Undergraduate Assessment Record

General Medicine

The TN Dr. M.G.R. Medical University
Chennai

The Tamil Nadu Dr. M.G.R. Medical University
Chennai

Under Graduate Assessment Record

Department of General Medicine

Preface

Competency based education implemented by this university is an outcome-based learningonaframework of competencies. The present system needs an ongoing and longitudinal assessment to identify the learning, enable learning opportunities and acquire the mandated competency. Consequently, this university is enabling this assessment record to decide if the learner has acquired the mandated competencies.

This assessment record is designed to collect and analyse data of a student's learning in relation to a required competency and the learner's stage of training, based on - use of knowledge, technical skills, clinical reasoning, communication, emotions, values and reflection continuously and consistently and not isolated to the final examination.

As given in the MCI document on "Competency Based Assessment Module for Undergraduate Medical Education-2019" - "Informal assessments should happen during teaching-learning activities with the express purpose of finding out the stage of the student and taking corrective action in teaching-learning methodology on an ongoing basis. During lectures, small groups or seminars, use of techniques like clickers, one-minute papers and muddiest point provide valuable information to check understanding and provide developmental feedback. Same can be done during practical/clinical teaching using one-minute preceptor (OMP) or SNAPPS technique (Summarize history and findings, Narrow the differential; Analyse the differential; Probe preceptor about uncertainties; Plan management; Select case-related issues for self-study). Many of these do not need to be considered for pass/fail decisions but are useful to aid learning and acquire competencies. These can be planned by the teachers on a day to day basis and modified depending on the tasks at hand.

This Assessment Record for the Undergraduates is to be maintained by the Faculty of the concerned Department and shall be shown to the student during the feedback sessions and at the end of the course period.

Table of Contents

1. University Norms for Assessment of the Course

a. Formative / Internal Assessment

Internal Assessment – Theory			
	Type of Assessment	Methods of Assessment	Total Marks
Formative Assessment	Theory Tests	MCQ, VSAQ, SAQ, LAQ	PCT 1 :100 PCT 2 : 100 Model Theory exam: 200 **Total : 400**
Continuous Internal Assessment – Theory		Home Assignments	15
		Continuous class test - LMS	30
	Self-Directed Learning	Seminar, Museum study, Library assignments	15+15+15 = 45
	Attendance theory		10
		Grand TOTAL	500
Internal Assessment - Practical			
Formative Assessment	Practical (Average of 2 PCTs and Model Practical tests)	Clinical case presentation, spotters, OSCE, exercises, Viva	PCT 1 :100 PCT 2 : 100 Model Practical : 200 **Total : 400**
Continuous Internal Assessment	Log Book/Academic Record	Certifiable skill based competencies through OSCE, Spotters, etc	100
		SVL (Simulated/Skill-based Virtual Lab) activity	40
		AETCOM Learning	40
		Research	20
		Journal (Record notebook/Portfolio)	40
		Attendance	10
		Grand Total	650

Note:

1. Internal assessment shall be based on day-to-day assessment. It shall relate to different ways in which learners participate in learning process including assignments, preparation for seminar, integrated classes, participation in AETCOM, SDL, Projects.
2. Regular periodic examinations shall be conducted throughout the course. There shall be no less than 8 internal assessment examinations and no less than 4 practical examinations.
3. Day to day records and log book (including required skill certifications) should be given importance in internal assessment. Internal assessment should be based on competencies and skills. Colleges and teachers should try to build their valid assessment tools.

4. Learners must secure at least 50% marks of the total marks (combined in theory and practical / clinical; not less than 40 % marks in theory and practical separately) assigned for internal assessment in a particular subject in order to be eligible for appearing at the final University examination of that subject. Internal assessment marks will reflect as separate head of passing at the summative examination.
5. Learners must have completed the required certifiable competencies for that phase of training and completed the log book appropriate for that phase of training to be eligible for appearing at the final university examination of that subject.
6. Feedback should be provided to learners throughout the course so that they are aware of their performance and remedial action can be initiated well in time. The feedbacks need to be structured and the faculty and learners must be sensitized to giving and receiving feedback.
7. The results of IA should be displayed on notice board within 2 weeks of the test and an opportunity provided to the learners to discuss the results and get feedback on making their performance better. Remedial measures for learners who are either not able to score qualifying marks or have missed on some assessments due to any reason(s) shall be allowed with a record.
8. It is also recommended that learners should sign with date whenever they are shown IA records in token of having seen and discussed the marks.
9. Internal assessment marks will not be added to University examination marks and will reflect as a separate head of passing at the summative examination.

b. Summative Assessment - University Examination

University examinations will consist of

1. Theory: 2 papers of 100 marks each. (Total 200 marks)
2. Practical Exam + Viva: 160+40= marks

Note:

1. Theory Examinations: Nature of questions will include different types such as structured essays (Long Answer Questions - LAQ), Short Answers Questions (SAQ) and objective type questions (e.g. Multiple-Choice Questions - MCQ). Marks for each part should be indicated separately. MCQs shall be accorded a weightage of not more than 20% of the total theory marks. In subjects that have two papers, the learner must secure at least 40% marks in each of the papers with minimum 50% of marks in aggregate (both papers together) to pass.
2. Practical/clinical examinations will be conducted in the laboratory/ clinics. The objective will be to assess proficiency and skills in History Taking, conduct physical examination, interpret data and form clinic social case diagnosis Emphasis should be on candidate's capability to demonstrate communication skills, analyse the case etc
3. Viva/oral examination should assess approach to problem solving, applied situations, attitudinal, ethical and professional values. Candidate's skill in interpretation of common factors associated with health and disease
4. Internal assessment marks are not to be added to marks of the University examinations and should be shown separately in the grade card.
5. Pass in University Exam will be 50% marks in theory and practical

2. Curriculum Vitae

Name of Student											
Name of Parent/Guardian											
Date of Birth & Age											
Permanent Address											
Address for Postal Communication											
Landline Phone (Home)											
Mobile Phone (Parent/Guardian)											
Mobile Phone (Parent/Guardian)											
Mobile Phone (Student)											
Email ID (Parent/Guardian)											
Email ID (Student)											

Signature of Student

3. Understanding Competency Based Assessment

Assessment requires specification of measurable and observable entities. This could be in the form of whole tasks that contribute to one or more competencies or assessment of a competency per se. Another approach is to break down the individual competency into learning objectives related to the domains of knowledge, skills, attitudes, communication etc. and then assess them individually. However, as stated earlier, using individual domain framework may not always result in making an accurate assessment of the specific competency. Therefore, efforts should be made to include competencies in the assessment process as much as possible. CBA is very useful to convey a message to the learners to structure their learning around competency framework.

- CBA operates within the framework of competencies. Assessment tools should align competencies/objectives.
- CBA should help to acquire competencies/objectives (Assessment for learning) and their certification (Assessment of learning).
- CBA is continuous and ongoing process with opportunities for providing developmental feedback.
- Direct observations of learners improve utility of CBA and feedback.
- Multiple assessors, multiple tools and multiple assessments improve the validity and reliability of CBA.

Formative & Internal Assessment (IA)

Formative assessment is an assessment conducted during the instruction with the primary purpose of providing feedback for improving learning. It also helps the teachers and learners to modify their teaching learning strategies. The feedback is central to formative assessment and is linked to deep learning, seeking to explore the educational literature and its pedagogical lessons for healthcare educational practice. It provides inputs to both learners and teachers regarding adequacy of teaching-learning. A variety of feedback principles and techniques can be used depending on the context.

Although there can be a debate on the summative or formative nature of IA, it still provides the best opportunities for formative purposes. IA is when assessment is done by the teachers who have taught the subject. It overcomes the limitations of day-to-day variability and allows larger sampling of topics, competencies and skills.

In competency-based curriculum, IA provides useful avenues for both formative and summative assessment. The IA focuses on the process of learning i.e. how the learners have learnt throughout the course. This assessment gives priority to psychomotor, communication and affective domains. These are those domains which are usually not assessed by the traditional assessment methods. It should involve all faculty members of a department (Senior Residents upwards) and not just one or two senior teachers. This helps to build the ownership of teaching-learning and assessment as well as provide 'hands-on' experience in assessment to all teachers. In that way, IA can be a very useful tool for assessing all competencies in any competency-based curriculum. IA should not be considered as an assessment without external controls and can be utilized in a manner to overcome some its perceived weaknesses. Utility of IA can be further improved by involving all teachers in the department and limiting the contribution of individual teacher, test or tool.

Designing a system of assessment

While designing an internal assessment, all domains of learning i.e. cognitive, psychomotor and affective should be taken into account and weightage should be assigned to these domains for assessment. We can divide various domains into smaller components and assign marks to each component. Make a blueprint of assessment, then circulate to few learners and faculty, take their comments/ views/feedback and revise as per the need. Miller's pyramid (figure 2) provides a

simple way to select appropriate tool for assessment. Efforts should be made to climb higher in the pyramid.6, 13 The following adapted example illustrates this:

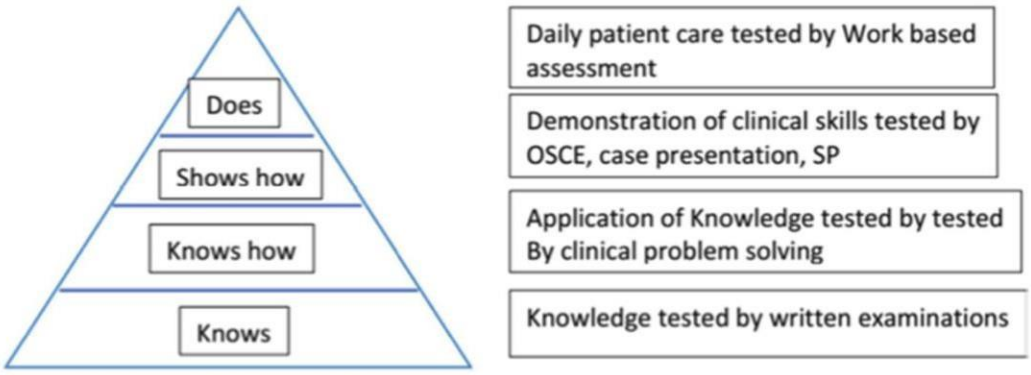

Figure 2. Assessment methods as per levels of competency (Adapted from Ramani) OSCE: Objective Structured Clinical Examination, SP: Standardised/ Simulated Patients

The key to building validity and to make CBA assessment useful is to align it with competencies/objectives. Including some aspects from competencies of other phases is useful to assess integration of concepts. Some examples of such alignment can be seen in the competency sheet given in Table1.

Table 1. Deriving assessment methods from objectives

Competency: An **observable** ability of a health professional, **integrating multiple components** such as knowledge, skills, values and attitudes.

PA42.3	**Identify** the etiology of meningitis based on given CSF parameters	K/S	SH	Y

Objective: Statement of what a learner should be able to do at the end of a specific learning experience

PA42.3.1	At the end of the session **the PII student** must be able to enumerate the most common causes of meningitis correctly	Short note or part of structured essay: Enumerate 5 causes of meningitis based on their prevalence in India
PA42.3.2	At the end of the session the PII student must be able to enumerate the components of a CSF analysis correctly	Short note or part of structured essay: Enumerate the components tested in a CSF analysis
PA4.3.3	At the end of the session the PII student must be able to **describe** the CSF features for a given etiologic of meningitis **accurately**	Short note or part of structured essay:Describe the CSF findings that are characteristic of tuberculous meningitis
PA4.3.4	At the end of the session the PII student must the able to identify the aetiology of meningitis correctly from a **given set of CSF parameters**	Short note / part of the structured essay/ Skill station/ Viva: Review the CSF findings in the following patient and identify (write or vocalise) the most likely ethology

Table 1. Deriving assessment methods from objectives

A useful approach, especially for affective, psychomotor and communication domains, is to adopt the concept of assessment toolbox. A toolbox is a listing of available tools (and rating forms, if required), which are suggested for a particular competency or sub-competency and aims at improving the value of assessment data.14 The listed tools are suggestions only and can be freely used either singly or in combination by teachers to suit particular requirements. Efforts should be made to use multiple tools even for a given competency to improve validity and reliability of assessment. While assessment will continue to be subject based, efforts must be made to ensure

that phase appropriate correlates are assessed to determine if the learner has internalised and integrated the concept and its application.

Internal Assessment

Scheduling of IA

A student who has not taken minimum required number of tests for IA each in theory and practical will not be eligible for University examinations. Proper records of the work should be maintained which will form the basis for the learners' internal assessment and should be available to the assessors at the time of inspection of the college by the Medical Council of India.

Components of IA

(i) Theory IA can include: theory tests, send ups, seminars, quizzes, interest in subject, scientific attitude etc. Written tests should have short notes and creative writing experiences.

(ii) Practical/Clinical IA can include: clinical case presentation, practical tests, Objective Structured Practical Examination (OSPE), Directly Observed Procedural Skills (DOPS), Mini Clinical Evaluation Exercise (mini-CEX), records maintenance and attitudinal assessment.

Colleges and teachers should try to build capacity to use a variety of assessment tools. A number of tools are available in the form of assessment toolbox. The construct validity and predictive utility of internal assessment is high. Many of the tools mentioned for IA may appear subjective. However, by virtue of being high on validity and by conveying a message to the learners to not ignore skills, attitudes and communication (educational impact), they contribute to better learning. Since stakes at IA are low, the use of expert subjective assessments to cover areas which are not assessable by conventional objectivised assessment tools is appropriate. There is plenty of evidence in literature to suggest that expert subjective assessments can be as reliable as highly objective ones.

There should be at least one assessment based on direct observation of skills, attitudes and communication at all levels. Communication and attitudinal assessment should also be built in all assessments as far as possible.

Feedback in IA

Feedback should be provided to learners throughout the course so that they are aware of their performance and remedial action can be initiated well in time. The feedbacks need to be structured and the faculty and learners must be sensitized to giving and receiving feedback. The results of IA should be displayed on notice board within 2 weeks of the test and an opportunity provided to the learners to discuss the results and get feedback on making their performance better. It is also recommended that learners should sign with date whenever they are shown IA records in token of having seen and discussed the marks. Internal assessment marks will not be added to University examination marks and will reflect as a separate head of passing at the summative examination.

(These concepts have been incorporated in the proposed Regulations in Graduate Medical Education, 2019 (GMER 2019) and are reproduced here.

4. Formative Assessment of Classroom / Clinical Training

The term "Classroom Learning" mentioned here includes any learning that happens within the ambit of the department as large group and small group teaching, demonstrations, dissection classes, practical classes, museum classes etc. The learning in the department predominantly fits into the Scale of 1 and2of the 5 level Blooms Taxonomy.

The Assessment Methods would include

1. End of Lecture Class/Module Assessment: 5-8 MCQ's solved over 5-8minutes
2. End of clinical training : OSPE of 10-12minutes
3. End of Practicals /Module: Spotting / OSPE/ Epidemiological exercises

For effective assessment and grading of performances a Likert's scale is given as under:

Grade	Characteristic
1	Score < 35% marks in the end of class assessments
2	Score 35%-50% marks in the end of class assessments
3	Score 50%-60% marks in the end of class assessments
4	Score 60%-75% marks in the end of class assessments
5	Score > 75% marks in the end of class assessments

Number	COMPETENCY: The student should be able to	Level	Grading Scale					Initial of
			1	2	3	4	5	Facilitator
Topic: Heart Failure								
IM1.1	Describe and discuss the epidemiology, pathogenesis clinical evolution and course of common causes of heart disease including: rheumatic/ valvular, ischemic, hypertrophic inflammatory	KH						
IM1.2	Describe and discuss the genetic basis of some forms of heart failure	KH						
IM1.3	Describe and discuss the aetiology microbiology pathogenies and clinical evolution of rheumatic fever, criteria, degree of rheumatic activity and rheumatic valvular heart disease and its complications including infective endocarditis	KH						
IM1.4	Stage heart failure	KH						
IM1.5	Describe ,discuss and differentiate the processes involved in R Vs L heart failure, systolic vs diastolic failure	KH						
IM1.6	Describe and discuss the compensatory mechanisms involved in heart failure including cardiac remodelling and neurohormonal adaptations	KH						
IM1.7	Enumerate, describe and discuss the factors that exacerbate heart failure including ischemia arrythmias anemia thyrotoxicosis K KH Y Lecture,Small group discussion Written/ Viva voce Pathology, Physiology failure including ischemia, arrythmias, anemia, thyrotoxicosis, dietary factors drugs etc.	KH						

IM1.8	Describe and discuss the pathogenesis and development of common arrythmias involved in heart failure particularly atrial fibrillation	KH						
IM1.9	Describe and discuss the clinical presentation and features, diagnosis, recognition and management of acute rheumatic fever	KH						
IM1.10	Elicit document and present an appropriate history that will establish the diagnosis, cause and severity of heart failure including: presenting complaints, precipitating and exacerbating factors, risk factors exercise tolerance, changes in sleep patterns, features suggestive of infective endocarditis	SH						
IM1.11	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, S SH Y Bedside clinic, DOAP session Skill assessment rate, jugular venous forms and pulses, peripheral pulses, conjunctiva and fundus, lung, cardiac examination including palpation and auscultation with identification of heart sounds and murmurs, abdominal distension and splenic palpation	SH						
IM1.12	Demonstrate peripheral pulse, volume, character, quality and variation in various causes of heart failure	SH						
IM1.13	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	SH						
IM1.14	Demonstrate and measure jugular venous distension	SH						
IM1.15	Identify and describe the timing, pitch quality conduction and significance of precordial murmurs and their variations	SH						
IM1.16	Generate a differential diagnosis based on the clinical presentation and prioritise it based on the most likely diagnosis	KH						
IM1.17	Order and interpret diagnostic testing based on the clinical K SH Y Bedside clinic, DOAP Skill assessment diagnosis including 12 lead ECG, Chest radiograph, blood cultures	SH						
IM1.18	Perform and interpret a 12 lead ECG	P						
IM1.19	Enumerate the indications for and describe the findings of heart failure with the following conditions including: 2D echocardiography, brain natriuretic peptide, exercise testing, nuclear medicine testing and coronary angiogram	SH						
IM1.20	Determine the severity of valvular heart disease based on the clinical and laboratory and imaging features and determine the level of intervention required including surgery	SH						

IM1.21	Describe and discuss and identify the clinical features of acute and subacute endocarditis, echocardiographic findings, blood culture and sensitivity and therapy	KH/SH						
IM1.22	Assist and demonstrate the proper technique in collecting specimen for blood culture	SH						
IM1.23	Describe, prescribe and communicate non pharmacologic management of heart failure including sodium restriction, physical activity and limitations	SH						
IM1.24	Describe and discuss the pharmacology of drugs including indications, contraindications in the management of heart failure including diuretics, ACE inhibitors, Beta blockers, aldosterone antagonists and cardiac glycosides	KH						
IM1.25	Enumerate the indications for valvuloplasty, valvotomy, coronary revascularization and cardiac transplantation	KH						
IM1.26	Develop document and present a management plan for patients with heart failure based on type of failure, underlying aetiology	SH						
IM1.27	Describe and discuss the role of penicillin prophylaxis in the prevention of rheumatic heart disease	KH						
IM1.28	Enumerate the causes of adult presentations of congenital heart disease and describe the distinguishing features between cyanotic and acyanotic heart disease	KH						
IM1.29	Elicit document and present an appropriate history, demonstrate correctly general examination, relevant clinical findings and formulate document and present a management plan for an adult patient presenting with a common form of congenital heart disease	KH						
IM1.30	Administer an intramuscular injection with an appropriate explanation to the patient	SH						
Topic: Acute Myocardial Infarction/ IHD								
IM2.1	Discuss and describe the epidemiology, antecedents and risk factors for atherosclerosis and ischemic heart disease	KH						
IM2.2	Discuss the aetiology of risk factors both modifiable and non K KH Y Lecture Small group Written/ Viva voce Pathology Physiology Topic: Acute Myocardial Infarction/ IHD Number of competencies: (24) Number of procedures that require certification : (02) IM2.2 Discuss the aetiology of risk factors both modifiable and non modifiable of atherosclerosis and IHD	KH						
IM2.3	Discuss and describe the lipid cycle and the role of dyslipidemia in the pathogenesis of atherosclerosis	KH						
IM2.4	Discuss and describe the pathogenesis natural history, evolution and complications of atherosclerosis and IHD	KH						

IM2.5	Define the various acute coronary syndromes and describe their evolution, natural history and outcomes	KH						
IM2.6	Elicit document and present an appropriate history that includes onset evolution, presentation risk factors, family history, comorbid conditions, complications, medication, history of atherosclerosis, IHD and coronary syndromes	SH						
IM2.7	Perform, demonstrate and document a physical examination including a vascular and cardiac examination that is appropriate for the clinical presentation	SH						
IM2.8	Generate document and present a differential diagnosis based on the clinical presentation and prioritise based on “cannot miss”, most likely diagnosis and severity	SH						
IM2.9	Distinguish and differentiate between stable and unstable angina and AMI based on the clinical presentation	SH						
IM2.11	Order and interpret a Chest X-ray and markers of acute myocardial infarction	SH						
IM2.12	Choose and interpret a lipid profile and identify the desirable lipid profile in the clinical context	SH						
IM2.13	Discuss and enumerate the indications for and findings on echocardiogram, stress testing and coronary angiogram	KH						
IM2.14	Discuss and describe the indications for admission to a coronary care unit and supportive therapy for a patient with acute coronary syndrome	KH						
IM2.15	Discuss and describe the medications used in patients with an acute coronary syndrome based on the clinical presentation	KH						
IM2.16	Discuss and describe the indications for acute thrombolysis, PTCA and CABG	KH						
IM2.17	Discuss and describe the indications and methods of cardiac rehabilitation	KH						
IM2.18	Discuss and describe the indications, formulations, doses, side effects and monitoring for drugs used in the management of dyslipidemia	KH						
IM2.19	Discuss and describe the pathogenesis, recognition and management of complications of acute coronary syndromes including arrhythmias, shock, LV dysfunction, papillary muscle rupture and pericarditis	KH						
IM2.20	Discuss and describe the assessment and relief of pain in acute coronary syndromes	KH						
IM2.21	Observe and participate in a controlled environment an ACLS program	KH						
IM2.23	Describe and discuss the indications for nitrates, anti platelet agents, gpIIb IIIa inhibitors, beta blockers, ACE inhibitors etc in the management of coronary syndromes	KH						
IM2.24	Counsel and communicate to patients with empathy lifestyle changes in atherosclerosis / post coronary syndromes	SH						

Topic: Pneumonia								
IM3.1	Define, discuss, describe and distinguish community acquired pneumonia, nosocomial pneumonia and aspiration pneumonia	K						
IM3.2	Discuss and describe the aetiologies of various kinds of pneumonia and their microbiology depending on the setting and immune status of the host	K						
IM3.3	Discuss and describe the pathogenesis, presentation, natural history and complications of pneumonia	K						
IM3.4	Elicit document and present an appropriate history including the evolution, risk factors including immune status and occupational risk	SH						
IM3.5	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	SH						
IM3.6	Generate document and present a differential diagnosis based on the clinical features, and prioritise the diagnosis based on the presentation	SH						
IM3.7	Order and interpret diagnostic tests based on the clinical presentation including: CBC, Chest X ray PA view, Mantoux, sputum gram stain, sputum culture and sensitivity, pleural fluid examination and culture, HIV testing and ABG	SH						
IM3.8	Demonstrate in a mannequin and interpret results of an arterial blood gas examination	SH						
IM3.9	Demonstrate in a mannequin and interpret results of a pleural fluid aspiration	SH						
IM3.10	Demonstrate the correct technique in a mannequin and interpret results of a blood culture	SH						
IM3.11	Describe and enumerate the indications for further testing including for further testing including S SH Y Bedside clinic DOAP Skill assessment Radiodiagnosis HRCT, Viral cultures, PCR and specialised testing	SH						
IM3.12	Select, describe and prescribe based on the most likely aetiology, an appropriate empirical antimicrobial based on the pharmacology and antimicrobial spectrum	SH						
IM3.13	Select, describe and prescribe based on culture and sensitivity appropriate empaling antimicrobial based on the pharmacology and antimicrobial spectrum.	SH						
IM3.14	Perform and interpret a sputum gram stain and AFB	P						
IM3.15	Describe and enumerate the indications for hospitalisation in patients with pneumonia	K						
IM3.16	Describe and enumerate the indications for isolation and barrier nursing in patients with pneumonia	K						
IM3.17	Describe and discuss the supportive therapy in patients with pneumonia including oxygen use and indications for ventilation	K						

IM3.18	Communicate and counsel patient on family on the diagnosis and therapy of pneumonia	SH						
IM3.19	Discuss, describe, enumerate the indications and communicate to patients on pneumococcal and influenza vaccines	K						
Topic: Fever and febrile syndromes								
IM4.1	Describe and discuss the febrile response and the influence of host immune status, risk factors and comorbidities on the febrile response	K						
IM4.2	Describe and discuss the influence of special populations on the febrile response including: the elderly, immune suppression, malignancy and neutropenia, HIV and travel	K						
IM4.3	Discuss and describe the common causes pathophysiology and Discuss and describe the common causes, pathophysiology and K K Y Lecture Small group Written Microbiology manifestations of fever in various regions in India including bacterial, parasitic and viral causes (e.g.Dengue, Chikungunya, Typhus)	K						
IM4.4	Describe and discuss the pathophysiology and manifestations of inflammatory causes of fever	KH						
IM4.5	Describe and discuss the pathophysiology and manifestations of malignant causes of fever including hematologic and lymph node malignancies	KH						
IM4.6	Discuss and describe the pathophysiology and manifestations of malaria	KH						
IM4.7	Discuss and describe the pathophysiology and manifestations of the sepsis syndrome	K						
IM4.8	Discuss and describe the pathophysiology, aetiology and clinical manifestations of fever of unknown origin (FUO) including in a normal host neutropenic host nosocomial host and a host with HIV K K Y Lecture, Small group discussion Written Microbiology normal host, neutropenic host, nosocomial host and a host with HIV disease	K						
IM4.9	Elicit document and present a medical history that helps delineate the aetiology of fever that includes the evolution and pattern of fever, associated symptoms, immune status, comorbidities, risk factors, exposure through occupation, travel and environment and medication use	SH						
IM4.10	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)	SH						
IM4.11	Generate a differential diagnosis and prioritise based on clinical features that help distinguish between infective, inflammatory, malignant and rheumatologic causes	SH						

IM4.12	Order and interpret diagnostic tests based on the differential K SH Y Bedside clinic, Skill Skill assessment Pathology, diagnosis including: CBC with differential, peripheral smear, urinary analysis with sediment, Chest X ray, blood and urine cultures, sputum gram stain and cultures, sputum AFB and cultures, CSF analysis, pleural and body fluid analysis, stool routine and culture and QBC	SH						
IM4.13	Perform and interpret a sputum gram stain	SH						
IM4.14	Perform and interpret a sputum AFB	SH						
IM4.15	Perform and interpret a malarial smear	SH						
IM4.16	Enumerate the indications and describe the findings in tests of inflammation and specific rheumatologic tests, serologic testing for pathogens including HIV, bone marrow aspiration and biopsy	KH						
IM4.17	Observe and assist in the performance of a bone marrow aspiration and biopsy in a simulated environment	SH						
IM4.18	Enumerate the indications for use of imaging in the diagnosis of febrile syndromes	KH						
IM4.19	Assist in the collection of blood and wound cultures	SH						
IM4.20	Interpret a PPD (Mantoux)	SH						
IM4.21	Develop and present an appropriate diagnostic plan based on the clinical presentation, most likely diagnosis in a prioritised and cost effective manner	KH						
IM4.22	Describe and discuss the pharmacology, indications, adverse reactions, interactions of antimalarial drugs and basis of resistance	KH						
IM4.23	Prescribe drugs for malaria based on the species identified, prevalence of drug resistance and national programs	SH						
IM4.24	Develop an appropriate empiric treatment plan based on the patient's clinical and immune status pending definitive diagnosis	SH						
IM4.25	Communicate to the patient and family the diagnosis and treatment	SH						
IM4.26	Counsel the patient on malarial prevention	SH						
Topic: Liver disease								
IM5.1	Describe and discuss the physiologic and biochemical basis of hyperbilirubinemia	K						
IM5.2	Describe and discuss the aetiology and pathophysiology of liver injury	K						
IM5.3	Describe and discuss the pathologic changes in various forms of liver disease	K						
IM5.4	Describe and discuss the epidemiology, microbiology, immunology and clinical evolution of infective (viral) hepatitis	K						

IM5.5	Describe and discuss the pathophysiology and clinical evolution of alcoholic liver disease	K						
IM5.6	Describe and discuss the pathophysiology, clinical evolution and complications of cirrhosis and portal hypertension including ascites, spontaneous bacterial peritonitis, hepatorenal syndrome and hepatic encephalopathy	K						
IM5.7	Enumerate and describe the causes and pathophysiology of drug induced liver injury	K						
IM5.8	Describe and discuss the pathophysiology, clinical evolution and complications cholelithiasis and cholecystitis	K						
IM5.9	Elicit document and present a medical history that helps delineate the aetiology of the current presentation and includes clinical presentation, risk factors, drug use, sexual history, vaccination history and family history	SH						
IM5.10	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	SH						
IM5.11	Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology for the presenting symptom	KH						
IM5.12	Choose and interpret appropriate diagnostic tests including: CBC,serology bilirubin, function tests, Hepatitis ascitic fluid examination in patient with liver diseases.	KH						
IM5.13	Enumerate the indications for ultrasound and other imaging studies including MRCP and ERCP and describe the findings in liver disease	K						
IM5.14	Outline a diagnostic approach to liver disease based on hyperbilirubinemia, liver function changes and hepatitis serology	SH						
IM5.15	Assist in the performance and interpret the findings of an ascetic fluid analysis	KH						
IM5.16	Describe and discuss the management of hepatitis, cirrhosis, portal hypertension, ascites spontaneous, bacterial peritonitis and hepatic encephalopathy	KH						
IM5.17	Enumerate the indications, precautions and counsel patients on vaccination for hepatitis	SH						
IM5.18	Enumerate the indications for hepatic tansplantation	K						

Topic: HIV								
IM6.1	Describe and discuss the symptoms and signs of acute HIV seroconversion	KH						
IM6.2	Define and classify HIV AIDS based on the CDC criteria	KH						
IM6.3	Describe and discuss the relationship between CDC count and the risk of opportunistic infections	KH						
IM6.4	Describe and discuss the pathogenesis, evolution and clinical features of common HIV related opportunistic infections	KH						
IM6.5	Describe and discuss the pathogenesis, evolution and clinical features of common HIV related malignancies	KH						
IM6.6	Describe and discuss the pathogenesis, evolution and clinical features of common HIV related skin and oral lesions	KH						
IM6.7	Elicit document and present a medical history that helps delineate the aetiology of the current presentation and includes risk factors for HIV, mode of infection, other sexually transmitted diseases, risks for opportunistic infections and nutritional status	SH						
IM6.8	Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology for the presenting symptom	SH						
IM6.9	Choose and interpret appropriate diagnostic tests to diagnose and classify the severity of HIV-AIDS including specific tests of HIV, CDC	KH						
IM6.10	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	KH						
IM6.11	Enumerate the indications and describe the findings for CT of the chest and brain and MRI	K						
IM6.12	Enumerate the indications for and interpret the results of: pulse oximetry, ABG, Chest Radiograph	KH						
IM6.13	Describe and enumerate the indications and side effects of drugs for bacterial, viral and other types of diarrhea	K						
IM6.14	Perform and interpret AFB sputum	P						
IM6.15	Demonstrate in a model the correct technique to perform a lumbar puncture	SH						
IM6.16	Discuss and describe the principles of HAART, the classes of antiretrovirals used, adverse reactions and interactions	K						
IM6.17	Discuss and describe the principles and regimens used in post exposure prophylaxis	K						
IM6.18	Enumerate the indications and discuss prophylactic drugs used to prevent HIV related opportunistic infections	K						
IM6.19	Counsel patients on prevention of HIV transmission	SH						
IM6.20	Communicate diagnosis, treatment plan and subsequent follow up plan to patients	SH						

IM6.21	Communicate with patients on the importance of medication adherence	SH						
IM6.22	Demonstrate understanding of ethical and legal issues regarding patient confidentiality and disclosure in patients with HIV	SH						
IM6.23	Demonstrate a non-judgemental attitude to patients with HIV and to their lifestyles	SH						
Topic: Rheumatologic problems								
IM7.1	Describe the pathophysiology of autoimmune disease	KH						
IM7.2	Describe the genetic basis of autoimmune disease	KH						
IM7.3	Classify cause of joint pain based on the pathophysiology	KH						
IM7.4	Develop a systematic clinical approach to joint pain based on the pathophysiology	KH						
IM7.5	Describe and discriminate acute, subacute and chronic causes of joint pain	KH						
IM7.6	Discriminate, describe and discuss arthralgia from arthritis and mechanical from inflammatory causes of joint pain	KH						
IM7.7	Discriminate, describe and discuss distinguishing articular from periarticular complaints	KH						
IM7.8	Determine the potential causes of join pain based on the presenting features of joint involvement	KH						
IM7.9	Describe the common signs and symptoms of articular and periarticular diseases	KH						
IM7.10	Describe the systemic manifestations of rheumatologic disease	KH						
IM7.11	Elicit document and present a medical history that will differentiate the aetiologies of disease	SH						
IM7.12	Perform a systematic examination of y all joints, muscle and skin that will establish the diagnosis and severity of disease	SH						
IM7.13	Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology	KH						
IM7.14	Describe the appropriate diagnostic work up based on the presumed aetiology	KH						
IM7.15	Enumerate the indications for and interpret the results of : CBC, anti- CCP, RA, ANA, DNA and other tests of autoimmunity	SH						
IM7.16	Enumerate the indications for arthrocentesis	K						
IM7.17	Enumerate the indications and interpret plain radiographs of joints	SH						
IM7.18	Communicate diagnosis, treatment plan and subsequent follow up plan to patients	SH						

IM7.19	Develop an appropriate treatment plan for patients with rheumatologic diseases	KH						
IM7.20	Select, prescribe and communicate appropriate medications for relief of joint pain	SH						
IM7.21	Select, prescribe and communicate preventive therapy for crystalline arthropathies	SH						
IM7.22	Select, prescribe and communicate treatment option for systemic rheumatologic conditions	SH						
IM7.23	Describe the basis for biologic and disease modifying therapy in rheumatologic diseases	KH						
IM7.24	Communicate and incorporate patient preferences in the choice of therapy	SH						
IM7.25	Develop and communicate appropriate follow up and monitoring plans for patients with rheumatologic conditions	SH						
IM7.26	Demonstrate an understanding of the impact of rheumatologic conditions on quality of life, well being, work and family	SH						
IM7.27	Determine the need for specialist consultation	K						
Topic: Hypertension								
IM8.1	Describe and discuss the epidemiology, aetiology and the prevalence of primary and secondary hypertension	KH						
IM8.2	Describe and discuss the pathophysiology of hypertension	KH						
IM8.3	Describe and discuss the genetic basis of hypertension	KH						
IM8.4	Define and classify hypertension	KH						
IM8.5	Describe and discuss the differences between primary and secondary hypertension	KH						
IM8.6	Define, describe and discuss and recognise hypertensive urgency and emergency	KH						
IM8.7	Describe and discuss the clinical Manifestations of the various aetiologies of secondary causes of hypertension	KH						
IM8.8	Describe, discuss and identify target organ damage due to hypertension	KH						
IM8.9	Elicit document and present a medical history that includes: duration and levels, symptoms, comorbidities, lifestyle, risk factors, family history, psychosocial and environmental factors, dietary assessment, previous and concomitant therapy	SH						
IM8.10	Perform a systematic examination that includes : an accurate measurement of blood pressure, fundus examination, examination of vasculature and heart	SH						
IM8.11	Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology	SH						

IM8.12	Describe the appropriate diagnostic work up based on the presumed aetiology	KH						
IM8.13	Enumerate the indications for and interpret the results of : CBC, Urine routine, BUN, Cr, Electrolytes, Uric acid, ECG	KH						
IM8.14	Develop an appropriate treatment plan for essential hypertension	KH						
IM8.15	Recognise, prioritise and manage hypertensive emergencies	SH						
IM8.16	Develop and communicate to the patient lifestyle modification including weight reduction, moderation of alcohol intake, physical activity and sodium intake	SH						
IM8.17	Perform and interpret a 12 lead ECG	P						
IM8.18	Incorporate patient preferences in the management of HTN	SH						
IM8.19	Demonstrate understanding of the impact of Hypertension on quality of life, well being, work and family	SH						
IM8.20	Determine the need for specialist consultation	KH						
Topic: Anemia								
IM9.1	Define, describe and classify anemia based on red blood cell sizeand reticulocyte count	KH						
IM9.2	Describe and discuss the morphological characteristics, aetiologyand prevalence of each of the causes of anemia	KH						
IM9.3	Elicit document and present a medical history that includessymptoms, risk factors including GI bleeding, prior history, medications, menstrual history,	SH						
IM9.4	Perform a systematic examination that includes : general examination for pallor, oral examination, DOAP session of hyperdynamic circulation, lymph node and splenic	SH						
IM9.5	Generate a differential diagnosis and prioritise based on clinicalfeatures that suggest a specific aetiology	SH						
IM9.6	Describe the appropriate diagnostic work up based on thepresumed aetiology	SH						
IM9.7	Describe and discuss the meaning and utility of various componentsof the hemogram	KH						
IM9.8	Describe and discuss the various tests for iron deficiency	KH						
IM9.9	Order and interpret tests for anemia including hemogram, red cellindices, reticulocyte count, iron studies, B12 and folate	SH						
IM9.10	Describe, perform and interpret a peripheral smear and stool occultblood	SH						

IM9.11	Describe the indications and interpret the results of a bone marrowaspirations and biopsy	KH						
IM9.12	Describe, develop a diagnostic plan to determine the aetiology ofanemia	KH						
IM9.13	Prescribe replacement therapy with iron, B12, folate	SH						
IM9.14	Describe the national programs for anemia prevention	KH						
IM9.15	Communicate the diagnosis and the treatment appropriately topatients	SH						
IM9.16	Incorporate patient preferences in the management of anemia	SH						
IM9.17	Describe the indications for blood transfusion and the appropriateuse of blood components	KH						
IM9.18	Describe the precautions required necessary when performing ablood transfusion	KH						
IM9.19	Assist in a blood transfusion	SH						
IM9.20	Communicate and counsel patients with methods to preventnutritional anemia	SH						
IM9.21	Determine the need for specialist consultation	KH						
Topic: Acute Kidney Injury and Chronic renal failure								
IM10.1	Define, describe and differentiate between acute and chronic renalfailure	KH						
IM10.2	Classify, describe and differentiate the pathophysiologic causes ofacute renal failure	KH						
IM10.3	Describe the pathophysiology and causes of pre renal ARF, renaland post renal ARF	KH						
IM10.4	Describe the evolution, natural history and treatment of ARF	KH						
IM10.5	Describe and discuss the aetiology of CRF	KH						
IM10.6	Stage Chronic Kidney Disease	KH						

IM10.7	Describe and discuss the pathophysiology and clinical findings ofuraemia	KH						
IM10.8	Classify, describe and discuss the significance of proteinuria in CKD	KH						
IM10.9	Describe and discuss the pathophysiology of anemia and hyperparathyroidism in CKD	KH						
IM10.10	Describe and discuss the association between CKD glycemia andhypertension	KH						
IM10.11	Describe and discuss the relationship between CAD risk factors andCKD and in dialysis	KH						
IM10.12	Elicit document and present a medical history that will differentiatethe aetiologies of disease, distinguish acute and chronic disease, identify predisposing conditions, nephrotoxic drugs and systemic causes	SH						
IM10.13	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	SH						
IM10.14	Generate a differential diagnosis and prioritise based on clinicalfeatures that suggest a specific aetiology	KH						
IM10.15	Describe the appropriate diagnostic work up based on thepresumed aetiology	SH						
IM10.16	Enumerate the indications for and interpret the results of : renalfunction tests, calcium, phosphorus, PTH, urine electrolytes, osmolality, Anion gap	KH						
IM10.17	Describe and calculate indices of renal function based on availablelaboratories including FENa (Fractional Excretion of Sodium) and CrCl (Creatinine Clearance)	SH						
IM10.18	Identify the ECG findings in hyperkalemia	SH						
IM10.19	Enumerate the indications and describe the findings in renalultrasound	KH						
IM10.20	Describe and discuss the indications to perform arterial blood gasanalysis: interpret the data	P						
IM10.21	Describe and discuss the indications for and insert a peripheralintravenous catheter	P						
IM10.22	Describe and discuss the indications, demonstrate in a model andassist in the insertion of a central venous or a dialysis catheter	SH						

IM10.23	Communicate diagnosis treatment plan and subsequent follow upplan to patients	SH						
IM10.24	Counsel patients on a renal diet	SH						
IM10.25	Identify and describe the priorities in the management of ARF including diet, volume management, alteration in doses of drugs, monitoring and indications for dialysis	KH						
IM10.26	Describe and discuss supportive therapy in CKD including diet, antihypertensives, glycemic therapy, dyslipidemia, anemia, hyperkalemia, hyperphosphatemia and secondary hyperparathyroidism	KH						
IM10.15	Describe the appropriate diagnostic work up based on thepresumed aetiology	SH						
IM10.16	Enumerate the indications for and interpret the results of : renalfunction tests, calcium, phosphorus, PTH, urine electrolytes, osmolality, Anion gap	KH						
IM10.17	Describe and calculate indices of renal function based on availablelaboratories including FENa (Fractional Excretion of Sodium) and CrCl (Creatinine Clearance)	SH						
IM10.18	Identify the ECG findings in hyperkalemia	SH						
IM10.19	Enumerate the indications and describe the findings in renalultrasound	KH						
IM10.20	Describe and discuss the indications to perform arterial blood gasanalysis: interpret the data	P						
IM10.21	Describe and discuss the indications for and insert a peripheralintravenous catheter	P						
IM10.22	Describe and discuss the indications, demonstrate in a model andassist in the insertion of a central venous or a dialysis catheter	SH						
IM10.23	Communicate diagnosis treatment plan and subsequent follow upplan to patients	SH						
IM10.24	Counsel patients on a renal diet	SH						
IM10.25	Identify and describe the priorities in the management of ARF including diet, volume management, alteration in doses of drugs, monitoring and indications for dialysis	KH						
IM10.26	Describe and discuss supportive therapy in CKD including diet, antihypertensives, glycemic therapy, dyslipidemia, anemia, hyperkalemia, hyperphosphatemia and secondary hyperparathyroidism	KH						

Topic: Diabetes Mellitus								
IM11.1	Define and classify diabetes	KH						
IM11.2	Describe and discuss the epidemiology and pathogenesis and riskfactors and clinical evolution of type 1 diabetes	KH						
IM11.3	Describe and discuss the epidemiology and pathogenesis and riskfactors economic impact and clinical evolution of type 2 diabetes	KH						
IM11.4	Describe and discuss the genetic background and the influence ofthe environment on diabetes	KH						
IM11.5	Describe and discuss the pathogenesis and temporal evolution ofmicrovascular and macrovascular complications of diabetes	KH						
IM11.6	Describe and discuss the pathogenesis and precipitating factors,recognition and management of diabetic emergencies	KH						
IM11.7	Elicit document and present a medical history that will differentiatethe aetiologies of diabetes including risk factors, precipitating factors, lifestyle, nutritional history, family history, medication history, co-morbidities and target organ disease	SH						
IM11.8	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)	SH						
IM11.9	Describe and recognise the clinical features of patients who presentwith a diabetic emergency	KH						
IM11.10	Generate a differential diagnosis and prioritise based on clinicalfeatures that suggest a specific aetiology	KH						
IM11.11	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	SH						
IM11.12	Perform and interpret a capillary blood glucose test	P						
IM11.13	Perform and interpret a urinary ketone estimation with a dipstick	P						
IM11.14	Recognise the presentation of hypoglycaemia and outline theprinciples on its therapy	KH						

IM11.15	Recognise the presentation of diabetic emergencies and outline theprinciples of therapy	KH						
IM11.16	Discuss and describe the pharmacologic therapies for diabetes theirindications, contraindications, adverse reactions and interactions	KH						
IM11.17	Outline a therapeutic approach to therapy of T2Diabetes based onpresentation, severity and complications in a cost effective manner	KH						
IM11.18	Describe and discuss the pharmacology, indications, adverse reactions and interactions of drugs used in the prevention andtreatment of target organ damage and complications of Type IIDiabetes including neuropathy, nephropathy, retinopathy, hypertension, dyslipidemia and cardiovascular disease	KH						
IM11.19	Demonstrate and counsel patients on the correct technique toadminister insulin	SH						
IM11.20	Demonstrate to and counsel patients on the correct technique of selfmonitoring of blood glucoses	SH						
IM11.21	Recognise the importance of patient preference while selectingtherapy for diabetes	KH						
IM11.22	Enumerate the causes of hypoglycaemia and describe the counterhormone response and the initial approach and treatment	KH						
IM11.23	Describe the precipitating causes, pathophysiology, recognition, clinical features, diagnosis, stabilisation and management of diabetic ketoacidosis	KH						
IM11.24	Describe the precipitating causes, pathophysiology, recognition,clinical features, diagnosis, stabilisation and management of Hyperosmolar non ketotic state	KH						
Topic: Thyroid dysfunction								
IM12.1	Describe the epidemiology and pathogenesis of hypothyroidism andhyperthyroidism including the influence of iodine deficiency and autoimmunity in the pathogenesis of thyroid disease	K						
IM12.2	Describe and discuss the genetic basis of some forms of thyroiddysfunction	K						
IM12.3	Describe and discuss the physiology of the hypothalamopituitary - thyroid axis, principles of thyroid function testing and alterations in physiologic function	K						

IM12.4	Describe and discuss the principles of radio iodine uptake in thediagnosis of thyroid disorders	KH						
IM12.5	Elicit document and present an appropriate history that will establishthe diagnosis cause of thyroid dysfunction and its severity	SH						
IM12.6	Perform and demonstrate a systematic examination based on thehistory 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	SH						
IM12.7	Demonstrate the correct technique to palpate the thyroid	SH						
IM12.8	Generate a differential diagnosis based on the clinical presentationand prioritise it based on the most likely diagnosis	KH						
IM12.9	Order and interpret diagnostic testing based on the clinical diagnosis including CBC, thyroid function tests and ECG and radioiodine uptake and scan	SH						
IM12.10	Identify atrial fibrillation, pericardial effusion and bradycardia onECG	SH						
IM12.11	Interpret thyroid function tests in hypo and hyperthyroidism	SH						
IM12.12	Describe and discuss the iodisation programs of the government ofIndia	KH						
IM12.13	Describe the pharmacology, indications, adverse reaction, interactions of thyroxine and antithyroid drugs	KH						
IM12.14	Write and communicate to the patient appropriately a prescription for thyroxine based on age, sex, and clinical and biochemical status	SH						
IM12.15	Describe and discuss the indications of thionamide therapy, radioiodine therapy and surgery in the management of thyrotoxicosis	KH						
Topic: Common malignancies								
IM13.1	Describe the clinical epidemiology and inherited & modifiable riskfactors for common malignancies in India	K						
IM13.2	Describe the genetic basis of selected cancers	K						
IM13.3	Describe the relationship between infection and cancers	K						

IM13.4	Describe the natural history, presentation, course, complicationsand cause of death for common cancers	K						
IM13.5	Describe the common issues encountered in patients at the end oflife and principles of management	K						
IM13.6	Describe and distinguish the difference between curative andpalliative care in patients with cancer	K						
IM13.7	Elicit document and present a history that will help establish theaetiology of cancer and includes the appropriate risk factors, duration and evolution	K						
IM13.8	Perform and demonstrate a physical examination that includes anappropriate general and local examination that excludes the diagnosis, extent spread and complications of cancer	SH						
IM13.9	Demonstrate in a mannequin the correct technique for performing breast exam, rectal examination and cervical examination and pap smear	K						
IM13.10	Generate a differential diagnosis based on the presenting symptomsand clinical features and prioritise based on the most likely diagnosis	K						
IM13.11	Order and interpret diagnostic testing based on the clinical diagnosis including CBC and stool occult blood and prostate specific antigen	K						
IM13.12	Describe the indications and interpret the results of Chest X Ray, mammogram, skin and tissue biopsies and tumor markers used in common cancers	KH						
IM13.13	Describe and assess pain and suffering objectively in a patient withcancer	KH						
IM13.14	Describe the indications for surgery, radiation and chemotherapy forcommon malignancies	KH						
IM13.15	Describe the need, tests involved, their utility in the prevention ofcommon malignancies	KH						
IM13.16	Demonstrate an understanding and needs and preferences ofpatients when choosing curative and palliative therapy	KH						
IM13.17	Describe and enumerate the indications, use, side effects ofnarcotics in pain alleviation in patients with cancer	KH						
IM13.18	Describe and discuss the ethical and the medico legal issuesinvolved in end of life care	KH						
IM13.19	Describe the therapies used in alleviating suffering in patients at theend of life	KH						

Topic: Obesity								
IM14.1	Define and measure obesity as it relates to the Indian population	K						
IM14.2	Describe and discuss the aetiology of obesity including modifiableand non-modifiable risk factors and secondary causes	K						
IM14.3	Describe and discuss the monogenic forms of obesity	K						
IM14.4	Describe and discuss the impact of environmental factors includingeating habits, food, work, environment and physical activity on the incidence of obesity	K						
IM14.5	Describe and discuss the natural history of obesity and its complications	K						
IM14.6	Elicit and document and present an appropriate history that includesthe natural history, dietary history, modifiable risk factors, family history, clues for secondary causes and motivation to lose weight	SH						
IM14.7	Perform, document and demonstrate a physical examination basedon the history that includes general examination, measurement of abdominal obesity, signs of secondary causes and comorbidities	SH						
IM14.8	Generate a differential diagnosis based on the presenting symptomsand clinical features and prioritise based on the most likely diagnosis	SH						
IM14.9	Order and interpret diagnostic tests based on the clinical diagnosisincluding blood glucose, lipids, thyroid function tests etc.	SH						
IM14.10	Describe the indications and interpret the results of tests forsecondary causes of obesity	KH						
IM14.11	Communicate and counsel patient on behavioural, dietary andlifestyle modifications	SH						
IM14.12	Demonstrate an understanding of patient's inability to adhere to lifestyle instructions and counsel them in a non - judgemental way	SH						
IM14.13	Describe and enumerate the indications, pharmacology and sideeffects of pharmacotherapy for obesity	K						
IM14.14	Describe and enumerate the indications and side effects of bariatricsurgery	K						
IM14.15	Describe and enumerate and educate patients, health care workersand the public on measures to prevent obesity and promote a healthy lifestyle	K						

Topic: GI bleeding								
IM15.1	Enumerate, describe and discuss the aetiology of upper and lowerGI bleeding	KH						
IM15.2	Enumerate, describe and discuss the evaluation and steps involvedin stabilizing a patient who presents with acute volume loss and GI bleed	SH						
IM15.3	Describe and discuss the physiologic effects of acute blood andvolume loss	K						
IM15.4	Elicit and document and present an appropriate history that identifies the route of bleeding, quantity, grade, volume loss,duration, etiology, comorbid illnesses and risk factors	SH						
IM15.5	Perform, demonstrate and document a physical examination basedon the history that includes general examination, volume assessment and appropriate abdominal examination	SH						
IM15.6	Distinguish between upper and lower gastrointestinal bleeding based on the clinical features	KH						
IM15.7	Demonstrate the correct technique to perform an anal and rectalexamination in a mannequin or equivalent	SH						
IM15.8	Generate a differential diagnosis based on the presenting symptomsand clinical features and prioritise based on the most likely diagnosis	SH						
IM15.9	Choose and interpret diagnostic tests based on the clinical diagnosis including complete blood count, PT and PTT, stool examination, occult blood, liver function tests, H.pylori test.	SH						
IM15.10	Enumerate the indications for endoscopy, colonoscopy and otherimaging procedures in the investigation of Upper GI bleeding	KH						
IM15.11	Develop, document and present a treatment plan that includes fluidresuscitation, blood and blood component transfusion, and specific therapy for arresting blood loss	KH						
IM15.12	Enumerate the indications for whole blood, component and platelet transfusion and describe the clinical features and management of a mismatched transfusion	K						
IM15.13	Observe cross matching and blood / blood component transfusion	SH						
IM15.14	Describe and enumerate the indications, pharmacology and sideeffects of pharmacotherapy of pressors used in the treatment of Upper GI bleed	K						

IM15.15	Describe and enumerate the indications, pharmacology and sideeffects of pharmacotherapy of acid peptic disease including Helicobacter pylori	K						
IM15.16	Enumerate the indications for endoscopic interventions and Surgery	K						
IM15.17	Determine appropriate level of specialist consultation	K						
IM15.18	Counsel the family and patient in an empathetic non-judgmentalmanner on the diagnosis and therapeutic options	SH						
Topic: Diarrheal disorder								
IM16.1	Describe and discuss the aetiology of acute and chronic diarrheaincluding infectious and non infectious causes	K						
IM16.2	Describe and discuss the acute systemic consequences of diarrheaincluding its impact on fluid balance	K						
IM16.3	Describe and discuss the chronic effects of diarrhea includingmalabsorption	K						
IM16.4	Elicit and document and present an appropriate history that includesthe natural history, dietary history, travel , sexual history and other concomitant illnesses	SH						
IM16.5	Perform, document and demonstrate a physical examination basedon the history that includes general examination, including an appropriate abdominal examination	SH						
IM16.6	Distinguish between diarrhea and dysentery based on clinicalfeatures	KH						
IM16.7	Generate a differential diagnosis based on the presenting symptomsand clinical features and prioritise based on the most likely diagnosis	SH						
IM16.8	Choose and interpret diagnostic tests based on the clinical diagnosis including complete blood count, and stool examination	SH						
IM16.9	Identify common parasitic causes of diarrhea under the microscopein a stool specimen	SH						
IM16.10	Identify vibrio cholera in a hanging drop specimen	SH						
IM16.11	Enumerate the indications for stool cultures and blood cultures inpatients with acute diarrhea	KH						
IM16.12	Enumerate and discuss the indications for further investigations including antibodies, colonoscopy, diagnostic imaging and biopsy inthe diagnosis of chronic diarrhea	KH						

IM16.13	Describe and enumerate the indications, pharmacology and sideeffects of pharmacotherapy for parasitic causes of diarrhea	K						
IM16.14	Describe and enumerate the indications, pharmacology and sideeffects of pharmacotherapy for bacterial and viral diarrhea	K						
IM16.15	Distinguish based on the clinical presentation Crohn's disease fromUlcerative Colitis	SH						
IM16.16	Describe and enumerate the indications, pharmacology and sideeffects of pharmacotherapy including immunotherapy	K						
IM16.17	Describe and enumerate the indications for surgery in inflammatorybowel disease	K						
Topic: Headache								
IM17.1	Define and classify headache and describe the presenting features,precipitating factors, aggravating and relieving factors of various kinds of headache	KH						
IM17.2	Elicit and document and present an appropriate history includingaura, precipitating aggravating and relieving factors, associated symptoms that help identify the cause of headaches	SH						
IM17.3	Classify migraine and describe the distinguishing features betweenclassical and non classical forms of migraine	KH						
IM17.4	Perform and demonstrate a general neurologic examination and a focused examination for signs of intracranial tension including necksigns of meningitis	SH						
IM17.5	Generate document and present a differential diagnosis based onthe clinical features, and prioritise the diagnosis based on the presentation	SH						
IM17.6	Choose and interpret diagnostic testing based on the clinicaldiagnosis including imaging	SH						
IM17.7	Enumerate the indications and describe the findings in the CSF inpatients with meningitis	K						
IM17.8	Demonstrate in a mannequin or equivalent the correct technique for performing a lumbar puncture	SH						
IM17.9	Interpret the CSF findings when presented with various parametersof CSF fluid analysis	SH						

IM17.10	Enumerate the indications for emergency care admission andimmediate supportive care in patients with headache	K						
IM17.11	Describe the indications, pharmacology, dose, side effects ofabortive therapy in migraine	KH						
IM17.12	Describe the indications, pharmacology, dose, side effects ofprophylactic therapy in migraine	KH						
IM17.13	Describe the pharmacology, dose, adverse reactions and regimensof drugs used in the treatment of bacterial, tubercular and viral meningitis	KH						
IM17.14	Counsel patients with migraine and tension headache on lifestylechanges and need for prophylactic therapy	SH						
Topic: Cerebrovascular accident								
IM18.1	Describe the functional and the vascularanatomy of the brain	KH						
IM18.2	Classify cerebrovascular accidents and describe the aetiology, predisposing genetic and risk factors pathogenesis of hemorrhagicand non hemorrhagic stroke	KH						
IM18.3	Elicit and document and present an appropriate history including onset, progression, precipitating and aggravating relieving factors, associated symptoms that help identify the cause of the cerebrovascular accident	SH						
IM18.4	Identify the nature of the cerebrovascular accident based on thetemporal evolution and resolution of the illness	KH						
IM18.5	Perform, demonstrate & document physical examination thatincludes general and a detailed neurologic examination as appropriate, based on the history	SH						
IM18.6	Distinguish the lesion based on upper vs lower motor neuron, side,site and most probable nature of the lesion	SH						
IM18.7	Describe the clinical features and distinguish, based on clinicalexamination, the various disorders of speech	SH						
IM18.8	Describe and distinguish, based on the clinical presentation, thetypes of bladder dysfunction seen in CNS disease	KH						
IM18.9	Choose and interpret the appropriate diagnostic and imaging testthat will delineate the anatomy and underlying cause of the lesion	KH						
IM18.10	Choose and interpret the appropriate diagnostic testing in youngpatients with a cerebrovascular accident (CVA)	SH						

IM18.11	Describe the initial supportive management of a patient presentingwith a cerebrovascular accident (CVA)	KH						
IM18.12	Enumerate the indications for and describe acute therapy of nonhemorrhagic stroke including the use of thrombolytic agents	KH						
IM18.13	Enumerate the indications for and describe the role of anti plateletagents in non hemorrhagic stroke	KH						
IM18.14	Describe the initial management of a hemorrhagic stroke	KH						
IM18.15	Enumerate the indications for surgery in a hemorrhagic stroke	K						
IM18.16	Enumerate the indications describe and observe themultidisciplinary rehabilitation of patients with a CVA	KH						
IM18.17	Counsel patient and family about the diagnosis and therapy in anempathetic manner	SH						
Topic: Movement disorders								
IM19.1	Describe the functional anatomy of the locomotor system of thebrain	KH						
IM19.2	Classify movement disorders of the brain based on distribution,rhythm, repetition, exacerbating and relieving factors	KH						
IM19.3	Elicit and document and present an appropriate history including onset, progression precipitating and aggravating relieving factors, associated symptoms that help identify the cause of the movementdisorders	SH						
IM19.4	Perform, demonstrate and document a physical examination thatincludes a general examination and a detailed neurologic examination using standard movement rating scales	SH						
IM19.5	Generate document and present a differential diagnosis andprioritise based on the history and physical examination	SH						
IM19.6	Make a clinical diagnosis regarding on the anatomical location, nature and cause of the lesion based on the clinical presentationand findings	SH						
IM19.7	Choose and interpret diagnostic and imaging tests in the diagnosisof movement disorders	SH						
IM19.8	Discuss and describe the pharmacology, dose, side effects andinteractions used in the drug therapy of Parkinson's syndrome	KH						

IM19.9	Enumerate the indications for use of surgery and botulinum toxin inthe treatment of movement disorders	KH						
Topic: Envenomation								
IM20.1	Enumerate the local poisonous snakes and describe the distinguishing marks of each	KH						
IM20.2	Describe, demonstrate in a volunteer or a mannequin and educate(to other health care workers / patients) the correct initial management of patient with a snake bite in the field	SH						
IM20.3	Describe the initial approach to the stabilisation of the patient whopresents with snake bite	KH						
IM20.4	Elicit and document and present an appropriate history, the circumstance, time, kind of snake, evolution of symptoms in apatient with snake bite	SH						
IM20.5	Perform a systematic examination, document and present a physicalexamination that includes general examination, local examination, appropriate cardiac and neurologic examination	SH						
IM20.6	Choose and interpret the appropriate diagnostic testing in patientswith snake bites	SH						
IM20.7	Enumerate the indications and describe the pharmacology, dose,adverse reactions, hypersensitivity reactions of anti snake venom	KH						
IM20.8	Describe the diagnosis, initial approach stabilisation and therapy ofscorpion envenomation	KH						
IM20.9	Describe the diagnosis initial approach stabilisation and therapy ofbee sting allergy	KH						
Topic: Poisoning								
IM21.1	Describe the initial approach to the stabilisation of the patient who presents with poisoning	KH						
IM21.2	Enumerate the common plant poisons seen in your area and describe their toxicology, clinical features, prognosis and specificapproach to detoxification	KH						
IM21.3	Enumerate the common corrosives used in your area and describe their toxicology, clinical features, prognosis and approach to therapy	KH						
IM21.4	Enumerate the commonly observed drug overdose in your area anddescribe their toxicology, clinical features, prognosis and approach to therapy	KH						

IM21.5	Observe and describe the functions and role of a poison center insuspected poisoning	KH						
IM21.6	Describe the medico legal aspects of suspected suicidal or homicidal poisoning and demonstrate the correct procedure to writea medico legal report on a suspected poisoning	KH						
IM21.7	Counsel family members of a patient with suspected poisoningabout the clinical and medico legal aspects with empathy	SH						
IM21.8	Enumerate the indications for psychiatric consultation and describethe precautions to be taken in a patient with suspected suicidal ideation / gesture	KH						
Topic: Mineral, Fluid Electrolyte and Acid base Disorder								
IM22.1	Enumerate the causes of hypercalcemia and distinguish the features of PTH vs non PTH mediatedhypercalcemia	KH						
IM22.2	Describe the aetiology, clinical manifestations, diagnosis and clinicalapproach to primary hyperparathyroidism	KH						
IM22.3	Describe the approach to the management of hypercalcemia	KH						
IM22.4	Enumerate the components and describe the genetic basis of themultiple endocrine neoplasia syndrome	KH						
IM22.5	Enumerate the causes and describe the clinical features and the correct approach to the diagnosis and management of the patientwith hyponatremia	KH						
IM22.6	Enumerate the causes and describe the clinical and laboratoryfeatures and the correct approach to the diagnosis and management of the patient with hyponatremia	KH						
IM22.7	Enumerate the causes and describe the clinical and laboratoryfeatures and the correct approach to the diagnosis and management of the patient with hypokalemia	KH						
IM22.8	Enumerate the causes and describe the clinical and laboratoryfeatures and the correct approach to the diagnosis and management of the patient with hyperkalemia	KH						
IM22.9	Enumerate the causes and describe the clinical and laboratoryfeatures of metabolic acidosis	KH						

IM22.10	Enumerate the causes of describe the clinical and laboratoryfeatures of metabolic alkalosis	KH						
IM22.11	Enumerate the causes and describe the clinical and laboratoryfeatures of respiratory acidosis	KH						
IM22.12	Enumerate the causes and describe the clinical and laboratoryfeatures of respiratory alkalosis	KH						
IM22.13	Identify the underlying acid based disorder based on an ABG reportand clinical situation	KH						
Topic: Nutritional and Vitamin Deficiencies								
IM23.1	Discuss and describe the methods of nutritional assessment in anadult and calculation of caloric requirements during illnesses	KH						
IM23.2	Discuss and describe the causes and consequences of proteincaloric malnutrition in the hospital	KH						
IM23.3	Discuss and describe the aetiology, causes, clinical manifestations,complications, diagnosis and management of common vitamin deficiencies	KH						
IM23.4	Enumerate the indications for enteral and parenteral nutrition incritically ill patients	KH						
IM23.5	Counsel and communicate to patients in a simulated environmentwith illness on an appropriate balanced diet	SH						
Topic: Geriatrics								
IM24.1	Describe and discuss the epidemiology, pathogenesis, clinical evolution, presentation and course of common diseases in theelderly	KH						
IM24.2	Perform multidimensional geriatric assessment that includesmedical, psycho-social and functional components	SH						
IM24.3	Describe and discuss the aetiopathogenesis,clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of acute confusional states	KH						
IM24.4	Describe and discuss the aetiopathogenesis,clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of vascular events in the elderly	KH						
IM24 5	Describe and discuss the aetiopathogenesis clinical presentationidentification, functional changes, acute care, stabilization, management and rehabilitation of depression in the elderly	KH						

IM24.6	Describe and discuss the aetiopathogenesis causes, clinical presentation, difference in discussion presentation identification,functional changes, acute care, stabilization, management and rehabilitation of dementia in the elderly	KH						
IM24.7	Describe and discuss the aetiopathogenesis,clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of personality changes in the elderly	KH						
IM24.8	Describe and discuss the aetiopathogenesis,clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of osteoporosis in the elderly	KH						
IM24.9	Describe and discuss the aetiopathogenesis,clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of CVA in the elderly	KH						
IM24.10	Describe and discuss the aetiopathogenesis,clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of COPD in the elderly	KH						
IM24.11	Describe and discuss the aetiopathogenesis,clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of the elderly undergoing surgery	KH						
IM24.12	Describe and discuss the aetiopathogenesis,clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of degenerative joint disease	KH						
IM24.13	Describe and discuss the aetiopathogenesis,clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of falls in the elderly	KH						
IM24.14	Describe and discuss the aetiopathogenesis,clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of common fractures in the elderly	KH						
IM24.15	Describe and discuss the aetiopathogenesis,clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of vision and visual loss in the elderly	KH						

IM24.16	Describe and discuss the principles of physical and social rehabilitation, functional assessment, role of physiotherapy andoccupational therapy in the management of disability in the elderly	KH						
IM24.17	Describe and discuss the aetiopathogenesis,clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of hearing loss in the elderly	KH						
IM24.18	Describe the impact of the demographic changes in ageing on thepopulation	KH						
IM24.19	Enumerate and describe the social problems in the elderly includingisolation, abuse, change in family structure and their impact on health.	KH						
IM24.20	Enumerate and describe social interventions in the care of elderly including domiciliary discussion services, rehabilitation facilities, oldage homes and state interventions	KH						
IM24.21	Enumerate and describe ethical issues in the care of the elderly	KH						
IM24.22	Describe and discuss the aetiopathogenesis, clinical presentation, complications, assessment and management of nutritional disordersin the elderly	KH						
Topic: Miscellaneous Infections								
IM25.1	Describe and discuss the response and the influence of host immune status, risk factors and comorbidities on zoonotic diseases(e.g. Leptospirosis, Rabies) and non-febrile infectious disease (e.g.Tetanus)	K						
IM25.2	Discuss and describe the common causes, pathophysiology andmanifestations of these diseases	K						
IM25.3	Describe and discuss the pathophysiology and manifestations ofthese diseases	KH						
IM25.4	Elicit document and present a medical history that helps delineate the aetiology of these diseases that includes the evolution and pattern of symptoms, risk factors, exposure through occupation andtravel	SH						
IM25.5	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)	SH						
IM25.6	Generate a differential diagnosis and prioritise based on clinicalfeatures that help distinguish between infective, inflammatory, malignant and rheumatologic causes	SH						

IM25.7	Order and interpret diagnostic tests based on the differential diagnosis including: CBC with differential, blood biochemistry, peripheral smear, urinary analysis with sediment, Chest X ray, bloodand urine cultures, sputum gram stain and cultures, sputum AFB and cultures, CSF analysis, pleural and body fluid analysis, stool routine and culture and QBC	SH						
IM25.8	Enumerate the indications for use of newer techniques in thediagnosis of these infections	KH						
IM25.9	Assist in the collection of blood and other specimen cultures	SH						
IM25.10	Develop and present an appropriate diagnostic plan based on the clinical presentation, most likely diagnosis in a prioritised and cost effective manner	KH						
IM25.11	Develop an appropriate empiric treatment plan based on the patient's clinical and immune status pending definitive diagnosis	SH						
IM25.12	Communicate to the patient and family the diagnosis and treatmentof identified infection	SH						
IM25.13	Counsel the patient and family on prevention of various infectionsdue to environmental issues	SH						
Topic: The role of the physician in the community								
IM26.1	Enumerate and describe professional qualities and roles of aphysician	KH						
IM26.2	Describe and discuss the commitment to lifelong learning as animportant part of physician growth	KH						
IM26.3	Describe and discuss the role of non maleficence as a guidingprinciple in patient care	KH						
IM26.4	Describe and discuss the role of autonomy and shared responsibilityas a guiding principle in patient care	KH						
IM26.5	Describe and discuss the role of beneficence of a guiding principlein patient care	KH						
IM26.6	Describe and discuss the role of a physician in health care system	KH						
IM26.7	Describe and discuss the role of justice as a guiding principle inpatient care	KH						
IM26.8	Identify discuss medicolegal, socioeconomic and ethical issues asit pertains to organ donation	KH						

IM26.9	Identify, discuss and defend medicolegal, sociocultural, economicand ethical issues as it pertains to rights, equity and justice in access to health care	KH						
IM26.10	Identify, discuss and defend medicolegal, socio-cultural and ethicalissues as it pertains to confidentiality in patient care	KH						
IM26.11	Identify, discuss and defend medicolegal, socio-cultural and ethicalissues as it pertains to patient autonomy, patient rights and shared responsibility in health care	KH						
IM26.12	Identify, discuss and defend medicolegal, socio-cultural and ethicalissues as it pertains to decision making in health care including advanced directives and surrogate decision making	KH						
IM26.13	Identify, discuss and defend medicolegal, socio-cultural and ethicalissues as it pertains to decision making in emergency care including situations where patients do not have the capability or capacity to give consent	KH						
IM26.14	Identify, discuss and defend medicolegal, socio-cultural and ethicalissues as it pertains to research in human subjects	KH						
IM26.15	Identify, discuss and defend, medicolegal,socio-cultural and ethicalissues as they pertain to consent for surgical procedures	KH						
IM26.16	Identify, discuss and defend medicolegal, socio-cultural, professional and ethical issues as it pertains to the physicianpatient relationship (including fiduciary duty)	KH						
IM26.17	Identify, discuss physician's role and responsibility to society andthe community that she/ he serves	KH						
IM26.18	Identify, discuss and defend medicolegal, socio-cultural, professional and ethical issues in physician- industry relationships	KH						
IM26.19	Demonstrate ability to work in a team of peers and superiors	SH						
IM26.20	Demonstrate ability to communicate to patients in a patient, respectful, non threatening, non judgemental and empatheticmanner	SH						
IM26.21	Demonstrate respect to patient privacy	SH						
IM26.22	Demonstrate ability to maintain confidentiality in patient care	SH						
IM26.23	Demonstrate a commitment to continued learning	SH						

IM26.24	Demonstrate respect in relationship with patients, fellow teammembers, superiors and other health care workers	SH						
IM26.25	Demonstrate responsibility and work ethics while working in thehealth care team	SH						
IM26.26	Demonstrate ability to maintain required documentation in healthcare (including correct use of medical records)	SH						
IM26.27	Demonstrate personal grooming that is adequate and appropriatefor health care responsibilities	SH						
IM26.28	Demonstrate adequate knowledge and use of information technology that permits appropriate patient care and continued learning	SH						
IM26.29	Communicate diagnostic and therapeutic opitons to patient andfamily in a simulated environment	SH						
IM26.30	Communicate care opitons to patient and family with a terminalillness in a simulated environment	SH						
IM26.31	Demonstrate awareness of limitations and seeks help andconsultations appropriately	SH						
IM26.32	Demonstrate appropriate respect to colleagues in the profession	SH						
IM26.33	Demonstrate an understanding of the implications and the appropriate procedures and response to be followed in the event ofmedical errors	SH						
IM26.34	Identify conflicts of interest in patient care and professional relationships and describe the correct response to these conflicts	SH						
IM26.35	Demonstrate empathy in patient encounters	SH						
IM26.36	Demonstrate ability to balance personal and professional priorities	SH						
IM26.37	Demonstrate ability to manage time appropriately	SH						
IM26.38	Demonstrate ability to form and function in appropriate professionalnetworks	SH						
IM26.39	Demonstrate ability to pursue and seek career advancement	SH						
IM26.40	Demonstrate ability to follow risk management and medical errorreduction practices where appropriate	SH						

IM26.41	Demonstrate ability to work in a mentoring relationship with juniorcolleagues	SH						
IM26.42	Demonstrate commitment to learning and scholarship	SH						
IM26.43	Identify, discuss and defend medicolegal, sociocultural, economicand ethical issues as they pertain to in vitro fertilisation donor insemination and surrogate motherhood	KH						
IM26.44	Identify, discuss and defend medicolegal, socio-cultural professionaland ethical issues pertaining to medical negligence	KH						
IM26.45	Identify, discuss and defend medicolegal, socio-cultural professionaland ethical issues pertaining to malpractice	KH						
IM26.46	Identify, discuss and defend medicolegal, socio-cultural professional and ethical issues in dealing with impaired physicians	KH						
IM26.47	Identify, discuss and defend medicolegal, socio-cultural and ethical issues as they pertain to refusal of care including do not resuscitateand withdrawal of life support	KH						
IM26.48	Demonstrate altruism	SH						
IM26.49	Administer informed consent and approriately adress patient queriesto a patient being enrolled in a research protocol in a simulated environment	SH						
RESPIRATORY MEDICINE								
Topic:Tuberculosis								
CT1.1	Describe and discuss the epidemiology of tuberculosis and itsimpact on the work, life and economy of India	KH						
CT1.2	Describe and discuss the microbiology of tubercle bacillus, mode of transmission, pathogenesis, clinical evolution and natural history ofpulmonary and extra pulmonary forms (including lymph node, boneand CNS)	KH						
CT1.3	Discuss and describe the impact of co-infection with HIV and otherco-morbid conditions. Like diabetes on the natural history of tuberculosis	K						
CT1.4	Describe the epidemiology, the predisposing factors and microbialand therapeutic factors that determine resistance to drugs	KH						
CT1.5	Elicit, document and present an appropriate medical history that includes risk factor, contacts, symptoms including cough and fever CNS and other manifestations	SH						

CT1.6	Demonstrate and perform a systematic examination that establishesthe diagnosis based on the clinical presentation that includes a a) general examination, b) examination of the chest and lung includingloss 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	SH						
CT1.7	Perform and interpret a PPD (mantoux) and describe and discussthe indications and pitfalls of the test	P						
CT1.8	Generate a differential diagnosis based on the clinical history andevolution of the disease that prioritises the most likely diagnosis	K						
CT1.9	Order and interpret diagnostic tests based on the clinical presentation including: CBC, Chest X ray PA view, Mantoux, sputumculture and sensitivity, pleural fluid examination and culture, HIV testing	K						
CT1.10	Perform and interpret an AFB stain	P						
CT1.11	Assist in the performance, outline the correct tests that require to beperformed and interpret the results of a pleural fluid aspiration	SH						
CT1.12	Enumerate the indications for tests including: serology, specialcultures and polymerase chain reaction and sensitivity testing	KH						
CT1.13	Describe and discuss the origin, indications, technique of administration, efficacy and complications of the BCG vaccine	KH						
CT1.14	Describe and discuss the pharmacology of various anti-tuberculous agents, their indications, contraindications, interactions and adverse reactions	KH						
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 directlyobserved tuberculosis therapy (DOTS)	SH						
CT1.16	Describe the appropriate precautions, screening, testing and indications for chemoprophylaxis for contacts and exposed healthcare workers	KH						
CT1.17	Define criteria for the cure of Tuberculosis; describe and recognisethe features of drug resistant tuberculosis, prevention and therapeutic regimens	P						

CT1.18	Educate health care workers on National Program of Tuberculosisand administering and monitoring the DOTS program	SH						
CT1.19	Communicate with patients and family in an empathetic mannerabout the diagnosis, therapy	P						
Topic: Obstructive airway disease								
CT2.1	Define and classify obstructive airway disease	KH						
CT2.2	Describe and discuss the epidemiology, risk factors and evolution ofobstructive airway disease	KH						
CT2.3	Enumerate and describe the causes of acute episodes in patientswith obstructive airway disease	KH						
CT2.4	Describe and discuss the physiology and pathophysiology ofhypoxia and hypercapneia	KH						
CT2.5	Describe and discuss the genetics of alpha 1 antitrypsin deficiencyin emphysema	KH						
CT2.6	Describe the role of the environment in the cause and exacerbationof obstructive airway disease	KH						
CT2.7	Describe and discuss allergic and non-allergic precipitants ofobstructive airway disease	KH						
CT2.8	Elicit document and present a medical history that will differentiatethe aetiologies of obstructive airway disease, severity and precipitants	SH						
CT2.9	Perform a systematic examination that establishes the diagnosis and severity that includes measurement of respiratory rate, level ofrespiratory distress, effort tolerance, breath sounds, added sounds,identification of signs of consolidation pleural effusion and pneumothorax	SH						
CT2.10	Generate a differential diagnosis and prioritise based on clinicalfeatures that suggest a specific aetiology	SH						
CT2.11	Describe, discuss and interpret pulmonary function tests	SH						
CT2.12	Perform and interpret peak expiratory flow rate	P						
CT2.13	Describe the appropriate diagnostic work up based on thepresumed aetiology	SH						
CT2.14	Enumerate the indications for and interpret the results of : pulseoximetry, ABG, Chest Radiograph	SH						

CT2.15	Generate a differential diagnosis and prioritise based on clinicalfeatures that suggest a specific aetiology	SH						
CT2.16	Discuss and describe therapies for OAD including bronchodilators, leukotriene inhibitors, mast cell stabilisers, theophylline, inhaled and systemic steroids, oxygen and immunotherapy	KH						
CT2.17	Describe and discuss the indications for vaccinations in OAD	KH						
CT2.18	Develop a therapeutic plan including use of bronchodilators andinhaled corticosteroids	SH						
CT2.19	Develop a management plan for acute exacerbations includingbronchodilators, systemic steroids, antimicrobial therapy	SH						
CT2.20	Describe and discuss the principles and use of oxygen therapy inthe hospital and at home	KH						
CT2.21	Describe discuss and counsel patients appropriately on smokingcessation	SH						
CT2.22	Demonstrate and counsel patient on the correct use of inhalers	SH						
CT2.23	Communicate diagnosis treatment plan and subsequent follow upplan to patients	SH						
CT2.24	Recognise the impact of OAD on patient's quality of life, well being,work and family	KH						
CT2.25	Discuss and describe the impact of OAD on the society andworkplace	KH						
CT2.26	Discuss and describe preventive measures to reduce OAD inworkplaces	KH						
CT2.27	Demonstrate an understanding of patient's inability to change working, living and environmental factors that influence progression of airway disease	KH						
CT2.28	Demonstrate an understanding for the difficulties faced by patientsduring smoking cessation	KH						
PSYCHIATRY								
Topic: Doctor patient relationship								
PS1.1	Establish rapport and empathy with patients	SH						
PS1.2	Describe the components of communication	KH						

PS1.3	Demonstrate breaking of bad news in a simulated environment	SH						
PS1.4	Describe and demonstrate the importance of confidentiality inpatient encounters	SH						
Topic: Mental health								
PS2.1	Define stress and describe its components and causes	K						
PS2.2	Describe the role of time management, study skills, balanced dietand sleep wake habits in stress avoidance	KH						
PS2.3	Define and describe the principles and components of learningmemory and emotions	K						
PS2.4	Describe the principles of personality development and motivation	K						
PS2.5	Define and distinguish normality and abnormality	K						
Topic: Introduction to psychiatry								
PS3.1	Describe the growth of psychiatry as a medical specialty, its historyand contribution to society	KH						
PS3.2	Enumerate, describe and discuss important signs & symptoms ofcommon mental disorders	KH						
PS3.3	Elicit, present and document a history in patients presenting with amental disorder	SH						
PS3.4	Describe the importance of establishing rapport with patients	SH						
PS3.5	Perform, demonstrate and document a minimental examination	SH						
PS3.6	Describe and discuss biological, psychological & social factors &their interactions in the causation of mental disorders	KH						
PS3.7	Enumerate and describe common organic psychiatric disorders,magnitude, etiology and clinical features	KH						
PS3.8	Enumerate and describe the essential investigations in patients withorganic psychiatric disorders	KH						
PS3.9	Describe the steps and demonstrate in a simulated environmentfamily education in patients with organic psychiatric disorders	SH						

PS3.10	Enumerate and describe the pharmacologic basis and side effectsof drugs used in psychiatric disorders	KH						
PS3.11	Enumerate the appropriate conditions for specialist referral inpatients with psychiatric disorders	K						
PS3.12	Describe, discuss and distinguish psychotic & non-psychotic(Mood, Anxiety, Stress related) disorders	KH						
Topic: Psychotic disorders								
PS4.1	Describe the magnitude and etiology of alcohol and substance usedisorders	KH						
PS4.2	Elicit, describe and document clinical features of alcohol andsubstance use disorders	SH						
PS4.3	Enumerate and describe the indications and interpret laboratory andother tests used in alcohol and substance abuse disorders	SH						
PS4.4	Describe the treatment of alcohol and substance abuse disordersincluding behavioural and pharmacologic therapy	KH						
PS4.5	Demonstrate family education in a patient with alcohol andsubstance abuse in a simulated environment	SH						
PS4.6	Enumerate and describe the pharmacologic basis and side effectsof drugs used in alcohol and substance abuse	KH						
PS4.7	Enumerate the appropriate conditions for specialist referral inpatients with alcohol and substance abuse disorders	K						
Topic: Psychotic disorders								
PS5.1	Classify and describe the magnitude and etiology of schizophrenia& other psychotic disorders	KH						
PS5.2	Enumerate, elicit, describe and document clinical features, positive s	SH						
PS5.3	Describe the treatment of schizophrenia including behavioural andpharmacologic therapy	KH						
PS5.4	Demonstrate family education in a patient with schizophrenia in asimulated environment	SH						
PS5.5	Enumerate and describe the pharmacologic basis and side effectsof drugs used in schizophrenia	KH						
PS5.6	Enumerate the appropriate conditions for specialist referral inpatients with psychotic disorders	K						

Topic: Depression								
PS6.1	Classify and describe the magnitude and etiology of depression	KH						
PS6.2	Enumerate, elicit, describe and document clinical features inpatients with depression	SH						
PS6.3	Enumerate and describe the indications and interpret laboratory andother tests used in depression	SH						
PS6.4	Describe the treatment of depression including behavioural andpharmacologic therapy	KH						
PS6.5	Demonstrate family education in a patient with depression in asimulated environment	SH						
PS6.6	Enumerate and describe the pharmacologic basis and side effectsof drugs used in depression	KH						
PS6.7	Enumerate the appropriate conditions for specialist referral inpatients with depression	K						
Topic: Bipolar disorders								
PS7.1	Classify and describe the magnitude and etiology of bipolardisorders	KH						
PS7.2	Enumerate, elicit, describe and document clinical features inpatients with bipolar disorders	SH						
PS7.3	Enumerate and describe the indications and interpret laboratory andother tests used in bipolar disorders	SH						
PS7.4	Describe the treatment of bipolar disorders including behaviouraland pharmacologic therapy	KH						
PS7.5	Demonstrate family education in a patient with bipolar disorders in asimulated environment	SH						
PS7.6	Enumerate and describe the pharmacologic basis and side effectsof drugs used in bipolar disorders	KH						
PS7.7	Enumerate the appropriate conditions for specialist referral inpatients with bipolar disorders	K						

Topic: Anxiety disorders								
PS8.1	Enumerate and describe the magnitude and etiology of anxietydisorders	KH						
PS8.2	Enumerate, elicit, describe and document clinical features inpatients with anxiety disorders	SH						
PS8.3	Enumerate and describe the indications and interpret laboratory andother tests used in anxiety disorders	SH						
PS8.4	Describe the treatment of anxiety disorders including behaviouraland pharmacologic therapy	KH						
PS8.5	Demonstrate family education in a patient with anxiety disorders in asimulated environment	SH						
PS8.6	Enumerate and describe the pharmacologic basis and side effectsof drugs used in anxiety disorders	KH						
PS8.7	Enumerate the appropriate conditions for specialist referral inanxiety disorders	K						
Topic: Stress related disorders								
PS9.1	Enumerate and describe the magnitude and etiology of stressrelated disorders	KH						
PS9.2	Enumerate, elicit, describe and document clinical features inpatients with stress related disorders	SH						
PS9.3	Enumerate and describe the indications and interpret laboratory andother tests used in stress related disorders	SH						
PS9.4	Describe the treatment of stress related disorders includingbehavioural and psychosocial therapy	KH						
PS9.5	Demonstrate family education in a patient with stress relateddisorders in a simulated environment	SH						
PS9.6	Enumerate and describe the pharmacologic basis and side effectsof drugs used in stress related disorders	K H						
PS9.7	Enumerate the appropriate conditions for specialist referral in stressdisorders	K						

Topic: Somatoform disorders								
PS10.1	Enumerate and describe the magnitude and etiology of somatoform,dissociative and conversion disorders	K H						
PS10.2	Enumerate, elicit, describe and document clinical features in patients with somatoform, dissociative and conversion disorders	SH						
PS10.3	Enumerate and describe the indications and interpret laboratory andother tests used in somatoform, dissociative and conversion disorders	SH						
PS10.4	Describe the treatment of **somatoform** disorders includingbehavioural, psychosocial and pharmacologic therapy	K H						
PS10.5	Demonstrate family education in a patient with somatoform, dissociative and conversion disorders in a simulated environment	SH						
PS10.6	Enumerate and describe the pharmacologic basis and side effects of drugs used in somatoform, dissociative and conversion disorders	K H						
PS10.7	Enumerate the appropriate conditions for specialist referral in patients with somato form dissociative and conversion disorders	K						
Topic: Personality disorders								
PS11.1	Enumerate and describe the magnitude and etiology of personalitydisorders	K H						
PS11.2	Enumerate, elicit, describe and document clinical features inpatients with personality disorders	SH						
PS11.3	Enumerate and describe the indications and interpret laboratory andother tests used in personality disorders	SH						
PS11.4	Describe the treatment of **personalit**y disorders includingbehavioural, psychosocial and pharmacologic therapy	KH						
PS11.5	Demonstrate family education in a patient with personality disordersin a simulated environment	SH						
PS11.6	Enumerate and describe the pharmacologic basis and side effectsof drugs used in personality disorders	KH						
PS11.7	Enumerate the appropriate conditions for specialist referral	K						

Topic: Psychosomatic disorders								
PS12.1	Enumerate and describe the magnitude and etiology ofpsychosomatic disorders	KH						
PS12.2	Enumerate, elicit, describe and document clinical features in patients with magnitude and etiology of psychosomatic disorders	SH						
PS12.3	Enumerate and describe the indications and interpret laboratory andother tests of psychosomatic disorders	SH						
PS12.4	Describe the treatment of **psychosomatic** disorders includingbehavioural, psychosocial and pharmacologic therapy	KH						
PS12.5	Demonstrate family education in a patient with psychosomaticdisorders in a simulated environment	SH						
PS12.6	Enumerate and describe the pharmacologic basis and side effectsof drugs used in psychosomatic disorders	KH						
PS12.7	Enumerate the appropriate conditions for specialist referral	K						
Topic: Psychosexual and gender identity disorders								
PS13.1	Enumerate and describe the magnitude and etiology ofpsychosexual and gender identity disorders	K H						
PS13.2	Enumerate, elicit, describe and document clinical features in patients with magnitude and etiology of psychosexual and genderidentity disorders	SH						
PS13.3	Enumerate and describe the indications and interpret laboratory andother tests used in psychosexual and gender identity disorders	SH						
PS13.4	Describe the treatment of psychosexual and gender identity disorders including behavioural, psychosocial and pharmacologictherapy	K H						
PS13.5	Demonstrate family education in a patient with psychosexual andgender identity disorders in a simulated environment	SH						
PS13.6	Enumerate and describe the pharmacologic basis and side effectsof drugs used in psychosexual and gender identity disorders	K H						
PS13.7	Enumerate the appropriate conditions for specialist referral	K						
Topic: Psychiatric disorders in childhood and adolescence								
PS14.1	Enumerate and describe the magnitude and etiology of psychiatricdisorders occurring in childhood and adolescence	K H						

PS14.2	Enumerate, elicit, describe and document clinical features in patients with psychiatric disorders occurring in childhood andadolescence	SH						
PS14.3	Describe the treatment of stress related disorders includingbehavioural, psychosocial and pharmacologic therapy	KH						
PS14.4	Demonstrate family education in a patient with psychiatric disordersoccurring in childhood and adolescence in a simulated environment	SH						
PS14.5	Enumerate and describe the pharmacologic basis and side effectsof drugs used in psychiatric disorders occurring in childhood and adolescence	KH						
PS14.6	Enumerate the appropriate conditions for specialist referral inchildren and adolescents with psychiatric disorders	K						
Topic: Mental retardation								
PS15.1	Describe the aetiology and magnitude of mental retardation	KH						
PS15.2	Describe and discuss intelligence quotient and its measurement	KH						
PS15.3	Elicit and document a history and clinical examination and chooseappropriate investigations in a patient with mental retardation	SH						
PS15.4	Describe the psychosocial interventions and treatment used inmental retardation	KH						
Topic: Psychiatric disorders in the elderly								
PS16.1	Enumerate and describe common psychiatric disorders in theelderly including dementia, depression and psychosis	KH						
PS16.2	Describe the aetiology and magnitude of psychiatric illness in theelderly	KH						
PS16.3	Describe the therapy of psychiatric illness in elderly includingpsychosocial and behavioural therapy	KH						
PS16.4	Demonstrate family education in a patient with psychiatric disordersoccurring in the elderly in a simulated environment	SH						
PS16.5	Enumerate the appropriate conditions for specialist referral inpsychiatric disorders in the elderly	K						

Topic: Psychiatric emergencies								
PS17.1	Enumerate and describe the recognition and clinical presentation ofpsychiatric emergencies (Suicide, Deliberate Self Harm, Violent behaviour)	KH						
PS17.2	Describe the initial stabilisation and management of psychiatricemergencies	KH						
PS17.3	Enumerate the appropriate conditions for specialist referral inpatients with psychiatric emergencies	K						
Topic: Therapeutics								
PS18.1	Enumerate the indications and describe the pharmacology, doseand side effects of commonly use drugs in psychiatric disorders	KH						
PS18.2	Enumerate the indications for modified electroconvulsive therapy	K						
PS18.3	Enumerate and describe the principles and role of psychosocialinterventions in psychiatric illness including psychotherapy, behavioural therapy and rehabilitation	KH						
Topic: Miscellaneous								
PS19.1	Describe the relevance, role and status of community psychiatry	KH						
PS19.2	Describe the objectives strategies and contents of the National Ment	KH						
PS19.3	Describe and discuss the basic legal and ethical issues inpsychiatry	KH						
PS19.4	Enumerate and describe the salient features of the prevalent mentalhealth laws in India	KH						
PS19.5	Describe the concept and principles of preventive psychiatry and mental health promotion (positive mental health); and communityeducation	KH						
PS19.6	Enumerate and describe the identifying features and the principles of participatory management of mental illness occurring during and after disasters	KH						

DERMATOLOGY, VENEREOLOGY & LEPROSY								
Topic: Acne								
DR1.1	Enumerate the causative and risk factors of acne	K						
DR1.2	Identify and grade the various common types of acne	SH						
DR1.3	Describe the treatment and preventive measures for various kinds ofacne	K						
Topic: Vitiligo								
DR2.1	Identify and differentiate vitiligo from other causes of hypopigmentedlesions	S						
DR2.2	Describe the treatment of vitiligo	K						
Topic: Papulosquamous disorders								
DR3.1	Identify and distinguish psoriatic lesions from other causes	SH						
DR3.2	Demonstrate the grattage test	SH						
DR3.3	Enumerate the indications for and describe the various modalities oftreatment of psoriasis including topical, systemic and phototherapy	KH						
. **Topic: Lichen Planus**								
DR4.1	Identify and distinguish lichen planus lesions from other causes	SH						
DR4.2	Enumerate and describe the treatment modalities for lichen planus	KH						
Topic: Scabies								
DR5.1	Describe the etiology, microbiology, pathogenesis, natural history,clinical features, presentations and complications of scabies in adults and children	KH						

DR5.2	Identify and differentiate scabies from other lesions in adults andchildren	SH						
DR5.3	Enumerate and describe the pharmacology, administration andadverse reaction of pharmacotherapies for scabies	KH						
Topic: Pediculosis								
DR6.1	Describe the etiology pathogenesis and diagnostic features ofpediculosis in adults and children	KH						
DR6.2	Identify and differentiate pediculosis from other skin lesions in adultsand children	SH						
Topic: Fungal Infections								
DR7.1	Describe the etiology, microbiology, pathogenesis and clinical presentations and diagnostic features of dermatophytes in adults and children	KH						
DR7.2	Identify Candida species in fungal scrapings and KOH mount	SH						
DR7.3	Describe the pharmacology and action of antifungal (systemic andtopical) agents. Enumerate side effects of antifungal therapy	KH						
Topic: Viral infections								
DR8.1	Describe the etiology, microbiology, pathogenesis and clinical presentations and diagnostic features of common viral infections ofthe skin in adults and children	KH						
DR8.2	Identify and distinguish herpes simplex and herpes labialis fromother skin lesions	SH						
DR8.3	Identify and distinguish herpes zoster and varicella from other skinlesions	SH						
DR8.4	Identify and distinguish viral warts from other skin lesions	SH						
DR8.5	Identify and distinguish molluscum contagiosum from other skinlesions	SH						
DR8.6	Enumerate the indications, describe the procedure and perform aTzanck smear	SH						
DR8.7	Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for common viral illnesses of the skin	KH						

Topic: Leprosy								
DR9.1	Classify, describe the epidemiology, etiology, microbiology, pathogenesis, clinical presentations and diagnostic features ofLeprosy	KH						
DR9.2	Demonstrate (and classify based on) the clinical features of leprosyincluding an appropriate neurologic examination	SH						
DR9.3	Enumerate the indications and observe the performance of a slitskin smear in patients with leprosy	KH						
DR9.4	Enumerate, describe and identify lepra reactions and supportivemeasures and therapy of lepra reactions	KH						
DR9.5	Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for various classes of leprosy based on national guidelines	KH						
DR9.6	Describe the treatment of Leprosy based on the WHO guidelines	KH						
DR9.7	Enumerate and describe the complications of leprosy and its management, including understanding disability and stigma.	KH						
Topic: Sexually Transmitted Diseases								
DR10.1	Identify and classify syphilis based on the presentation and clinicalmanifestations	SH						
DR10.2	Identify spirochete in a dark ground microscopy	SH						
DR10.3	Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for syphilis	KH						
DR10.4	Describe the prevention of congenital syphilis	KH						
DR10.5	Counsel in a non-judgemental and empathetic manner patients onprevention of sexually transmitted disease	SH						
DR10.6	Describe the etiology, diagnostic and clinical features of non- syphilitic sexually transmitted diseases (chancroid, donovanosis andLGV)	KH						
DR10.7	Identify and differentiate based on the clinical features non-syphiliticsexually transmitted diseases (chancroid, donovanosis and LGV)	SH						
DR10.8	Enumerate the indications and describe the pharmacology, indications and adverse reactions of drugs used in the non- syphilitic sexually transmitted diseases (chancroid, donovanosis andLGV)	KH						

DR10.9	Describe the syndromic approach to ulcerative sexually transmitteddisease	KH						
DR10.10	Describe the etiology, diagnostic and clinical features andmanagement of gonococcal and non-gonococcal urethritis	KH						
DR10.11	Describe the etiology, diagnostic and clinical features andmanagement of vaginal discharge	KH						
Topic: HIV								
DR11.1	Describe the etiology, pathogenesis and clinical features of the dermatologic manifestations of HIV and its complications including opportunistic infections	KH						
DR11.2	Identify and distinguish the dermatologic manifestations of HIV, itscomplications, opportunistic infections and adverse reactions	SH						
DR11.3	Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies fordermatologic lesions in HIV	KH						
Topic: Dermatitis and Eczema								
DR12.1	Describe the aetiopathogenesis of eczema	KH						
DR12.2	Identify eczema and differentiate it from lichenification and changesof aging	SH						
DR12.3	Classify and grade eczema	KH						
DR12.4	Enumerate the indications and describe the pharmacology, indications and adverse reactions of drugs used in the treatment ofeczema	KH						
DR12.5	Define erythroderma. Enumerate and identify the causes oferythroderma. Discuss the treatment	KH						
DR12.6	Identify and distinguish exfoliative dermatitis from other skin lesions	SH						
DR12.7	Identify and distinguish fixed drug eruptions and Steven Johnsonsyndrome from other skin lesions	SH						
Topic: Vesicubullous Lesions								
DR13.1	Distinguish bulla from vesicles	SH						
DR13.2	Demonstrate the Tzanck test, nikolsky sign and bulla spread sign	SH						
DR13.3	Calculate the body surface area of involvement of vesiculobullouslesions	SH						

Topic: Urticaria Angioedema								
DR14.1	Describe the etiology, pathogenesis and clinical precipitatingfeatures and classification of Urticaria and angioedema	KH						
DR14.2	Identify and distinguish urticarial from other skin lesions	SH						
DR14.3	Demonstrate dermographism	SH						
DR14.4	Identify and distinguish angioedema from other skin lesions	SH						
DR14.5	Enumerate the indications and describe the pharmacology indications and adverse reactions of drugs used in the urticaria andangioedema	KH						
Topic: Pyoderma								
DR15.1	Identify and distinguish folliculitis impetigo and carbuncle from otherskin lesions	SH						
DR15.2	Identify staphylococcus on a gram stain	SH						
DR15.3	Enumerate the indications and describe the pharmacology, indications and adverse reactions of topical and systemic drugsused in treatment of pyoderma	KH						
DR15.4	Enumerate the indications for surgical referral	KH						
Topic: Collagen Vascular disease								
DR16.1	Identify and distinguish skin lesions of SLE	SH						
DR16.2	Identify and distinguish Raynaud's phenomenon	SH						
Topic: Nutritional Deficiencies and Skin								
DR17.1	Enumerate and identify the cutaneous findings in vitamin Adeficiency	SH						
DR17.2	Enumerate and describe the various skin changes in Vitamin Bcomplex deficiency	KH						

DR17.3	Enumerate and describe the various changes in Vitamin Cdeficiency	KH						
DR17.4	Enumerate and describe the various changes in Zinc deficiency	KH						
Topic: Systemic diseases and the skin								
DR18.1	Enumerate the cutaneous features of Type 2 diabetes	K						
DR18.2	Enumerate the cutaneous features of hypo/hyper-thyroidism	K						

5. Formative Assessment of Assignments

Note:

1. Formative Assessment involves various methods of which out of class assignments are important instruments.
2. The structure for the assignment should be clear mentioned at the start. The structure should include an introduction, main body of the assignment and a conclusion if it is an essay work. Illustrations, flow charts, tables and graphs should be part of the submission where ever necessary.
3. Plagiarism should be discouraged.
4. The grading of the assignment shall be done by the faculty team as follows

Faculty Decision	Grade
Poor content & presentation	1
Below Average content & presentation	2
Average content & presentation	3
Above Average content & presentation	4
Excellent content & presentation	5

No	Title of Assignment	1	2	3	4	5	Initial of Facilitator
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							

No	Title of Assignment	1	2	3	4	5	Initial of Facilitator
14							
15							
16							
17							
18							
19							
20							

6. Formative Assessment of Integrated Sessions

Note:

1. Formative Assessment of integrated teaching sessions involves assessment of student level of sessional learning.
2. The student shall be given a 15-20 MCQ test at the end of the session. This can be both in the offline and online modes,
3. The grading of the same shall be done by the faculty team as follows:

   Scale

   1 : End of Session Assessment <35%
   2 : End of Session Assessment 35-50%
   3 : End of Session Assessment 50-60%
   4 : End of Session Assessment 60-75%
   5 : End of Session Assessment >75%

No	Topic of Integrated Session	1	2	3	4	5	Initial of Facilitator
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							

No	Topic of Integrated Session	1	2	3	4	5	Initial of Facilitator
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

7. Formative Assessment of Self-Directed Learning

Note:

1. Formative Assessment of SDL sessions involves assessment of student level of learning through assessment of the synopsis and biblliography
2. The student shall submit the same at the end of the session. This can be both in the offline and online modes.
3. The grading of the same shall be done by the faculty team as follows:

Scale

Faculty Decision	Grade
Poor content & presentation	1
Below Average content & presentation	2
Average content & presentation	3
Above Average content & presentation	4
Excellent content & presentation	5

No	Assigned SDL Topic	1	2	3	4	5	Initial of Facilitator
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							

No	Assigned SDL Topic	1	2	3	4	5	Initial of Facilitator
12							
13							
14							
15							
16							
17							
18							
19							
20							

8. Formative Assessment of AETCOM Learning

Note:

1. Formative Assessment of AETCOM sessions involves assessment of student level of learning through DOPS, OSPE sessions
2. The grading of the same shall be done by the faculty team as follows:

   Scale

   1 : End of Session Assessment <35%
   2 : End of Session Assessment 35-50%
   3 : End of Session Assessment 50-60%
   4 : End of Session Assessment 60-75%
   5 : End of Session Assessment >75%

No	Competency The student should be able to	Level (K/KH/SH)	1	2	3	4	5	Initial of Facilitator
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								

9. Formative Feedback Record

Note:

1. Feedback should be provided to learners throughout the course so that they are aware of their performance and remedial action can be initiated well in time.
2. The feedbacks need to be structured and the faculty and learners must be sensitized to giving and receiving feedback.
3. The results of IA should be displayed on notice board within 2 weeks of the test and an opportunity provided to the learners to discuss the results and get feedback on making their performance better.
4. Thelearner should sign with date whenever they are shown IA records in token of having seen and discussed the marks.
5. The learner Internal assessment marks will not be added to University examination marks and will reflect as a separate head of passing at the summative examination
6. Some suggestions for handling the Feedback process
    a. Start with the learner's agenda for the session
    b. Evaluate the performance of the learner in the previous sessions and outcomes the learner is trying to achieve
    c. Enquire about problems faced by the learner in the process of learning in the classroom, at home and during the assessments.
    d. Encourage the learner to think about goal setting
    e. Encourage self-assessment and self-solving problems
    f. Offer space for the learner to make suggestions, to generate solutions
    g. Be non-judgmental and specific, prevent vague generalisation, provide balanced feedback
    h. Offers suggestions and alternatives, make suggestions rather than prescriptive comments. Be valuing and supportive
    i. Structure and summarise the session to ensure that learner has some specifics to take home.

Formative Feedback Session	1
Date	

Type of Assessment			
Topic of Assessment			
Feed Back received from Student			
Feed Back given to the Student			
Remedial Action Suggested			
Timeline of Remedial Action			
Signature of Mentor		Signature of Student	

Formative Feedback Session	2
Date	

Type of Assessment	
Topic of Assessment	

Feed Back received from Student
Feed Back given to the Student
Remedial Action Suggested

Timeline of Remedial Action			
Signature of Mentor		Signature of Student	

Formative Feedback Session	3
Date	

Type of Assessment	
Topic of Assessment	

Feed Back received from Student
Feed Back given to the Student
Remedial Action Suggested

Timeline of Remedial Action			
Signature of Mentor		Signature of Student	

Formative Feedback Session	4
Date	

Type of Assessment	
Topic of Assessment	

Feed Back received from Student
Feed Back given to the Student
Remedial Action Suggested

Timeline of Remedial Action			
Signature of Mentor		Signature of Student	

Formative Feedback Session	5
Date	

Type of Assessment	
Topic of Assessment	

Feed Back received from Student
Feed Back given to the Student
Remedial Action Suggested

Timeline of Remedial Action			
Signature of Mentor		Signature of Student	

Formative Feedback Session	6
Date	

Type of Assessment	
Topic of Assessment	

Feed Back received from Student
Feed Back given to the Student
Remedial Action Suggested

Timeline of Remedial Action			
Signature of Mentor		Signature of Student	

Formative Feedback Session	7
Date	

Type of Assessment			
Topic of Assessment			
Feed Back received from Student			
Feed Back given to the Student			
Remedial Action Suggested			
Timeline of Remedial Action			
Signature of Mentor		Signature of Student	

Formative Feedback Session	8
Date	

Type of Assessment	
Topic of Assessment	

Feed Back received from Student
Feed Back given to the Student
Remedial Action Suggested

Timeline of Remedial Action			
Signature of Mentor		Signature of Student	

Formative Feedback Session			9
Date			
Type of Assessment			
Topic of Assessment			
Feed Back received from Student			
Feed Back given to the Student			
Remedial Action Suggested			
Timeline of Remedial Action			
Signature of Mentor		Signature of Student	

Formative Feedback Session	10
Date	

Type of Assessment			
Topic of Assessment			
Feed Back received from Student			
Feed Back given to the Student			
Remedial Action Suggested			
Timeline of Remedial Action			
Signature of Mentor		Signature of Student	

Formative Feedback Session			11
Date			
Type of Assessment			
Topic of Assessment			
Feed Back received from Student			
Feed Back given to the Student			
Remedial Action Suggested			
Timeline of Remedial Action			
Signature of Mentor		Signature of Student	

Formative Feedback Session			12
Date			
Type of Assessment			
Topic of Assessment			
Feed Back received from Student			
Feed Back given to the Student			
Remedial Action Suggested			
Timeline of Remedial Action			
Signature of Mentor		Signature of Student	

Formative Feedback Session	13
Date	

Type of Assessment	
Topic of Assessment	

Feed Back received from Student
Feed Back given to the Student
Remedial Action Suggested

Timeline of Remedial Action			
Signature of Mentor		Signature of Student	

Formative Feedback Session			14
Date			
Type of Assessment			
Topic of Assessment			
Feed Back received from Student			
Feed Back given to the Student			
Remedial Action Suggested			
Timeline of Remedial Action			
Signature of Mentor		Signature of Student	

Formative Feedback Session	15
Date	

Type of Assessment			
Topic of Assessment			
Feed Back received from Student			
Feed Back given to the Student			
Remedial Action Suggested			
Timeline of Remedial Action			
Signature of Mentor		Signature of Student	

10. Certification of Skills

Note:

1. certification of skills should be provided to learners at all points of the course so that they are aware of their performance and remedial action can be initiated well in time to achieve the goal of obtaining a certified skill..
2. The feedbacks need to be structured and the faculty and learners must be sensitized to giving and receiving feedback.
2. The results of assessment of COS should be discussed at the end of the assessment and an opportunity provided to the learners to discuss the results and get feedback on making their performance better.
4. The learner should be given a date for remedial session wherein they will be reassessed.
5. A mximum of 5 remedial sessions may be offered beyond which he/she shall not be certified for the current academic session.

Certification of skills :competency no.		
Type of skill		
Type of assessment		
Performance of student		
Feedback of learner		
Feedback of Facilitator		
Remedial action suggested		
Remedial assessment	1.Date	
Performance of student		
Remedial assessment	2.Date	
Performance of student		
Remedial assessment	3.Date	
Performance of student		
Remedial assessment	4.Date	
Performance of student		
Remedial assessment	5.Date	
Performance of student		
Certification of skill	Certified/Non certified	
Date of COS		
Signatures	Learner	Facilitator

Certification of skills :competency no.		
Type of skill		
Type of assessment		
Performance of student		
Feedback of learner		
Feedback of Facilitator		
Remedial action suggested		
Remedial assessment	1.Date	
Performance of student		
Remedial assessment	2.Date	
Performance of student		
Remedial assessment	3.Date	
Performance of student		
Remedial assessment	4.Date	
Performance of student		
Remedial assessment	5.Date	
Performance of student		
Certification of skill	Certified/Non certified	
Date of COS		
Signatures	Learner	Facilitator

Certification of skills :competency no.		
Type of skill		
Type of assessment		
Performance of student		
Feedback of learner		
Feedback of Facilitator		
Remedial action suggested		
Remedial assessment	1.Date	
Performance of student		
Remedial assessment	2.Date	
Performance of student		
Remedial assessment	3.Date	
Performance of student		
Remedial assessment	4.Date	
Performance of student		
Remedial assessment	5.Date	
Performance of student		
Certification of skill	Certified/Non certified	
Date of COS		
Signatures	Learner	Facilitator

Certification of skills :competency no.		
Type of skill		
Type of assessment		
Performance of student		
Feedback of learner		
Feedback of Facilitator		
Remedial action suggested		
Remedial assessment	1.Date	
Performance of student		
Remedial assessment	2.Date	
Performance of student		
Remedial assessment	3.Date	
Performance of student		
Remedial assessment	4.Date	
Performance of student		
Remedial assessment	5.Date	
Performance of student		
Certification of skill	Certified/Non certified	
Date of COS		
Signatures	Learner	Facilitator

Certification of skills :competency no.		
Type of skill		
Type of assessment		
Performance of student		
Feedback of learner		
Feedback of Facilitator		
Remedial action suggested		
Remedial assessment	1.Date	
Performance of student		
Remedial assessment	2.Date	
Performance of student		
Remedial assessment	3.Date	
Performance of student		
Remedial assessment	4.Date	
Performance of student		
Remedial assessment	5.Date	
Performance of student		
Certification of skill	Certified/Non certified	
Date of COS		
Signatures	Learner	Facilitator

Certification of skills :competency no.		
Type of skill		
Type of assessment		
Performance of student		
Feedback of learner		
Feedback of Facilitator		
Remedial action suggested		
Remedial assessment	1.Date	
Performance of student		
Remedial assessment	2.Date	
Performance of student		
Remedial assessment	3.Date	
Performance of student		
Remedial assessment	4.Date	
Performance of student		
Remedial assessment	5.Date	
Performance of student		
Certification of skill	Certified/Non certified	
Date of COS		
Signatures	Learner	Facilitator

Certification of skills :competency no.		
Type of skill		
Type of assessment		
Performance of student		
Feedback of learner		
Feedback of Facilitator		
Remedial action suggested		
Remedial assessment	1.Date	
Performance of student		
Remedial assessment	2.Date	
Performance of student		
Remedial assessment	3.Date	
Performance of student		
Remedial assessment	4.Date	
Performance of student		
Remedial assessment	5.Date	
Performance of student		
Certification of skill	Certified/Non certified	
Date of COS		
Signatures	Learner	Facilitator

Certification of skills :competency no.		
Type of skill		
Type of assessment		
Performance of student		
Feedback of learner		
Feedback of Facilitator		
Remedial action suggested		
Remedial assessment	1.Date	
Performance of student		
Remedial assessment	2.Date	
Performance of student		
Remedial assessment	3.Date	
Performance of student		
Remedial assessment	4.Date	
Performance of student		
Remedial assessment	5.Date	
Performance of student		
Certification of skill	Certified/Non certified	
Date of COS		
Signatures	Learner	Facilitator

Certification of skills :competency no.		
Type of skill		
Type of assessment		
Performance of student		
Feedback of learner		
Feedback of Facilitator		
Remedial action suggested		
Remedial assessment	1.Date	
Performance of student		
Remedial assessment	2.Date	
Performance of student		
Remedial assessment	3.Date	
Performance of student		
Remedial assessment	4.Date	
Performance of student		
Remedial assessment	5.Date	
Performance of student		
Certification of skill	Certified/Non certified	
Date of COS		
Signatures	Learner	Facilitator

Certification of skills :competency no.		
Type of skill		
Type of assessment		
Performance of student		
Feedback of learner		
Feedback of Facilitator		
Remedial action suggested		
Remedial assessment	1.Date	
Performance of student		
Remedial assessment	2.Date	
Performance of student		
Remedial assessment	3.Date	
Performance of student		
Remedial assessment	4.Date	
Performance of student		
Remedial assessment	5.Date	
Performance of student		
Certification of skill	Certified/Non certified	
Date of COS		
Signatures	Learner	Facilitator

11 A. Record of Internal Assessment Tests-Theory

No	Topic of Assessment	Type of Assessment	Max Mark	Mark Given	% Mark	Initals of FIC
1						
2						
3						
4						
5						
6						
7						
8						

11B. Record of Internal Assessment Tests-Practical

No	Topic of Assessment	Type of Assessment	Max Mark	Mark Given	% Mark	Initals of FIC
1						
2						
3						
4						

12. Attendance Record

Details	Attendance Percent		
	Second Professional MBBS	Third Professional MBBS Part I	Third Professional MBBS Part II
Theory			
Practicals			