviour, orientation to time, place, and person</p> <p>iii) Assess memory (short, long-term), intelligence, speech, and language</p> <p>iv) Ask and assess MMSE questionnaire and calculate the score</p>						
	Perform Cranial Nerve Examination	S	SH	Y	Bedside clinic	Skill assessment	

i)	Olfactory (I) – Test the smell sensation with common bedside objects like soap, toothpaste separately for each nostrils					
ii)	Optic (II) – Look for visual acuity, field of vision, colour vision using Ishihara charts, fundoscopy					
iii)	Oculomotor (III), Trochlear (IV) and abducens (VI) – Look for pupil and its size, shape, reaction to light (both direct and consensual), accommodation reflex, ptosis, squint, ocular movements on follow and on command, nystagmus					
iv)	Trigeminal (V) – Check for motor function like masseter, pterygoids and temporalis muscle contractions; sensory function by facial sensations; corneal reflex and jaw jerk					
v)	Facial (VII) – Look for nasolabial folds, angle of mouth, palpebral fissure, frowning, eye closure, blowing, whistling, showing teeth, epiphora, dribbling of saliva, whether upper half of the face is escaped or not, taste sensation in anterior 2/3rd of the tongue.					
vi)	Vestibulocochlear (VIII) – Assess auditory function by watch test, Rinne’s test, Weber’s test					
vii)	Glossopharyngeal (IX) and Vagus (X) – Look for soft palate movements and gag reflex					
viii)	Accessory (spinal part) (XI) – Assess power of sternocleidomastoid and trapezius muscles					
ix)	Hypoglossal (XII) – Assess power of tongue muscles, deviation, atrophy and fasciculations if any					

	Perform Motor System Examination	S	SH	Y	Bedside clinic	Skill assessment	
	<p>i) Inspect and palpate for muscle bulk and nutrition – look for atrophy, wasting or hypertrophy</p> <p>ii) Assess muscle tone in both upper and lower limbs – look for hypotonia or hypertonia (rigidity or spasticity)</p> <p>iii) Assess muscle power across each joint in both upper and lower limbs and grade according to MRC grading</p> <p>iv) Look for any involuntary movements such as fasciculations, tremors</p> <p>v) Assess Reflexes of the patient – Superficial – abdominal, cremasteric and plantar response; and Deep tendon reflexes – biceps, triceps, supinator, knee and ankle jerks. Grade DTRs accordingly. Do reinforcement methods before mentioning absent reflex. Look for ankle and patellar clonus. Also look for presence of primitive reflexes such as glabellar tap, grasp reflex, palmo-mental reflex.</p>						

	Perform Sensory System Examination	S	SH	Y	Bedside clinic	Skill assessment	
	<p>i) Assess for exteroceptive sensations such as – Pain, touch (both fine and crude) and temperature. Look for definite sensory level, if present.</p> <p>ii) Assess for proprioceptive sensations such as – Vibration sense, joint-position sense</p> <p>iii) Assess for cortical sensations – Point localization, two-point discrimination, stereognosis, graphaesthesia and sensory extinction</p>						
	Assess Co-ordination in the patient	S	SH	Y	Bedside clinic	Skill assessment	
	<p>i) Assess co-ordination by finger nose test, heel shin test, dysdiadochokinesia</p> <p>ii) Look for other cerebellar signs such as nystagmus, titubation, scanning speech, pendular knee jerk, intention tremor</p> <p>iii) Assess Gait of the patient</p>						
	Examine for skeletal deformities, meningeal signs, peripheral nerves, bowel, and bladder, differentiate between UMN and LMN lesions	S	SH	Y	Bedside clinic	Skill assessment	

	<p>i) Assess Skull and spine of the patient – look for any deformities, spinal tenderness</p> <p>ii) Look for any meningeal signs – Neck stiffness, Kernig’s sign, Brudzinski’s sign</p> <p>iii) Examine for peripheral nerve thickenings</p> <p>iv) Assess bowel and bladder function of the patient</p> <p>v) Differentiate whether the lesion is UMN or LMN type</p>						
	Present the case after summarizing the findings	K	SH	Y	Bedside clinic	Skill assessment	

Topic: Physical examination of Cardiovascular System Number of competencies: (8) Number of procedures that require certification: (NIL)							
Number	Competency & SLO	Domain	Millers pyramid level	Core	T&L Methods	Assessment methods	Integration
	<p>Elicit document and present an appropriate history</p> <p>Elicit relevant history, document and present the same including presenting complaints, precipitating factors, risk factors, exercise tolerance, features suggestive of infective endocarditis, relevant negative history, past history, family history, socio-economic history.</p>	S	SH	Y	Bedside clinic	Skill assessment	

	Perform General Inspection	S	SH	Y	Bedside clinic	Skill assessment	
	i) Inspect for clinical signs suggestive of underlying pathology (e.g., shortness of breath, pallor, pedal or sacral edema)						
	ii) Inspect the hands (colour, tar staining, xanthomata, finger clubbing, peripheral signs of infective endocarditis). Assess and compare the temperature of the hands. Assess capillary refill time (CRT)						
	iii) Inspect the eyes for signs relevant to the cardiovascular system (e.g. conjunctival pallor, corneal arcus, xanthelasma)						
	iv) Inspect the mouth for signs relevant to the cardiovascular system (e.g. central cyanosis, angular stomatitis, high-arched palate, dental hygiene)						
	v) Examine for all the peripheral signs of Aortic regurgitation, marfanoid habitus						
	Examine Pulses and Blood pressure	S	SH	Y	Bedside clinic	Skill	

	<p>i) Demonstrate peripheral pulse, volume, character, quality and variation in various causes of heart failure, palpate all peripheral pulses</p> <p>ii) Measure the blood pressure accurately, recognise and discuss alterations in blood pressure in valvular heart disease and other causes of heart failure and cardiac tamponade</p>					assessment	
	Demonstrate and measure jugular venous distension	S	SH	Y	Bedside clinic	Skill assessment	
	<p>i) Measure the JVP with the patient positioned correctly.</p> <p>ii) Elicit hepatojugular reflux if appropriate</p>						
	Perform inspection	S	SH	Y	Bedside clinic	Skill assessment	
	i) Inspect the precordium for shape, scars, pulsations including apical impulse, engorged veins and also other areas including back (eg. epigastric pulsations)						
	Perform palpation	S	SH	Y	Bedside clinic	Skill	

	<ul style="list-style-type: none"> i) Palpate the apex beat and assess position ii) Assess for a parasternal heave iii) Assess for thrills iv) Look for epigastric or suprasternal pulsations v) Assess direction of venous blood flow (in engorged superficial veins) 					assessment	
	Perform auscultation	S	SH	Y	Bedside clinic; Skills lab	Skill assessment	
	<ul style="list-style-type: none"> i) Auscultate the mitral, tricuspid, pulmonary and aortic areas with the diaphragm of the stethoscope, whilst palpating the carotid pulse. Describe the murmur by its character, location, grade of the murmur, radiation or conduction, and changes with various manoeuvres ii) Repeat auscultation of all 4 valves using the bell of the stethoscope. iii) Auscultate the carotid arteries using the diaphragm of the stethoscope whilst the patient holds their breath to identify radiation of an aortic murmur. iv) Make the patient sit and bend forwards and auscultate over the aortic area with the diaphragm of the stethoscope during expiration to listen for an early diastolic murmur caused by aortic regurgitation. v) Roll the patient onto their left side and listen over the mitral area with the diaphragm of the stethoscope during expiration to listen for a pansystolic 						

	<p>murmur caused by mitral regurgitation. Continue to auscultate into the axilla to identify radiation of this murmur.</p> <p>vi) With the patient still on their left side, listen again over the mitral area using the bell of the stethoscope during expiration for a mid-diastolic murmur caused by mitral stenosis.</p> <p>vii) Also look for additional sounds such as venous hum, pericardial rub.</p> <p>viii) Auscultate posterior lung fields</p>						
	Present the case after summarizing the findings	S	SH	Y	Bedside clinic	Skill assessment	

Topic: Physical examination							
Number of competencies: (0) Number of procedures that require certification: (NIL)							
Number	Competency & SLO	Domain	Millers pyramid level	Core	T&L Methods	Assessment methods	Integration
IM 1.11	Perform and demonstrate a systematic examination based on the history that will help establish the diagnosis and estimate its severity including: measurement of pulse, blood pressure and respiratory rate, jugular venous forms and pulses, peripheral pulses, conjunctiva and fundus, lung, cardiac examination including palpation and auscultation with identification of	S	SH	Y	Bedside clinic	Skill assessment	

	heart sounds and murmurs, abdominal distension and splenic palpation						
IM 1.12	Demonstrate peripheral pulse, volume, character, quality and variation in various causes of heart failure	S	SH	Y	Bedside clinic	Skill assessment	
IM 1.13	Measure the blood pressure accurately, recognise and discuss alterations in blood pressure in valvular heart disease and other causes of heart failure and cardiac tamponade	S	SH	Y	Bedside clinic	Skill assessment	
IM 1.14	Demonstrate and measure jugular venous distension	S	SH	Y	Bedside clinic	Skill assessment	
IM 1.15	Identify and describe the timing, pitch quality conduction and significance of precordial murmurs and their variations	S	SH	Y	Bedside clinic; Skills lab	Skill assessment	
IM 3.5	Perform, document and demonstrate a physical examination including general examination and appropriate examination of the lungs that establishes the diagnosis, complications and severity of disease	S	SH	Y	Bedside clinic; Skills lab	Skill assessment	
IM 4.10	Perform a systematic examination that establishes the diagnosis and severity of presentation that includes: general skin mucosal and lymph node examination, chest and abdominal examination (including examination of the liver and spleen)	S	SH	Y	Bedside clinic	Skill assessment	

IM 5.10	Perform a systematic examination that establishes the diagnosis and severity that includes nutritional status, mental status, jaundice, abdominal distension ascites, features of portosystemic hypertension and hepatic encephalopathy	S	SH	Y	Bedside clinic	Skill assessment	
IM 7.12	Perform a systematic examination of all joints, muscle and skin that will establish the diagnosis and severity of disease	S	SH	Y	Bedside clinic	Skill assessment	
IM 8.10	Perform a systematic examination that includes : an accurate measurement of blood pressure, fundus examination, examination of vasculature and heart	S	SH	Y			
IM 9.4	Perform a systematic examination that includes : general examination for pallor, oral examination, DOAP session of hyper dynamic circulation, lymph node and splenic examination	S	SH	Y	Bedside clinic	Skill assessment	
IM 10.13	Perform a systematic examination that establishes the diagnosis and severity including determination of volume status, presence of edema and heart failure, features of uraemia and associated systemic disease	S	SH	Y	Bedside clinic	Skill assessment	
IM 11.8	Perform a systematic examination that establishes the diagnosis and severity that includes skin, peripheral pulses, blood pressure measurement, fundus examination, detailed examination of the foot (pulses, nervous and deformities and injuries)	S	SH	Y	Bedside clinic	Skill assessment	
IM 12.6	Perform and demonstrate a systematic examination based on the history that will help establish the diagnosis and severity including systemic signs of thyrotoxicosis and hypothyroidism, palpation of the pulse for rate and rhythm abnormalities, neck palpation of the thyroid and lymph nodes and cardiovascular findings	S	SH	Y	Bedside clinic	Skill assessment	

IM 12.7	Demonstrate the correct technique to palpate the thyroid	S	SH	Y	Bedside clinic	Skill assessment	
IM 14.7	Perform, document and demonstrate a physical examination based on the history that includes general examination, measurement of abdominal obesity, signs of secondary causes and comorbidities	S	SH	Y	Bedside clinic	Skill assessment	
IM 15.5 & 16.5	Perform, document and demonstrate a physical examination based on the history that includes general examination, including an appropriate abdominal examination	S	SH	Y	Bedside clinic	Skill assessment	
IM 17.4	Perform and demonstrate a general neurologic examination and a focused examination for signs of intracranial tension including neck signs of meningitis	S	SH	Y	Bedside clinic	Skill assessment	
IM 18.5	Perform, demonstrate & document physical examination that includes general and a detailed neurologic examination as appropriate, based on the history	S	SH	Y	Bedside clinic	Skill assessment	
IM 18.6	Distinguish the lesion based on upper vs lower motor neuron, side, site and most probable nature of the lesion	S	SH	Y	Bedside clinic	Skill assessment	
IM 18.7	Describe the clinical features and distinguish, based on clinical examination, the various disorders of speech	S	SH	Y	Bedside clinic	Skill assessment	
IM 18.8	Describe and distinguish, based on the clinical presentation, the types of bladder dysfunction seen in CNS disease	S	SH	Y	Bedside clinic	Skill assessment	
IM 19.4	Perform, demonstrate and document a physical examination that includes a general examination and a detailed neurologic examination using standard movement rating scales	S	SH	Y	Bedside clinic	Skill assessment	
IM 25.5	Perform a systematic examination that establishes the diagnosis and severity of presentation that includes: general skin, mucosal	S	SH	Y	Bedside clinic	Skill assessment	

	and lymph node examination, chest and abdominal examination(including examination of the liver and spleen)						
PM 6.1	Perform and demonstrate a clinical examination of sensory and motor deficits of peripheral nerve	S	SH	Y	Bedside clinic	Skill assessment	
CT 1.6	Demonstrate and perform a systematic examination that establishes the diagnosis based on the clinical presentation that includes a a)general examination, b) examination of the chest and lung including loss of volume, mediastinal shift, percussion and auscultation(including DOAP session of lung sounds and added sounds) c) examination of the lymphatic system and d) relevant CNSexamination	S	SH	Y	Bedside clinic	Skill assessment	
CT 2.9	Perform a systematic examination that establishes the diagnosis and severity that includes measurement of respiratory rate, level of respiratory distress, effort tolerance, breath sounds, added sounds, identification of signs of consolidation pleural effusion andpneumothorax	S	SH	Y	Bedside clinic	Skill assessment	

Topics for AETCOM integration

IM 6.19	Counsel patients on prevention of HIV transmission	C	SH	Y	DOAP session Visit to ICTC as an observer	Short assay MCQs Skill assessment	AETCOM
	6.19.1. Describe the basics of infection control 6.19.2. Describe the different modes of transmission of HIV correctly 6.19.3. Discuss the different methods of prevention of HIV 6.19.4. Discuss the different strategies adopted in the counselling of the patients in general and HIV in particular						
IM 6.21	Communicate with patients about the importance of medication adherence	C	SH	Y	DOAP session ICTC and ART centre visit as observer	Viva Voce Skill assessment	AETCOM
	6.21.1. Discuss about adherence counselling 6.21.2. Discuss about method of action of ART 6.21.3. Discuss about the resistance of HIV to ART and the factors which contribute to the resistance of ART 6.21.4. Discuss the strategies adopted to improve the adherence of ART 6.21.5. Counsel the patient and the care giver about the importance adherence counselling						
IM 6.22	Demonstrate understanding of ethical and legal issues regarding patient confidentiality and disclosure in patients with HIV	K/A	SH	Y	DOAP session Small group discussion Visit to ICTC and ART centre visit as observer	Short notes Viva Voce	AETCOM

	6.22.1. Describe the concept of integrated counselling and testing centre. 6.22.2. Discuss about pre-test and post-test counselling 6.22.3. Discuss the issues of Stigma and discrimination faced by HIV positive patients 6.22.4. Counsel the patient about status of HIV 6.22.5. Discuss about the legal support provided at the ART centre by the government appointed lawyer						
IM 6.23	Demonstrate a non-judgemental attitude to patients with HIV and to their lifestyle	A	SH	Y	Small group discussion	OSCE	AETCOM
	6.23.1. Discuss the myths about HIV 6.23.2. Discuss about routes of transmission of HIV and prevention of HIV 6.23.3. Learn the concept of universal precaution 6.23.4. Understand that the lifestyle of a HIV positive patient is no different from non-HIV person, except that they should avoid the risk factors that would contribute to HIV transmission				Interaction with the counsellors of ICTC and ART centre		

Topics for procedural skills (integration)

Topic: <u>procedural skills (integration)</u>							
Number of competencies: () Number of procedures that require certification: (NIL)							
Number	Competency	Domain	Millers pyramid level	Core	T&L Methods	Assessment methods	Integration

IM 3.14	Perform and interpret a sputum gram stain and AFB	S	P	Y	DOAP session	Log Book	Microbiology
IM 4.15	Perform and interpret a malarial smear	S	SH	Y	DOAP	Log Book	Microbiology
IM 9.10	Describe, perform and interpret a peripheral smear and stool occult blood	S	P	Y	DOAP session	Log Book	Pathology
IM 11.12	Perform and interpret a capillary blood glucose test	S	P	Y	DOAP session	Log Book	Pathology Biochemistry
IM 11.13	Perform and interpret a urinary ketone estimation with a dipstick	S	P	Y	DOAP session	Log Book	Pathology Biochemistry
IM 16.9	Identify common parasitic causes of diarrhea under the microscope in a stool specimen	S	SH	Y	DOAP session	Log Book	Microbiology
IM 16.10	Identify vibrio cholera in a hanging drop specimen	S	SH	Y	DOAP session	Log Book	Microbiology
IM 25.9	Assist in the collection of blood and other specimen cultures	S	SH	Y	DOAP session	Log Book	Microbiology

5. ASSESSMENT:

a) **SUMMATIVE ASSESSMENT- NIL;** No summative assessment in Gen.Medicine in this phase

b)INTERNAL ASSESSMENT

As per **GMER 2019, page.no.82-83, 11.1.1(b):**

18. There will be 2 theory internal assessment examinations in Gen.Medicine. First theory internal assessment examination will be held after six months and second internal assessment examination will be held after 9 months of Phase II

19. There will be one clinical internal assessment at the end of clinical postings.

Internal assessment shall be based on day-to-day assessment. It shall relate to different ways in which learners participate in learning process. Day to day records and log book should be given importance in internal assessment. Internal assessment should be based on competencies and skills.

As per **GMER 2019, 9.5.3, page.no.75:**

(a) A designated faculty member in each unit will coordinate and facilitate the activities of the learner, monitor progress, provide feedback and review the log book/ case record.

(b) The log book/ case record must include the written case record prepared by the learner

PROPOSED MARKS ALLOCATION FOR INTERNAL ASSESSMENT

Theory:60 marks; 1½ hours(90min)Clinicals ; 40 marks

(Long essays: 15 x 1 = 15 marks

(One Long case: 20 marks

Short essays: 5x5 = 25 marks

OSCE : 10 marks

Short notes: 3x5=15 marks

Log book : 5 marks

MCQs: ½ x10 = 5 marks)

Case Record : 5 marks)

Annexure I -Recommended books:

RECOMMENDED BOOKS (Recent editions):

TEXT- BOOKS RECOMMENDED

1. Davidsion's Principles and Practice of Medicine
2. Hutchison's Clinical Methods
3. Macleod's Clinical Examination.

REFERENCE BOOKS:

LEVEL 1:

1. API textbook of Medicine
2. Kumar & Clark's Clinical Medicine

LEVEL 2:

Harrison's Principles of Internal Medicine, McGraw Hill publications

(PS: this is just a model; not all questions are based on phase 2 topics)

JSS Medical College

DEPARTMENT OF MEDICINE

Theory Internal Assessment for MBBS-phase2

Date:

Time:

Max Marks: 60 marks

Instructions to the candidates;

1. Answer all questions;
2. give Specific Answers & Write legibly
3. Draw a neat and labeled diagram whenever necessary
4. Time allotted is 1½ hours(90mins)

Long essays: 15 x 1 = 15 marks

1. Mention etiological Classification, Diagnostic Criteria, Treatment Goals of Diabetes Mellitus. List the complications of Diabetes Mellitus.

(4+3+3+5 marks)

Short essays: 5x5 = 25 marks

1. Causes, recognition and Treatment of hypoglycemia.
2. Clinical features and treatment of hyperthyroidism.
3. Clinical features and treatment of Post streptococcal glomerulonephritis.

4. Treatment of Status epilepticus.
5. Diagnostic utility of urinary findings in renal diseases.

Short notes: 3x5=15 marks

1. Chest X ray finding in Emphysema.
2. ECG changes in hyperkalemia.
3. Three causes of proximal myopathy.
4. Contraindications for lumbar puncture.
5. Three drugs used in reducing raised intracranial hypertension.

Multiple choice questions $\frac{1}{2}$ x 10= 5 marks

All questions are compulsory

1) Following diseases are characterized by obesity except;

- a) Cushing's syndrome
- b) Hypothyroidism
- c) Addison's disease
- d) Acromegaly

2) Following are the typical causes of microcytic hypochromic anemia except;

- a) Iron deficiency anemia
- b) Hemolytic anemia
- c) Sideroblastic anemia
- d) Anemia of chronic disease

- 3) **Furosemide acts on which part of nephrons ?**
- a) Proximal tubule
 - b) Distal tubule
 - c) Ascending limb of loop of Henle
 - d) Descending limb of loop of Henle
- 4) **Drug of choice for chronic myeloid leukemia is**
- a) Methotrexate
 - b) Imatinib mesylate
 - c) Dexamethasone
 - d) Bortezomib
- 5) **Addison's disease is characterized by following features except;**
- a) Emaciation
 - b) Hypotension
 - c) Hypokalemia
 - d) Hyperpigmentation
- 6) **Following are the symptoms of primary hyperparathyroidism except?**
- a) Constipation
 - b) Frequent urination
 - c) Frequent diarrhea
 - d) Joint pain
- 7) **Nosocomial pneumonia is commonly caused by**
- a) Streptococcal infection

- b) Gram negative organisms
 - c) Viruses
 - d) Mycoplasma
- 8) A 55-year-old woman with hyperthyroidism was treated with radioactive iodine. One month later she is most likely to be started on a therapy with :
- a) Potassium iodide
 - b) Levothyroxine
 - c) Carbimazole
 - d) Propranolol
- 9) A 32-year-old gardener with an alleged history of snake bite comes to the hospital with inability to open eyes well and difficulty in breathing. He is very anxious and has tachycardia and tachypnea. On examination, fang marks cannot be visualized and there is no swelling of the limb. He has bilateral ptosis. His 20 min whole blood clotting test is normal. What is the next appropriate course of action?
- a) Reassure the patient and send him home with anxiolytic
 - b) Don't give anti-snake venom (ASV), but keep the patient under observation
 - c) Give ASV and keep the patient under observation
 - d) Give ASV, and give Neostigmine and observe the patient
- 10) A 48 year old lady has unusual fatigue and lightheadedness, especially when rising suddenly. On examination, she has postural hypotension & her husband has noticed darker-than usual complexion. Investigations reveal hyponatremia, hyperkalemia and hypocalcemia. The most appropriate diagnostic test is :
- a) Dexamethasone suppression test
 - b) Synthetic ACTH stimulation test
 - c) Fluid deprivation test
 - d) Desmopressin challenge test

Annexure-III

LOG BOOK FORMAT

PHASE II MBBS -DEPARTMENT OF GEN.MEDICINE

NAME OF THE CANDIDATE :

UNIVERSITY REGISTER NUMBER:

ACADEMIC YEAR :

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BONAFIDE CERTIFICATE

This is to certify that this log book is the bonafide record of Mr/Ms.....whose particulars along is given above. His/ Her log of competencies acquired, are as noted in the entries in this log book in the subject of Pathology as per the Competency Based Undergraduate Medical Education Curriculum, Graduate Medical Regulation 2019, during the period to.....

She / He will not be eligible / eligible to appear for the summative (University) assessment as on the date given below.

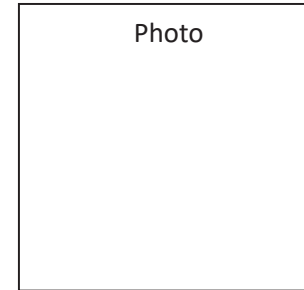
Signature with date

HOD of Gen.Medicine :

Signature with date

Principal/Dean :

BASIC PROFORMA OF THE STUDENT



PARTICULARS OF THE STUDENT:

Name of the student :

Date of Birth :

Father's name :

Mother's name :

Address :

Contact number :

Email ID :

Signature:

**SUGGESTED GUIDELINES FOR LOG BOOK:
GENERAL INFORMATION:**

- 6) The logbook is a record of the academic / co-curricular activities of the designated student, who would be responsible for maintaining his/her logbook.
- 7) The student is responsible for getting the entries in the logbook verified by the Faculty In-charge regularly.
- 8) Entries in the logbook will reflect the activities undertaken in the department & have to be scrutinized by the Head of the concerned department.
- 9) The logbook is a record of various activities by the student like:
 - f. Overall participation & performance
 - g. Attendance
 - h. Participation in sessions
 - i. Record of completion of pre-determined activities.
 - j. Acquisition of selected competencies
- 10) The logbook is the record of work done by the candidate in that department / specialty and should be verified by the college before submitting the application of the students for the University examination.

SUMMARY OF ATTENDANCE

<i>Phase</i>	<i>Percentage of classes attended</i>		<i>Eligible for University examination (Yes / No)</i>	<i>Signature of student</i>	<i>Signature of teacher</i>
	<i>Theory</i>	<i>Practical</i>			
Attendance at the end of MBBS Phase II			NA		

SUMMARY OF INTERNAL ASSESSMENT (IA)

<i>Sl. No.</i>	<i>Internal Assessment</i>	<i>Date of Assessment</i>	<i>Total marks</i>		<i>Marks scored</i>		<i>Signature of student</i>	<i>Signature of teacher</i>
			<i>Theory</i>	<i>Practical</i>	<i>Theory</i>	<i>Practical</i>		
	First							
	Second							
	Remedial							

NON-CERTIFIABLE (SHOWS HOW) ACTIVITIES

# Competency	Name of Activity	Date completed	Rating Below Expectations (C) Meets Expectations (B) Exceeds Expectations (A)	Decision of faculty Completed Repeat Remedial	Initial of faculty and date	Feedback Received Initial of learner

Format for documentation and feedback for Self-Directed Learning

Sl no	Date	Topic of SDL	Feedback	Signature of faculty/mentor
1				

2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				

Summary of formative assessment for the entire year

<i>Type of Assessment</i>	<i>Total marks</i>	<i>Marks scored</i>	<i>Signature of student</i>	<i>Signature of teacher with date</i>
SGD/Bedside Clinics	10			
Professionalism	10			

TOTAL	20			
-------	----	--	--	--

Rubric for assessing the professionalism

<i>Phase</i>	<i>Areas assessed</i>					<i>Signature of student</i>	<i>Signature of teacher</i>
	<i>Regular for classes(5)</i>	<i>Submission of records (5)</i>	<i>Behaviour in class and discipline(5)</i>	<i>Dress code and presentablility(5)</i>	<i>Total (20)</i>		
At the end of clinical postings							

SMALL GROUP DISCUSSION/BEDSIDE CLINICS – ASSESSMENT AND FEEDBACK

Module #	Name of SGD/SDL Activity	Date Completed	Score	Initial of faculty And date	Feedback Received Initial of learner

Small group discussions will be scored based on the following criteria. Marks to be given

Score	Criteria for assessment
5	Is a proactive participant showing a balance between listening, initiating, and focusing discussion. Displays a proactive use of the whole range of discussion skills to keep discussion going and to involve everyone in the group. Understands the purpose of the discussion and keeps the discussion focused and on topic. Applies skills with confidence, showing leadership and sensitivity.
4	Is an active participant showing a balance between listening, initiating, and focusing discussion. Demonstrates all the elements of discussion skills but uses them less frequently and with less confidence than the above level. Keeps the discussion going but more as a supporter than a leader. Tries to involve everyone in the group. Demonstrates many skills but lacks the confidence to pursue them so that the group takes longer than necessary to reach consensus. Demonstrates a positive approach but is more focused on getting done than on having a positive discussion.
3	Is an active listener but defers easily to others and lacks confidence to pursue personal point of view even when it is right. Participates but doesn't use skills such as summarizing and clarifying often enough to show confidence. Limits discussion skills to asking questions, summarizing, and staying on topic. Lacks balance between discussion and analytical skills. Either displays good analysis skills and poor discussion skills or good discussion skills and poor analysis skills.
2	Is an active listener but defers easily to others and tends not pursue personal point of view, lacking confidence. Limits discussion skills to asking questions, summarizing and staying on topic. Rarely demonstrates analysis skills because doesn't understand the purpose of the discussion, and as a result, offers little evidence to support any point of view.
1	Demonstrates no participation or effort. Participates only when prompted by the teacher. Only responds to others and initiates nothing. Provides limited responses that are often off topic. Participates minimally so that it is impossible to assess analysis skills or understanding of the issues.

Other academic/non-academic activities

CONFERENCE/CME/WORKSHOP ATTENDED

SL NO	DATE	PARTICULARS	REMARKS IF ANY	SIGNATURE OF STAFF

SCIENTIFIC PROJECT PRESENTATIONS/REPORTS/ OUTREACH ACTIVITIES

SL NO	DATE	PARTICULARS	SIGNATURE OF STAFF

ACHIEVEMENTS/ AWARDS /ANY OTHER ACTIVITIES

SL NO	DATE	PARTICULARS	SIGNATURE OF FACULTY

EXTRACURRICULAR ACTIVITIES

SL NO	DATE	PARTICULARS	SIGNATURE OF FACULTY

GENERAL SURGERY

PREAMBLE

The undergraduate medical education program is designed with a goal to create an “Indian Medical Graduate” (IMG) possessing requisite knowledge, skills, attitudes, values and responsiveness, so that she or he may function appropriately and effectively as a physician of first contact of the community while being globally relevant. Second Professional MBBS (12 months) is Entry level and hence has to be introductory in nature towards clinical surgery

Excerpts from GMER- Regulations on Graduate Medical Education (Amendment), 2019 and UG Curriculum Volumes 1, 2 & 3 have been utilized in preparing this syllabus document for Second Professional MBBS. Alignment / Integration between topics & subjects has been attempted.

As per GMER 2019, Distribution of subjects by Professional Phase. Second Professional MBBS (12 months) includes the following:

- Pathology, Microbiology, Pharmacology, Forensic Medicine and Toxicology,
- Introduction to clinical subjects including Community Medicine
- Clinical postings
- Attitude, Ethics & Communication Module (AETCOM)

As per GMER 2019, Year 2: Focus of Learner - Doctor Program is History taking, physical examination, assessment of change in clinical status, communication and patient education

Keeping the above format as guiding framework, the department of General Surgery department plans to introduce Clinical Surgery to Second Professional MBBS students

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1. GOAL AND OBJECTIVES

Syllabus in General Surgery for Second Professional MBBS (12 months)

I. GOAL:

The goal of teaching **General Surgery** for Second Professional MBBS aims at

- providing the foundation of core surgical knowledge,
- to communicate effectively, compassionately, and professionally with patients,
- eliciting and recording history, clinical findings of common general surgical conditions.

II. OBJECTIVES:

A) Cognitive Domain

At the end of the Second Professional MBBS, undergraduate students in **General Surgery** should be able to

1. Describe aetiology, pathophysiology, principles of diagnosis and management of common surgical problems including emergencies, in adults and children.
2. Define indications and methods for fluid and electrolyte replacement therapy including blood transfusion
3. Define asepsis, disinfection and sterilization and recommend judicious use of antibiotics

B) Affective Domain

At the end of the Second Professional MBBS, undergraduate students in **General Surgery** should be able to

1. Communicate effectively with patients, peers, and teachers
2. Communicate effectively and counsel regarding surgical patients seeking acute care
3. Communicate effectively and able administer informed consent and counsel patient prior to surgical procedures
3. Participate in multidisciplinary discussion on surgical problems

C.) Psychomotor Domain

At the end of the Second Professional MBBS, undergraduate students in **General Surgery** should be able to

1. Acquire skills in surgical consent
2. Acquire skills to perform nasogastric tube insertion, urinary catheterisation

D) INTEGRATION

At the end of 2nd year training he/she should be able to integrate the causes of disease and relationship of different etiological factors (social, economic and environmental) and that contribute to the natural history of diseases most prevalent in India and describe a few diseases and their work-up & treatment pertaining to a few selected topics (see below) in General Surgery and perform a physical examination that is contextual

III. COURSE OUTCOMES

At the end of 2nd professional MBBS, students should

1. Acquire skills to Perform a complete history and physical examination on surgical patients
2. Acquire skills to Formulate an appropriate differential diagnosis, and record an independent written diagnosis for each surgical patient assigned.
3. To become skilled in eliciting and interpreting physical signs which can indicate urgent life-threatening conditions.
4. To become familiar with the spectrum of surgical care available and to develop a critical attitude in assessing its value in relation to less invasive forms of treatment.
5. Commitment to advancement of quality and patient safety in surgical practice.

2. TERMS AND TEACHING GUIDELINES

1. LECTURE

Is a teaching learning method which includes traditional and interactive sessions involving a large group.

25 hours in total for General Surgery

2. SMALL GROUP DISCUSSION (BEDSIDE CLINICS/OPD Teaching as applied to CLINICAL POSTINGS in GENERALSURGERY)

Is an instructional method involving small groups of students in an appropriate learning context (ward/opd teaching as applied to CLINICAL POSTINGS in GENERAL SURGERY)

The clinical postings in the second professional will be 15 hours per week X 4 weeks (**3 hrs per day from Monday to Friday as per GMER 2019,**) covering History taking, Symptomatology, GPE and Examination pertaining to common Surgical conditions.

3. Learner-doctor method of clinical training (Clinical Clerkship)

Provides learners with experience in longitudinal patient care being part of the health care team with Hands-on care of patients in outpatient and inpatient setting. The first clinical posting in second professional shall orient learners to the patient, their roles and the speciality (**as per GMER 2019**)

4. CORE

A competency that is necessary in order to complete the requirements of the subject (traditional must know)

5. NON – CORE

A competency that is optional in order to complete the requirements of the subject (traditional nice (good) to know/ desirable to know.

3.Syllabus at a glance

General Surgery for Second Professional MBBS (12 months)

B. Number of teaching hours:

A. Number of teaching hours:

<u>Teaching method</u>	<u>Hours</u>
Lecture	25 (1hr X 25)
Clinical postings	60 (15 hours per week X 4 weeks - 3 hrs. per day from Monday to Friday)
Total	85

MINIMUM TEACHING HOURS

Lecture Classes: Metabolic response to injury, Shock, Blood and blood components, Burns, Wound healing and wound care, Surgical infection, Surgical Audit and Research, Investigation of surgical patient, Nutrition and fluid therapy

Sl.No	Topic	Number of competencies	Lecture (Hrs)
1	Metabolic response to injury	03	05
2	Shock	02	02
3	Blood and blood components	02	01
4	Burns	04	03
5	Wound healing and wound care	02	02
6	Surgical infections	04	02
7	Surgical Audit and Research	02	02
8	Investigation of surgical patient	03	03
9	Nutrition and fluid therapy	03	05
	Total	25	25hrs \

Clinical Postings: Bedside Clinical Teaching (Bedside clinics, ward rounds, OPD and Operation theatre & Skill lab; DOAP) covering History taking, Symptomatology, GPE & Examination pertaining to all common Surgical conditions plus Self-directed Learning towards History taking & Physical Examination (in the form of independent case taking).

AETCOM (integration): 04

Integration: 09

Clinical postings - 15 hours per week X 4 weeks - 3 hrs per day from Monday to Friday

Sl No	Topic	(Hrs)
1	Introduction, Scheme of History taking	03
2	General Scheme of Examination	03
3	Ulcers – Symptomatology and Examination	06
4	Swelling – Symptomatology and Examination	09
5	Vascular Arterial – Symptomatology and Examination	06
6	Vascular Venous and Lymphatics – Symptomatology and Examination	06
7	Abdomen – Symptomatology and Examination	09
8	Thyroid – Symptomatology and Examination	06
9	Breast – Symptomatology and Examination	06
10	Inguinoscrotal swellings – Symptomatology and Examination	06
	Total	60

Internal Assessment

Theory

First theory internal assessment examination in General Surgery will be held after six months (end of block 2) and second internal assessment examination will be held after 9 months of Phase II (end of block 3)

Clinical

There will be one clinical internal assessment at the end of clinical postings.

4. COMPETENCIES, SPECIFIC LEARNING OBJECTIVES, TEACHING LEARNING & ASSESSMENT METHODS

(CODE: IM; Competencies have been combined if they are similar)

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH / SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Metabolic response to injury	Number of competencies: (03)		Number of procedures that require certification: (NIL)						
SU1.1	Describe Basic concepts of homeostasis, enumerate the metabolic changes in injury and their mediators 1. Describe basic concepts of homeostasis 2. Enumerate the metabolic changes in injury and their mediators 3. Describe the graded nature of injury response	K	KH	Y	Lecture, Bed side clinic, Small group discussion	Written/ Viva voce		Physiology, Biochemistry	
SU1.2	Describe the factors that affect the metabolic response to injury 1. Describe the neuroendocrine	K	KH	Y	Lecture, Bed side clinic, Small group discussion	Written/ Viva voce		Biochemistry	

SU2.1	<p>Describe Pathophysiology of shock, types of shock & principles of resuscitation including fluid replacement and monitoring.</p> <ol style="list-style-type: none"> 1. Define shock. Classify shock explaining its clinical features in detail 2. Define haemorrhage, its pathophysiology and explain the types of haemorrhage 3. Differentiate between neurogenic shock and cardiogenic shock 4. List the common fluids used in resuscitation 	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Physiology	
SU2.2	<p>Describe the clinical features of shock and its appropriate treatment</p> <ol style="list-style-type: none"> 1. Describe the management of 	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

	<p>hypovolemic shock</p> <p>2. Explain septic shock and discuss in detail about the management of septic shock</p> <p>3. List the various IV fluids/ vasopressors and inotropes in management of shock and explain about the administration of IV fluids in a patient presenting with hypovolemic shock</p> <p>4. Document the basic vitals with minimal/additional modalities of monitoring of a patient in shock</p> <p>5. Demonstrate securing an IV cannula and starting resuscitation in a patient presenting to the emergency in</p>								
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	the state of hypovolemic shock								
Topic: Blood and blood components	Number of competencies: (03)		Number of procedures that require certification: (NIL)						
SU3.1	Describe the Indications and appropriate use of blood and blood products and complications of blood transfusion. 1. Describe the indications of blood transfusions 2. Describe appropriate use of blood products 3. List complications of blood transfusions 4. List transfusion triggers 5. Discuss methods of collection and storage of various blood components 6. Describe various components of blood for transfusion and	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	

	<p>blood substitutes</p> <p>7.Enumerate the antigen systems to be assessed prior to blood transfusion and discuss their importance</p> <p>8.Discuss about various transfusion reactions and complications of transfusion</p>								
SU3.3	<p>Counsel patients and family/ friends for blood transfusion and blood donation.</p> <p>1.Counsel patients for need for blood transfusion</p> <p>2.Counsel family members for blood donation</p> <p>3.Demonstrate obtaining consent for transfusion</p>	A/C	SH	Y	DOAP session	Skills assessment			
Topic: Burns	Number of competencies: (04)	Number of procedures that require certification: (NIL)							
SU4.1	<p>Elicit document and present history in a case of Burns and perform physical</p>	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology	

	<p>examination. Describe Pathophysiology of Burns.</p> <ol style="list-style-type: none"> 1. Elicit the importance of documentation in a case of burns 2. Elicit history taking in a case of burns 3. Demonstrate the assessment of size and depth of burn wounds 4. Describe the pathophysiology of burns 5. Discuss about the inflammatory and circulatory changes in burns 6. Describe the life-threatening events associated with burns <p>Discuss the complications of burns</p>								
SU4.2	<p>Describe Clinical features, diagnose type and extent of burns and plan appropriate treatment.</p> <ol style="list-style-type: none"> 1. Describe the 	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

	<p>features suggestive of injury to the respiratory tract in a case of burns</p> <p>2. Discuss about inhalational injury in a case of burns</p> <p>3. Describe pre hospital care of burns</p> <p>4. Describe the principles of management of burns in the hospital</p> <p>5. Describe the role of fluid resuscitation in burns</p> <p>6. Describe the surgical treatment of burns in acute cases</p> <p>7. Describe the various topical agents used for dressing in a case of burns</p> <p>8. Describe the delayed reconstruction and scar management</p>								
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	<p>after burns</p> <p>9. Describe the features of chemical burns and its management</p> <p>10. Describe the features of electrical burns and its management</p> <p>11. Describe the features of radiation injuries and its management</p> <p>12. Demonstrate doing a burns dressing</p> <p>13. Demonstrate how to secure an IV cannula/ central line in a burn's patient</p> <p>14. Demonstrate how to do a venous cut down in a burn's patient</p>								
SU4.3	<p>Discuss the Medicolegal aspects in burn injuries.</p> <p>1. Discuss the medico legal aspects involved</p>	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

	<ol style="list-style-type: none"> 1. Describe about the classification of wound closure and healing 2. Explain about acute wound management 3. Discuss about compartment syndrome and the management 4. List the aetiology of leg ulcers and describe in brief about pressure sores and its staging 								
SU5.2	<p>Elicit, document and present a history in a patient presenting with Wounds</p> <ol style="list-style-type: none"> 1. Describe the pathophysiology of various types of scar formation and its treatment 2. Describe the physiology of healing in bone, nerve and tendon 3. Perform a vacuum assisted closure of a 	C	SH	Y	Lecture, Small group discussion	Written/ Viva voce			

	wound 4. Demonstrate simple/ mattress suturing of a wound under supervision 5. Explain various methods of wound care								
SU5.3	Differentiate the various types of wounds, plan and observe management of wounds. 1. Counsel about the prognosis of wound healing and the future need for procedures	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
SU5.4	Discuss medico legal aspects of wounds	K	KH	Y	Lecture, Small group Discussion	Written/ Viva voce			
Topic: Surgical infections	Number of competencies: (02)				Number of procedures that require certification: (NIL)				
SU6.1	Define and describe the aetiology and pathogenesis of surgical Infections	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology	

	<p>1. Describe the Pathogenesis of surgical site Infection</p> <p>2. Describe the factors that determine surgical site Infection</p> <p>3. Describe the clinical presentation of surgical infections,</p> <p>4. Demonstrate the management of superficial abscesses</p> <p>5. Demonstrate the importance of aseptic and antiseptic techniques</p> <p>6. Demonstrate techniques of delayed primary or secondary closure in contaminated wounds</p>								
SU6.2	<p>Enumerate Prophylactic and therapeutic antibiotics</p> <p>Plan appropriate management</p> <p>1. Describe the classification of</p>	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

	sources of infection and their severity 2. Describe the indications for and choice of prophylactic Antibiotics								
Topic: Surgical Audit and Research (NIL)		Number of competencies: (02)			Number of procedures that require certification:				
SU7.1	Describe the Planning and conduct of Surgical audit 1. Describe the planning and conduct of surgical audit and research 2. Describe the systematic write up of surgical projects	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Community Medicine	
SU7.2	Describe the principles and steps of clinical research in General Surgery 1. Describe the methods and source of data collection 2. Describe the different study designs 3. Describe the different methods data analysis 4. Describe the importance of appropriate regulation in surgical research	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Community Medicine	

Topic: Ethics certification: (NIL)		Number of competencies: (03)			Number of procedures that require				
SU8.1	Describe the principles of Ethics as it pertains to General Surgery 1. Describe the importance of autonomy in good surgical practice 2. Describe the moral and legal boundaries and practical difficulties of informed consent	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment		Forensic Medicine, AETCOM	
SU8.2	Demonstrate Professionalism and empathy to the patient undergoing General Surgery 1. Describe the importance and boundaries of confidentiality in surgical practice 2. Demonstrate the documentation of informed consent in surgical patient	A/C	SH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce/ Skill assessment		Forensic Medicine, AETCOM	
SU8.3	Discuss Medico-legal issues in surgical practice 1. Describe the various laws related to Informed consent 2. Describe the laws explaining medical	A/C	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment		Forensic Medicine, AETCOM	

	negligence in surgical practice (wrong site/ wrong patient etc..)								
Topic: Investigation of surgical patient (NIL)		Number of competencies (03)			Number of procedures that require certification:				
SU9.1	<p>Choose appropriate biochemical, microbiological, pathological, imaging investigations and interpret the investigative data in a surgical patient</p> <p>1. Describe the various methods of tissue sampling</p> <p>2. Describe the value and limitations of tissue diagnosis</p> <p>3. Demonstrate different biopsy techniques – FNAC, excision biopsy</p> <p>4. Describe the principles of different imaging techniques and their advantages and disadvantages in different clinical scenarios</p> <p>5. Describe the role of imaging in directing treatment in various surgical scenarios</p> <p>6. Describe the basic principles of radiation</p>	C	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Biochemistry, Microbiology, Pathology	

	protection and know the law in relation to the use of ionising radiation								
SU9.2	Biological basis for early detection of cancer and multidisciplinary approach in management of cancer 1. Describe the principles of microscopic diagnosis, including the features of neoplasia 2. Describe the importance of clinicopathological correlation in cancer diagnosis 3. Describe the role of additional techniques used in clinical practice, including special stains, immunohistochemistry and molecular pathology	C	KH		Lecture, Small group discussion	Written/ Viva voce			
SU9.3	Communicate the results of surgical investigations and counsel the patient appropriately 1. counsel patient regarding the results	C	SH	Y	DOAP session	Skill assessment			

	malnutrition in the surgical patient 1. Describe the Stress-Induced Changes in Substrate Metabolism				discussion, Bedside clinic				
SU12.2	Describe and discuss the methods of estimation and replacement of the fluid and electrolyte requirements in the surgical patient 1. Describe the Composition of various crystalloid and colloid solutions 2. Describe the normal fluid loss and fluid requirement 3. Demonstrate peripheral Intravenous access 4. Describe the indications and contraindications of crystalloid and colloid solutions	K	KH	Y	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce		Physiology	
SU12.3	Discuss the nutritional requirements of surgical patients, the methods of providing nutritional support and their complications 1. Describe the RDA of macro and	K	KH	Y	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce		Biochemistr y	

	micronutrients 2. Describe the various Options for enteral feeding access and its complications 3. Describe the various methods of assessing nutrition in surgical patient 4. Describe the Rationale for Parenteral Nutrition and Complications of Parenteral Nutrition											
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CLINICAL POSTINGS

Bedside Clinical Teaching (Bedside clinics, ward rounds, OPD and Operation Theatre & Skilllab; DOAP) covering History taking, Symptomatology, GPE and Examination pertaining to common Surgical conditions(in the form of independent case taking).

As per UG Curriculum document:

At the end of 2nd professional MBBS, the student should be able to: -

- Demonstrate ability to elicit and record from the patient, and other relevant sources including relatives and caregivers, a history that is complete and relevant to disease identification, disease prevention and health promotion.
- Demonstrate ability to elicit and record from the patient, and other relevant sources including relatives and caregivers, a history that is contextual to gender, age, vulnerability, social and economic status, patient preferences, beliefs and values.
- Demonstrate ability to perform a physical examination that is complete and relevant to disease identification, disease prevention and health promotion.
- Demonstrate ability to perform a physical examination that is contextual to gender, social and economic status, patient preferences and values

**COMPETENCIES, SPECIFIC LEARNING OBJECTIVES, TEACHING
LEARNING & ASSESSMENT METHODS IN CLINICAL POSTING**

Number: SU5.2							
Topic: Elicit, document and present a history in a patient presenting with Wounds/ulcers							
Number of competencies: (10) Number of procedures that require certification: (NIL)							
Number	Competency & SLO	Domain	Millers pyramid level	core	T&L Methods	Assessment methods	Integration
1	Elicit document and present a surgical history including: presenting complaints, history of present illness, duration, onset, progression of symptoms, accompanying symptoms, relevant negative history, risk factors, family history, past history	S	SH	Y	Bedside clinic	Skill assessment	
	ii. Elicit relevant history, document and present the same						
2	Perform General Physical Examination	S	SH	Y	Bedside clinic	Skill assessment	
	iv Perform general physical examination and inspect for clinical signs suggestive of underlying pathology (c.g. pallor,						

	lymphadenopathy, pedal oedema, attitude and posture of the patient) v Assess for any co-existing comorbidities						
3	Perform Inspection of the Ulcer	S	SH	Y	Bedside clinic	Skill assessment	
	vi Inspect the size and shape of the ulcer, number of ulcers, its position vii Inspect the margin of the ulcer viii Assess the floor of the ulcer and look for discharge, the surrounding area ix Assess the rest of the limb						
4	Examine the Ulcer by Palpation	S	SH	Y	Bedside clinic	Skill assessment	
	iii Assess local rise of temperature iv Elicit tenderness of the ulcer v Assess the edge and base of the ulcer vi Measure the depth of the ulcer vii Elicit possible bleeding from the ulcer						
5	Examine the surrounding area	S	SH	Y	Bedside clinic	Skill assessment	
	iv Inspect the surrounding area of the ulcer v Palpate the surrounding skin for additional findings vi Assess the relations of the ulcer with deeper structures						
6	Examination of lymph nodes	S	SH	Y	Bedside clinic	Skill assessment	

	<ul style="list-style-type: none"> iii Palpate for regional lymph node enlargement iv Assess for local rise of temperature and tenderness 						
7	Examination for vascular insufficiency	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> iii Assess for varicose veins in the involved limb above the ulcer iv Palpate for peripheral pulses v Assess the condition of the vessel wall in the vessels of the involved region 						
8	Examination for nerve lesions	S	SH	Y	Bedside clinic Skills Lab	Skill assessment	
	<ul style="list-style-type: none"> iv Assess for sensory loss around or in the region of the ulcer v Assess for any other superficial lesions suggestive of nerve involvement and paraesthesia 						
9	Present the case after summarizing the findings	S	SH	Y	Bedside clinic	Skill assessment	

Number: SU18.3

Topic: Describe and demonstrate the clinical examination of surgical patient including *swelling* and order relevant investigation for diagnosis. Describe and discuss appropriate treatment plan.

Number of competencies: (10) Number of procedures that require certification: (NIL)

Number	Competency & SLO	Domain	Millers pyramid level	core	T&L Methods	Assessment methods	Integration
1	Elicit, document and present a surgical history that includes: presenting complaints, duration, onset, progression, associated symptoms, site, relevant negative history, risk factors, past history, personal history	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i. Elicit relevant history, document and present the same i. Presence of other lumps, secondary changes ii. Assess for impairment of function 						
2	Perform General Physical Examination	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i. Perform general physical examination and inspect for clinical signs suggestive of underlying pathology ii. Assess for temperature and tachycardia 						

3	Perform Local Inspection	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Inspect size, site, shape, surface, skin over swelling, extent, colour, edge and number ii Look for pulsation, peristalsis, movement with respiration/deglutition/protrusion of tongue, cough impulse iii Assess for any pressure impulse 						
4	Perform palpation of the swelling	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Assess for local rise of temperature and tenderness ii Confirm inspectory findings iii Assess consistency and fluctuation of the swelling iv Assess for translucency and cough impulse v Palpate for reducibility, pulsatility and compressibility vi Measure the limb distal to swelling vii Assess nearby joint movements 						
5	Assess the surrounding area	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Assess fixity of swelling to overlying skin ii Assess relations to surrounding and underlying structures iii Assess for plane of the swelling 						

6	Examination of lymph nodes	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Examine for enlargement, local rise of temperature and tenderness of regional lymph nodes ii Examine for enlargement of other lymph nodes 						
7	Perform Percussion of the swelling	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Percuss over the swelling – look for the note of percussion – to assess content ii Assess for fluid thrill 						
8	Perform Auscultation over the swelling	S	SH	Y	Bedside clinic Skills Lab	Skill assessment	
	<ul style="list-style-type: none"> i Auscultate the swelling to look for bruit or murmurs 						
9	Examine for pressure effect	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Examine for distal pulses to rule out vessel compression ii Examine for distal paresis or paralysis to rule out nerve compression iii Examine for bony pain and tenderness, look for unrestricted movement of distal part of limb to rule out bony erosion 						
10	Present the case after summarizing the findings	S	SH	Y	Bedside clinic	Skill assessment	

Number: SU27.2

Topic: Demonstrate the correct examination of the vascular system and enumerate and describe the investigation of *vascular disease (ARTERIAL)*

Number of competencies: (10) Number of procedures that require certification: (NIL)

Number	Competency & SLO	Domain	Millers pyramid level	core	T&L Methods	Assessment methods	Integration
1	Elicit document and present a surgical history that includes: presenting complaints, affected limb, laterality of affection, duration, onset, progression of symptoms, accompanying symptoms, relevant negative history, risk factors, family history, past history	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i. Elicit relevant history, document and present the same ii. Elicit detailed history of claudication or rest pain 						
2	Perform General Physical Examination	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Perform general physical examination and inspect for clinical signs suggestive of 						

	<ul style="list-style-type: none"> underlying pathology (blood pressure, pulse rate) ii Assess for constitutional disturbances iii Assess the attitude and posture of the patient 						
3	Local Inspection of the Affected Limb	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Inspect the limb for change in colour and signs of ischemia ii Perform specific tests to identify compromise – Buerger’s postural test, capillary filling time, venous refill iii Inspect condition of the skin and surrounding structures – for changes iv Assess for presence of gangrene and the extent, line of demarcation and type of gangrene v Inspect the limb above the region of compromise 						
4	Palpation of affected limb	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Assess skin temperature ii Assess capillary refill and venous refill 						
5	Perform specific tests	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Perform tests and manoeuvres specific to assess underlying arterial compromise. 						

6	Assessment of the gangrenous area	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Assess type of gangrene ii Look for crepitus iii Assess limb above gangrenous area 						
7	Palpate for Peripheral Pulses	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Palpate for peripheral pulses in the affected limb ii Compare pulsations in the other limb iii Palpate for all peripheral pulses iv Assess for presence of cervical rib 						
8	Examine for lymph nodes	S	SH	Y	Bedside clinic Skills Lab	Skill assessment	
	<ul style="list-style-type: none"> i Assess for lymph node enlargement and signs of inflammation over the enlarged lymph node 						
9	Perform auscultation of all major arteries	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Auscultate over all major arteries to look for bruit ii Assess for murmurs iii Assess for blood pressure variation in both arms 						
10	Present the case after summarizing the findings	S	SH	Y	Bedside clinic	Skill assessment	

Number: SU27.2

Topic: Demonstrate the correct examination of the vascular system and enumerate and describe the investigation of *vascular disease (VENOUS)*

Varicose Veins

Number of competencies: (10) Number of procedures that require certification: (NIL)

Number	Competency & SLO	Domain	Millers pyramid level	core	T&L Methods	Assessment methods	Integration
1	Elicit document and present a surgical history that includes: presenting complaints, duration, onset, progression of symptoms, accompanying symptoms, relevant negative history, risk factors, family history, past history	S	SH	Y	Bedside clinic	Skill assessment	
	i. Elicit relevant history, document and present the same						
2	Perform General Physical Examination	S	SH	Y	Bedside clinic	Skill assessment	
	i. Perform general physical examination and inspect for clinical signs suggestive of underlying pathology						

3	Perform inspection of affected limb	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Inspect for varicose veins and the vein that has been involved ii Inspect for swelling of the vein iii Inspect for skin colour, texture iv Inspect for presence of ulceration v Inspect for cough impulse at saphenous opening vi Assess for surrounding skin changes 						
4	Perform palpation of the limb	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Palpate to locate incompetent valves ii Perform tests for varicose veins iii Assess for surrounding skin changes 						
5	Perform Percussion of the limb	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Percuss along the course for blow-outs 						
6	Perform Auscultation of the limb	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Auscultate for identifying AV fistula 						
7	Examine for regional lymph nodes	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Examine for enlarged regional lymph nodes 						
8	Examination of the other limb	S	SH	Y	Bedside clinic Skills Lab	Skill assessment	
	<ul style="list-style-type: none"> i Examination of the other limb for varicosities and incompetent perforators 						

9	Systemic Examination						
	<ul style="list-style-type: none"> i Examine the abdomen for distension or mass ii Examine for systemic complications of varicose veins 						
10	Present the case after summarizing the findings	S	SH	Y	Bedside clinic	Skill assessment	
<p>Number: SU 27.8 Topic: Demonstrate the correct examination of the Lymphatic System (<i>Examination of Lymphatic System</i>) Number of competencies: (9) Number of procedures that require certification: (NIL)</p>							
Number	Competency & SLO	Domain	Millers pyramid level	core	T&L Methods	Assessment methods	Integration
1	Elicit document and present a surgical history that includes: presenting complaints, duration, onset, progression of symptoms, groups of lymph nodes involved and order of it, accompanying symptoms, relevant negative history, risk factors, family history, past history	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i. Elicit relevant history, including history primarily focussed at the draining area and possible infections in it and possible pressure effects of enlarged nodes, and constitutional symptoms of loss of weight or appetite, document and present the same 						

2	Perform General Physical Examination	S	SH	Y	Bedside clinic	Skill assessment	
	i Perform general physical examination and inspect for clinical signs suggestive of underlying pathology including pallor, cachexia, malnutrition and loss of weight						
3	Perform Inspection of Swelling	S	SH	Y	Bedside clinic	Skill assessment	
	i Perform inspection of swelling in terms of number, position, site, size, shape, surface, skin over the swelling ii Assess for pressure effects secondary to the swelling in the form of oedema of the distal part of limb, engorged veins, nerve compression						
4	Perform Palpation of Swelling	S	SH	Y	Bedside clinic	Skill assessment	
	i Assess for local rise of temperature and tenderness ii Perform palpation of the swelling to confirm inspectory findings iii Assess the consistency of the swelling iv Assess number, mobility, fixity and matting of the swelling						
5	Assess Drainage area	S	SH	Y	Bedside clinic	Skill assessment	
	i Assess the draining area of the involved lymphatics to look for inflammatory lesions, infections or neoplastic lesions						

6	Examination of other lymphatic groups	S	SH	Y	Bedside clinic	Skill assessment	
	i Assess for other groups of lymph nodes for enlargement or tenderness						
7	Perform General Physical and Systemic Examination	S	SH	Y	Bedside clinic	Skill assessment	
	i Examine lymph nodes of other parts of the body ii Examine for spleen or liver enlargement and mesenteric and iliac lymph node enlargement iii Examine lungs for signs of tuberculosis or metastasis iv Look for syphilitic stigmas v Assess for enlargement of parotid and lacrimal glands vi Assess for lymphedema						
9	Present the case after summarizing the findings	S	SH	Y	Bedside clinic	Skill assessment	

Number: SU28.18

Topic: Describe and demonstrate clinical examination of abdomen. Order relevant investigations. Describe and discuss appropriate treatment plan

Examination of Abdomen

Number of competencies: (11) Number of procedures that require certification: (NIL)

Number	Competency & SLO	Domain	Millers pyramid level	core	T&L Methods	Assessment methods	Integration
1	Elicit document and present a surgical history that includes: presenting complaints, duration, onset, progression of symptoms, accompanying symptoms, relevant negative history, risk factors, family history, past history	S	SH	Y	Bedside clinic	Skill assessment	
	i. Elicit relevant history, document and present the same						
2	Perform General Physical Examination	S	SH	Y	Bedside clinic	Skill assessment	
	i Assess general condition of the patient and clinical signs ii Assess vitals of the patient iii Perform head to toe examination iv Look for signs of liver cell failure						

3	Perform Inspection of the Abdomen	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Inspect for scars, ecchymotic patches, caput medusa, peristalsis and pulsations ii Inspect shape of abdomen and look for any localized distensions or fullness of flanks iii Assess movement of abdomen with respiration and hernia orifices on coughing iv Look for dilated or engorged veins and the direction of flow in standing position v Inspect condition of skin over abdomen vi Look for any visible lump or swelling vii Assess for expansile cough impulse over hernial orifices viii Inspect scrotum ix Inspect for fullness or swelling in left supraclavicular fossa 						
4	Perform Palpation of the Abdomen	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Palpate for local rise of temperature ii Assess for localised or diffuse tenderness iii Assess a palpable abdominal lump in terms of position, site, size, shape, consistency, margins, movement, plane of the swelling, pulsatility iv Perform test to assess if swelling is intraperitoneal or retroperitoneal 						

	<ul style="list-style-type: none"> v Perform deep palpation after superficial palpation vi Assess for any other masses or organomegaly vii Assess hernial orifices viii Palpate testes and scrotum ix Elicit hepatojugular reflux if appropriate 						
5	Perform Percussion of Abdomen	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Percuss abdomen to confirm hepatomegaly or splenomegaly ii Percuss over the lump to elicit note of percussion iii Elicit upper border of liver dullness and assess liver span iv Assess the presence for ascites by performing shifting dullness and check for a fluid thrill 						
6	Perform Auscultation of Abdomen	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Auscultate right of umbilicus for bowel sounds for 2 minutes ii Auscultate above umbilicus over the aorta for arterial bruits iii Auscultate lateral to umbilicus for bruits from renal artery stenosis iv Auscultate for hepatic bruits, splenic rub v Test for succussion splash 						

7	Perform Per rectal Examination	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Perform per rectal examination to assess for haemorrhoids or any rectal growth or deposit ii Look for bleeding per rectum 						
8	Perform Per Vaginal Examination	S	SH	Y	Bedside clinic Skills Lab	Skill assessment	
	<ul style="list-style-type: none"> i Perform per vaginal examination to assess fornixes and adnexa and to look for deposits in female patients ii Look for bleeding per vaginal, bloody discharge or white discharge 						
9	Examination of Left Supraclavicular region	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Examine for swelling or enlarged lymph nodes in left supraclavicular region 						
10	Systemic examination	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Basic examination of other systems to look for constitutional symptoms 						
11	Present the case after summarizing the findings	S	SH	Y	Bedside clinic	Skill assessment	

Number : SU 22.3

Topic: Demonstrate and document the correct clinical examination of thyroid swellings and discuss the differential diagnosis and their management

Number of competencies: (9) Number of procedures that require certification: (NIL)

Number	Competency & SLO	Domain	Millers pyramid level	core	T&L Methods	Assessment methods	Integration
1	Elicit document and present a surgical history that includes: presenting complaints, duration, onset, progression of symptoms, accompanying symptoms, relevant negative history, risk factors, family history, past history	S	SH	Y	Bedside clinic	Skill assessment	
	i. Elicit relevant history including history of pressure symptoms, history of primary and secondary thyrotoxicosis, history suggestive of hypothyroidism, document and present the same						
2	Perform General Physical Examination	S	SH	Y	Bedside clinic	Skill assessment	
	i Assess the built and nutrition of the patient ii Look for typical facies suggestive of underlying disorder iii Assess mental state of patient						

	<ul style="list-style-type: none"> iv Examine the skin of the patient v Assess for vitals – to look for rate, rhythm, volume 						
3	Perform inspection of the neck	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Inspect the neck to describe the swelling ii Assess movement with deglutition and protrusion of the tongue iii Inspect for visible lower border of the swelling iv Inspect for presence of any sinus or fistulous opening v Inspect for position of the trachea vi Inspect for any engorged neck veins 						
4	Perform palpation of the thyroid	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Palpate the thyroid after appropriate positioning of the patient – palpating both lobes separately ii Localise the swelling to assess if it is a diffuse or localized swelling iii Palpate for consistency of the thyroid iv Palpate for pulsations over the swelling v Assess mobility of the thyroid swelling vi Attempt to locate the lower border of the swelling vii Assess for and perform tests to rule out possible pressure effects due to the swelling viii Palpate to confirm position of the trachea 						

	ix Palpate for position and feel of carotid pulsations bilaterally x Palpate to locate any cervical lymph nodes						
5	Perform Percussion over manubrium sterni	S	SH	Y	Bedside clinic	Skill assessment	
	i Percuss over the manubrium to rule out retrosternal extension						
6	Auscultate over the thyroid swelling	S	SH	Y	Bedside clinic	Skill assessment	
	i Auscultate over the swelling to identify possible bruits						
7	Assess for eye signs	S	SH	Y	Bedside clinic	Skill assessment	
	i Assess for various eye signs of thyroid to look for primary thyrotoxicosis						
8	Perform head to toe examination	S	SH	Y	Bedside clinic Skills Lab	Skill assessment	
	i Look for skin condition, tremors of hands and fasciculations of the tongue ii Assess for signs of secondary thyrotoxicosis iii Assess for pretibial myxedema in hypothyroid patient iv Look for metastatic deposits in suspected cases of carcinoma						
9	Present the case after summarizing the findings	S	SH	Y	Bedside clinic	Skill assessment	

Number: SU25.5							
Topic: Demonstrate the correct technique to palpate the breast for breast swelling in a mannequin or equivalent (<i>Breast Lump</i>)							
Number of competencies: (9) Number of procedures that require certification: (NIL)							
Number	Competency & SLO	Domain	Millers pyramid level	core	T&L Methods	Assessment methods	Integration
1	Elicit document and present a surgical history that includes: presenting complaints, duration, onset, progression of symptoms, accompanying symptoms, relevant negative history, risk factors, family history, past history	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i. Elicit relevant history, including onset and progression and constitutional symptoms of loss of weight or appetite, document and present the same ii. Elicit history of similar complaints in first degree female relatives iii. Elicit history of prior treatment or surgeries to either breast 						
2	Perform General Physical Examination	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Perform general physical examination and inspect for clinical signs suggestive of underlying pathology and possibility of malignancy and metastasis ii Assess nutritional status and built, for pallor and for vitals 						

3	Perform inspection of breast	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Position the patient correctly for inspection of the breast ii Inspect the position, size, shape presence of any skin changes, status of nipple and areola, presence of any discharge or ulceration and compare with breast of opposite side iii Assess skin over the breast iv Assess nipple for position, number, size, shape surface, retraction, discharge v Assess areola for colour, size, shape, surface and texture vi Assess the adjoining arm and side of thorax for oedema, the axilla and supraclavicular fossa for presence of any coexisting swelling vii Assess the position of breasts and look for possible restriction of movement with the patient's hands raised above head 						
4	Perform Palpation of breast	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Position the patient properly for palpation of breast ii Assess for local rise of temperature and tenderness iii Palpate the breast tissue to assess for the status of parenchyma and the lump iv Assess size, shape, surface, consistency, margin, number mobility 						

	<ul style="list-style-type: none"> v or fixity of the lump vi Palpate all four quadrants of the breast vii Palpate of axillary tail viii Palpate to assess the nipple ix Assess for any discharge from the nipple or lump ix Assess ulcer is present 						
5	Examination of lymph nodes	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Assess the axilla to look for lymph nodes – all 5 groups to be assessed, look for tender lymphadenopathy and mobility and consistency of nodes ii Palpation of cervical lymph nodes iii Palpation of supraclavicular fossa for nodes 						
6	Systemic examination	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Examination of other systems ii Per abdominal examination to look for any mass or tumour or hepatomegaly iii Assessment for possible metastatic deposits 						
7	Perform Per Rectal examination	S	SH	Y	Bedside clinic	Skill assessment	
	<ul style="list-style-type: none"> i Perform per rectal examination to look for any deposits or growth 						

8	Perform per vaginal or scrotal examination (in males)	S	SH	Y	Bedside clinic Skills Lab	Skill assessment	
	i Perform per vaginal examination to rule out adnexal or forniceal fullness ii Perform examination of testes in males						
9	Present the case after summarizing the findings	S	SH	Y	Bedside clinic	Skill assessment	

Number: SU 28.2							
Topic: Demonstrate the correct method to examine the patient with Hernia (<i>inguino scrotal swellings</i>)							
Number of competencies: (7) Number of procedures that require certification: (NIL)							
Number	Competency & SLO	Domain	Millers pyramid level	core	T&L Methods	Assessment methods	Integration
1	Elicit document and present a surgical history that includes: presenting complaints, duration, onset, progression of symptoms, accompanying symptoms, relevant negative history, risk factors, family history, past history	S	SH	Y	Bedside clinic	Skill assessment	

	i. Elicit relevant history, document and present the same						
2	Perform General Physical Examination	S	SH	Y	Bedside clinic	Skill assessment	
	i Perform general physical examination of the patient						
3	Perform Inspection of the swelling	S	SH	Y	Bedside clinic	Skill assessment	
	i Perform inspection after proper positioning of the patient ii Assess the position, extent, size site, shape, surface and skin over the swelling iii Assess for expansile cough impulse over the swelling						
4	Perform Palpation of the Swelling	S	SH	Y	Bedside clinic	Skill assessment	
	i Assess for local rise of temperature and tenderness ii Assess position and extent of the swelling and confirm inspectory findings iii Assess consistency of the swelling iv Assess for reducibility v Assess for cough impulse						

5	Perform examination of external genitalia	S	SH	Y	Bedside clinic	Skill assessment	
	i Assess the testes, epididymis and spermatic cord						
6	Perform General Physical Examination	S	SH	Y	Bedside clinic	Skill assessment	
	i Examine chest for presence of tuberculosis ii Examine the abdomen for possibility of metastatic deposits iii Examine for any other mass per abdomen iv Examine for other groups of lymph nodes						
7	Present the case after summarizing the findings	S	SH	Y	Bedside clinic	Skill assessment	

Topics for AETCOM integration

Number	COMPETENCY The student should be able to		Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	

SU2.3	<p>Communicate and counsel patients and families about the treatment and prognosis of shock demonstrating empathy and care</p> <p>1. Counsel patient relatives regarding the prognosis of a patient presenting with hypovolemic shock</p>	A/C	SH	Y	DOAP session	Skill assessment	
SU8.1	<p>Describe the principles of Ethics as it pertains to General Surgery</p> <p>1. Describe the importance of autonomy in good surgical practice</p> <p>2. Describe the moral and legal boundaries and practical difficulties of informed consent</p>	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment	
SU8.2	<p>Demonstrate Professionalism and empathy to the patient undergoing General Surgery</p> <p>1. Describe the importance and boundaries of confidentiality in surgical practice</p> <p>2. Demonstrate the documentation of informed consent in surgical patient</p>	A/C	SH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce/ Skill assessment	
SU8.3	<p>Discuss Medico-legal issues in surgical practice</p> <p>1. Describe the various laws related to Informed consent</p> <p>2. Describe the laws explaining medical negligence in surgical practice (wrong site/ wrong patient etc..)</p>	A/C	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment	

5. ASSESSMENT:

a) SUMMATIVE ASSESSMENT- NIL; No summative assessment in General Surgery in this phase

b)INTERNAL ASSESSMENT

As per **GMER 2019, page.no.82-83, 11.1.1(b):**

20. There will be 2 theory internal assessment examinations in General Surgery. First theory internal assessment examination will be held after six months and second internal assessment examination will be held after 9 months of Phase II

21. There will be one clinical internal assessment at the end of clinical postings.

Internal assessment shall be based on day-to-day assessment. It shall relate to different ways in which learners participate in learning process. Day to day records and log book should be given importance in internal assessment. Internal assessment should be based on competencies and skills.

As per **GMER 2019, 9.5.3, page.no.75:**

(a) A designated faculty member in each unit will coordinate and facilitate the activities of the learner, monitor progress, provide feedback and review the log book/ case record.

(b) The log book/ case record must include the written case record prepared by the learner

PROPOSED MARKS ALLOCATION FOR INTERNAL ASSESSMENT

Theory: 60 marks; 1½ hours(90min) Clinicals; 40 marks

Long essays: 15 x 1 = 15 marks One Long case: 20 marks

Short essays: 5x5 = 25 marks

Short notes: 3x5=15 marks

MCQs: ½ x 10 = 5 marks

OSCE: 10 marks

Log book: 5 marks

Case Record: 5 marks

Annexure I - Recommended books:

RECOMMENDED BOOKS (Recent editions):

TEXT- BOOKS RECOMMENDED

1. A MANUAL ON CLINICAL SURGERY, Dr.S. Das
2. Bailey & Love's SHORT PRACTICE of SURGERY
3. Hamilton Bailey's Physical Signs: Demonstrations of Physical Signs in Clinical Surgery
4. Farquharson's Textbook of Operative General Surgery
5. Pye's Surgical Handicraft: A Manual of Surgical Manipulations, Minor Surgery

REFERENCE BOOKS:

LEVEL 1:

1. SABISTON TEXTBOOK of SURGERY: The BIOLOGICAL BASIS of MODERN SURGICAL PRACTICE
2. Schwartz's Principles of Surgery
3. Essentials of General Surgery

LEVEL 2:

1. Maingot's ABDOMINAL OPERATIONS
2. BLUMGART's Surgery of the Liver, Biliary Tract, and Pancreas
3. Fischer's Mastery of Surgery

(PS: this is just a model; not all questions are based on phase 2 topics)

JSS Medical College

DEPARTMENT OF GENERAL SURGERY

Theory Internal Assessment for MBBS-phase2

Date:

Time:

Max Marks: 60 marks

Instructions to the candidates;

5. Answer all questions;
6. Answers to be specific & Write legibly
7. Draw a neat and labeled diagram whenever necessary

Time allotted is 1½ hours(90mins)

Long essays: 15 x 1 = 15 marks

2. A young male patient received in casualty with history of blunt trauma abdomen, on examination patient vitals Pulse: feeble, BP- 60/40 mm of hg, on examination abrasion and ecchymosis over left hypochondrium.

What is your provisional diagnosis?

Describe pathophysiology of your diagnosis?

Describe the Clinical features of your diagnosis?

Describe the workup of your diagnosis?

Describe the treatment of your diagnosis?

(1+3+4+3+4 marks) = 15

Short essays: 5x5 = 25 marks

2. Complications of Parenteral Nutrition
3. Indications and choice of prophylactic Antibiotics
4. Discuss about various complications of Blood transfusion
5. Informed consent
6. Assessment of Nutrition in surgical patient

Short notes: 3x5=15 marks

7. Ebb and flow model of metabolic stress to surgery
8. Compartment syndrome and the management
9. Classify surgical wounds
10. Marjolin's ulcer
11. Various sources for data collection for clinical research in General Surgery

Multiple choice questions

½ x 10= 5 marks

All questions are compulsory

After severe trauma response to I.V fluids administration best monitored by;

- e) CVP
- f) Pulse rate
- g) PCV
- h) Urine Output

The length of feeding tube to be inserted for transpyloric feeding is measured from the tip of;

- e) Nose to umbilicus
- f) Ear lobe to umbilicus
- g) Nose to knee joint
- h) Ear lobe to pubic symphysis

Highest concentration of potassium is in?

- e) Plasma
- f) Ringer lactate
- g) Isotonic saline
- h) Darrow's solution

Best time for administration of prophylactic antibiotic?

- e) 1 day before surgery
- f) At the time of induction
- g) At the time of incision
- h) 2 days before to 3 days after surgery

SIRS with established source of infection is?

- e) Sepsis
- f) Shock
- g) MODS
- h) ARDS

Preoperative shaving ideally done at?

- e) Evening before
- f) Morning of surgery
- g) On operation table
- h) Just before surgery

10) Cellulitis commonly caused by?

- e) Streptococcal infection
- f) Gram negative organisms
- g) Viruses
- h) Mycoplasma

The maximum life of transfused RBC is:

- e) One hour
- f) One day
- g) 50 days
- h) 100 days

A man is rushed to casualty, nearly dying after massive blood loss in accident, not much time for Grouping and cross matching of blood, which of the blood group should surgeon order for transfusion?

- e) O negative
- f) O positive
- g) AB positive
- h) AB negative

Most important cause of death in Septic shock is:

- e) DIC
- f) Respiratory failure
- g) Renal failure
- h) Cardiac failure

Annexure-III

LOG BOOK FORMAT

PHASE II MBBS -DEPARTMENT OF GENERAL SURGERY

NAME OF THE CANDIDATE :

UNIVERSITY REGISTER NUMBER:

ACADEMIC YEAR :

BONAFIDE CERTIFICATE

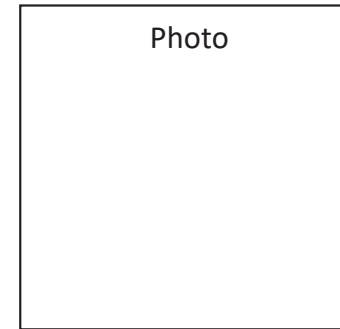
This is to certify that this log book is the bonafide record of Mr/Ms.....whose particulars along is given above. His/ Her log of competencies acquired, are as noted in the entries in this log book in the subject of Pathology as per the Competency Based Undergraduate Medical Education Curriculum, Graduate Medical Regulation 2019, during the period to.....

She / He will not be eligible / eligible to appear for the summative (University) assessment as on the date given below.

Signature with date

HOD of General Surgery:Signature with date

BASIC PROFORMA OF THE STUDENT



PARTICULARS OF THE STUDENT:

Name of the student :

Date of Birth :

Father's name :

Mother's name :

Address :

Contact number :

Email ID :

Signature:

**SUGGESTED GUIDELINES FOR LOG BOOK:
GENERAL INFORMATION:**

- 11) The logbook is a record of the academic / co-curricular activities of the designated student, who would be responsible for maintaining his/her logbook.
- 12) The student is responsible for getting the entries in the logbook verified by the Faculty In-charge regularly.
- 13) Entries in the logbook will reflect the activities undertaken in the department & have to be scrutinized by the Head of the concerned department.
- 14) The logbook is a record of various activities by the student like:
 - k. Overall participation & performance
 - l. Attendance
 - m. Participation in sessions
 - n. Record of completion of pre-determined activities.
 - o. Acquisition of selected competencies
- 15) The logbook is the record of work done by the candidate in that department / specialty and should be verified by the college before submitting the application of the students for the University examination.

SUMMARY OF ATTENDANCE

<i>Phase</i>	<i>Percentage of classes attended</i>		<i>Eligible for University examination (Yes / No)</i>	<i>Signature of student</i>	<i>Signature of teacher</i>
	<i>Theory</i>	<i>Practical</i>			
Attendance at the end of MBBS Phase II			NA		

SUMMARY OF INTERNAL ASSESSMENT (IA)

<i>Sl. No.</i>	<i>Internal Assessment</i>	<i>Date of Assessment</i>	<i>Total marks</i>		<i>Marks scored</i>		<i>Signature of student</i>	<i>Signature of teacher</i>
			<i>Theory</i>	<i>Practical</i>	<i>Theory</i>	<i>Practical</i>		
	First							
	Second							
	Remedial							

NON-CERTIFIABLE (SHOWS HOW) ACTIVITIES

# Competency	Name of Activity	Date completed	Rating	Decision of faculty	Initial of faculty and date	Feedback Received
			Below Expectations (C)	Completed		Initial of learner
			Meets Expectations (B)	Repeat Remedial		
			Exceeds Expectations (A)			

Format for documentation and feedback for Self-Directed Learning

Sl no	Date	Topic of SDL	Feedback	Signature of faculty/mentor
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				

Summary of formative assessment for the entire year

<i>Type of Assessment</i>	<i>Total marks</i>	<i>Marks scored</i>	<i>Signature of student</i>	<i>Signature of teacher with date</i>
SGD/Bedside Clinics	10			
Professionalism	10			
TOTAL	20			

Rubric for assessing the professionalism

<i>Phase</i>	<i>Areas assessed</i>					<i>Signature of student</i>	<i>Signature of teacher</i>
	<i>Regular for classes (5)</i>	<i>Submission of records (5)</i>	<i>Behaviour in class and discipline (5)</i>	<i>Dress code and presentability (5)</i>	<i>Total (20)</i>		
At the end of clinical postings							

SMALL GROUP DISCUSSION/BEDSIDE CLINICS – ASSESSMENT AND FEEDBACK

Module #	Name of SGD/SDL Activity	Date completed	Score	Initial of faculty And date	Feedback Received Initial of learner

Small group discussions will be scored based on the following criteria. Marks to be given

Score	Criteria for assessment
5	Is a proactive participant showing a balance between listening, initiating, and focusing discussion. Displays a proactive use of the whole range of discussion skills to keep discussion going and to involve everyone in the group. Understands the purpose of the discussion and keeps the discussion focused and on topic. Applies skills with confidence, showing leadership and sensitivity.
4	Is an active participant showing a balance between listening, initiating, and focusing discussion. Demonstrates all the elements of discussion skills but uses them less frequently and with less confidence than the above level. Keeps the discussion going but more as a supporter than a leader. Tries to involve everyone in the group. Demonstrates many skills but lacks the confidence to pursue them so that the group takes longer than necessary to reach consensus. Demonstrates a positive approach but is more focused on getting done than on having a positive discussion.
3	Is an active listener but defers easily to others and lacks confidence to pursue personal point of view even when it is right. Participates but doesn't use skills such as summarizing and clarifying often enough to show confidence. Limits discussion skills to asking questions, summarizing, and staying on topic. Lacks balance between discussion and analytical skills. Either displays good analysis skills and poor discussion skills or good discussion skills and poor analysis skills.
2	Is an active listener but defers easily to others and tends not pursue personal point of view, lacking confidence. Limits discussion skills to asking questions, summarizing and staying on topic. Rarely demonstrates analysis skills because doesn't understand the purpose of the discussion, and as a result, offers little evidence to support any point of view.
1	Demonstrates no participation or effort. Participates only when prompted by the teacher. Only responds to others and initiates nothing. Provides limited responses that are often off topic. Participates minimally so that it is impossible to assess analysis skills or understanding of the issues.

Other academic/non-academic activities
CONFERENCE/CME/WORKSHOP ATTENDED

SL NO	DATE	PARTICULARS	REMARKS IF ANY	SIGNATURE OF STAFF

SCIENTIFIC PROJECT PRESENTATIONS/REPORTS/ OUTREACH ACTIVITIES

SL NO	DATE	PARTICULARS	SIGNATURE OF STAFF

ACHIEVEMENTS/ AWARDS /ANY OTHER ACTIVITIES

SL NO	DATE	PARTICULARS	SIGNATURE OF FACULTY

EXTRACURRICULAR ACTIVITIES

SL NO	DATE	PARTICULARS	SIGNATURE OF FACULTY

OBSTETRICS & GYNAECOLOGY

PREAMBLE

The undergraduate medical education program is designed with a goal to create an “Indian Medical Graduate” (IMG) possessing requisite knowledge, skills, attitudes, values and responsiveness, so that she or he may function appropriately and effectively as a physician of first contact of the community while being globally relevant. Second Professional MBBS (12 months) is Entry level and hence has to be introductory in nature towards clinical medicine

Excerpts from GMER- Regulations on Graduate Medical Education (Amendment), 2019 and UG Curriculum Volumes 1, 2 & 3 have been utilized in preparing this syllabus document for Second Professional MBBS. Alignment / Horizontal and vertical Integration also has been attempted.

As per GMER 2019, Table 2, page.no.68: Distribution of subjects by Professional Phase. Second Professional MBBS (12 months) includes the following:

- Pathology, Microbiology, Pharmacology, Forensic Medicine and Toxicology,
- Introduction to clinical subjects including Community Medicine
- Clinical postings
- Attitude, Ethics & Communication Module (AETCOM)

As per GMER 2019, table 9, page.no.75 - Year 2: Focus of Learner - Doctor Program is History taking, physical examination, assessment of change in clinical status, communication and patient education

Keeping the above format as guiding framework, the department of Obstetrics and Gynaecology has planned teaching schedule (both theory and clinical postings) of second professional year MBBS students.

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2. GOALS AND OBJECTIVES

Syllabus in Obstetrics & Gynaecology for Second Professional MBBS (12 months)

GOALS:

The broad goal of teaching undergraduate students in Obstetrics and Gynaecology is that he/ she shall acquire understanding of Anatomy, Physiology and Pathophysiology of the reproductive system and gain the ability to optimally manage common conditions affecting it.

OBJECTIVES:

The objective of training the undergraduates in OBG is to ensure that he/she will be able to acquire the following proficiencies:

(a) KNOWLEDGE-

At the end of the course, the student shall be able to :

1. Outline the Anatomy, Physiology of the reproductive system.
2. Diagnosis of normal pregnancy (including prenatal and postnatal care), labour, puerperium.
3. List the leading causes of maternal and perinatal morbidity and mortality.
4. To understand physiology of menstruation, amenorrhea and abnormal menstrual bleeding

(b) SKILLS-

At the end of the course, the student shall be able to:

1. Examine a pregnant woman, recognize high risk pregnancies and make appropriate referrals.
2. Recognize the different stages of labour
3. Examination of a gynaecological patient and recognize abnormal gynaecological condition

(c) INTEGRATION

The student should be able to integrate clinical skills with other disciplines

DEPARTMENTAL OBJECTIVE

- a) Appreciate the socio-cultural, economic and demographic factors that influence the practice of OBG.
- b) Appreciate the principles of reproductive Anatomy and Physiology

AFFECTIVE:

- a) Communicate effectively with peers and teachers in various teaching learning activities in a manner that encourages participation and shared decision-making.

- b) Demonstrate interpersonal and communication skills befitting a physician in order to discuss illness and its outcome with patient and family
- c) Obtain a logical sequence of history, and perform a humane and thorough clinical examination, excluding internal examinations (per speculum, per vaginal examinations)
- d) Understand the implication of medico legal and ethical issues concerning the speciality.

COURSE OUTCOME:

At the end of 4 weeks of clinical postings the learner shall be familiar with few common obstetric & gynaecological conditions and will be able to demonstrate the skills required for eliciting history & basic clinical examination in normal pregnancy

3. TERMS AND TEACHING GUIDELINES

1. LECTURE

Is a teaching learning method which includes traditional and interactive sessions involving a large group.

Hours of teaching: 25 hours

2. SMALL GROUP DISCUSSION(BEDSIDE CLINICS/OPD Teaching as applied to CLINICAL POSTINGS in OBSTETRICS & GYNAECOLOGY)

Is an instructional method involving small groups of students in an appropriate learning context. (ward/OPD teaching as applied to CLINICAL POSTINGS in OBSTETRICS & GYNAECOLOGY)

The clinical postings in the second professional will be 15 hours per week X 4 weeks (**3 hrs per day from Monday to Friday as per GMER 2019, page.no.69**) covering History taking, Symptomatology, GPE & Systemic examination pertaining to all major systems & disorders

3. Learner-doctor method of clinical training (Clinical Clerkship)

Provides learners with experience in longitudinal patient care being part of the health care team with Hands-on care of patients in outpatient and inpatient setting. The first clinical posting in second professional shall orient learners to the patient, their roles and the speciality.

4. CORE

A competency that is necessary in order to complete the requirements of the subject (traditional must know)

5. NON – CORE

A competency that is optional in order to complete the requirements of the subject (traditional nice (good) to know/ desirable to know.

Syllabus at a glance Obstetrics & Gynaecology for Second Professional MBBS (12 months)

B. Number of teaching hours:

<u>Teaching method</u>	<u>Hours</u>
Lecture	25 (1hr X 25)
Clinical postings	60 (15 hours per week X 4 weeks - 3hrs per day from Monday to Friday)
Total	85

MINIMUM TEACHING HOURS WITH TOPICS

Sl.No	Topic	Number of competencies	Lecture (Hrs)
1	Anatomy & Physiology of Female genital Tract along with its anomalies	03	06
2	Physiology of Pregnancy	01	02
3	Prenatal care	03	03
4	Diagnosis of pregnancy & Antenatal care	09	03
5	Physiology of Labour & Puerperium including Lactation	07	04
6	Vital statistics in Obstetrics	01	01
7	Causes & prevention of maternal mortality & morbidity	02	02
8	Paediatric & Adolescent Gynaecology	03	01
9	Primary & Secondary amenorrhoea	01	01

10	Physiology of menstruation and its abnormalities	01	01`
11	Normal & Abnormal vaginal discharge	02	01
	TOTAL		25

Clinical postings - 60 hours: 15 hours per week X 4 weeks - 3 hrs per day from Monday to Friday

1	Introduction&History taking in Obstetrics	12
2	History taking in Gynaecology	06
3	Obstetric Examination	06
4	Gynaecological Examination	06
5	Maternal pelvis & Foetal skull	06
6	Mechanism of Labour	06
7	Management & Conduct of Normal labour	12
8	Puerperium	06
	TOTAL	60

Internal Assessment

22. First theory internal assessment examination in Obstetrics & Gynaecology will be held after six months(end of block 2) and second internal assessment examination will be held after 9 months of Phase II (end of block 3)
23. There will be one clinical internal assessment at the end of clinical postings.

4. COMPETENCIES, SPECIFIC LEARNING OBJECTIVES, TEACHING LEARNING & ASSESSMENT METHODS

(CODE: IM; Competencies have been combined if they are similar)

Number	Competency & SLOs	Domain	Millers pyramid level	core	T&L Methods	Assessment methods	Integration
Topic:Demographic And Vital Statistics		Number of competencies: (03)		Number of procedures that require certification: (NIL)			
OG 1.1	Define and discuss birth rate, maternal mortality and morbidity	K	KH	Y	Lecture	Long/short essay/MCQs	Pathology
	1. Define MMR, Incidence, describe causes and methods of preventing MMR in India. 2. Write detailed account of social obstetrics. 3. Enumerate health services in India. 4. Role of Antenatal Care in reducing MMR 5. Safe motherhood. 6. Avoidable factors in Maternal Mortality. 7. Define MMR, Incidence, describe causes and methods of preventing MMR in India. 8. Write detailed account of social obstetrics. 9. Enumerate health services in India. 10. Role of Antenatal Care in reducing MMR 11. Safe motherhood. 12. Avoidable factors in Maternal Mortality.						
OG 1.2	Define and discuss perinatal mortality (PMR) and morbidity along with audit	K	KH	Y	Lecture	Long/short essay/MCQs	Pathology
	1. Define PMR., Incidence, causes and methods of preventing PMR in India						

	2. Define birth rate.						
OG 1.3	Define and discuss still birth and abortion						
	1. Define still birth rate and discuss causes of still birth and prevention.						
Topic: Embryology Number of competencies:(01) Number of procedures that require certification:(NIL)							
OG 2.1	Describe development of female genital organs	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce	
	<ol style="list-style-type: none"> 1. Describe development of gonads. 2. Describe development of uterus. 3. Describe development of fallopian tube. 4. Describe development of vagina. 5. Enumerate basis of anomalies associated with development of female genital system. 6. Describe development and fate of mesonephric and paramesonephric duct. 7. Enumerate development of female external genitalia 8. Discuss Embryology of fetus and mention factors influencing fetal growth and development. 9. Congenital malformations of female genital organs. 						
Anatomy of female genital tract Number of competencies:(01) Number of procedures that require certification :(NIL)							
OG 2.1	Relationship to other pelvic organs, applied anatomy related to obstetrics and gynaecology.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce	
	<ol style="list-style-type: none"> 1. Describe anatomy of female genital organs and its relationship to other pelvic organs and its applied anatomy. 2. Describe external genital organs. 3. Describe course of ureter in pelvis and its surgical importance. 4. Describe female urethra and it's applied anatomy. 5. Discuss anatomy of pelvic floor / pelvic diaphragm. 						

	6. Biomechanical basis of utero- vaginal support. 7. Pelvic peritoneum. 8. Blood supply, lymphatic drainage and innervation of pelvic organs. 9. Describe urogenital diaphragm and it's applied anatomical aspects. 10. Describe functional anatomy of Cervix and dynamics of squamo-coloumnar junction. 11. Describe perineal body and it's clinical significance. 12. Describe endopelvic fascia ant it's clinical significance. 13. Describe anatomy and place of Internal iliac artery in OBG.						
Bony pelvis		Number ofcompetencies:(01)		Number of procedures that require certification :(NIL)			
OG 8.5	Demonstrate anatomical position of bony pelvis and show boundaries of inlet, outlet and cavity.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce	
	1. Identify parts of bony pelvis. 2. Classify bony pelvis. 3. Mention commonest type of bony pelvis. 4. How to hold bony pelvis in anatomical position? 5. Describe and enumerate boundaries of inlet/ outlet / cavity. 6. Describe diameters of maternal pelvis. Demonstrate diameters and mention clinical significance of each diameter. 7. Define true and false pelvis. Mention its significance. Demonstrate boundaries of true and false pelvis.						
Topic 3: Physiology of conception		Number ofcompetencies:(01)		Number of procedures that require certification:(NIL)			
OG 3.1	Describe female reproductive system	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce	
	1. Function of ovary and its control. 2. Menstrual cycle. Hormonal, uterine and ovarian changes. 3. Describe fundamentals of reproduction.						

	5. Genetic screening						
Topic: Maternal changes in pregnancy		Number of competencies:(01)		Number of procedures that require certification:(NIL)			
OG 7.1	Describe, discuss changes in genital tract , cardiovascular system, respiratory, haematology, renal and gastrointestinal system in pregnancy	K	KH	Y	Lecture, seminars	Theory	
	<ul style="list-style-type: none"> 1. Changes in genital organs Changes in vulva Changes in Vagina Changes in uterus and fallopian tubes Changes in Ovary 2. Changes in Breasts 3. Haematological changes 4. Cardiovascular changes 5. Metabolic changes Systemic changes 						
Topic: Diagnosis of pregnancy		Number of competencies:(01)		Number of procedures that require certification:(NIL)			
OG6.1	Describe discuss and demonstrate the clinical features of pregnancy, derive and discuss its differential diagnosis, elaborate the principles underlying and interpret pregnancy tests	S	SH	Y	Lecture, bedside clinics, small group discussion	Theory clinical assessment	
	<ul style="list-style-type: none"> 1. Subjective symptoms 2. Cutaneous signs 3. Vaginal/uterine signs of pregnancy 4. Obstetric examination and grips 5. Ultrasound features of pregnancy 6. Differential diagnosis of pregnancy 7. Principle of immunological tests of pregnancy 8. Different immunological tests 9. Estimation of gestational age 						
Topic: Antenatal care		Number of competencies:(08)		Number of procedures that require certification:(NIL)			
OG8.1	Enumerate, describe and discuss the objectives of antenatal care, assessment of period of gestation, screening of high risk factors	K/S	SH	Y	Lecture, bedside clinics	Theory clinical assessment	

	<ol style="list-style-type: none"> 1. Aims and objectives of antenatal care 2. Definition of antenatal care 3. Assessment of period of gestation 4. ANC visits 5. Assessment during each visit 6. Enumerate high risk factors 7. Antenatal advice-sleep,hygiene,travel etc 8. Exercise during pregnancy 						
OG8.2	Elicit document,and present an obstetric history including menstrual history,LMP,previous obstetric history,comorbid conditions,past medical historyand surgical history	K/S	SH	Y	Lecture,bedside clinics	Theory clinical assessment	
	<ol style="list-style-type: none"> 1. General details of women-Age/occupation/address etc 2. Complaints of the patient/History of present illness 3. History of present pregnancy 4. Definition of gravida/parity 5. Calculation of gestational age 6. Calculation of EDD 7. menstrual history 8. Personal history 9. Past medical and surgical history 10. Drug history and allergies 						
OG8.3	Describe,demonstrate,Document and perform an obstetrical examination including a general and abdominal examination and clinical monitoring of maternal and fetal well being	K/S	SH	Y	Lecture,bedside clinics	Theory clinical assessment	
	<ol style="list-style-type: none"> 1.General examination-head to toe 2.bp recording and vitals 3. Other systemic examination-rs/cvs/Cns 4.Obstetric examination-Inspection 5.Palpation-Obstetric grips 						

	6.Estimation of gestational age by uterine size 7.Measurement of SFH 8.Auscultation-FHS						
OG8.4	Describe and demonstrate clinical monitoring of maternal and fetal well being	K/S	SH	Y	Lecture,bedside clinics	Theory clinical assesement	
	1.Aims of antenatal fetal monitoring 2.Indications 3.clinical assesement-maternal weight gain 4.Asseement of SFH,Gravidogram 3.biochemical tests-triple test,quadruple test 5.Fetal movement count 6.non stress test 7.Fetal biophysical profile 8.contraction stress test 9.Doppler Ultrasound 10.Amniotic fluid volume						
OG8.5	Describe,demonstrate pelvic assesement in a model	K/S	SH	Y	Lecture,bedside clinics	Skill/clinical assesement	
	1.Pelvic anatomy 2.pelvic planes 3.Pelvic diameters 4.Pelvic Axis 5.Pelvic types 6.clinical pelvimetry-demonstrate assesement of pelvis 7.Definition of CPD,Contracted pelvis 8.Diagnosis Of Cephalopelvic disproportion-different methods						
OG8.6	Assess and coucel a patient in a simulated environment regarding appropriate nutrition in pregnancy	K/S	SH	Y	Lecture,bedside clinics	Theory clinical assesement	
	1.Dietary allowance in pregnancy 2.weight gain in pregnancy						

	<ul style="list-style-type: none"> 3. Energy requirement during pregnancy 4. folic acid supplementation 5. Iron supplementation 6. Calcium supplementation 7. Birth defects/Syndromes associated with nutrition deficiencies/Excess intake 						
OG8.7	Enumerate the indications for and types of vaccination in pregnancy	K/S	SH	Y	Lecture, bedside clinics	Theory clinical assessment	
	<ul style="list-style-type: none"> 1. types of vaccine 2. routes of administration 3. timing of immunization 4. benefits and risks of maternal immunization 5. vaccines indicated 6. vaccines contraindicated 7. breastfeeding and vaccination 						
OG8.8	Enumerate the indications and describe the investigations including the use of ultrasound in the initial assessment and monitoring of pregnancy	K/S	SH	Y	Lecture, bedside clinics	Theory clinical assessment	
	<ul style="list-style-type: none"> 1. Routine investigations-HB, blood grouping, urine routine 2. Serological investigations-HIV, HbsAG, HCV 3. biochemical tests-MSAFP, Triple test, Quadruple test etc 4. Amniocentesis 5. CVS 6. cordocentesis 7. Tests for fetal lung maturity 8. indications for USG in obstetrics 9. first trimester USG 10. Second trimester USG 11. Third trimester USG 						

Topic: Labour Number ofcompetencies:(03) Number of procedures that require certification:(NIL)							
OG13.1	Enumerate and discuss the physiology of normal labor, mechanism of labor in occipito-anterior presentation; monitoring of labor including partogram; conduct of labor, pain relief; principles of induction and acceleration of labor; management of third stage of labor.	K/S	KH	Y	Lecture, Small group discussion (with models/ videos/ AV aids, etc.)	Theory/Clinical assessment/ Viva voce	
	<ol style="list-style-type: none"> 1. Definition of normal labour 2. Causes of onset of labour 3. True and false labour pains 4. Physiology of normal labor (events in 1st,2nd,3rd stage) 5. Mechanism of normal labour 6. Mechanism of labor in occipito-anterior presentation 7. Monitoring of labor including partogram; 8. Conduct of labor 9. Pain relief and labour analgesia 10. Principles of induction and acceleration of labor 11. Management of 1st stage of labour 12. Management of 2nd stage of labour 13. Episiotomy 14. Immediate care of newborn 15. Management of third stage of labor. 3rd stage complications 						
OG13.4	Demonstrate the stages of normal labor in a simulated environment/ mannequin and counsel on methods of safe abortion.	S	SH	Y	DOAP session	Skill assessment	
OG13.5	Observe and assist the conduct of a normal vaginal delivery	S	P	Y	DOAP session	Log book	
Topic: Lactation Number ofcompetencies:(03) Number of procedures that require certification:(NIL)							
OG 17.1	Describe and discuss the physiology of lactation	K/S	SH	Y	Lecture,bedside clinics	Long essay, short essay, clinical case discussion	

	<ol style="list-style-type: none"> 1. Physiology of lactation 2. Stimulation of lactation 3. Drugs to improve milk production 4. Lactation suppression 5. Composition and importance of colostrum 						
OG 17.2	Counsel in a simulated environment, care of the breast, importance and the technique of breast feeding	K/S	SH	Y	Lecture, bedside clinics	Theory clinical assessment	
	<ol style="list-style-type: none"> 1. Care of breast 2. Technique of Breast feeding 3. Importance of Breast feeding 4. Advantages of Breast feeding 						
OG 17.3	Describe and discuss the clinical features, diagnosis and management of mastitis and breast abscess	K/S	SH	Y	Lecture, bedside clinics	Theory clinical assessment	
Topic: Normal Puerperium Number of competencies:(01) Number of procedures that require certification:(NIL)							
OG 19.1	Describe and discuss the physiology of puerperium, its complications, diagnosis and management	K	KH	Y	Lecture, bedside clinics	Long essay, short essay, clinical case discussion	
	<ol style="list-style-type: none"> 1. Involution of genital organs 2. Physiological changes 3. Lochia 4. Management of normal puerperium <ul style="list-style-type: none"> • Ambulation • Discharge from Hospital • Diet • Care of bowel and bladder • Care of Episiotomy wound • Immunisation 						

Topic: Normal and abnormal puberty							
Number of competencies:(03)		Number of procedures that require certification:(NIL)					
OG23.1	Describe and discuss the physiology of puberty, features of abnormal puberty, common problems and their management	K	KH	Y	Lecture, Small group discussion, Bedside clinics	Written/ Viva voce	
	<ol style="list-style-type: none"> 1. Define puberty . 2. Define telarche, adrenarche, menarche . 3. Describe the biological sequential events during puberty in females 4. Describe Tanner's classification of development of female secondary sex characteristics . 5. Describe the physiology /endocrinology of puberty in females 6. Describe features of abnormal puberty in females 7. Mention the common disorders of puberty and their management 8. Enumerate the common causes of hirsutism /virulization in female adolescents 						
OG23.2	Enumerate the causes of delayed puberty. Describe the investigation and management of common causes	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce	
	<ol style="list-style-type: none"> 1. Define delayed puberty 2. Enumerate the causes of delayed puberty 3. Describe how do you diagnose delayed puberty by history taking , clinical examination and investigation . <p>How do you manage a patient with delayed puberty</p>						
OG23.3	Enumerate the causes of precocious puberty	K	K	N	Lecture, Small group discussion	Written/ Viva voce	
	<ol style="list-style-type: none"> 1. Define precocious puberty 2. Enumerate the causes of precocious puberty <p>How do you diagnose and manage a patient with precocious puberty</p>						

Topic: Abnormal uterine bleeding Number of competencies:(01) Number of procedures that require certification:(NIL)							
OG24.1	Define, classify and discuss abnormal uterine bleeding, its aetiology, clinical features, investigations, diagnosis and management	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce	
	<ol style="list-style-type: none"> 1. Define abnormal uterine bleeding 2. Define acute and chronic AUB 3. Define heavy menstrual bleeding 4. Describe the etiology of abnormal uterine bleeding in different age groups 5. Classify abnormal uterine bleeding according to recent FIGO system 1 and 2 6. Describe the clinical features of abnormal uterine bleeding 7. Describe the investigations done for a patient of abnormal uterine bleeding 8. How do you diagnose and manage different causes of abnormal uterine bleeding 						
Topic: Amenorrhea Number of competencies:(01) Number of procedures that require certification:(NIL)							
OG25.1	Describe and discuss the causes of primary and secondary amenorrhea, its investigation and the principles of management.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce	
	<ol style="list-style-type: none"> 1. Define amenorrhoea 2. Mention the clinical types 3. Define primary and secondary amenorrhoea 4. Describe the classification of primary amenorrhoea 5. Discuss the clinical approach to a patient with primary amenorrhoea 6. Describe the investigations for a patient of primary amenorrhoea 7. Describe the principles of management of primary amenorrhoea 8. Define cryptomenorrhoea 9. Enumerate the causes of cryptomenorrhoea 						

	10. Discuss diagnose and management of a patient with crytomenorrhoea 11. Enumerate the causes of secondary amenorrhoea 12. Describe the investigation for a patient of secondary amenorrhoea 13. Describe the diagnosis and management of patient of secondary amenorrhoea 14. Define premature ovarian failure 15. Enumerate the causes of premature ovarian failure 16. Enumerate the causes of hyperprolactinemia Define sheehans syndrome						
Topic: Vaginal discharge Number of competencies:(02) Number of procedures that require certification:(NIL)							
OG 22.1	Normal vaginal flora Characteristics of physiological vaginal discharge	K	KH	Y	Lecture,bedside clinics	Short answer, short essay, viva voce, OSCE	
	1.Normal defence mechanism 2.Genital Hygiene 3. Leucorrhoea						
OG 22.2	Abnormal vaginal discharge						
	1. Etiology for pathological vaginal discharge 2. Diagnosis and treatment of Trichomonas vaginalis infection, Candidiasis, Bacterial Vaginosis 3. Syndromic management						

CLINICAL POSTINGS

Bedside Clinical Teaching(Bedside clinics, ward rounds & OPD,Skills lab ; DOAP) covering History taking, Symptomatology, GPE & Systemic examination pertaining to all major systems & disorders plus Self-directed Learning towards History taking & Physical Examination (in the form of independent case taking).

As per UG Curriculum document Vol 1, page.no.18: 3.1.5-8):

At the end of 2nd professional MBBS, the student should be able to:-

- Demonstrate ability to elicit and record from the patient, and other relevant sources including relatives and caregivers, a history that is complete and relevant to disease identification, disease prevention and health promotion.
- Demonstrate ability to elicit and record from the patient, and other relevant sources including relatives and caregivers, a history that is contextual to age, vulnerability, social and economic status, patient preferences, beliefs and values.
- Demonstrate ability to perform a physical examination that is complete and relevant to disease identification, disease prevention and health promotion.
- Demonstrate ability to perform a physical examination that is contextual to social and economic status, patient preferences and values

Number	Competency & SLOs	Domain K/S/A/C	Millers pyramid level K/KH/SH/P	Core Y/N	T & L methods	Assessment methods
OG8.2	Elicit document and present an obstetric history including menstrual history, last menstrual period, previous obstetric history, comorbid conditions, past medical history and surgical history	K/S/A/C	KH/SH	Y	Small group discussion, Bedside clinics, Lecture	Viva voce/ Skill assessment
	1. Demographic history (Name, Age, Education, Occupation, Address, Socio-economic history)					

	<ol style="list-style-type: none"> 2. Presenting complaints 3. History of present pregnancy 4. Obstetric history- married life, consanguinity, obstetric score, details of previous pregnancies and contraception 5. Menstrual history- Past cycles, LMP, EDD. Period of gestation 6. Past medical and surgical history 7. Family history 8. Personal history including history of hypersensitivity to any food/drug 					
OG8.3	Describe, demonstrate, document and perform an obstetrical examination including a general and abdominal examination and clinical monitoring of maternal and fetal well-being;	K/S	SH	Y	Bed side clinic, DOAP session	Clinicals
	<p>Perform Abdominal Examination - Inspection</p> <ol style="list-style-type: none"> 1. Look for abdominal distension and contour 2. Note whether flanks are full or not 3. Umbilicus – whether normal/ everted/ flushed with skin surface 4. Linea nigra and striae gravidarum looked for 					

	<p>5. Any scars/ sinuses Cough impulse at hernia orifices Perform Abdominal Examination – Palpation</p> <ol style="list-style-type: none"> 1. Determine fundal height 2. Measure symphysiofundal height and abdominal girth 3. Perform Obstetric Grips <ul style="list-style-type: none"> • Fundal grip • Lateral /umbilical grip • First pelvic grip • Second pelvic grip <p>Determine uterine tone To calculate Estimated fetal weight using Johnson’s formula $EFW = (SFH - 12) \times 115$ Auscultation of fetal heart rate Check for fetal heart rate and regularity</p>					
OG8.6	Assess and counsel a patient in a simulated environment regarding appropriate nutrition in pregnancy	K/S	SH	Y	DOAP session, Bedside clinic, Roleplay	Skill assessment
OG8.7	Enumerate indication for and types of vaccination in pregnancy <ol style="list-style-type: none"> 1. Tetanus toxoid 2. TdaP 3. Td 	K	KH	Y	Lecture, Small group discussion	Clinical assessment/ Viva voce
OG8.8	Enumerate the indications and describe the investigations including the use of ultrasound in the initial assessment and monitoring in pregnancy	K	KH	Y	Lecture, Small group discussion	Clinical assessment/ Viva voce

	<ol style="list-style-type: none"> 1. Hb%, PCV, Blood grouping and Rh typing, TSH, OGTT, VDRL, HIV, HBsAg, HCV 2. Urine-albumin, sugar, microscopy 3. USG- Dating scan, NT scan, Anomaly scan, Growth scan, Term scan 					
Elicit document and present history of a gynaecological case						
OG35.1	<p>Obtain a logical sequence of history, and perform a humane and thorough clinical examination.</p> <ol style="list-style-type: none"> 1. Demographic history (Name, Age, Education, Occupation, Address, Socio-economic history) 2. Presenting complaints- -Details of menstrual irregularities -Abnormalities in white discharge -Mass per abdomen -Mass per vaginum 3. Menstrual history- Past cycles and present cycle 4. Obstetric history- married life, consanguinity, obstetric score, details of previous pregnancies and contraception 5. Past medical and surgical 	K/S	SH	Y	Bedside clinics	Clinical assessment

	<p>history</p> <p>6. Family history</p> <p>7. Personal history including history of hypersensitivity to any food/drug</p>					
	Perform abdominal examination – Inspection	S	SH	Y	Bedside clinics	Clinical assessment
SLO	<p>1.Shape – scaphoid or obese</p> <p>2.Any visible mass or distension</p> <p>3.Umbilicus position, whether inverted, everted or flattened</p> <p>4.Engorged veins if any</p> <p>5. Any visible peristalsis or pulsations</p>					
	Perform abdominal examination – Palpation	S	SH	Y	Bedside clinics	Clinical assessment
	<p>1.Local rise of temperature</p> <p>2. Tenderness</p> <p>3. Size of the mass with respect to gravid uterus size</p> <p>4. Site in relation to quadrants of the abdomen</p> <p>5. Consistency</p> <p>6. Mobility</p> <p>7. Surface</p> <p>8. Skin over the mass</p>					
	Perform abdominal examination - Percussion	S	SH	Y	Bedside clinics	Clinical assessment
	1.Percussion over the mass if any – dull or resonant					
	Perform abdominal examination- Auscultation	S	SH	Y	Bedside clinics	Clinical assessment
	Auscultate bowel sounds, bruit if any					
	Examination of External genitalia	S	SH	Y	Bedside clinics	Clinical assessment

	<ul style="list-style-type: none"> • Vulval pad of fat • Introitus 					
	Per speculum examination	S	SH	Y	Bedside clinics	Clinical assessment
	<ul style="list-style-type: none"> • VAGINA- Colour, rugosity, discharge, lesions if any • CERVIX- direction, nulliparous/multiparous, lesions 					
	Per vaginum examination	S	SH	Y	Bedside clinics	Clinical assessment
SLO	CERVIX- direction, consistency, mobility, tenderness					
	Bimanual examination	S	SH	Y	Bedside clinics	Clinical assessment
SLO	UTERUS- Position, size, consistency, mobility, tenderness					
		S	SH	Y	Bedside clinics	Clinical assessment
SLO	Fornices-Any mass, tenderness					
OG35.2	Arrive at a logical provisional diagnosis after examination.	K/S	SH	Y	Bedside clinics	Clinical assessment/ Viva voce

Topic: General Physical Examination; General Survey – Head to toe examination							
Number of competencies: (7) Number of procedures that require certification: (NIL)							
Number	Competency	Domain	Millers pyramid level	core	T&L Methods	Assessment methods	Integration
1	Examine Head, Nose and Throat	S	SH	Y	Bedside	Skill	

	<ul style="list-style-type: none"> iv Examine head/ hair v Perform inspection of oral cavity and look for any cyanosis, oral hygiene and odour 				clinics	assessment	
2	Examine the Eyes	S	SH	Y	Bedside clinics	Skill assessment	
	<ul style="list-style-type: none"> iii Inspect bulbar conjunctiva for icterus iv Inspect palpebral conjunctiva for pallor 						
	<ul style="list-style-type: none"> v Examine the external ears for any abnormality 						
3	Examine the Neck	S	SH	Y	Bedside clinics/	Skill assessment	
	<ul style="list-style-type: none"> vi Palpate for lymph node for size, site, fixation to surrounding areas, consistency, tenderness in all areas 						
	<ul style="list-style-type: none"> vii Inspect thyroid from front or side of patient viii Palpate thyroid 						
4	Examine the Hands	S	SH	Y	Bedside clinics	Skill assessment	
	<ul style="list-style-type: none"> iv Inspect the dorsal and palmar aspect of hands v Inspect the nail from the side and observe the distal phalanges, nail and nail bed 						

5	Examine for oedema	S	SH	Y	Bedside clinics	Skill assessment	
	iv Check for oedema in the ankles and legs and in the sacral region for bed bound patients						
6	Assess General body proportions	S	SH	Y	Bedside clinics	Skill assessment	
	v Assess for any abnormalities in stature and body proportions vi Measure height and weight and calculate BMI						
7	Examination of breasts	S	SH	Y	Bedside clinics	Skill assessment	
	i Physiological changes in pregnancy ii Nipples- everted, flattened, inverted						
8	Examination of Spine& Gait	S	SH	Y	Bedside clinics	Skill assessment	
	i To look for any spinal abnormalities like Kyphosis, Scoliosis						

Topic: Physical Examination of Vitals							
Number of competencies: (14) Number of procedures that require certification: (NIL)							
Number	Competency & SLO	Domain	Millers pyramid level	core	T&L Methods	Assessment methods	Integration
1	Examine the Pulse	S	SH	Y	Bedside clinics	Skill assessment	
	v Palpate the right radial artery and assess the rate and rhythm; condition of vessel wall						
	vi Palpate brachial artery and carotid artery to assess the volume/character of pulse						
	vii Examine all the peripheral pulses including femoral, popliteal, dorsalis pedis, etc.						
viii Palpate both radial and radial with femoral to assess any delay							
2	Examine the Blood Pressure	S	SH	Y	Bedside clinics	Skill assessment	
	iv Examine the blood pressure using appropriate size cuff in Right arm in supine position. Palpatory method before auscultatory						
	v Examine the blood pressure using appropriate size cuff in Left arm in sitting position by palpatory and auscultatory method.						
vi Check for Orthostatic hypotension							
3	Examine Respiratory Rate	S	SH	Y	Bedside clinics	Skill assessment	
	iii Examine the respiratory rate and pattern of respiration						

4	Assess the temperature	S	SH	Y	Bedside clinics	Skill assessment	
	iv Assess axillary temperature						

Topic: Physical Examination of Respiratory System							
Number of competencies: (9) Number of procedures that require certification: (NIL)							
Number	Competency & SLO	Domain	Millers pyramid level	core	T&L Methods	Assessment methods	Integration
8	Perform Auscultation of the chest	S	SH	Y	Bedside clinic Skills Lab	Skill assessment	
	vi Auscultate all appropriate chest wall locations/areas vii Compare each location on each side while auscultating						
Topic: Physical Examination of Cardiovascular System							
Number of competencies: (9) Number of procedures that require certification: (NIL)							
Number	Competency & SLO	Domain	Millers pyramid level	core	T&L Methods	Assessment methods	Integration
8	Perform Auscultation of the chest	S	SH	Y	Bedside clinic Skills Lab	Skill assessment	
	i Auscultate Mitral and Tricuspid areas						

5. ASSESSMENT:

a) SUMMATIVE ASSESSMENT- NIL; No summative assessment in Obstetrics & Gynaecology in this phase

b)INTERNAL ASSESSMENT

<u>A E T C O M</u>						
Attitude, Ethics & Communication						
Number	Competency & SLOs	Domain K/S/A/C	Millers pyramid level K/KH/SH/P	Core Y/N	T & L methods	Assessment Method
MODULE 2.1						
	Effective communication skill with emphasis on active listening and data gathering.	K	SH	Y	Small group teaching	Formulative assessment
MODULE 2.2						
	Role of non maleficence in guiding patient care.	C	KH	Y	Lecture class. Role play.	Short essay
	Role of beneficence in a guiding principle in patient care.	K	KH	Y	Lecture class. Role play.	Short essay
MODULE 2.3						
	Role of doctor in healthcare system	K	KH	Y	Lecture class	Short notes
MODULE 2.4						
	Ability to work in team and relationship with peers and superiors.	C		Y	Tag along/small group teaching.	Formative assessment
MODULE 2.7						
	Medico-legal, racial cultural and ethical issues pertaining to consent for surgical procedures.	K	KH	Y	Lecture class. Small group teaching.	Formative assessment- participation in the sessions. Short essay.

As per **GMER 2019, page.no.82-83, 11.1.1(b)**:

24. There will be 2 theory internal assessment examinations in Obstetrics & Gynaecology. First theory internal assessment examination will be held after six months and second internal assessment examination will be held after 9 months of Phase II
25. There will be one clinical internal assessment at the end of clinical postings.

Internal assessment shall be based on day-to-day assessment. It shall relate to different ways in which learners participate in learning process. Day to day records and log book should be given importance in internal assessment. Internal assessment should be based on competencies and skills.

As per **GMER 2019, 9.5.3, page.no.75**:

- (a) A designated faculty member in each unit will coordinate and facilitate the activities of the learner, monitor progress, provide feedback and review the log book/ case record.
- (b) The log book/ case record must include the written case record prepared by the learner

PROPOSED MARKS ALLOCATION FOR INTERNAL ASSESSMENT

Internal Assessment 40 marks

Obstetrics: Long essays: 10 x 1 = 10 marks

Gynaecology: Long essays: 10 x 1 = 10 marks

Record 10 X 1 = Marks

Attendance 10 X 1 = Marks

Annexure I -Recommended books:

RECOMMENDED BOOKS (Recent editions):

1. Mudaliar & Menon's Clinical Obstetrics, Mudaliar A.L. & Krishna Menon, Orient Longman, Chennai
2. Text book of Obstetrics, V. Padubidri, E. Anand, BI Publications, New Delhi
3. Manual of Obstetrics, Seth Sirish N. Daftary Sudip Chakravathi, Elsevier, New Delhi
4. Holland & Brews, Manual of Obstetrics, Daftary Sirish N., Churchill Livingstone New Delhi
5. Obstetrics Daftary N.S. Jani, Elsevier, New Delhi
6. Text book of Obstetrics, Sudha Salhan, Jaypee Brothers, New Delhi
7. Text book of Obstetrics, Dutta D.C. New Central Book Agency, Calcutta
8. Practice of Fertility control S.K. Chaudhri Elsevier
9. Text book of Obstetrics, Sheila Balakrishnana, Paras Publishing
10. Essentials of Obstetrics, S. Arulkumaran, Prataph Kumar, Alokendu Chatterjee, V. Sivanesarathnemma, Jaypee
11. Williams Obstetrics Cunningham, Mc Graw Hill
12. Jan Doivald's Practical Obstetric Problems Renu Mishra, BI Publications, New Delhi
13. Practical Guide to high risk pregnancy and delivery Arius Fernando Harcourt Brace & Co. Singapore
14. Medical Disorders in Obstetrics, Michael De Swiet Bluckwell Scientific Co. London
15. Operative Obstetrics, Munro Keer Saunders Reference Books, Recent Editions
16. Hawkins & Bourne Shaw's Textbook of Gynaecology, U.G. Padubidri, S.N. Daftary Elsevier, New Delhi
17. Textbook of Gynaecology including contraception, Dutta P.C., New Control Book Agency, Calcutta
18. Clinical Gynaecology. K. Bhaskar Rao
19. Essentials of Gynaecology, S. Arulkumaran, Pratap Kumar, V.S. Ratnam, Chatterjee Jaypee
20. Obstetrics & Gynaecology, S.S. Ratham, K. Bhaskar Rao
21. Arulkumar Orient Longman, Hyderabad
22. Clinical Gynaecology Endocrinology & Infertility, Leon Speroff & Marc A. Fritz Jaypee Brothers, New Delhi
23. Te Linde's Operative Gynaecology, John A. Rock, H.W. Jones III, Wolts Kluwer/ LWW/ London
24. Jeffcote's Principles of Gynaecology, Bhatla Neeraja Arnold Co., London

ANNEXURE II: MODEL QUESTION PAPER

**JSS MEDICAL COLLEGE
DEPARTMENT OF OBG**

OBSTETRICS

MAX MARKS-30

LONG ESSAY

5+5=10

1. 23 years old primigravida at 32 weeks of gestation presented with complaints of headache and blurring of vision. Examination revealed BP of 180/110mmhg and urine protein of 5+ on dipstick
 - a) What is the diagnosis?
 - b) How will you manage this patient?
 - c) What are the associated complication in this case?

SHORT ESSAY

3x5=15

- a) Episiotomy
- b) Complication of Multiple pregnancy
- c) Biophysical profile

MCQ

5x1=5 Marks

1. Under the national Anemia prophylaxis programme, all pregnant and lactating mothers should receive
 - a) 50mg of elemental iron
 - b) 80mg of elemental iron
 - c) 100mg of elemental iron
 - d) 150mg of elemental iron
2. Which of the following is seen in the infant of a diabetic mother
 - a) Hyperkalemia
 - b) Hypercalcemia
 - c) macrocytic anemia
 - d) polycythemia
3. Immediate cord ligation is done in
 - a) Preterm babies
 - b) Rh incompatibility
 - c) both a and b
 - d) none of the above
4. All are tocolytics except
 - a) Ritodrine
 - b) Salbutamol
 - c) Isoxsuprine
 - d) misoprostol
5. Placenta praevia is characterised by all except
 - a) Painless bleeding
 - b) Recurrent bleeding
 - c) Causeless bleeding
 - d) presents after first trimester

GYNECOLOGY MAX MARKS-30

LONG ESSAY

5+5=10

1. A 52 year old postmenopausal multiparous woman presents with mass descending per vaginum since 2 years
What are the differential diagnosis. How will you manage this patient

SHORT ESSAY

3x5=15

1. Etiology of genitourinary fistula
2. Screening for Carcinoma Cervix
3. Evaluation of tubal factors of female infertility

MCQ

5x1=5 Marks

1. All the following are the indications for myomectomy in case of a fibroid uterus except.
a). Associated infertility b). Recurrent pregnancy loss
c). Pressure symptoms d). Red degeneration

2. Polymenorrhea means
a) menstruation < 21 days b) menstruation > 35 days
c) painful menstruation d) DUB

3. Test for detecting stress urinary incontinence
a) Bonney's Test b) Pap Test
c) Pessary Test d) Singers test
4. Indications for Hormones replacement therapy (HRT) in post menopausal woman includes all except
a) Relief of menopausal b) Prevention of osteoporosis
c) To Maintain quality of life d) To have menstruation
5. The most common complication of an ovarian tumor is
a) Torsion b) Hemorrhage
b) Infection d) Malignant change

Annexure-III

LOG BOOK FORMAT

PHASE II MBBS -DEPARTMENT OF GEN.MEDICINE

NAME OF THE CANDIDATE :

UNIVERSITY REGISTER NUMBER:

ACADEMIC YEAR :

INDEX

CONTENTS
BONAFIDE CERTIFICATE
PROFORMA OF THE STUDENT
GUIDELINES FOR LOG BOOK: GENERAL INFORMATION
ATTENDANCE EXTRACT
INTERNAL ASSESSMENTS
FORMATIVE ASSESSMENT
SELF DIRECTED LEARNING FORMAT
CONFERENCE/CME/WORKSHOP ATTENDED
SCIENTIFIC PROJECTs LIKE ICMR/ PRESENTATIONS/ OUTREACH ACTIVITIES
ACHIEVEMENTS/ AWARDS /ANY OTHER ACTIVITIES
EXTRACURRICULAR ACTIVITIES

BONAFIDE CERTIFICATE

This is to certify that this log book is the bonafide record of Mr/Ms.....whose particulars along is given above. His/ Her log of competencies acquired, are as noted in the entries in this log book in the subject of Obstetrics & Gynaecology as per the Competency Based Undergraduate Medical Education Curriculum, Graduate Medical Regulation 2019, during the period to.....

She / He will not be eligible / eligible to appear for the summative (University) assessment as on the date given below.

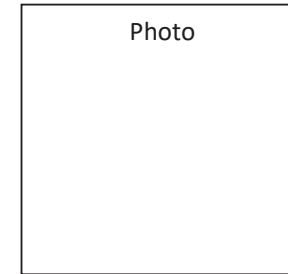
Signature with date

HOD of Obstetrics & Gynaecology :

Signature with date

Principal/Dean :

BASIC PROFORMA OF THE STUDENT



PARTICULARS OF THE STUDENT:

Name of the student :

Date of Birth :

Father's name :

Mother's name :

Address :

Contact number :

Email ID :

Signature:

**SUGGESTED GUIDELINES FOR LOG BOOK:
GENERAL INFORMATION:**

- 16) The logbook is a record of the academic / co-curricular activities of the designated student, who would be responsible for maintaining his/her logbook.
- 17) The student is responsible for getting the entries in the logbook verified by the Faculty In-charge regularly.
- 18) Entries in the logbook will reflect the activities undertaken in the department & have to be scrutinized by the Head of the concerned department.
- 19) The logbook is a record of various activities by the student like:
- p. Overall participation & performance
 - q. Attendance
 - r. Participation in sessions
 - s. Record of completion of pre-determined activities.
 - t. Acquisition of selected competencies
- 20) The logbook is the record of work done by the candidate in that department / specialty and should be verified by the college before submitting the application of the students for the University examination.

SUMMARY OF ATTENDANCE

<i>Phase</i>	<i>Percentage of classes attended</i>		<i>Eligible for University examination (Yes / No)</i>	<i>Signature of student</i>	<i>Signature of teacher</i>
	<i>Theory</i>	<i>Practical</i>			
Attendance at the end of MBBS Phase II			NA		

SUMMARY OF INTERNAL ASSESSMENT (IA)

<i>Sl. No.</i>	<i>Internal Assessment</i>	<i>Date of Assessment</i>	<i>Total marks</i>		<i>Marks scored</i>		<i>Signature of student</i>	<i>Signature of teacher</i>
			<i>Theory</i>	<i>Practical</i>	<i>Theory</i>	<i>Practical</i>		
	First							
	Second							
	Remedial							

NON-CERTIFIABLE (SHOWS HOW) ACTIVITIES

# Competency	Name of Activity	Date completed	Rating	Decision of faculty	Initial of faculty and date	Feedback Received
			Below Expectations (C)	Completed		Initial of learner
			Meets Expectations (B)	Repeat Remedial		
			Exceeds Expectations (A)			

Format for documentation and feedback for Self-Directed Learning

Sl no	Date	Topic of SDL	Feedback	Signature of faculty/mentor
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				

Summary of formative assessment for the entire year

<i>Type of Assessment</i>	<i>Total marks</i>	<i>Marks scored</i>	<i>Signature of student</i>	<i>Signature of teacher with date</i>
SGD/Bedside Clinics	10			
Professionalism	10			
TOTAL	20			

Rubric for assessing the professionalism

<i>Phase</i>	<i>Areas assessed</i>				<i>Total (20)</i>	<i>Signature of student</i>	<i>Signature of teacher</i>
	<i>Regular for classes(5)</i>	<i>Submission of records (5)</i>	<i>Behaviour in class and discipline(5)</i>	<i>Dress code and presentablility(5)</i>			
At the end of clinical postings							

SMALL GROUP DISCUSSION/BEDSIDE CLINICS – ASSESSMENT AND FEEDBACK

Module #	Name of SGD/SDL Activity	Date completed	Score	Initial offaculty Anddate	Feedback Received Initial of learner

Small group discussions will be scored based on the following criteria. Marks to be given

Score	Criteria for assessment
5	Is a proactive participant showing a balance between listening, initiating, and focusing discussion. Displays a proactive use of the whole range of discussion skills to keep discussion going and to involve everyone in the group. Understands the purpose of the discussion and keeps the discussion focused and on topic. Applies skills with confidence, showing leadership and sensitivity.
4	Is an active participant showing a balance between listening, initiating, and focusing discussion. Demonstrates all the elements of discussion skills but uses them less frequently and with less confidence than the above level. Keeps the discussion going but more as a supporter than a leader. Tries to involve everyone in the group. Demonstrates many skills but lacks the confidence to pursue them so that the group takes longer than necessary to reach consensus. Demonstrates a positive approach but is more focused on getting done than on having a positive discussion.
3	Is an active listener but defers easily to others and lacks confidence to pursue personal point of view even when it is right. Participates but doesn't use skills such as summarizing and clarifying often enough to show confidence. Limits discussion skills to asking questions, summarizing, and staying on topic. Lacks balance between discussion and analytical skills. Either displays good analysis skills and poor discussion skills or good discussion skills and poor analysis skills.
2	Is an active listener but defers easily to others and tends not pursue personal point of view, lacking confidence. Limits discussion skills to asking questions, summarizing and staying on topic. Rarely demonstrates analysis skills because doesn't understand the purpose of the discussion, and as a result, offers little evidence to support any point of view.
1	Demonstrates no participation or effort. Participates only when prompted by the teacher. Only responds to others and initiates nothing. Provides limited responses that are often off topic. Participates minimally so that it is impossible to assess analysis skills or understanding of the issues.

Other academic/non-academic activities

CONFERENCE/CME/WORKSHOP ATTENDED

SL NO	DATE	PARTICULARS	REMARKS IF ANY	SIGNATURE OF STAFF

SCIENTIFIC PROJECT PRESENTATIONS/REPORTS/ OUTREACH ACTIVITIES

SL NO	DATE	PARTICULARS	SIGNATURE OF STAFF

--	--	--	--

ACHIEVEMENTS/ AWARDS /ANY OTHER ACTIVITIES

SL NO	DATE	PARTICULARS	SIGNATURE OF FACULTY

EXTRACURRICULAR ACTIVITIES

SL NO	DATE	PARTICULARS	SIGNATURE OF FACULTY

PAEDIATRICS

PEDIATRICS

GOAL

The goal of the training during the clinical postings in Pediatrics for Phase II undergraduate students will be to introduce them to the basics of Pediatrics including history taking and basic clinical examination.

OBJECTIVES

The objective of training the undergraduate students in Pediatrics is to ensure that at the end of the 2 weeks of clinical postings he/she will be able to acquire the following proficiencies:

(a) Knowledge

1. Know art of history taking in Pediatrics
2. Know the basic knowledge of common symptomatology in a Pediatrics
3. Know about a few common pediatric and neonatal problems
4. Learn about the dietary requirements of a child at different age groups
5. Describe the normal growth and development during fetal life, neonatal period, childhood and adolescence.
6. Will know in brief regarding the basic immunization practices.
7. Know the definition, identification and classification of high-risk neonates and care of the normal newborn.

(b) Skills

1. Obtain a proper relevant history.
2. Elicit a detailed diet history and calculate the calorie and protein intake accordingly.
3. Able to take the anthropometric measurements in a child (including neonates) and plot it on appropriate growth charts.
4. Differentiate normal from abnormal growth and developmental patterns.
5. Perform a clinical evaluation of the vitals and general physical examination in children including neonates.
6. Develop a proper and compassionate attitude towards children and attenders.

7. Maintain an ethical behavior in all aspects of medical practice.

(c) Affective:

1. Demonstrate empathy, humane approach towards the child and the by standers
2. Develop selflessness, integrity, responsibility, accountability and respect.
3. Communicate effectively with peers, students, teachers and support staff in various teaching learning activities in a manner that encourages participation and shared decision-making.
4. Demonstrate ability to communicate adequately, sensitively, effectively and respectfully with patients and their attenders.
5. Demonstrate due respect and follow the correct procedure while eliciting history from attenders.

Integration

The training in pediatrics should prepare the student to deliver preventive, promotive, curative and rehabilitative services for care of children both in the community and at hospital as part of a team in an integrated form with other disciplines, e.g. Microbiology, Pathology, Pharmacology, ENT, OBG and Community Medicine.

COURSE OUTCOME

At the end of the 2 weeks of clinical postings the learner shall be familiar with a few common Pediatric conditions and will be able to demonstrate the skills required for eliciting history and basic clinical examination of a child or neonate.

SYLLABUS

A. Number of teaching hours recommended by MCI:

Clinical Postings- Teaching hours-Approximately 33 hours

B. Syllabus at a glance for MBBS Phase II Course

SI No.	Topic	Hours
1	General Pediatrics- Introduction, Growth and Development, Nutrition, Anthropometry including general physical examination	9
2	Neonatology	6
3	CVS	3
4	Gastrointestinal system including Diarrheal Diseases	6
5	Respiratory System (Including ENT)	3
6	CNS	3

ASSESSMENT

Internal assessment will be conducted at the end of 2 weeks of clinical postings

Case discussion	20 marks
OSCE	5 marks
Total	25 marks

LEARNING RESOURCE MATERIAL

Recommended books:

- 1) Nelson textbook of Pediatrics, 21st edition
- 2) OP Ghai Textbook of Pediatrics, 9th edition
- 3) IAP Textbook of Pediatrics, 7th edition
- 4) Meherban Singh Pediatric Clinical Methods, 5th edition

5) COMPETENCIES AND SLO'S FOR PHASE II MBBS IN PEDIATRICS

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/K H/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	No. of teaching hours	Vertical Integration	Horizontal Integration
Topic: General Pediatrics		Total No.of hours:6							
1.0	Take detailed history with special emphasis on nutritional, immunization, birth & developmental history and perform a general physical examination in a child	S	SH	Y	Bedside	Clinical case	3 hours		
PE 2.2	Assessment of a child with developmental delay- elicit document and present history	S	SH	Y	Bedside, Skills lab	Skill assessment	3 hours		
2.2.1	Elicit developmental history from a parent/caretaker.	S	SH	Y	Bedside, Skills lab	Case/ OSCE			
2.2.2	Elicit the current developmental milestones of the child.	S	SH	Y	Bedside, Skills lab	OSCE			
PE3.3	Interpret the developmental	S	SH	Y	Bedside, Skills lab	OSCE			

	status of a child based on history and examination.								
3.3.1	Document and present the developmental assessment.	S	SH	Y	Bedside, Skills lab	Document in Log Book			
Topic: Nutrition							Total No. of hours:3		
PE 7.5	Elicit, document and present an appropriate nutritional history and perform a dietary recall	S	SH	Y	Bedside, skill lab	SkillAssessment			
7.5.1	Take focused dietary history based on recall method from the caregiver.	S	SH	Y	Bedside, skill lab	OSCE			
7.5.2	Document the dietary history and calculate calorie and protein content.	S	SH	Y	Bedside, skill lab	OSCE, VIVA VOCE			
PE 9.4	Present the dietary history.	S	P	Y	Bedside, skill lab	LONG CASE, VIVA VOCE			
9.4.1	Calculate the age-appropriate calorie requirement in health and disease and Identify gaps	S	SH	Y	Bedside clinic, SGD	OSCE, Clinical Case			
9.4.2	Calculate the recommended calorie and protein requirement for children of all age groups.	S	SH	Y	Bedside clinic, SGD	LONG CASE, VIVA VOCE, OSCE			
9.4.3	Calculate the calorie and protein content of 24-hour dietary intake by a child.	S	SH	Y	Bedside clinic, SGD	LONG CASE, VIVA VOCE		Com Med	

PE 9.5	Calculate the gap (deficit) between the recommended intake of calories and protein and actual intake.	S	SH	Y	Bedside clinic, SGD	LONG CASE, VIVA-VOCE			
9.5.1	Diagnose patients with Vitamin A deficiency (VAD), classify and plan management	S	SH	N	Bedside, Skill Station	Document in log book			
9.5.2	Diagnose patients with VAD.	S	SH	N	Bedside	Document in Logbook			
9.5.3	Classify the patient with VAD and plan management.	S	SH	N	Skill Station, Bedside	Skill station, Document in Logbook		Com Med	
PE 12.4	Plan management of a child with VAD.	K	K	N	Skill Station, Bedside	Skill station, Document in Logbook			
12.4.1	Identify the clinical features of dietary deficiency of Vitamin D	S	SH	Y	Bedside, Skills lab	Document in Logbook			
12.4.2	Identify the clinical features of vitamin D deficiency (VDD).	S	SH	Y	Clinical case or photographs/ bedside teaching	OSCE/ clinical case			
	Identify the clinical features	S	SH	Y	Bedside, Skills lab	Document in		Biochemistry	

12.4.3	of Vitamin B complex deficiency					Logbook			
PE 12.8	Identify the clinical features of deficiency of B complex vitamins	S	SH	Y	Clinical case /slides/bedside Teaching	OSCE		Ophthalmology	
12.8.1	Diagnose patients with vitamin B complex deficiency and plan management	S	SH	Y	Bedside, Skillslab	Document in Logbook		Ophthalmology	
PE 12.17	Diagnose patients with vitamin B complex deficiency	S	SH	Y	Bedside, Clinical photographs	Document in Logbook			
Topic: Neonatology						Total No. of hours: 6			
12.17.1	Perform Postnatal assessment of newborn and mother, provide advice on breastfeeding, weaning and on family planning	S	SH	Y	Bedside, Skill Lab	Skill Assessment	3 hours	Biochemistry, Physio, Path	
PE 12.18	Perform a postnatal assessment of the newborn.	S	SH	Y	Bedside, Skill Lab	Skill Assessment			
12.18.1	Perform postnatal assessment of mother.	S	SH	Y	Bedside, Skill Lab	Skill Assessment		Dermatology, Hematology	
PE 18.6	Give advice to the mother on initiation and maintenance of exclusive breastfeeding, common problems seen during breastfeeding, weaning and family planning.	S	SH	Y	Bedside, Skill Lab	Skill Assessment	3 hours	Dermatology, Hematology	
3.3.2	Observe the correct technique of breastfeeding	S	P	Y	Bedside, Skills lab	Skill assessment		Dermatology Hematology	

	and distinguish right from wrong technique									
3.3.3	Observe the correct technique of breastfeeding noting signs of good attachment and correct positioning of mother and baby.	S	P	Y	Bedside teaching/ video/ Skill lab	Document in Log Book		Dermatology, Hematology		
3.3.4	Distinguish the correct feeding technique from the wrong one on the mother-baby dyad.	S	P	Y	Bedside, skills lab	OSCE (video-based)		Com Med	OBG	
Topic: Cardiovascular System							Total No. of hours: 3			
18.6.1	Elicit appropriate history relevant to the cardiac disease and analyze the importance of symptoms e.g. breathlessness, chest pain, tachycardia, feeding difficulty, failing to thrive, reduced urinary output, swelling, syncope, cyanotic spells, Suck rest cycle, frontal swelling in infants.	S	SH	Y	Bedside, skills lab	Bedside/skill assessment	3 hours			
18.6.2	Document and present the history taken appropriately.	S	SH	Y	Bedside, skills lab	Bedside/skill assessment				
18.6.3	Identify external markers of a cardiac disease e.g. Cyanosis, Clubbing,	S	SH	Y	Bedside, Skills Lab	Bedside/skill assessment				

	dependent edema, dental caries, arthritis, erythema rash, chorea, subcutaneous nodules, Osler node, Janeway lesions and document								
23.7.1	Identify and document the external markers of heart disease in general physical examination e.g. Cyanosis, Clubbing, dependent edema, dental caries, arthritis, erythema rash, chorea, subcutaneous nodules, Osler node, Janeway lesions.	S	SH	Y	Bedside, skills lab	Bedside/skill assessment			
23.7.2	Record pulse, blood pressure, temperature and respiratory rate and interpret as per the age	S	SH	Y	Bedside, Skills lab	Bedside/skill assessment			
PE 23.8	Record and demonstrate various parameters of the pulse.	S	SH	Y	Bedside, Skills lab	OSCE /bedside assessment			
23.8.1	Record correctly the systolic and diastolic blood pressure using appropriate equipment.	S	SH	Y	Bedside/ skill lab	OSCE /bedside assessment			
PE 23.9	Use the age-specific nomograms to interpret the	S	SH	Y	Bedside, Skills lab	OSCE /bedside			

	BP readings.					assessment			
23.9.1	Measure body temperature using a thermometer.	S	SH	Y	Bedside, Skills lab	OSCE /bedside assessment			
23.9.2	Count the respiratory rate and interpret as per the age.	S	SH	Y	Bedside, Skills lab	OSCE /bedside assessment			
23.9.3	Perform independently examination of the cardiovascular system – look for the precordial bulge, pulsations in the precordium, JVP and its significance in children and infants, the relevance of percussion in Pediatric examination, Auscultation and other systems examination and document	S	SH	Y	Bedside, Skills lab	Bedside/skill assessment			
23.9.4	Perform independent CVS examination looking for precordial bulge and pulsations, auscultation of areas of the precordium.	S	SH	Y	Bedside, Skills lab	Bedside, OSCE			
23.9.5	Look for and measure JVP.	S	SH	Y	Bedside, Skills lab	Bedside assessment			
PE 23.10	Describe the relevance of percussion in the cardiovascular examination.	K	K	Y	SGD	VIVA VOCE			
23.10.1	Document the findings of	S	SH	Y	Bedside, Skills lab	Document in			

	the cardiovascular and other system exam.					Logbook				
Topic: Gastrointestinal Diseases including Diarrheal Diseases							Total No. of hours: 6			
23.10.2	Elicit, document and present history pertaining to diarrheal diseases	S	SH	Y	Bedside, Skill lab	Clinical case/ OSCE/skill assessment	3 hours			
23.10.3	Elicit history for diarrheal diseases in children.	S	SH	Y	Bedside, Skill lab	Clinical case/ OSCE/skill assessment				
23.10.4	Document gathered information in history sheet.	S	SH	Y	Bedside, Skill lab	Clinical case/ Skill assessment				
PE 24.9	Present the history pertaining to diarrheal diseases.	S	SH	Y	Bedside, Skill lab	Clinical case, Skill assessment				
24.9.1	Assess for signs of dehydration, document and present	S	SH	Y	Bedside, skill lab	Skill Assessment				
24.9.2	Assess clinical signs of dehydration.	S	SH	Y	Bedside, skill lab	Skill Assessment				
24.9.3	Correlate clinical signs to the severity of dehydration.	S	SH	Y	Bedside, skill lab	Skill Assessment				
PE 24.10	Document and present the signs of dehydration pertaining to diarrheal diseases.	S	SH	Y	Bedside, skill lab	Skill Assessment				
24.10.1	Elicit document and present				Bedside, Skills Lab	Skills	3 hours			

	the history related to diseases of the Gastrointestinal system	S	S	Y		station/bedside/OSCE			
24.10.2	Elicit the history for diseases of the Gastrointestinal system.	S	S	Y	Bedside, Skills Lab	Skills station/bedside/OSCE			
24.10.3	Document the history.	S	SH	Y	Bedside, Skills Lab	Skills station			
PE 26.5	Present the history related to the Gastrointestinal system.	S	SH	Y	Bedside, Skills Lab	Skills station/bedside			
26.5.1	Identify external markers for GI and Liver disorders e.g. Jaundice, Pallor, Gynaecomastia, Spider angioma,	S	SH	Y	Bedside, Skills Lab	Skill Assessment/OSCE			
26.5.2	Palmar erythema, Ichthyosis, Caput medusa, Clubbing, Failing to thrive, Vitamin A and D deficiency								
26.5.3	Detect Jaundice, pallor, Gynecomastia, Spider angioma, clubbing, Caput medusa, Ichthyosis and failure to thrive, signs of vitamin deficiency.	S	SH	Y	Bedside, Skills Lab	Skill Assessment/OSCE			
PE 26.6	Perform examination of the abdomen, demonstrate organomegaly, ascites, etc.	S	SH	Y	Bedside clinic, Skills Lab	Skill Assessment			
	Perform an examination of the abdomen in children of different ages.	S	SH	Y	Bedside clinic, Skills Lab	Skill Assessment			

26.6.1	Detect organomegaly on abdominal examination giving details of the affected organ/s.	S	SH	Y	Bedside clinic, Skills Lab	Bedside/ skill lab/OSCE			
PE 26.7	Examine for ascites in children.	S	SH	Y	Bedside clinic, Skills Lab	Skill Assessment			
26.7.1	Examine for other palpable masses in the abdomen.	S	SH	Y	Bedside clinic, Skills Lab	Skill Assessment			
26.7.2	Analyze symptoms and interpret physical signs to make a provisional/ differential diagnosis	S	SH	Y	Bedside clinic, Skills Lab	Skill Assessment			
26.7.3	Analyze the symptoms in a child with gastrointestinal disorder.	S	SH	Y	Bedside clinic, Skills Lab	Skill Assessment			
26.7.4	Interpret the physical signs in a child with a gastrointestinal disorder.	S	SH	Y	Bedside clinic, Skills Lab	Skill Assessment			
PE 26.8	Formulate a provisional and differential diagnosis related to clinical presentation.	S	SH	Y	Bedside clinic, Skills Lab	Skill Assessment			
Topic: Respiratory System							Total No. of hours: 3		
26.8.1	Elicit, document and present age-appropriate history of a child with the upper respiratory problem including Stridor	S	SH	Y	Bedside, skill lab	Skill Assessment	3 hours		
26.8.2	Elicit a detailed history of a child with the upper respiratory problem including stridor	A, C	SH	Y	Bedside, skill lab	OSCE / Skills Assessment			

26.8.3	Document the history of a child with upper respiratory problem including stridor	S	SH	Y	Bedside, skill lab	Document in Logbook			
PE 28.9	Present the history of a child with the upper respiratory problem including stridor	C	SH	Y	Bedside, skill lab	Document in Logbook			
28.9.1	Counsel the parent and child to prepare for otoscopic examination	C	SH	Y	Bedside, skill lab	OSCE/Skills Assessment			
28.9.2	Position the child and perform an otoscopic examination	S	SH	Y	Bedside, skill lab	OSCE/ Skills Assessment			
28.9.3	Counsel the parent and child to prepare for throat examination	C	SH	Y	Bedside, skill lab	OSCE/ Skills Assessment	ENT		
28.10.1	Position the child and perform throat examination using a tongue depressor	S	SH	Y	Bedside, skill lab	OSCE /Skills Assessment			
28.10.2	Position the child and perform nose examination	S	SH	Y	Bedside, skill lab	OSCE / Skills Assessment			
28.11.1	Develop a treatment plan and document appropriately in a child with upper respiratory symptoms	S	SH	Y	Bedside	SkillsAssessment			
28.11.2	Plan treatment in a child with upper respiratory symptoms	S	SH	Y	Bedside	OSCE/Skills Assessment			
28.12.1	Prescribe supportive and	S	SH	Y	Bedside				

	symptomatic treatment for upper respiratory symptoms								
Topic: Central Nervous System						Total No. of hours: 3			
PE 28.14	Elicit, document and present an age-appropriate history pertaining to the CNS	S	SH	Y	Bedside, Skillslab	Skill Assessment	3 hours		
28.14.1	Elicit age-appropriate detailed history pertaining to CNS	S	SH	Y	Bedside, Skills lab	Clinical case/ OSCE			
28.14.2	Write down age-appropriate history including history pertaining to CNS under appropriate headings	S	SH	Y	Bedside, Skills lab	Document in Logbook			
PE 30.17	Present the documented age-appropriate history pertaining to CNS	S	SH	Y	Bedside, Skills lab	Document in Logbook			
30.17.1	Demonstrate the correct method for physical examination of CNS including identification of external markers. Document and present clinical findings	S	SH	Y	Bedside, Skills lab	Skill Assessment			

ORTHOPAEDICS

GOAL:To introduce to common musculoskeletal disorders/diseases and management in outpatient and inpatient scenarios.

OBJECTIVES:

- A. Ability to recognize and manage common infections of bone and joints in the primary care setting
- B. Recognize common neoplastic, degenerative, congenital and inflammatory bone diseases
- C. Involvement in knowing patient management and observe basic procedures.
- D. To enable use of radiodiagnosis (xray) in establishing diagnosis

OUTCOME:

- 1. To identify common musculoskeletal disorder involving congenital lesions, infection, neoplastic and degenerative pathology
- 2. Skill acquirement in splinting of common upper limb and lower limb injuries
- 3. To Analyse and identify common pathologies in X-ray
- 4. Clinical skill in evaluating joint pathologies

Syllabus at glance MBBS II clinical

Sl no	Topic	Description
	Musculoskeletal Infection	OR 3.1
	Bone Tumors	OR 10.1
	Congenital lesions	OR 12.1
	Procedural Skills	IM 13.1,IM17.3,17.8
	Physical Medical & Rehabilitation	PM4.1,4.5

A. Number of teaching hours recommended by NMC:2weeks of clinical postings (10 days), 3hrs each

B. Clinical Assesment:

- Case discussion-20 marks
- Xray discusion-5 marks
- Total-25 marks

C. Competencies & Specific Learning Objectives with, Integration, Teaching learning & Assessment methods

Topic:Musculoskeletal Infection

Number	COMPETENCY The student should be able to:	Domain K/S/A/C	Level K/S/A/C K/KH/ SH/	Core (Y/N)	Teaching Learning method	Assessment method
OR3.1	To discuss the clinical symptoms / features, investigations and management of Acute osteomyelitis/ Septic arthritis	K/S	K/KH/SH	Y	Small group discussion / clinical scenarios	
OR3.1	To discuss the clinical symptoms / features, investigations and management of chronic osteomyelitis	K/S	K/KH/SH	Y	Small group discussion / clinical scenarios	

Topic:Bone Tumors

Number	COMPETENCY The student should be able to:	Domain K/S/A/C	Level K/S/A/C K/KH/ SH/	Core (Y/N)	Teaching Learning method	Assessment method
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Number	COMPETENCY The student should be able to:	Domain K/S/A/C	Level K/S/A/C K/KH/ SH/	Core (Y/N)	Teaching Learning method	Assessment method
OR10.1	To discuss the clinical symptoms / features, investigations and management of Benign tumors	K/S	K/KH/SH	Y	Small group discussion / clinical scenarios/case discussion	
Number	COMPETENCY The student should be able to:	Domain K/S/A/C	Level K/S/A/C K/KH/ SH/	Core (Y/N)	Teaching Learning method	Assessment method
OR12.1	To discuss the clinical symptoms / features, investigations and management of congenital talipes equino varus	K/S	K/KH/SH	Y	Small group discussion / clinical scenarios/case discussion	

Topic: Congenital lesions

Topic: Procedural Skills

Number	COMPETENCY The student should be able to:	Domain K/S/A/C	Level K/S/A/C K/KH/ SH/	Core (Y/N)	Teaching Learning method	Assessment method
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Number	COMPETENCY The student should be able to:	Domain K/S/A/C	Level K/S/A/C K/KH/ SH/	Core (Y/N)	Teaching Learning method	Assessment method
OR13.1	To participate in a team for procedures and demonstrating ability to perform A) Below elbow plaster B) Below knee plaster	S/A	KH/SH	Y	Case discussion, Video assisted Lecture, Small group discussion, Teaching, Skill lab session	

Topic: Clinical Skills

Number	COMPETENCY The student should be able to:	Domain K/S/A/C	Level K/S/A/C K/KH/ SH/	Core (Y/N)	Teaching Learning method	Assessment method

Number	COMPETENCY The student should be able to:	Domain K/S/A/C	Level K/S/A/C K/KH/ SH/	Core (Y/N)	Teaching Learning method	Assessment method
IM7.13	Perform a systematic examination of all joints, muscle and skin that will establish the diagnosis and severity of disease <ul style="list-style-type: none"> • HIP • KNEE • ANKLE • WRIST • ELBOW • SHOULDER 	S	SH	Y	Case discussion, Video assisted Lecture, Bed side clinics DOAP session	
IM7.18	Enumerate the indications and interpret plain radiographs of joint and bones	K	SH	Y	Bed side clinic, small group discussion	
PM4.1	Common patterns, clinical features, investigations, diagnosis and treatment of common causes of arthritis	K	KH	Y	Bed side clinic, small group discussion, DOAP session	

Number	COMPETENCY The student should be able to:	Domain K/S/A/C	Level K/S/A/C K/KH/ SH/	Core (Y/N)	Teaching Learning method	Assessment method
PM4.5	Demonstrate correct assessment of muscle strength and range of movements	S	SH	Y	Bed side clinic, small group discussion, DOAP session	

Learning resources: (Recent editions):

1. Apley's Textbook of Orthopedics and fractures.
2. Oxford Textbook of Orthopedics and Trauma.

PSYCHIATRY

Preamble

Mental health disorders have been on the rise & there is a dearth of mental health care professionals in the country. There is a huge treatment gap and the existing mental health care professionals are unable to cater to all those who suffer from mental health disorders & most of these also go unrecognised which further results in a higher suicide rate & other disabilities.

Untreated mental illnesses result in stigma ,discrimination and poor quality of life, which further increases distress, disability, morbidity and mortality across the life span of the person and affects the individual, family and community.

Hence, it is imperative that Indian Medical Graduate should be competent in diagnosing and managing mental health disorders & is well equipped with the knowledge & skills required to recognise,treat and refer appropriately.

Objectives of Indian Graduate Medical Training Programme

The undergraduate medical education program is designed with a goal to create an “Indian Medical Graduate” (IMG) possessing requisite knowledge, skills, attitudes, values and responsiveness in dealing with mental health disorders , so that she or he may function appropriately and effectively as a physician of first contact of the community while being globally relevant. To achieve this, the following national and institutional goals for learner of the Indian Medical Graduate are hereby prescribed:-

National Goals

At the end of undergraduate program, Indian Medical Graduate should be able to:

1. Recognize “mental well-being for all” as a national goal and health right of all the citizens.
2. Recognize mental health as an integral part of health and that mental health is more than the absence of mental disorders.
3. Know aspects of National Mental Health Policy of India and Mental Health Care Act , and devote herself/himself to its practical implementation.
4. Achieve competence in practice of holistic medicine, promotive, preventive, curative and rehabilitative aspects of common mental health disorders.
5. Able to deal with stigma related to mental health disorders in the community.
6. Act as a responsible citizen by observance of medical ethics and fulfilling social and professional obligations , so as to act in the best of national interest.

Institutional goals

The institutional goals reflect the Indian medical graduates who should be:

1. Competent in diagnosis and management of common mental health problems both at the individual and community level. These skills should be utilised at the primary, secondary and tertiary health care levels.
2. Able to understand the biopsychosocial model and aetiology of mental health disorders.
3. Competent to use different therapeutic modalities specially essential drugs and adverse effects.
4. Appreciate the importance of self learning and documentation skills.
5. Able to acquire proficiency in communication skills.
6. Personal characteristics of empathy, integrity and responsibility for other individuals.
7. Able to liaise with other medical specialties in treating an individual with mental health disorder.

Goals for the learner:

Indian Medical Graduate should be :

1. Clinician who understands and provides preventive, promotive, curative, palliative and holistic care for an individual with mental health disorder.
2. Able to communicate with patients ,families, colleagues and community.
3. Professional who is responsive towards the mental health condition of the individual and community.
4. Lifelong learner for continuous improvement of skills and knowledge.

Outcomes:

The individual outcome (competency) had to be reviewed on the lines of the learning domains (knowledge,skill,attitude and communication). The Indian Medical Graduate will be expected to do the things they are going to have to in practice and to do those things well. They have to know (K), know how(KH),show how(SH), and perform(P) the skills acquired. The Indian Medical Graduates are expected to decrease the burden of mental health disorders in the community by identifying and treating them at the primary, secondary and tertiary health care levels and enhance understanding of mental health in the country

Syllabus:

Number	Competency - The student should be able to -	Domain K/S/A/C	Level K/KH/S H/P	Core - Y/N	Suggested teaching learning method	Suggested assessment method	Number required to certify	Vertical Integration	Horizontal Integration
Topic 1 - Doctor Patient Relationship		Number of competencies - 4		Number of skills that require certification - (NIL)					
PS 1.1	Establish rapport and show empathy towards patients	A/C	SH	Y	DOAP session	Skill station			
PS 1.2	Give a description of the components of communication	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PS 1.3	Break bad news in a simulated environment	A/C	SH	Y	DOAP Session	Skill station			
PS 1.4	Understand the importance of doctor patient confidentiality	A/C	SH	Y	DOAP session	Faculty observation			
Topic 2 - Mental health		Number of competencies - 5		Number of skills that require certification - (NIL)					
PS 2.1	Know the concept of stress ,its components and causes	K	K	Y	Lecture , small group discussion	Written/ Viva voce			
PS 2.2	Utilize concepts of time management , study skills , balanced diet , sleep wake habits in avoidance of stress	K	KH	Y	Lecture , small group discussion	Viva voce			

PS 2.3	Give description of principles and components of learning memory and emotions	K	K	Y	Lecture , small group discussion	Written/ Viva voce			
PS 2.4	Describe principles of personality development and motivation	K	K	Y	Lecture , small group discussion	Written/ Viva voce			
PS 2.5	Understand the concept of normality and abnormality and distinguish between them	K	K	Y	Lecture , small group discussion	Viva voce			
Topic 3 - Introduction to psychiatry Number of competencies - 12 Number of skills that require certification - (NIL)									
PS 3.1	Describe the history of psychiatry and its contribution to the society and its growth as a medical speciality	K	KH	Y	Lecture	Written/viva voce			
Number	Competency - The student should be able to -	Domain K/S/A/C	Level K/KH/S H/P	Core - Y/N	Suggested teaching learning method	Suggested assessment method	Number required to certify	Vertical Integration	Horizontal Integration
PS 3.2	Recognize and identify the important signs & symptoms of common mental disorders	K	KH	Y	Lecture,small group discussion	Written/viva voce			
PS 3.3	Elicit and document a history in psychiatric patients	S	SH	Y	Bedside clinic,DOAP	Skill assessment			

					session				
PS 3.4	Understand and describe the importance of establishing rapport with patients	S/A	SH	Y	Bedside clinic,DOAP session	Skill assessment/Faculty observation			
PS 3.5	Document and administer a mini mental state examination	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 3.6	Understand the Biopsychosocial model - biological, psychological & social factors & their interactions in the causation of mental disorders	K	KH	Y	Lecture,small group discussion	Written/viva voce			
PS 3.7	Describe the common organic psychiatric disorders, their epidemiology ,etiology and clinical features	K	KH	Y	Lecture,small group discussion	Written/viva voce			General medicine
PS 3.8	Recognise and enumerate the essential investigations required in patients with organic psychiatric disorders	K	KH	Y	Lecture,small group discussion	Written/viva voce			General medicine
PS 3.9	Demonstrate family education in patients with organic mental disorders and describe its steps in detail	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 3.10	Have knowledge of pharmacologic basis	K	KH	Y	Lecture,small	Written/viva			

	and side effects of drugs used in psychiatric disorders				group discussion	voce			
PS 3.11	Recognize the appropriate conditions for specialist referral in patients with psychiatric disorders	K	K	Y	Lecture,small group discussion	Written/viva voce			
PS 3.12	Define and should be able to differentiate between psychotic and non psychotic (Mood, Anxiety, Stress related) disorders	K	KH	Y	Lecture,small group discussion	Written/viva voce			
Number	Competency - The student should be able to -	Domain K/S/A/C	Level K/KH/S H/P	Core - Y/N	Suggested teaching learning method	Suggested assessment method	Number required to certify	Vertical Integration	Horizontal Integration
Topic 4 - Substance use disorders		Number of competencies: (07)			Number of procedures that require certification: (NIL)				
PS 4.1	Describe the epidemiological considerations and enumerate the etiological factors of alcohol and substance use disorders	K	KH	Y	Lecture,small group discussion	Written/viva voce			General medicine
PS 4.2	Enumerate and recognise the clinical signs and symptoms of alcohol and substance use disorders	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			General medicine

PS 4.3	Have knowledge of the indications and interpretations of laboratory tests used in alcohol and substance abuse disorders	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			General medicine
PS 4.4	Know the principles of treatment of alcohol and substance abuse disorders including behavioural and pharmacologic therapy	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pharmacology	General medicine
PS 4.5	Demonstrate family education in a patient with alcohol and substance abuse in a simulated environment	S	SH	Y	Bedside clinic,DOAP session	Skill assessment		AETCOM	
PS 4.6	Give detailed account of pharmacologic basis and side effects of drugs used in alcohol and substance abuse	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pharmacology	General medicine
PS 4.7	Recognize the need of and the appropriate conditions for specialist referral in patients with alcohol and substance abuse disorders	K	K	Y	Lecture,small group discussion	Written/viva voce			
Topic 5 - Psychotic disorders		Number of competencies: (07)			Number of procedures that require certification: (NIL)				
PS 5.1	Give descriptions of the magnitude and etiology of psychotic disorders including schizophrenia	K	KH	Y	Lecture,small group discussion	Written/viva voce			

PS 5.2	Have knowledge of , recognize and elicit the clinical features including the positive , negative and cognitive symptoms of schizophrenia	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
Number	Competency - The student should be able to -	Domain K/S/A/C	Level K/KH/S H/P	Core - Y/N	Suggested teaching learning method	Suggested assessment method	Number required to certify	Vertical Integration	Horizontal Integration
PS 5.3	Have knowledge of the pharmacological and psychological treatments of schizophrenia	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pharmacology	
PS 5.4	Demonstrate family education in a patient with schizophrenia in a simulated environment	K/S/A/C	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 5.5	Give detailed account of pharmacologic basis and side effects of drugs used in schizophrenia	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pharmacology	
PS 5.6	Recognize the need of and the appropriate conditions for specialist referral in patients with psychotic disorders	K	K	Y	Lecture,small group discussion	Written/viva voce			

Topic 6 - Depression certification: (NIL)		Number of competencies: (07)			Number of procedures that require				
PS 6.1	Classify and give descriptions of the magnitude and etiology of depression	K	KH	Y	Lecture,small group discussion	Written/viva voce			
PS 6.2	Have knowledge of ,recognize and elicit the clinical signs and symptoms in patients with depression	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 6.3	Have knowledge of the indications and interpretations of laboratory tests used in depression	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 6.4	Know the principles of treatment of depression including psychological and pharmacological therapy	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pharmacology	
PS 6.5	Demonstrate family education in a patient with depression in a simulated environment	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 6.6	Give detailed account of pharmacologic basis and side effects of drugs used in depression	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pharmacology	
PS 6.7	Recognize the need of and the appropriate conditions for specialist	K	K	Y	Lecture,small group discussion	Written/viva voce			

	referral in patients with depression								
Number	Competency - The student should be able to -	Domain K/S/A/C	Level K/KH/S H/P	Core - Y/N	Suggested teaching learning method	Suggested assessment method	Number required to certify	Vertical Integration	Horizontal Integration
Topic 7 - Bipolar disorders		Number of competencies: (07)			Number of procedures that require certification: (NIL)				
PS 7.1	Classify and give descriptions of the magnitude and etiology of bipolar disorders	K	KH	Y	Lecture,small group discussion	Written/viva voce			
PS 7.2	Have knowledge of ,recognize and elicit the clinical features in patients with bipolar disorders	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 7.3	Have knowledge of the indications and interpretations of laboratory tests used in bipolar disorders	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 7.4	Know the principles of treatment of bipolar disorders including psychological and pharmacological therapy	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pharmacology	
PS 7.5	Demonstrate family education in a patient with bipolar disorder in a simulated environment	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			

PS 7.6	Give detailed account of pharmacologic basis and side effects of drugs used in bipolar disorders	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pharmacology	
PS 7.7	Recognize the need of and the appropriate conditions for specialist referral in patients with bipolar disorders	K	K	Y	Lecture,small group discussion	Written/viva voce			
Topic 8 - Anxiety disorders		Number of competencies: (07)			Number of procedures that require certification: (NIL)				
PS 8.1	Classify and give descriptions of the magnitude and etiology of anxiety disorders	K	KH	Y	Lecture,small group discussion	Written/viva voce			
PS 8.2	Have knowledge of ,recognize and elicit the clinical signs and symptoms in patients with anxiety disorders	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 8.3	Have knowledge of the indications and interpretations of laboratory tests used in anxiety disorders	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 8.4	Know the principles of treatment of anxiety disorders including psychological and pharmacological therapy	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pharmacology	
PS 8.5	Demonstrate family education in a patient with anxiety disorder in a simulated	S	SH	Y	Bedside clinic,DOAP	Skill assessment			

	environment				session				
PS 8.6	Give detailed account of pharmacologic basis and side effects of drugs used in anxiety disorders	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pharmacology	
PS 8.7	Recognize the need of and the appropriate conditions for specialist referral in patients with anxiety disorders	K	K	Y	Lecture,small group discussion	Written/viva voce			
Topic 9 - Stress related disorders		Number of competencies: (07)			Number of procedures that require certification: (NIL)				
PS 9.1	Classify and give descriptions of the magnitude and etiology of stress related disorders	K	KH	Y	Lecture,small group discussion				
Number	Competency - The student should be able to -	Domain K/S/A/C	Level K/KH/S H/P	Core - Y/N	Suggested teaching learning method	Suggested assessment method	Number required to certify	Vertical Integration	Horizontal Integration
PS 9.2	Have knowledge of ,recognize and elicit the clinical signs and symptoms in patients with stress related disorders	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 9.3	Have knowledge of the indications and interpretations of laboratory tests used in stress related disorders	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			

PS 9.4	Know the principles of treatment of stress related disorders including psychological and pharmacological therapy	K	KH	Y	Lecture,small group discussion	Written/viva voce			
PS 9.5	Demonstrate family education in a patient with stress related disorder in a simulated environment	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 9.6	Give detailed account of pharmacologic basis and side effects of drugs used in stress related disorders	K	KH	Y	Lecture,small group discussion	Written/viva voce			
PS 9.7	Recognize the need of and the appropriate conditions for specialist referral in patients with stress related disorders	K	K	Y	Lecture,small group discussion	Written/viva voce			
Topic 10 - Somatoform disorders		Number of competencies: (07)			Number of procedures that require certification: (NIL)				
PS 10.1	Classify and give descriptions of the magnitude and etiology of somatoform, dissociative and conversion disorders	K	KH	Y	Lecture,small group discussion	Written/viva voce			General medicine
PS 10.2	Have knowledge of ,recognize and elicit the clinical signs and symptoms in patients with somatoform, dissociative and conversion disorders	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			General medicine

PS 10.3	Have knowledge of the indications and interpretations of laboratory tests used in somatoform, dissociative and conversion disorders	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			General medicine
PS 10.4	Know the principles of treatment of somatoform, dissociative and conversion disorders including psychological and pharmacological therapy	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pharmacology	General medicine
PS 10.5	Demonstrate family education in a patient with somatoform, dissociative and conversion disorders in a simulated environment	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 10.6	Give detailed account of pharmacologic basis and side effects of drugs used in somatoform, dissociative and conversion disorders	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pharmacology	General medicine
PS 10.7	Recognize the need of and the appropriate conditions for specialist referral in patients with somatoform, dissociative and conversion disorders	K	K	Y	Lecture,small group discussion	Written/viva voce			
Topic 11 - Personality disorders		Number of competencies: (07)			Number of procedures that require certification: (NIL)				
PS 11.1	Classify and give descriptions of the magnitude and etiology of personality	K	KH	Y	Lecture,small	Written/viva			

	disorders				group discussion	voce			
PS 11.2	Have knowledge of ,recognize and elicit the clinical signs and symptoms in patients with personality disorders	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 11.3	Have knowledge of the indications and interpretations of laboratory tests used in personality disorders	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 11.4	Know the principles of treatment of personality disorders including psychological and pharmacological therapy	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pharmacology	
PS 11.5	Demonstrate family education in a patient with personality disorders in a simulated environment	S/A/C	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 11.6	Give detailed account of pharmacologic basis and side effects of drugs used in personality disorders	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pharmacology	
PS 11.7	Recognize the need of and the appropriate conditions for specialist referral in patients with personality disorders	K	K	Y	Lecture,small group discussion	Written/viva voce			

Topic 12 - Psychosomatic disorders		Number of competencies: (07)			Number of procedures that require certification: (NIL)				
PS 12.1	Classify and give descriptions of the magnitude and etiology of psychosomatic disorders	K	KH	Y	Lecture,small group discussion	Written/viva voce			General medicine
PS 12.2	Have knowledge of ,recognize and elicit the clinical signs and symptoms in patients with psychosomatic disorders	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			General medicine
PS 12.3	Have knowledge of the indications and interpretations of laboratory tests used in psychosomatic disorders	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			General medicine
PS 12.4	Know the principles of treatment of psychosomatic disorders including psychological and pharmacological therapy	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pharmacology	General medicine
PS 12.5	Demonstrate family education in a patient with psychosomatic disorders in a simulated environment	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 12.6	Give detailed account of pharmacologic basis and side effects of drugs used in psychosomatic disorders	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pharmacology	
PS 12.7	Recognize the need of and the	K	K	Y	Lecture,small	Written/viva			

	appropriate conditions for specialist referral in patients with psychosomatic disorders				group discussion	voce			
Topic 13 - Psychosexual and gender identity disorders		Number of competencies: (07)			Number of procedures that require certification: (NIL)				
PS 13.1	Classify and give descriptions of the magnitude and etiology of psychosexual and gender identity disorders	K	KH	Y	Lecture,small group discussion	Written/viva voce			
PS 13.2	Have knowledge of ,recognize and elicit the clinical signs and symptoms in patients with psychosexual and gender identity disorders	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 13.3	Have knowledge of the indications and interpretations of laboratory tests used in psychosexual and gender identity disorders	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 13.4	Know the principles of treatment of psychosexual and gender identity disorders including psychological and pharmacological therapy	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pharmacology	
PS 13.5	Demonstrate family education in a patient with psychosexual and gender identity	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			

	disorders in a simulated environment								
PS 13.6	Give detailed account of pharmacologic basis and side effects of drugs used in psychosexual and gender identity disorders	K	KH	Y	Lecture,small group discussion	Written/viva voce			
PS 13.7	Recognize the need of and the appropriate conditions for specialist referral in patients with psychosexual and gender identity disorders	K	K	Y	Lecture,small group discussion	Written/viva voce			
Topic 14 - Psychiatric disorders in childhood and adolescence Number of competencies: (06) Number of procedures that require certification: (NIL)									
PS 14.1	Classify and give descriptions of the magnitude and etiology of psychiatric disorders occurring in childhood and adolescence	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pediatrics	
PS 14.2	Have knowledge of ,recognize and elicit the clinical signs and symptoms in patients with psychiatric disorders occurring in childhood and adolescence	S	SH	Y	Bedside clinic,DOAP session	Skill assessment		Pediatrics	
PS 14.3	Know the principles of treatment of psychiatric disorders occurring in childhood and adolescence including psychological , psychosocial and	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pediatrics	

	pharmacological therapy								
PS 14.4	Demonstrate family education in a patient with psychiatric disorders occurring in childhood and adolescence in a simulated environment	S	SH	Y	Bedside clinic,DOAP session	Skill assessment		Pediatrics	
PS 14.5	Give detailed account of pharmacologic basis and side effects of drugs used in psychiatric disorders occurring in childhood and adolescence	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pediatrics	
PS 14.6	Recognize the need of and the appropriate conditions for specialist referral in patients with psychiatric disorders occurring in childhood and adolescence	K	K	Y	Lecture,small group discussion	Written/viva voce			
Topic 15 - Mental retardation		Number of competencies: (04)			Number of procedures that require certification: (NIL)				
PS 15.1	Classify and give descriptions of the magnitude and etiology of mental retardation	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pediatrics	
PS 15.2	Describe and define intelligence quotient and its measurement	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pediatrics	
PS 15.3	Collecting and documenting history and	K/S	SH	Y	Bedside	Skill assessment		Pediatrics	

	performing appropriate clinical examination and choosing required investigations in a patient with mental retardation				clinic,DOAP session				
PS 15.4	Know the principles of treatment of mental retardation including psychological , psychosocial and pharmacological therapy	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pediatrics	
Topic 16 - Psychiatric disorders in the elderly		Number of competencies: (05)			Number of procedures that require certification: (NIL)				
PS 16.1	Classify ,enumerate and define common psychiatric disorders in the elderly including dementia, depression and psychosis	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce			General Medicine
PS 16.2	Classify and give descriptions of the magnitude and etiology of psychiatric illness in the elderly	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		General Medicine	
PS 16.3	Know the principles of treatment of psychiatric illness in elderly including psychological , psychosocial and pharmacological therapy	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		General Medicine	
PS 16.4	Demonstrate family education in a patient with psychiatric disorders occurring in	S	SH	Y	Bedside clinic,DOAP	Skill assessment		General Medicine	

	the elderly in a simulated environment				session				
PS 16.5	Recognize the need of and the appropriate conditions for specialist referral psychiatric disorders in the elderly	K	K	Y	Lecture, Smallgroup discussion	Written/ Viva voce			
Topic 17 - Psychiatric emergencies		Number of competencies: (03)			Number of procedures that require certification: (NIL)				
PS 17.1	Have knowledge about clinical presentations of psychiatric emergencies including suicide, deliberate self harm and violent behaviour	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce			
PS 17.2	Have the knowledge of the initial stabilisation and management of psychiatric emergencies	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce			
PS 17.3	Recognize the need of and the appropriate conditions for specialist referral in patients with psychiatric emergencies	K	K	Y	Lecture, Smallgroup discussion	Written/ Viva voce			
Topic 18 - Therapeutics		Number of competencies: (03)			Number of procedures that require certification: (NIL)				
PS 18.1	Knowledge of the indications and descriptions of the pharmacology, dose and side effects of commonly use drugs	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Pharmacology	

	in psychiatric disorders								
PS 18.2	Indications and mechanism of modified electro convulsive therapy	K	K	Y	Lecture, Smallgroup discussion	Written/ Viva voce			
PS 18.3	Knowledge of principles of psychosocial interventions in psychiatric illness including psychotherapy, behavioural therapy and rehabilitation	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce			
Topic 19 - Miscellaneous		Number of competencies: (06)			Number of procedures that require certification: (NIL)				
PS 19.1	Describe the status , origin , relevance and the role of community psychiatry	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Community Medicine	
PS 19.2	Enumerate the objectives strategies and describe contents of the National Mental health programme	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Community Medicine	
PS 19.3	Have knowledge of the basic legal and ethical issues in psychiatry	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Forensic Medicine and Toxicology,A ETCOM	
PS 19.4	Describe the salient features of the prevalent mental health laws in India	K	KH	Y	Lecture, Smallgroup	Written/ Viva voce		Community Medicine	

					discussion				
PS 19.5	Have knowledge of principles of preventive psychiatry and community education and importance of concept of mental health promotion	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Community Medicine	
PS 19.6	Have knowledge of and the ability to identify the principles of participatory management of mental illness occurring during and after disasters	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce			
<p>Column C: K- Knowledge, S – Skill, A - Attitude / professionalism, C- Communication.</p> <p>Column D: K – Knows, KH - Knows How, SH - Shows how, P- performs independently,</p> <p>Column F: DOAP session – Demonstrate, Observe, Assess, Perform.</p> <p>Column H: If entry is P: indicate how many procedures must be done independently for certification/ graduation</p>									
INTEGRATION									
Physiology									
PY 10.7	Have knowledge of the anatomical and functional units of the cns including cerebral cortex, basal ganglia, thalamus, hypothalamus, cerebellum and limbic system and their abnormalities	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Psychiatry	Human Anatomy

PY 10.8	Identify and delineate behavioural and EEG characteristics during sleep and discuss the mechanism responsible for its production	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Psychiatry	
PY 10.9	Describe and discuss the physiological basis of memory, learning and speech	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Psychiatry	
PY 10.12	Have knowledge of the basic EEG forms	S	S	Y	Small group teaching	OSPE/Viva voce		Psychiatry	
Pharmacology									
PH 1.19	Discuss the principles of mechanism/s of action, types, doses, side effects, indications and contraindications of the drugs which act on CNS, (including anxiolytics, sedatives & hypnotics, antipsychotic, antidepressant drugs, antimanics, opioid agonists and antagonists, drugs used for neurodegenerative disorders, antiepileptics drugs)	K	KH	Y	Lecture	Written/ Viva voce		Psychiatry ,physiology	
PH1.20	Enumerate the effects of acute and chronic ethanol intake . Identify the symptoms and discuss the management of methanol and ethanol poisonings	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Psychiatry	

PH 1.22	Have comprehensive knowledge of drugs of abuse (dependence, addiction, stimulants, depressants, psychedelics, drugs used for criminal offences)	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Psychiatry	Forensic medicine
PH 1.23	Explain in detail the process and mechanism of drug de addiction	K/S	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Psychiatry	
PH 5.5	Have an understanding of the risks and the need to exercise caution in prescribing drugs likely to produce dependence and recommend the line of management	K	KH	Y	Smallgroup discussion	Short note/Viva voce		Psychiatry	
PH 5.6	Demonstrate the ability and have knowledge to educate the public & patients about various aspects of drug use including dependence , withdrawal and abuse of over the counter medications	A/C	SH	Y	Smallgroup discussion	Skill station		Psychiatry	
Community medicine									
CM 15.1	Understand the concept of mental health	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Psychiatry	
CM	Identify and enumerate warning signals	K	KH	Y	Lecture, Smallgroup	Written/ Viva		Psychiatry	

15.2	of mental health disorder				discussion	voce			
CM 15.3	Define and discuss the national mental health program	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Psychiatry	
Forensic Medicine and Toxicology									
FM 3.17	To identify and have knowledge of the sexual perversions fetichism, transvestism, voyeurism, sadism, necrophagia, masochism, exhibitionism, frotteurism, Necrophilia	K	K/KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Obstetrics and gynaecology ,Psychiatry	
FM 5.1	Enumerate and define common mental illnesses including post-traumatic stress disorder (PTSD)	K	K/KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Psychiatry	
FM 5.2	Enumerate, classify and explain delusions, hallucinations, illusion, lucid interval and obsessions with exemplification	K	K/KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Psychiatry	
FM 5.3	Have knowledge of civil and criminal responsibilities of a mentally ill person	K	K/KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Psychiatry	
FM 5.4	Distinguish between true insanity from feigned insanity	K	K/KH	Y	Lecture, Smallgroup	Written/ Viva voce		Psychiatry	

					discussion				
FM 5.5	Explain and discuss Delirium tremens	K	K/KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Psychiatry, General medicine	
FM 5.6	Have knowledge of the Indian Mental Health Act, 1987 with special reference to admission, care and discharge of a mentally ill person	K	K/KH	N	Lecture, Smallgroup discussion	Written/ Viva voce		Psychiatry	
General Medicine									
IM 17.14	Educate patients with migraine and tension headache on lifestyle changes and counsel for the need for prophylactic therapy	A/C	SH	N	DOAP Session	Skill assessment		Pharmacology	Psychiatry
IM 21.8	List the indications for psychiatric consultation and discuss the precautions to be taken in a patient with suspected suicidal ideation / gesture	K	KH	Y	DOAP Session	Skill assessment		Psychiatry, forensic medicine	
IM 24.2	Demonstrate multidimensional geriatric assessment that includes medical, psycho-social and functional components	S	SH	Y	Bedside clinic, DOAP Session	Skill assessment		Psychiatry	
IM 24.5	Have comprehensive knowledge of the aetiopathogenesis, clinical presentation,	K	KH	Y	Lecture, Small	Written/ Viva			Psychiatry

	identification, functional changes, acute care, stabilization, management and rehabilitation of depression in the elderly				group discussion	voce			
IM 24.7	Have comprehensive knowledge of the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of personality changes in the elderly	K	KH	N	Lecture, Smallgroup discussion	Written/ Viva voce			Psychiatry
IM 24.19	List and discuss in detail the social problems in the elderly including isolation, abuse, change in family structure and their impact on health	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce			Psychiatry
Pediatrics									
PE 1.2	Observe the pattern of growth in infants, children and adolescents.	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce			Psychiatry
PE 1.3	Assessment of anthropometric measurements as per WHO and indian standards. Discuss the parameters used for assessment in paediatric group	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce			Psychiatry
PE 1.5	Assessment of developmental milestones	K	KH	Y	Lecture, Smallgroup	Written/ Viva			Psychiatry

	in all domains.				discussion	voce			
PE 5.4	Evaluate children with breath holding spells and their management	K	K	N	Lecture, Smallgroup discussion	Written/ Viva voce			Psychiatry
PE 5.5	Evaluate children with Temper tantrums and their management	K	K	N	Lecture, Smallgroup discussion	Written/ Viva voce			Psychiatry
PE 5.7	Evaluate fussy infant and their management	K	K	N	Lecture, Smallgroup discussion	Written			Psychiatry
PE 5.10	Child guidance clinic's role in children with behavioural problems and discuss their appropriate referral criteria	K	K	N	Lecture, Smallgroup discussion	Written/ Viva voce			Psychiatry
PE 6.2	Puberty and changes in domains of physical and psychological aspects.	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce			Psychiatry
PE 6.4	Sexuality in adolescence and discuss issues related to	K	KH	N	Lecture, Smallgroup discussion	Written/ Viva voce			Psychiatry
PE 6.5	Explain nutrition and common nutritional	K	KH	Y	Lecture, Smallgroup	Written/ Viva			Psychiatry

	deficiencies in adolescents.				discussion	voce			
PE 6.6	Describe anorexia nervosa, bulimia nervosa and other eating disorders in adolescents	K	KH	N	Lecture, Smallgroup discussion	Written/ Viva voce			Psychiatry
PE 6.7	Common mental health issues faced by adolescents	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce			Psychiatry
PE 6.13	Discuss the prevalence and the need of recognizing sexual and drug abuse in children and adolescents	K	K	N	Lecture, Smallgroup discussion	Written/ Viva voce			Psychiatry
Physical Medicine and Rehabilitation									
PM 9.1	Discuss in detail the rehabilitative aspects as they pertain to the elderly including patients with dementia, depression, incontinence immobility and nutritional needs	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce			Psychiatry, General medicine
Dermatology, venereology and leprosy									
DR 9.7	Have knowledge of the complications of leprosy and the principles of its management, including understanding disability and stigma	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		General medicine	Pharmacology, Psychiatry

Forensic medicine and toxicology									
FM 2.5	Have comprehensive knowledge of the moment of death, modes of death- coma, asphyxia and syncope	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Psychiatry	Pathology
FM 3.14	SEXUAL OFFENCES Have comprehensive knowledge of the examination of the victim of an alleged case of rape, and the preparation of report, framing the opinion and preservation and despatch of trace evidences in such cases	K	K/KH	Y	Lecture, Smallgroup discussion ,Bedside clinic,DOAP session	Written/ Viva voce/ OSCE		Obstetrics and gynaecology ,Psychiatry	
FM 3.15	SEXUAL OFFENCES Have comprehensive knowledge and identification skills of examination of accused and victim of sodomy, preparation of report, framing of opinion, preservation and despatch of trace evidences in such cases	K	K/KH	Y	Lecture, Smallgroup discussion ,Bedside clinic,DOAP session	Written/ Viva voce/OSCE		Obstetrics and gynaecology ,Psychiatry	
FM 3.16	SEXUAL OFFENCES Define and elaborate adultery and unnatural sexual offences sodomy, incest,	K	K/KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Obstetrics and gynaecology ,Psychiatry	

	lesbianism, buccal coitus, bestiality, indecent assault and preparation of report, framing the opinion and preservation and despatch of trace evidences in such cases										
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Learning Resources; (Recent editions)

1. IPS Textbook Of Undergraduate Psychiatry. 1 st Edition. Jaypee Brothers Medical Publishers.
2. A Short Textbook of Psychiatry. Ahuja Niraj. . Jaypee Brothers Medical Publishers.
3. Kaplan & Sadock's Synopsis of Psychiatry: Behavioral Sciences/clinical Psychiatry. Benjamin Saddock.

DERMATOLOGY

1 . **Goal** - To provide an overview of various dermatological disorders

- To enable them to diagnose common dermatological diseases presentinh to the outpatient department

2. **Objectives** - a) Knowledge

b) Skill

c) Affective domain

At the end of the clinical postings the learner should be able to

A) **Knowledge**

- 1) know the different presentations of dermatophytosis and their treatment
- 2) identify and distinguish psoriatic lesions
- 3) describe the clinical features , treatment, follow up of scabies
- 4) diagnose herpes zoster based on history
- 5) classify leprosy based on skin and peripheral nerve examination
- 6) enumerate the clinical presentation in SLE
- 7)identify and distinguish viral warts
- 8)identify and distinguish pyodermas
- 9)know the different intra epidermal and sub epidermal blistering disorders

B)Skill

- 1) differentiate primary lesions like papule nodule vesicle and bulla
- 2) identify the grades of acne
- 3) differentiate vitiligo from other hypopigmented lesions
- 4) demonstrate auspitz sign in psoriasis
- 5) describe examination of motor and sensory system, peripheral nerves and MB and PB treatment in leprosy
- 6) demonstrate tzanck smear , nikolskys and bulla spread sign
- 7) demonstrate dermographism
- 8) perform KOH examination in fungal infection
- 9)enumerate steps of performing slit skin smears
- 10)learn the skill of using woods lamp for various conditions
- 11)learn to use the glass slide to identify types of scaling in different papulosquamous conditions

C) Affective domain

- 1) Communicate effectively with patients, their bystanders
- 2) Demonstrate empathy while communicating with patients, while taking history and examining the patient
- 3) Develop the art of explaining the proper and effective ways of following the treatment (example the method of application of a cream, amount, frequency etc) prescribed by the consultant
- 4)Develop the empathy and communicating effectively with patients with chronic disorders like psoriasis and leprosy
- 5) Taking consent from the patient before performing bedside procedures like slit skin smear etc

Number	COMPETENCY The student should be able to	SLOs	Domain K/S/A/C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Acne		Number of procedures that require certificaion:(NIL)								
DR1.2	Identify and grade the various common types of acne	- Identify different lesions like comedones, papules, nodules - Enumerate the grades of Acne -Enumerate treatment options for different grades of acne	S	SH	Y	Bedside clinic/OPD teaching	Viva voce	3 hours		
Topic: Vitiligo		Number of procedures that require certificaion:(NIL)								
DR2.1	Identify and differentiate vitiligo from other causes of hypopigmented lesions	-Differentiate hypopigmented and depigmented patches -Identify types of vitiligo based on site and morphology - Discuss etiopathogenesis, treatment options and prognosis of vitiligo	S	S	Y	Bedside clinic/ OPD teaching	Viva voce			
Topic: Papulosq uamous disorder		Number of procedures that require certificaion:(NIL)								
DR3.1	Identify and distinguish psoriatic lesions from other causes	-Know the differential diagnosis of papulosquamous lesions - Enumerate types of Psoriasis	K	SH	Y	Bedside clinic	Skill assessment/ Viva voce	3 Hours		
DR3.2	Demonstrate the grattage test	-Demonstrate Auspiz sign	S	SH	Y	Bedside clinic	Skill assessment			
Topic: Lichen Planus		Number of procedures that require ertificaion:(NIL)								

DR4.1	Identify and distinguish lichen planus lesions from other causes	<ul style="list-style-type: none"> • Demonstrate Wickham's striae • Identify Oral and nail changes in Lichen planus • - know the causes of lichenoid eruptions 	S	SH	Y	Bedside clinic	Skill assessment			
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Number	COMPETENCY The student should be able to	SLOs	Domain K/S/A/C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Scabies							Number of procedures that require certification:(NIL)			
DR5.2	Identify and differentiate scabies from other lesions in adults and children	-History taking and Examination in scabies - Identify lesions in scabies	SH	Y	Bedside clinic	Skill assessment	3 hours		Pediatrics	
Topic: Pediculosis							Number of procedures that require certification:(NIL)			
DR6.2	Identify and differentiate pediculosis from other skin lesions in adults and children	_history ting and examination in a case of itchy scalp - Identify nits in pediculosis	SH	Y	Bedside clinic	Skill assessment			Pediatrics	
Topic: Fungal Infections							Number of procedures that require certification:(NIL)			
DR7.2	Identify Candida species in fungal scrapings and KOH mount	-Demonstrate budding yeast cells and pseudohyphae in candidiasis	SH	Y	DOAP session	Skill assessment				Microbiology
Topic: Viral infections							Number of procedures that require certification: (NIL)			
							2			

Number	COMPETENCY The student should be able to		Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
DR8.2	Identify and distinguish herpes simplex and herpes labialis from other skin lesions	-Define and identify a vesicle - Describe clinical features of HSV infection	SH	Y	DOAP session	Skill assessment	3 hours		
DR8.3	Identify and distinguish herpes zoster and varicella from other skin lesions	- Define and identify vesicle, bulla - Know the dermatomes	SH	Y	DOAP session	Skill assessment			
DR8.4	Identify and distinguish viral warts from other skin lesions	- Enumerate verrucous lesions - Describe clinical features and types of wart	SH	Y	DOAP session	Skill assessment			
DR8.5	Identify and distinguish molluscum contagiosum from other skin lesions	- Identify and describe classical presentation of molluscum contagiosum	SH	Y	DOAP session	Skill assessment			
DR8.6	Enumerate the indications, describe the	- Describe steps of Tzanck smear	SH	Y	DOAP session	Skill assessment			

	procedure and perform a Tzanck smear									
Topic: Leprosy							Number of procedures that require certification:(NIL)			
DR9.2	Demonstrate (and classify based on) the clinical features of leprosy including an appropriate neurologic examination	- Describe spectrum and classification of leprosy - Demonstrate Cutaneous and Peripheral nerve examination in Leprosy	SH	Y	Bedside clinic	Bedside clinic/ Skill assessment	3 hours	General Medicine		
DR9.3	Enumerate the indications and observe the performance of a slit skin smear in patients with leprosy	-Describe sites and steps of performing Slit skin smear in Leprosy	KH	Y	Bedside clinic, DOAP session	Written/ Viva voce				

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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Topic: Sexually Transmitted Diseases		Number of competencies: (11)			Number of procedures that require certification:(NIL)						
DR10.1	Identify and classify syphilis based on the presentation and clinical manifestations	-	Describe the different clinical manifestations of syphilis in different stages	S	SH	Y	Bedside clinic	Skill assessment	3 hours	General Medicine	Microbiology
DR10.2	Identify spirochete in a dark ground microscopy	-	Enumerate steps of performing dark ground microscopy	S	SH	Y	DOAP session	Skill assessment			Microbiology
DR10.5	Counsel in a non-judgemental and empathetic manner patients on prevention of sexually transmitted disease	-	Describe the steps of counseling a patient with STI and its importance in clinical management	C	SH	Y	DOAP session	Skill assessment		General Medicine	
Number	COMPETENCY The student should be able to			Domain K/S/A/C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
DR10.7	Identify and differentiate based on the clinical features non-syphilitic sexually transmitted	-	Describe the approach towards a case of genital ulcer disease - Describe the	S	SH	Y	Bedside clinic	Skill assessment	3 hours	General Medicine	Microbiology

	diseases (chancroid, donovanosis and LGV)	clinical features and examination of genital ulcer disease								
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Topic: HIV **Number of competencies: (03)** **Number of procedures that require certification:(NIL)**

DR11.2	Identify and distinguish the dermatologic manifestations of HIV, its complications, opportunistic infections and adverse reactions	<ul style="list-style-type: none"> - Describe cutaneous manifestations in HIV - Classify ART - Enumerate AIDS defining illnesses 	S	SH	Y	Bedside clinic	Skill assessment	3 hours	General Medicine	Microbiology
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Topic: Dermatitis **Number of competencies: (07)** **Number of procedures that require certification:(NIL)**

Number	COMPETENCY The student should be able to		Domain K/S/A/C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
DR12.2	Identify eczema and differentiate it from lichenification and changes of aging	<ul style="list-style-type: none"> -Define eczema - Differentiate acute, subacute and chronic eczema Diffrentiate allergic vs irritant dermatitis - know/observe steps of patch test -Describe changes in ageing skin 	S	SH	Y	Bedside clinic	Skill assessment	3 hours		

DR12.5	Define erythroderma. Enumerate and identify the causes of erythroderma. Discuss the treatment	- Define and discuss clinical features of erythroderma - Discuss etiological factors in erythroderma - Describe management of erythroderma	S	KH	Y	Bedside clinic	Written/ Skill assessment			
DR12.7	Identify and distinguish fixed drug eruptions and Steven Johnson syndrome from other skin lesions	-Describe clinical features in SJS and TEN	S	SH	Y	Bedside clinic	Skill assessment	3 hours	General Medicine	Pathology, Microbiology
Topic: Vesicubullous Lesions Number of competencies:(03) Number of procedures that require certification:(NIL)										
DR13.1	Distinguish bulla from vesicles	-Define vesicle, bulla	S	SH	Y	Bedside clinic	Skill assessment			
DR13.2	Demonstrate the Tzanck test, nikolsky sign and bulla spread sign	- Demonstrate bulla spread sign and its inference - Demonstrate nikolsky sign and its inference	S	SH	Y	Bedside clinic	Skill assessment			
Topic: Urticaria Angioedema Number of competencies: (05) Number of procedures that require certification:(NIL)										
Number	COMPETENCY The student should be able to		Domain K/S/A/C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration

DR14.2	Identify and distinguish urticarial from other skin lesions	-Define a wheal - Describe types of urticaria	S	SH	Y	Bedsid e clinic	Skill assessment	3 hours		
DR14.3	Demonstrate dermatographism	- Describe triple response of lewis and demonstrate dermatographism	S	SH	Y	Bedsid e clinic	Skill assessment			
DR14.4	Identify and distinguish angioedema from other skin lesions	-Describe features of angioedema and its management	S	SH	Y	Bedsid e clinic	Skill assessment			
Topic: Pyoderma Number of competencies: (04) Number of procedures that require certificaion:(NIL)										
DR15.1	Identify and distinguish folliculitis impetigo and carbuncle from other skin lesions	-Enumerate bacterial infections of skin - Describe clinical features of folliculitis - Discuss the features and types of impetigo	S	SH	Y	Bedsid e clinic	Skill assessment			
DR15.2	Identify staphylococcus on a gram stain	-Describe the steps of performing grams stain	S	SH	Y	Bedsid e clinic	Skill assessment			Microbiology
DR15.4	Enumerate the indications for surgical referral	- Describe features of cellulitis - Describe role of debridement in necrotic ulcers	S	KH	Y	DOAP session	Written/ Viva voce		General Surgery	
Topic: Collagen Vascular disease Number of competencies: (02) Number of procedures that require certificaion:(NIL)										
See also major competencies listed in General Medicine										
DR16.1	Identify and distinguish skin lesions of SLE	- Describe the cutaneous features and criteria for diagnosis of SLE	S	SH	Y	Bedsid e clinic	Skill assessment	3 hours	General Medicine	Pathology

Number	COMPETENCY The student should be able to		Domain K/S/A/C	Level K/KH/ SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
DR16.2	Identify and distinguish Raynaud's phenomenon	- Describe the pattern of color change in Raynauds phenomenon - Discuss etiology of Raynauds phenomenon	S	SH	Y	Bedside clinic	Skill assessment		General Medicine	Pathology

Learning Resources: Recent Editions:

IADVL Concise Text Book of Dermatology.

RADIOLOGY

Radiological Investigations and Radiation safety

i) GOAL:

The broad goal of teaching the undergraduate medical students in the field of Radio-diagnosis is aimed at making the students realise the basic need of various radio-diagnostic tools in medical practice. They should be aware of the techniques required to be undertaken in different situations for the diagnosis of various ailments as well as during prognostic estimations.

ii) OBJECTIVES

a) KNOWLEDGE:

The student should be able to:

1. Understand basics of various imaging modalities, its uses, Radiation and hazards.
2. Identify and diagnose various radiological changes in disease conditions of chest and mediastinum, skeletal system, G.I. Tract, G.U. system, OBG, MSK, etc
3. Appreciate and diagnose changes appropriate to various conditions in emergency.
4. Learn about various imaging techniques, including isotopes C.T., Ultrasound, M.R.I., D.S.A.

b) SKILL

At the end of the course the student should be able to:

1. Use basic protective techniques during various imaging procedures.
2. Interpret common imaging and diagnostic techniques in various community situations.
3. Advise appropriate diagnostic procedures in specialized circumstances to appropriate specialists.

c) INTEGRATION

At the end of training the student should be able to integrate the relationship of different diagnostic techniques and their clinical correlation that contribute to the diagnosis of diseases.

Sl.No	Core competency	Knowledge	Skills	Competences and Attitudes	Teaching learning methods:	Assessment
RD1.1	Define radiation and the interaction of radiation and importance of radiation protection	<ul style="list-style-type: none"> • To list the sources and properties of ionising radiation and radioactive decay • To describe the generation of X-rays and their interaction with matter • To describe the most important dose measures, including absorbed energy dose (Gy), organ and effective doses (Sv) • To be familiar with the principles of the dose length product (DLP) • To explain stochastic, deterministic and teratogenic radiation effects • To list types and magnitudes of radiation risk from radiation exposure in medicine and to compare it to radiation exposure from natural sources • To list concepts of dose measurement and the relevant dose limits as per AERB guidelines 	<ul style="list-style-type: none"> • To apply the knowledge of radiation biology and physics to optimally select the best imaging modality • To use the correct terms to characterise exposure from ionising radiation • To communicate the radiation risk to the patient at an understandable level 	<p>To apply the As Low As Reasonably Achievable (ALARA) principle to the different radiological methods involving ionising radiation</p> <ul style="list-style-type: none"> • To apply radiation protection measures in diagnostic and interventional radiology • To avoid unnecessary radiation exposure by choosing the optimal modality and technique • To consult patients, patients' families and staff on radiation-related risks and benefits of a planned procedure 	Lecture – 1 Hr	NA

		<ul style="list-style-type: none"> • To understand the As Low As Reasonably Achievable (ALARA) principle • To list the factors influencing image quality and dose in diagnostic radiology 				
RD1.2:	<p>Describe the evolution of Radiodiagnosis. Identify various radiological equipment's In the current era</p>	<ul style="list-style-type: none"> • To know about the Historical Events in Radiology • Knowledge about Transition of Radiology from X-Ray to USG,CT,MRI,PET-CT... • To know changes in Diagnostic Radiology from conventional to digital imaging and PACS • To know about the Future prospects-Artificial Intelligence in imaging • Knowledge of Radiological equipment used in the current era –X-Ray, Ultrasound, CT, MRI, PETCT, DSA, Mammography... • Knowledge of principle of the various Radiological equipment used • Safety of various radiological equipment 	<ul style="list-style-type: none"> • To apply the knowledge of various radiological equipment available to optimally select the best imaging modality 	<ul style="list-style-type: none"> • Ability to communicate the procedure, benefits and risks of different radiological examinations to patients and their family members 	Lecture – 1 Hr	NA
RD1.3:	Enumerate	► Knowledge of the most	Ability to define the	► Ability to	Lecture – 1 Hr	NA

	indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorder of ENT	important structures of the normal anatomy of the head and neck region in radiographic examinations, fluoroscopic examinations, ultrasound, CT and MRI ▶ Basic knowledge of the most common radiological findings in traumatic and inflammatory diseases of the base of the skull, nose, paranasal sinuses, oral cavity, pharynx, larynx, and thyroid ▶ Basic knowledge of the typical morphological presentation of common tumors of the base of the skull, nose, paranasal sinuses, oral cavity, pharynx, larynx, and thyroid	most important normal structures of the head and neck region in radiographic examinations, fluoroscopic examinations, ultrasound, CT and MRI	communicate the procedure, benefits and risks of different radiological examinations of the head and neck region to patients and their family members ▶ Ability to communicate the results of radiological examinations of the head and neck region to patients and their family members	Small group discussion with clinical case scenario (Clinical Posting-1)	
RD1.4:	Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to	<ul style="list-style-type: none"> • To describe the normal anatomy and physiology of the female reproductive organs on ultrasound, CT and MRI • To have a basic understanding of the main techniques - radiography, ultrasonography, CT and MRI used in gynaecological and obstetric imaging • To explain how the female reproductive organs change 	To identify the normal imaging anatomy of the female pelvis on cross-sectional imaging Ability to identify the most important physiological structures of the female pelvis in ultrasound, CT, and MRI	<ul style="list-style-type: none"> • To communicate with patients in order to explain diagnostic imaging procedures of the female reproductive organs • To communicate the results of a gynaecological or obstetric imaging examination to patients and their families 	Lecture – 1 Hr Small group discussion with clinical case scenario (Clinical Posting-1)	NA

	disorder in Ob &Gy	<p>with age and during pregnancy</p> <ul style="list-style-type: none"> • To list typical imaging features of benign and malignant tumours of the female reproductive organs • To describe the typical imaging features of the most common disorders associated with pregnancy and delivery • To know about the development and imaging of fetus in various trimesters. • To know about common anomalies seen in pregnancy • To list techniques to reduce exposure doses for radiographic and CT examinations of the female reproductiveorgans 		<ul style="list-style-type: none"> • To choose the optimally suited imaging modality for pregnant patients 		
RD1.5	Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorder in internal medicine					

	<p>a)Cardiovascular Radiology</p>	<p>To describe the normal anatomy and physiology of the heart and vessels on radiographs, ultrasonography/ Doppler sonography, CT, MRI and DSA</p> <ul style="list-style-type: none"> • To have a basic understanding of the main imaging techniques, radiography, ultrasonography, CT, MRI and DSA used for cardiovascular imaging • To describe the different types of cardiac configuration on chest radiography • To explain which chambers form the border of the cardiac silhouette on a chest radiography • To have a basic understanding of congenital heart disease and the diagnostic features on conventional radiographs • To differentiate radiological features and causes of cardiac enlargement, including acquired valvular disease and pericardial disease • To describe radiological features of vascular occlusion, stenosis and thrombosis in central and peripheral vessels • To explain the diagnostic evaluation of ischaemic heart disease 	<p>To recognise patterns of cardiac enlargement on radiographic images of the chest</p> <ul style="list-style-type: none"> • To recognise basic imaging patterns of occlusion, stenosis, thrombosis and aneurysm on Doppler sonography, CT, MRI and DSA 	<ul style="list-style-type: none"> • To communicate with patients to explain diagnostic imaging and interventional procedures of the cardiac and vascular systems • To communicate the results of cardiovascular imaging examinations to patients and their families 	<p>Lecture – 1 Hr</p> <p>Small group discussion with clinical case scenario (Clinical Posting-1)</p>	<p>NA</p>
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		<ul style="list-style-type: none"> • To describe the normal dimensions of the aorta and classify aortic aneurysms and dissections • To have a basic understanding of the relative values, common indications, contraindications and limitations in cardiovascular imaging 				
	B) Chest Radiology	<ul style="list-style-type: none"> • To describe the anatomy and physiology of the respiratory system, heart and vessels, mediastinum and chest wall on radiographs and CT • To have a basic understanding of the main imaging techniques (radiography, CT and MRI) used in thoracic imaging • To have an understanding of imaging patterns in chest radiology including consolidations, nodules, radiolucencies, hyperinflation • To describe the chest radiography signs, including silhouette sign, air bronchogram, air crescent sign, deep sulcus sign • To describe the imaging appearance of monitoring and support devices (“tubes and lines”) including endotracheal tubes, central venous catheters, 	<ul style="list-style-type: none"> • To identify the following structures on postero-anterior (PA) and lateral chest radiographs: lobes and fissures of the lung, trachea, main bronchi, cardiac atria and ventricles, pulmonary arteries, aorta, mediastinal components, diaphragm • To identify the proper positioning or malpositioning of the following monitoring and support devices (“tubes and lines”) including endotracheal tubes, central venous catheters, nasogastric tubes, chest drains, pacemakers 	<ul style="list-style-type: none"> • To communicate with patients to explain diagnostic imaging procedures of the chest • To communicate the results of chest imaging examinations to patients and their families 	Lecture – 1 Hr	NA

		<p>nasogastric tubes, chest drains and pacemakers</p> <ul style="list-style-type: none"> • To list the typical chest radiography appearances and common causes of pleural effusion • To describe the clinical and imaging features of pneumothorax and tension pneumothorax • To list typical imaging features of pneumonia on radiographs and CT • To list typical imaging features of emphysema on radiographs and CT • To describe the typical imaging appearances of bronchiogenic carcinoma and pulmonary metastases on radiographs and CT • To list the typical imaging patterns of mediastinal masses on radiographs and CT • To have an understanding of the clinical work-up of lung nodules • To describe the imaging signs of pulmonary embolism • To have a basic understanding of the common indications, contraindications and limitations in thoracic imaging 	<ul style="list-style-type: none"> • To identify pneumonia, emphysema, pulmonary and mediastinal masses, and pleural effusions on radiographs and CT • To confidently identify pneumothorax and tension pneumothorax on chest radiographs 			
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		<ul style="list-style-type: none"> • To be aware of the differences between high resolution CT (HRCT) of the chest, CT angiography of the pulmonary arteries and staging CT of the chest 				
RD1.6	<p>Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorders in surgery</p>					
	a)GIT & Abdomen	<p>To describe the normal anatomy and physiology of the internal viscera, abdominal organs, omentum, mesentery and peritoneum on conventional radiology, CT, ultrasound and MRI</p> <ul style="list-style-type: none"> • To have a basic understanding of the main imaging techniques, radiography, fluoroscopy, ultrasonography, CT and MRI used in gastrointestinal and abdominal imaging 	<ul style="list-style-type: none"> • To delineate the normal internal viscera, abdominal organs, omentum, mesentery and peritoneum on conventional radiology, CT, ultrasound and MRI • To identify signs of ileus/gastrointestinal obstruction on radiographic images of 	<ul style="list-style-type: none"> • To communicate with patients to explain diagnostic imaging procedures of the abdomen • To communicate the results of abdominal imaging examinations to patients and their families 	Lecture – 1 Hr Small group discussion with clinical case scenario (Clinical Posting-1)	NA

		<ul style="list-style-type: none"> • To list typical imaging features of acute abdominal conditions, including perforation, haemorrhage, inflammation, infection, obstruction, ischaemia and infarction on radiographs, ultrasound and CT • To list typical imaging features diverticulitis, and inflammatory bowel diseases • To have a basic understanding of the relative values, common indications, contraindications and limitations in gastrointestinal and abdominal imaging 	<p>the abdomen</p> <ul style="list-style-type: none"> • To identify signs of gastrointestinal perforation on radiographic images of the abdomen 			
	B) Urogenital Radiology	<p>To describe the normal anatomy and physiology of the retroperitoneum, kidneys, ureters, bladder, urethra and genital tract on ultrasonography and cross-sectional imaging</p> <ul style="list-style-type: none"> • To have a basic understanding of the main techniques (radiography, ultrasonography, CT and MRI) used in urogenital radiology • To explain when to refer a patient to a radiography, CT or MRI of the urogenital system • To list typical imaging features of the most common diseases of 	<ul style="list-style-type: none"> • To delineate the physiological urogenital structures on cross sectional images • To detect signs of urinary obstruction on ultrasonography, CT and MRI 	<p>To communicate with patients in order to explain imaging procedures in urogenital radiology</p> <ul style="list-style-type: none"> • To communicate the results of a urogenital imaging examination to patients and their families 	Lecture – 1 Hr	NA

		<p>the kidneys and of the urinary tract</p> <ul style="list-style-type: none"> • To list typical imaging features of the most common pathologies of the prostate, seminal vesicles and testes • To have a basic understanding of the relative value, common indications, contraindications and limitations in urogenital imaging 				
	c) Breast Imaging	<p>To describe the normal anatomy and physiology of the female breast, axilla and associated structures and how they change with age</p> <ul style="list-style-type: none"> • To have a basic understanding of the main radiological techniques employed in breast imaging (including mammography, ultrasonography and MRI) as well as their indications and relative diagnostic value • To have a basic understanding of the appearance of common benign diseases and of breast cancer on mammography • To have a basic understanding of techniques of ultrasound of the breast and of the appearance of common breast pathologies 	<p>To recognise basic imaging patterns on mammographic images</p> <ul style="list-style-type: none"> • To recognise basic imaging patterns on an ultrasound examination of the breast 	<p>To communicate the benefits, risk and basic technical aspects of mammography, ultrasound and MRI of the breast</p> <ul style="list-style-type: none"> • To communicate the benefits and risks of mammography screening 	Lecture – 1 Hr	NA

		<p>on ultrasound</p> <ul style="list-style-type: none"> • To have a basic understanding of MRI of the breast • To have a basic understanding of the relative values, common indications, contraindications and limitations in breast imaging 				
RD1.7	<p>Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorder in Paediatrics</p>	<ul style="list-style-type: none"> • To describe normal paediatric anatomy and physiology and how it changes with age on conventional radiology, ultrasonography and cross-sectional imaging • To have a basic understanding of the main techniques (radiography, ultrasound, radiography CT and MRI) used in paediatric imaging • To understand the increased sensitivity of children and adolescents to ionizing radiation and knowledge of the special importance of radiation protection in children • To have a basic understanding of the typical imaging manifestations of accidental and non-accidental trauma. • To list basic imaging features of the most common disorders 	<p>To delineate the normal paediatric anatomy on conventional radiographs of the chest and skeletal system</p> <ul style="list-style-type: none"> • To detect signs of fractures on conventional radiographs in the paediatric age group • Ability to identify and name the radiological signs of fractures in children and adolescents • Ability to communicate the procedure, benefits and risks of radiological examination to pediatric patients and 	<p>To establish a child-friendly environment</p> <ul style="list-style-type: none"> • To communicate with children and adolescents as well as their families to explain imaging procedures in paediatric radiology • To communicate the results of an imaging examination to children and adolescents as well as their families 	<p>Lecture – 1 Hr</p> <p>Small group discussion with clinical case scenario (Clinical Posting-1)</p>	NA

		of the brain, spine, chest, gastrointestinal tract and abdomen, urogenital system and musculoskeletal system in neonates, infants, children and adolescents. • To have a basic understanding of the relative value, common indications, contraindications and limitations in paediatric imaging.	their family members in an age-appropriate manner • Ability to communicate and interpret findings of radiological examinations for pediatric patients and their family members in an age-appropriate manner			
RD1.8	Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to common malignancies	<ul style="list-style-type: none"> • To list typical imaging features of colon tumours • To describe typical imaging features of primary and secondary tumours of the solid abdominal organs and of the gastrointestinal tract • To describe the typical imaging appearances of bronchogenic carcinoma and pulmonary metastases on radiographs and CT • To describe typical imaging features of common bone tumours • To describe typical imaging features of the most common tumours of the brain and spine 	To identify the normal imaging anatomy on imaging • To recognise basic imaging patterns of malignancies in ultrasound, CT, and MRI	<ul style="list-style-type: none"> • To communicate with patients in order to explain diagnostic imaging procedures • To choose the optimally suited imaging modality for the malignancy 	Lecture – 1 Hr Small group discussion with clinical case scenario (Clinical Posting-1)	NA

RD1.9	<p>Describe the role of Interventional Radiology in common clinical conditions</p>	<ul style="list-style-type: none"> • To describe the normal anatomy and physiology of the arterial and venous system and to have an understanding of its relevance to interventional radiology • To know the typical access routes for common endovascular treatment methods in interventional radiology • To list the common approaches for image-guided biopsy taking, placement of drainages and ablative techniques • To have a basic understanding of the role of vascular techniques: angioplasty, stenting, coiling embolization in the treatment of arterial and venous diseases • To have a basic understanding of non-vascular head and neck, musculoskeletal, thoracic, breast, gastrointestinal and genito-urinary interventional procedures • To have an understanding of the risks involved in common interventional techniques • To list the standard procedure in emergency situations, including resuscitation 	<ul style="list-style-type: none"> • To delineate the normal anatomy of the arterial and venous vessels on digital subtraction angiography • To prepare for common interventional radiological procedures under supervision • To observe basic catheterisation techniques and arteriographies • To observe image-guided biopsy taking, placement of drainages or ablative techniques ▶ Ability to weigh the benefits and risks of various radiological interventions 	<ul style="list-style-type: none"> • To communicate with patients in order to explain typical procedures in interventional radiology • To communicate the risks and benefits of basic interventional radiological procedures to patients and their families • To evaluate and interview the patient before the procedure and comprehensively explain how it is done • To clarify the advantages and disadvantages of the interventional imaging technique • To monitor the patient progress during and after the process 	<p>Lecture – 1 Hr</p> <p>Small group discussion with clinical case scenario (Clinical Posting-1)</p>	NA
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		<p>techniques</p> <ul style="list-style-type: none"> • To have a basic understanding of the common indications, contraindications and limitations in interventional radiology. ► Understanding of the differential indications between interventional radiological treatment, operation and conventional treatment strategies in select diseases (e. g. stage-dependent in the treatment of peripheral arterial occlusive disease, treatment of hepatocellular carcinomas) 				
RD1.10	Describe the role of Emergency Radiology, miscellaneous & applied aspects, interaction with clinical departments					
	a) Musculoskeletal Imaging	<ul style="list-style-type: none"> • To describe the normal anatomy and physiology of the musculoskeletal system on conventional radiology and cross-sectional imaging • To have a basic understanding of the main techniques, 	<ul style="list-style-type: none"> • To delineate the normal musculoskeletal anatomy on conventional radiographs and cross-sectional imaging 	<ul style="list-style-type: none"> • To communicate with patients in order to explain diagnostic imaging procedures of the musculoskeletal system • To communicate the 	Lecture – 1 Hr Small group discussion with clinical case scenario (Clinical	NA

		<p>radiography, ultrasonography, CT and MRI used in musculoskeletal imaging</p> <ul style="list-style-type: none"> • To list common imaging presentations of trauma involving the skeleton on conventional radiographs • To list typical imaging presentations of degenerative disorders of the musculoskeletal system on conventional radiographs • To describe common imaging manifestations of musculoskeletal infection and inflammation, metabolic diseases, including osteoporosis, and common bone tumours • To have a basic understanding of the relative values, common indications, contraindications and limitations in musculoskeletal imaging 	<ul style="list-style-type: none"> • To detect and differentiate common types of fractures on conventional radiographs (e.g. Colles fracture) 	<p>results of a musculoskeletal imaging examination to patients and their families</p>	<p>Posting-1)</p>	
	b) Neuroradiology	<ul style="list-style-type: none"> •To describe the normal anatomy and physiology of the brain, skull, skull base, spine, spinal cord and nerve roots on cross-sectional imaging •To have a basic understanding of the main techniques used in neuroradiology; radiography, 	<ul style="list-style-type: none"> •To delineate the normal anatomy of the brain and spine on cross-sectional imaging • To detect and differentiate the different types of intracranial 	<ul style="list-style-type: none"> •To communicate with patients to explain diagnostic and common interventional procedures of the brain and spine •To communicate the results of an imaging 	<p>Lecture – 1 Hr</p> <p>Small group discussion with clinical case scenario (Clinical Posting-1)</p>	<p>NA</p>

		<p>ultrasonography, CT and MRI</p> <ul style="list-style-type: none"> • To list typical imaging features of ischaemic and haemorrhagic stroke on cross-sectional imaging • To describe common imaging features of traumatic brain injury and spinal trauma on cross-sectional imaging • To list typical imaging features of white matter disease, inflammation and degeneration on cross-sectional imaging • To describe the anatomy and typical imaging features of pathologies of pontocerebellar angle • To describe the acute headache imaging management and typical imaging features of related diseases • To describe typical imaging features of the most common vascular diseases • To have a basic knowledge of neuroradiological interventions including revascularisation and current interventional treatment options for intracranial aneurysms and arteriovenous malformations of brain and spine. • To have a basic understanding 	<p>haemorrhage on cross-sectional imaging</p> <ul style="list-style-type: none"> • To delineate signs of cord compression on cross-sectional imaging 	<p>examination of the brain and spine to patients and their families</p>		
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		of the relative value, common indications, contraindications and limitations in neuroradiology				
RD1.11	Describe preparation of patient for common imaging procedures	<ul style="list-style-type: none"> •To know how to prepare a patient for an X-ray or Fluoroscopic Exam •To know how to prepare a patient for an Ultrasound •To know how to prepare a patient for a CT •To know how to prepare a patient for an MRI •To know how to prepare a patient for a Procedure in Interventional Radiology • To know how to prepare a patient for a PET Scan 			Small group discussion with clinical case scenario (Clinical Posting-1)	NA
RD1.12	Describe the effects of radiation in pregnancy and the methods of prevention/ minimization of radiation exposure	<ul style="list-style-type: none"> •To know about Effects of ionizing radiation on the fetus •Principle of “as low as reasonably achievable”(ALARA) •To know about precautions in the pregnant operator •To know guidelines for pregnant interventional radiologists and residents •To know about the pregnant patient and radiation exposure 			Small group discussion with clinical case scenario (Clinical Posting-1)	NA

RD1.13	Describe the components of the PC & PNDT Act and its medicolegal implications	<ul style="list-style-type: none"> •To know about the PC & PNDT Act and its amendments •Knowledge about registration of place •Knowledge of renewal, suspension or cancellation of registration •Knowledge of qualification of person who can operate •Knowledge of sale of USG machines •Knowledge of maintenance of records •Knowledge of different forms under the act •Knowledge of offences and Penalties 			Small group discussion with clinical case scenario (Clinical Posting-1)	NA
Integration: Obstetrics & Gynaecology, Forensic Medicine & Toxicology						

Learning Resources: Recent editions

- Getting Started in Clinical Radiology: From Image to Diagnosis by George W. Eastman , Christoph Wald
- Essentials of Radiology by Fred A. Mettler Jr. MD MPH
- Review of Radiology (PGMEE) by Rajat Jain , Virendra Jain
- Learning Radiology: Recognizing the Basics by William Herring MD FACR
- Chest X-rays for Medical Students by Christopher Clarke, Anthony Dux
- Abdominal X-rays for Medical Students by Christopher Clarke, Anthony Dux
- www.jssmcradiology.com
- www.djcm.jssuni.edu.in

RESPIRATORY MEDICINE

GOAL

The goal of the training during the clinical postings in Respiratory Medicine for Phase II undergraduate students will be to introduce them to the basics of clinical assessment in Respiratory Medicine including history taking, basic clinical examination and common Respiratory Disorders.

OBJECTIVES

The objective of training the undergraduate students in Respiratory Medicine is to ensure that at the end of the 2 weeks of clinical postings he/she will be able to acquire the following proficiencies:

(a) Knowledge

8. Know art of history taking in Respiratory Medicine
9. Know the basic knowledge of common symptomatology in Respiratory Medicine
10. Know about common Respiratory Disorders
11. Learn about the diagnosis, categorization, management of common respiratory disorders
12. Learn and plan preventive care for the common Respiratory Disorders

(b) Skills

8. Obtain a proper relevant history.
9. Elicit a detailed history including the risk factor exposure.
10. Perform a clinical evaluation of the vitals and general physical examination
11. Differentiate normal from abnormal breathing patterns.
12. Able to identify the signs of common disorders in clinical examination.
13. Develop a proper and compassionate attitude towards patients, their relatives and other health care professionals.
14. Maintain an ethical behavior in all aspects of medical practice.

(c) Affective:

6. Demonstrate empathy, humane approach towards the patient and the by standers
7. Develop selflessness, integrity, responsibility, accountability and respect.
8. Communicate effectively with peers, students, teachers and support staff in various teaching learning activities in a manner that encourages participation and shared decision-making.
9. Demonstrate ability to communicate adequately, sensitively, effectively and respectfully with patients and their attenders.
10. Demonstrate due respect and follow the correct procedure while eliciting history from attenders.

Integration

The training in Respiratory Medicine should prepare the student to deliver preventive, promotive, curative and rehabilitative services for care patients in both the community and at hospital settings. Integration with other disciplines like Microbiology, Pharmacology, Medicine, Pediatrics, and Community Medicine are required.

COURSE OUTCOME

At the end of the 2 weeks of clinical postings the learner shall be familiar with clinical aspects of common Respiratory Disorders and conditions, and be able to demonstrate the skills required for eliciting history and basic clinical examination of the patient.

Teaching Hours: recommended by NMC/MCI:Teaching hours: 30 hours

Clinical Postings:- 3 hours/day, 5 days/week, 2 weeks postings

LEARNING &RESOURCE MATERIAL

Recommended books (Latest Editions)

Textbook:

- 6) Davidson
- 7) Kumar and Clark

Reference book:

- 1) Harrison’s Principles of Internal Medicine

Guidelines:

- 1) National TB Elimination Programme NTEP (previously known as RNTCP) : <https://tbcindia.gov.in/>
- 2) Global Initiative for Chronic Obstructive Pulmonary Disease: <https://goldcopd.org/>
- 3) Global Initiative for Asthma: <https://ginasthma.org/>

COMPETENCIES

Topics:2 (Tuberculosis and Obstructive airway disease)

1 Tuberculosis: Number of competencies: 19. Number of Competencies for clinical postings: 8.

2 Obstructive airway disease: Number of competencies: 28. Number of Competencies for clinical postings: 18.

Number of procedures that require certification: (01- Peak Flow)

RESPIRATORY MEDICINE (CODE: CT)Topic 1:Tuberculosis									
Number of competencies for Clinical Postings: (9) Number of procedures that require certification : (01)									
Number	COMPETENCY The student should be able to	Domain K/S/A/ C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
CT1.5	Elicit, document and present an appropriate medical history that includes risk factor, contacts, symptoms including cough and fever CNS and other manifestations	S	SH	Y	Bed side clinic, DOAP session	Skill assessment			

CT1.6	Demonstrate and perform a systematic examination that establishes the diagnosis based on the clinical presentation that includes a) general examination, b) examination of the chest and lung including loss of volume, mediastinal shift, percussion and auscultation (including DOAP session of lung sounds and added sounds) c) examination of the lymphatic system and d) relevant CNS examination	S	SH	Y	Bed side clinic, DOAP session	Skill assessment			
CT1.7	Perform and interpret a PPD (mantoux) and describe and discuss the indications and pitfalls of the test	S	P	Y	DOAP session	Maintenance of log book			
CT1.8	Generate a differential diagnosis based on the clinical history and evolution of the disease that prioritises the most likely diagnosis	K	K	Y	Bedside clinic, Small group discussion	Bedside clinic/ Viva voce			
CT1.9	Order and interpret diagnostic tests based on the clinical presentation including: CBC, Chest X ray PA view, Mantoux, sputum culture and sensitivity,	K	K	Y	Bedside clinic, DOAP session	Skill assessment			

	pleural fluid examination and culture, HIV testing								
CT1.15	Prescribe an appropriate antituberculosis regimen based on the location of disease, smear positivity and negativity and co-morbidities based on current national guidelines including directly observed tuberculosis therapy (DOTS)	K	SH	Y	Bedside clinic, Small group discussion, Lecture	Skill assessment		Pharmacology, Community Medicine	
CT1.16	Describe the appropriate precautions, screening, testing and indications for chemoprophylaxis for contacts and exposed health care workers	K	KH	Y	Bedside clinic, Small group discussion	Written		Community Medicine	
CT1.19	Communicate with patients and family in an empathetic manner about the diagnosis, therapy	S	P	Y	DOAP session	Skill assessment		AETCOM	

RESPIRATORY MEDICINE (CODE: CT) Topic 2:Obstructive airway disease									
Number of competencies for Clinical Postings: (16) Number of procedures that require certification : (01)									
Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
CT2.8	Elicit document and present a	S	SH	Y	Bed side	Skill			

	medical history that will differentiate the aetiologies of obstructive airway disease, severity and precipitants				clinic, DOAP session	assessment			
CT2.9	Perform a systematic examination that establishes the diagnosis and severity that includes measurement of respiratory rate, level of respiratory distress, effort tolerance, breath sounds, added sounds, identification of signs of consolidation pleural effusion and pneumothorax	S	SH	Y	Bed side clinic, DOAP session	Skill assessment			
CT2.10	Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology	S	SH	Y	Bed side clinic, DOAP session	Skill assessment/ Written			
CT2.11	Describe, discuss and interpret pulmonary function tests	S	SH	Y	Bed side clinic, DOAP session	Skill assessment		Physiology, Pathology	
CT2.12	Perform and interpret peak expiratory flow rate	S	P	Y	Bedside clinic, DOAP session	documentati on in log book/ Skill assessment	3		
CT2.13	Describe the appropriate diagnostic work up based on the presumed aetiology	S	SH	Y	Bedside clinic, Small group discussion	Written/ Skill assessment			
CT2.14	Enumerate the indications for and interpret the results of : pulse oximetry, ABG, Chest Radiograph	K	SH	Y	Bedside clinics, Small group discussion,	Written/ Skill assessment			

					DOAP session				
CT2.15	Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology	K	SH	Y	Bedside clinics, Small group discussion, DOAP session	Written/Skill assessment			
CT2.18	Develop a therapeutic plan including use of bronchodilators and inhaled corticosteroids	K	SH	Y	Bedside clinics, Small group discussion, DOAP session	Written/Skill assessment			
CT2.19	Develop a management plan for acute exacerbations including bronchodilators, systemic steroids, antimicrobial therapy	K	SH	Y	Bedside clinics, Small group discussion, DOAP session	Written/Skill assessment			
CT2.21	Describe discuss and counsel patients appropriately on smoking cessation	K/C	SH	Y	DOAP session	Skill assessment		AETCOM	
CT2.22	Demonstrate and counsel patient on the correct use of inhalers	S/C	SH	Y	DOAP session	Skill assessment			
CT2.23	Communicate diagnosis treatment plan and subsequent follow up plan to patients	K/C	SH	Y	DOAP session	Skill assessment			
CT2.24	Recognise the impact of OAD on patient's quality of life, well being, work and family	A	KH	Y	Small group discussion, Bedside clinics	Observation by faculty		Community Medicine	
CT2.27	Demonstrate an understanding of patient's inability to change working, living and environmental factors that influence progression	A	KH	Y	Small group discussion, Bedside clinics	Observation by faculty		Community Medicine	

	of airway disease								
CT2.28	Demonstrate an understanding for the difficulties faced by patients during smoking cessation	A	KH	Y	Small group discussion, Bedside clinics	Observation by faculty			

Column C: K- Knowledge, S – Skill, A - Attitude / professionalism, C- Communication.
Column D: K – Knows, KH - Knows How, SH - Shows how, P- performs independently,
Column F: DOAP session – Demonstrate, Observe, Assess, Perform.
Column H: If entry is P: indicate how many procedures must be done independently for certification/ graduation