Amala
INSTITUTE OF MEDICAL SCIENCES
NABH & NABL ACCREDITED | ISO 9001: 2015
REDEFINING
CARE
everyday
in every way

# AMALA INSTITUTE OF MEDICAL SCIENCES, THRISSUR

*Affiliated to Kerala University of Health Sciences (KUHS)*

# SYLLABUS FOR UG PROGRAMME

## BACHELOR OF MEDICINE AND BACHELOR OF SURGERY(MBBS)

## 2024

VOLUME-02

# NATIONAL MEDICAL COMMISSION

## COMPETENCY BASED UNDERGRADUATE CURRICULUM FOR THE INDIAN MEDICAL GRADUATE

## Volume II-2024

# COMPETENCY BASED UNDERGRADUATE CURRICULUM FOR THE INDIAN MEDICAL GRADUATE

# 2024

**National Medical Commission**
**Pocket-14, Sector- 8, Dwarka**
**New Delhi 110 077**

## FOREWORD

The National Medical Commission (NMC) was created on 24th September, 2020 by the Act of Parliament replacing the erstwhile Medical Council of India and Board of Governors. The foundation for making of an Indian Medical Graduate ('Doctor') depends on building a sound base of medical education. In the year 2019, a committed team appointed by erstwhile MCI revolutionized the age-old didactic teaching system in Indian medical colleges by bringing in Competency Based Medical Education (CBME). This unique approach has raised the level of medical education with respect to quality, versatility and horizontal- vertical alignment of all subjects. The mandate of NMC to see that the first line of health care leaders who reach out to the common masses empathizing with the problems of the rural populace are being met with. The two-pronged approach of increasing the quantity and improving the quality of medical education is being tackled with this approach.

Education has now become student-centric and patient-centric instead of pedagogic system. The first batch of students have now completed their training under CBME implemented in 2019. It was a demand from actively involved academia to revisit the curriculum and modify it so as to keep abreast at international level. Interim years of covid pandemic also were 'a good teaching academy' for all. Increasing influence of artificial intelligence on student community, matched with rising cost of medical education and competitiveness, instead of accommodative, helping and balanced approach, has led to increasing risk of losing social intelligence and humane approach amidst the emerging doctors. The risk of creating overqualified clerks looms large on our medical system.

A national team of experienced as well as emerging empathetic and talented teachers engaged as full-time faculty in various medical institutions were invited by the Undergraduate Education Board (UGMEB) of the NMC to invest their extra energy and hours to assess the curricula, examinations, AETCOM, vertical and horizontal integration of various subjects and bring in modifications. Each subject had committee of five persons on an average, from different parts of the country. Totally 93 experts have given their valuable time and energy in framing this new curriculum and all three volumes, prepared by their predecessors in 2019. The hard work done by them was the base on which this edifice has further been refined.

We are sure that fraternity and students are going to have an educational journey that will be full of fun, knowledge and experience sharing. UGMEB of the NMC acknowledges each and every one involved in the process, named and unsung heroes who have been the part of this exercise of bringing the document to the readers.

**Dr. Aruna V. Vanikar, President,**
**Dr. Vijayendra Kumar, Member,**
**UGMEB, NMC**

# Contents Volume I


| S.No. | Subject | Legend | PageNo. |
|---|---|---|---|
| (i) | Howto use the Manual | | 8 |
| (ii) | Definitions used in the Manual | | 28 |
| (iii) | **Subject wise Competencies** | | |
| 1. | Anatomy | AN | 32 |
| 2. | Physiology | PY | 74 |
| 3. | Biochemistry | BC | 86 |
| 4. | Pharmacology | PH | 98 |
| 5. | Pathology | PA | 111 |
| 6. | Microbiology | MI | 130 |
| 7. | Forensic Medicine & Toxicology | FM | 140 |
| (iv) | List of contributing subject experts | | 160 |

# Contents Volume II


| S.No. | Subject | Legend | PageNo. |
|---|---|---|---|
| (i) | Howto use the Manual | | 8 |
| (ii) | Definitions used in the Manual | | 28 |
| (iii) | **Subject wise Competencies** | | |
| 1. | Community Medicine | CM | 32 |
| 2. | General Medicine | GM | 44 |
| 3. | Paediatrics | PE | 92 |
| 4. | Psychiatry | PS | 114 |
| 5. | Dermatology, Venereology & Leprosy | DE | 118 |
| (iv) | List of contributing subject experts | | 125 |

# Contents Volume III


| S.No. | Subject | Legend | PageNo. |
|---|---|---|---|
| (i) | Howto use the Manual | | 8 |
| (ii) | Definitions used in the Manual | | 28 |
| (iii) | **Subject wise Competencies** | | |
| 1. | General Surgery | SU | 32 |
| 2. | Ophthalmology | OP | 44 |
| 3. | Otorhinolaryngology | EN | 50 |
| 4. | Obstetrics & Gynaecology | OG | 57 |
| 5. | Orthopaedics | OR | 74 |
| 6. | Anesthesiology | AS | 82 |
| 7. | Radiodiagnosis | RT | 87 |
| (iv) | List of contributing subject experts | | 91 |

# How to use the Manual

This Manual is intended for curriculum planners in an institution to design learning and assessment experiences for the MBBS student. Contents created bysubject experts have been curated to provide guidance for the curriculum planners, leaders and teachers in medical schools. The manual must be used withreference to and in the context of the Regulations.

# Section 1

# Competencies for the Indian Medical Graduate

**Section 1** - provides the Roles (global competencies) extracted from the Competency Based Medical Education (CBME) Guidelines, 2024. The global competencies identified asdefining the roles of the Indian Medical Graduate are the broad competencies that the learner must aspire to achieve, teachers and curriculum plannersmust ensure that the learning experiences are aligned to this Manual.

**Extract from the Competency Based Medical Education (CBME) Guidelines, 2024**

**2. Objectives of the Indian Graduate Medical Training Programme**

The undergraduate medical education program is designed with a goal to create an "Indian Medical Graduate" (IMG) possessing requisite knowledge, skills, attitudes, values and responsiveness, so that she or he may function appropriately and effectively as a physician of first contact of the community while being globally relevant. To achieve this, the following national and institutional goals for the learner of the Indian Medical Graduate training program are hereby advocated. The first contact physician needs to be skillful to perform duties of primary care physician and have requisite skills for promotive, preventative, rehabilitative, palliative care & referral services.

## 2.1 National Goals

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

a. Recognize "health for all" as a national goal and health right of all citizens and by undergoing training for medical profession to fulfill his social obligations towards realization of this goal.

b. Learn key aspects of National policies on health and devote himself to its practical implementation.

c. Achieve competence in the practice of holistic medicine, encompassing promotive, preventive, curative and rehabilitative aspects of common diseases.

d. Develop scientific temper, acquire educational experience for proficiency in profession and promote healthy living.

e. Become an exemplary citizen by observance of medical ethics and fulfilling social and professional obligations, so as to respond to national aspirations.

## 2.2 Institutional Goals

In consonance with the national goals, each medical institution should evolve institutional goals to define the kind of trained manpower (or professionals) they intend to produce. The Indian Medical Graduates coming out of a medical institute should be competent in diagnosis and management of common health problems of the individual and the community, commensurate with his/her position as a member of the health team at the primary, secondary or tertiary levels, using his/her clinical skills based on history, physical examination and relevant investigations.

a. Be competent for working in the health care team from Phase I MBBS to Compulsory rotatory medical internship (CRMI) in a gradual manner with increasing complexity in an integrated multi-department involvement.

b. Be competent to practice preventive, promotive, curative, palliative and rehabilitative· medicine in respect to the commonly encountered health problems.

c. Appreciate rationale for different therapeutic modalities; be familiar with the administration of the "essential medicines" and their common adverse effects.

d. Appreciate the socio-psychological, cultural, economic and environmental factors affecting health and develop humane attitude towards the patients in discharging one's professional responsibilities.

e. Possess the attitude for continued self-learning and to seek further expertise or to pursue research in any chosen area of medicine, action research and documentation skills.

f. Be familiar with the basic factors which are essential for the implementation of the National Health Programs including practical aspects of the following:

i. Family Welfare and Maternal and Child Health (MCH);

ii. Sanitation and water supply;

iii. Prevention and control of communicable and non-communicable diseases;

iv. Immunization;

v. Health Education and advocacy;

vi. Indian Public Health Standards (IPHS) at various level of service delivery;

vii. Bio-medical waste disposal;

viii. Organizational and or institutional arrangements.

g. Acquire basic management skills in the area of human resources, materials and resource management related to health care delivery, general and hospital management, principal inventory skills and counselling.

h. Be able to identify community health problems and learn to work to resolve these by designing, instituting corrective steps and evaluating outcome of such measures with maximum community participation.

i. Be able to work as a leading partner in health care teams and acquire proficiency in communication skills.

j. Be competent to work in a variety of health care settings.

k. Have personal characteristics and attitudes required for professional life including personal integrity, sense of responsibility, dependability, and ability torelate to or

l. show concern for other individuals.

All efforts must be made to equip the medical graduates to acquire certifiable skills as given in comprehensivelist of skills recommended as desirable for Bachelor of Medicine and Bachelor of Surgery (MBBS)Indian Medical Graduate, as given in theGraduate Medical Education Regulations.

**2.3 Goals for the Learner**

In order to fulfil these goals, the Indian Medical Graduate must be able to function in the following roles appropriately and effectively:-

a. Clinician who understands and provides preventive, promotive, curative, palliative and holistic care with compassion.

b. Leader and member of the health care team and system with capabilities to collect, analyse, synthesize and communicate health data appropriately.

c. Communicate with patients, families, colleagues, community and community in a methodological and skillful way using various approaches in family visits, family adoption program, clinic-social cases, clinical cases and AETCOM training programs.

d. Lifelong learner committed to continuous improvement of skills and knowledge.

e. Professional, who is committed to excellence, is ethical, responsive and accountable to patients, community, profession, and society. Training of humanities and social sciences will be useful for this training.

## 3. Competency Based Training Programme of the Indian Medical Graduate

Competency based learning would include designing and implementing medical education. curriculum that focuses on the desired and observable activity in real life situations. In order to effectively fulfill the roles, the Indian Medical Graduate would have obtained the following set of competencies at the time of graduation:

### 3.1 Clinician, who understands and provides preventive, promotive, curative, palliative and holistic care with compassion.

3.1.1 Demonstrate knowledge of normal human structure, function and development from a molecular, cellular, biological, clinical, behavioral and social perspective.

3.1.2 Demonstrate knowledge of abnormal human structure, function and development from a molecular, cellular, biological, clinical, behavioral and social perspective.

3.1.3 Demonstrate knowledge of medico-legal, societal, ethical and humanitarian principles that influence healthcare.

3.1.4 Demonstrate knowledge of national and regional health care policies including the National Health Mission that incorporates National Rural Health Mission (NRHM) and National Urban Health Mission (NUHM), frameworks, economics and systems that influence health promotion, health care delivery, disease prevention, effectiveness, responsiveness, quality and patient safety.

3.1.5 Demonstrate ability to elicit and record from the patient, and other relevant sources including relatives and caregivers, a history that is complete and relevant to disease identification, disease prevention and health promotion.

3.1.6 Demonstrate ability to elicit and record from the patient, and other relevant sources. including relatives and caregivers, a history that is contextual to gender, age, vulnerability, social and economic status, patient preferences, beliefs and values.

3.1.7 Demonstrate ability to perform a physical examination that is complete and relevant to disease identification, disease prevention and health promotion.

3.1.8 Demonstrate ability to perform a physical examination that is contextual to gender, social and economic status, patient preferences and values.

3.1.9 Demonstrate effective clinical problem solving, judgment and ability to interpret and integrate available data in order to address patient problems, generate differential diagnoses and develop individualized management plans that include preventive, promotive and therapeutic goals.

3.1.10 Maintain accurate, clear and appropriate record of the patient in conformation with legal and administrative frameworks.

3.1.11 Demonstrate ability to choose the appropriate diagnostic tests and interpret these tests based on scientific validity, cost effectiveness and clinical context.

3.1.12 Demonstrate ability to prescribe and safely administer appropriate therapies including nutritional interventions, pharmacotherapy and interventions based on the principles of rational drug therapy, scientific validity, evidence and cost that conform to established national and regional health programmes and policies for the following:

a. Disease prevention,

b. Health promotion and cure,

c. Pain and distress alleviation, and

d. Rehabilitation and palliation.

3.1.13 Demonstrate ability to provide a continuum of care at the primary (including home care) and/or secondary level that addresses chronicity, mental and physical disability,

3.1.14 Demonstrate ability to appropriately identify and refer patients who may require· specialized or advanced tertiary care.

3.1.15 Demonstrate familiarity with basic, clinical and translational research as it applies to the care of the patient.

**3.2 Leader and member of the health care team and system**

3.2.1 Work effectively and appropriately with colleagues in an inter-professional health care team respecting diversity of roles, responsibilities and competencies of other professionals.

3.2.2 Recognize and function effectively, responsibly and appropriately as a health care team leader in primary and secondary health care settings.

3.2.3 Educate and motivate other members of the team and work in a collaborative and collegial fashion that will help maximize the health care delivery potential of the team.

3.2.4 Access and utilize components of the health care system and health delivery in a_ manner that is appropriate, cost effective, fair and in compliance with the national health care priorities and policies, as well as be able to collect, analyse and utilize health data.

3.2.5 Participate appropriately and effectively in measures that will advance quality of health care and patient safety within the health care system.

3.2.6 Recognize and advocate health. promotion, disease prevention and health care quality improvement through prevention and early recognition: in a) life style diseases and b) cancer, in collaboration with other members of the health care team.

**3.3 Communicator with patients, families, colleagues and community**

3.3.1 Demonstrate ability to communicate adequately, sensitively, effectively and respectfully with patients, families, colleagues and community in a

language that patients, families, colleagues and community understands and in a manner that will improve patient patients, families, colleagues and community satisfaction and health care outcomes.

3.3.2 Demonstrate ability to establish professional relationships with patients, families, colleagues and community that are positive, understanding, humane, ethical, empathetic, and trustworthy.

3.3.3 Demonstrate ability to communicate with patients, families, colleagues and community in a manner respectful of patient's preferences, values, prior experience, beliefs, confidentiality and privacy.

3.3.4 Demonstrate ability to communicate with patients, colleagues and families in a manner that encourages participation and shared decision- making and overcoming hesitancy towards health initiatives.

**3.4 Lifelong learner committed to continuous improvement of skills and knowledge**

3.4.1 Demonstrate ability to perform an objective self-assessment of knowledge and skills, continue learning, refine existing skills and acquire new skills.

3.4.2 Demonstrate ability to apply newly gained knowledge or skills to the care of the patient.

3.4.3 Demonstrate ability to introspect and utilize experiences, to enhance personal and professional growth and learning.

3.4.4 Demonstrate ability to search (including through electronic means), and critically re- evaluate the medical literature and apply the information in the care of the patient.

3.4.5 Be able to identify and select an appropriate career pathway that is professionally rewarding and personally fulfilling.

**3.5 Professional who is committed to excellence, is ethical, responsive and accountable to patients, the profession and community.**

3.5.1 Practice selflessness, integrity, responsibility, accountability and respect.

3.5.2 Respect and maintain professional boundaries between patients, colleagues and society.

3.5.3 Demonstrate ability to recognize and manage ethical and professional conflicts.

3.5.4 Abide by prescribed ethical and legal codes of conduct and practice.

3.5.5 Demonstrate commitment to the growth of the medical profession as a whole.

# Section 2

# Subject-wise competencies

Section 2 contains subject-wise competencies that must be achieved at the end of instruction in that subject. These are organised intables.

Competencies (Outcomes) in each subject are grouped according to topics number-wise. It is important to review the individual competencies inthe light of the topic outcomes as a whole. For each competency outlined - the learning domains (Knowledge, Skill, Attitude, Communication) are identified.The expected level of achievement in that subject is identified as – [knows (K), knows how (KH), shows how (SH), perform (P)]. As a rule, ‘perform’indicates independent performance without supervision and is required rarely in the pre-internship period. The competency is a core (Y - must achieve) or anon-core (N - desirable) outcome. Suggested learning and assessment methods (these are suggestions) and explanation of the terms used are given under thesection “definitions used in this document”. The suggested number of times a skill must be performed independently for certification in the learner’s logbook is also given.

The number of topics and competencies in each subject are given below:

## Topics and competencies in Phase 1 & Phase 2 subjects (Volume I)

| Sr. No. | Subjects | Number of topics | Number of competencies |
|---|---|---|---|
| 1. | Anatomy | 82 | 413 |
| 2. | Physiology | 12 | 136 |
| 3. | Biochemistry | 14 | 84 |
| 4. | Pharmacology | 10 | 92 |
| 5. | Pathology | 35 | 182 |
| 6. | Microbiology | 11 | 74 |
| 7. | Forensic Medicine | 14 | 158 |
| | **Total** | **178** | **1139** |

**Topics and competencies in Medicine and Allied subjects (Volume II)**

| Sr. No. | Subjects | Number of topics | Number of competencies |
|---|---|---|---|
| 1. | Community Medicine | 20 | 136 |
| 2. | General Medicine | 29 | 525 |
| 3. | Paediatrics | 35 | 406 |
| 4. | Psychiatry | 13 | 17 |
| 5. | Dermatology, Venereology & Leprosy | 15 | 48 |
| | Total | 112 | 1132 |

## Topics and competencies in Surgery and Allied subjects (Volume III)

| Sr. No. | Subjects | Number of topics | Number of competencies |
|---|---|---|---|
| 1. | General Surgery | 30 | 133 |
| 2. | Ophthalmology | 10 | 60 |
| 3. | Otorhinolaryngology | 04 | 63 |
| 4. | Obstetrics & Gynaecology | 38 | 141 |
| 5. | Orthopaedics | 14 | 40 |
| 6. | Anesthesiology | 11 | 52 |
| 7. | Radiodiagnosis & Toxicology | 07 | 21 |
| | **Total** | **114** | **510** |

# Deriving learning objectives from competencies

| | | |
|---|---|---|
| K | Knows | A knowledge attribute – Usually enumerates or describes |
| KH | Knows how | A higher level of knowledge – is able to discuss or analyse |
| S | Shows | A skill attribute: is able to identify or demonstrate the steps |
| SH | Shows how | A skill attribute: is able to interpret / demonstrate a complex procedure requiring thought, knowledge and behaviour |
| P | Performs (under supervision or independently) | Mastery for the level of competence - When done independently under supervision a pre-specified number of times - certification or capacity to perform independently results |

**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** |

| | |
|---|---|
| LO 1 | At the end of the session the **phase II student** must be able to enumerate the most common causes of meningitis correctly |
| LO 2 | At the end of the session the **phase II student** must be able to enumerate the components of CSF analysis correctly |
| LO 3 | At the end of the session the **phase II student** must be able to **describe** the CSF features for a given etiology of meningitis **accurately** |
| LO 4 | At the end of the session the **phase II student** must be able to identify the aetiology of meningitis correctly from a **given set of CSF parameters** |

Audience - who will do the behavior

Behavior - What should the learner be able to do?

Condition - Under what conditions should the learner be able to do it?

Degree – How well must it be done

**Learning Objective (LO):** Statement of what a learner should be able to do at the end of a specific learning experience

***Numbers given are for illustrative purposes only and should not be compared with the same in curriculum documents**

# Deriving learning methods from competencies

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

| | | | | |
|---|---|---|---|---|
| PA34.3* | **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

| | |
|---|---|
| LO 1 | At the end of the session the **Phase II student** must be able to enumerate the most common causes of meningitis **correctly** |
| LO 2 | At the end of the session the **Phase II student** must be able to enumerate the components of a CSF analysis correctly |
| LO 3 | At the end of the session the **Phase II student** must be able to **describe** the CSF features for a given etiologic of meningitis **accurately** |
| LO 4 | At the end of the session the **Phase II student** must the able to identify the aetiology of meningitis correctly from a **given set of CSF parameters** |

Large or small group teaching

Small group teaching, practical session

*Numbers given are for illustrative purposes only and should not be compared with the same in curriculum documents

# Deriving assessment methods from competencies

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

| | | | | |
|---|---|---|---|---|
| PA34.3* | **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

| | | |
|---|---|---|
| LO 1 | At the end of the session the Phase II student must be able to enumerate the most common causes of meningitis correctly | Written/SAQ: Enumerate 5 causes of meningitis based on their prevalence in India |
| LO 2 | At the end of the session the **Phase II 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 |
| LO 3 | At the end of the session the **Phase II student** must be able to **describe** the CSF features for a given aetiology of meningitis **accurately** | Short note or part of structured essay: Describe the CSF findings that are characteristic of tuberculous meningitis |
| LO 4 | At the end of the session the **Phase II 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/ Direct observation/OSPE/ Viva voce<br>Review the CSF findings in the following patient and identify (write or vocalize) the most likely etiology |

*** Numbers given are for illustrative purposes only and should not be compared with numbers in the curriculum document**

# Definitions used in the Manual

1. **Goal:** A projected state of affairs that a person or system plans to achieve.

   In other words: Where do you want to go? Or What do you want to become?

2. **Competency:** The habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values, and

   Reflection in daily practice for the benefit of the individualand community being served.

   In other words: What should you have? Or What should have changed?

3. **Objective:** Statement of what a learner should be able to do at the end of as pecific learning experience. In other words:

   What the Indian Medical Graduate should know, do, or behave.

**Action Verbs used in this manual**

| Knowledge | Skill | Attitude/communicate |
|---|---|---|
| Enumerate | Identify | Counsel |
| List | Demonstrate | Inform |
| Describe | Perform under supervision | Demonstrate understanding of |
| Discuss | Perform independently | Communicate |
| Differentiate | Document | |
| Define | Present | |
| Classify | Record | |
| Choose | Elicit | |
| Interpret | | |
| Report | | |

**Note:**

1. Specified essential competencies only will be required to be performed independently at the end of the final year MBBS.
2. The word 'perform' or 'do' is used ONLY if the task has to be done on patients or in laboratory practical in the first/ second phases.
3. Most tasks that require performance during undergraduate years will be performed under supervision.
4. If a certification to perform independently has been done, then the number of times the task has to be performed undersupervision will be indicated in the last column.

# Explanation of terms used in this manual

| | |
|---|---|
| LGT (LGT) | Any instructional large group method including interactive lecture |
| SGT (SGT) | Any instructional method involving small groups of students in an appropriate learning context |
| DOAP (Demonstration-Observation-Assistance-Performance) | A practical session that allows the student to observe a demonstration, assist the performer, perform in a simulated environment, perform under supervision or perform independently |
| Skill assessment/ Direct observation | A session that assesses the skill of the student including those in the practical laboratory, skills- lab,skills- station that uses mannequins /papercase/ simulated patients/ real patients as the context demands |
| DOPS (Directly observed procedural skills) | DOPS is a method of assessment for assessing competency of the students in which the examiner directly observes the student performing procedure |
| Core | A competency that is necessary in order to complete the requirements of the subject (traditional - must know) |
| Non-Core | A competency that is optional in order to complete the requirements of the subject (traditional- nice (good) to know/ desirable to know) |
| National Guidelines | Health programs as relevant to the competency that are part of the National Health Program |

## Domains of learning

| | |
|---|---|
| K | Knowledge |
| S | Skill |
| A | Attitude |
| C | Communication |

## Levels of competency

| | | |
|---|---|---|
| K | Knows | Aknowledge attribute-Usually enumerates or describes |
| KH | Knows how | A higher level of knowledge-isabletodiscussoranalyze |
| SH | Shows how | A skill attribute: is able to interpret/ demonstrate a complex procedure requiring thought, knowledge and behavior |
| P | Performs (under supervision or independently) | Mastery for the level of competence - When done independently under supervision a pre-specified numberof times<br>- certification or capacity to perform independently results |

**Note:**

In the table of competency - the highest level of competency acquired is specified and implies that the lower levels have been acquired already. Therefore, when a student is able to SH - Show how- an informed consent is obtained - it is presumed that the preceding steps - the knowledge, the analytical skills, the skill of communicating have all been obtained.

It may also be noted that attainment of the highest level of competency may be obtained through steps spread over several subjects or phases and not necessarily in the subject or the phase in which the competency has been identified.

# Volume II
# Competency based Undergraduate Curriculum
# in
# Medicine & Allied subjects

# COMMUNITY MEDICINE (CODE: CM)

| Number | COMPETENCY<br>The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching learning methods | Suggested Assessment methods | Number required to certify P |
|---|---|---|---|---|---|---|---|
| **COMMUNITY MEDICINE (Topics:20 Competencies: 136)** | | | | | | | |
| **Topic 1: Concept of Health and Disease Number of competencies:(10) Number of competencies that require certification :(NIL)** | | | | | | | |
| CM1.1 | Define and describe the concept of Public Health | K | KH | Y | LGT, SGT | Written/Viva-voce | |
| CM1.2 | Define health; describe the concept of holistic health including concept of spiritual health and the relativeness & determinants of health | K | KH | Y | LGT, SGT | Written/Viva-voce | |
| CM1.3 | Describe the characteristics of agent, host and environmental factors in health and disease and the multifactorial etiology of disease | K | KH | Y | LGT, SGT | Written/Viva-voce | |
| CM1.4 | Describe and discuss the natural history of disease | K | KH | Y | LGT, SGT | Written/Vova voce | |
| CM1.5 | Describe the application of interventions at various levels of prevention | K | KH | Y | LGT, SGT | Written/Vova voce | |
| CM1.6 | Describe and discuss the concepts, the principles of Health promotion and Education, IEC and Behavioral change communication (BCC) | K | KH | Y | LGT, SGT | Written/viva-voce | |
| CM1.7 | Enumerate and describe health indicators | K | KH | Y | LGT, SGT | Written/Vova voce | |
| CM1.8 | Describe the Demographic profile of India and discuss its Impact on health | K | KH | Y | LGT, SGT | Written/Vova voce | |
| CM1.9 | Demonstrate the role of effective Communication skills in health in a simulated environment | S | SH | Y | DOAP, FAP Clinical posting | Skill assessment /OSCE | |
| CM1.10 | Demonstrate the Important aspects of the doctor patient relationship in a simulated environment | S | SH | Y | DOAP, FAP Clinical posting | Skill assessment /OSCE | |
| **Topic 2: Relationship of social and behavioural to health and diseaseNumber of competencies:(5) Number of competencies that require certification:(2)** | | | | | | | |
| CM2.1 | Describe the steps and perform clinico socio-cultural and demographic assessment of the individual, family and community | S | SH | Y | LGT,SGT, DOAP FAP Clinical posting | Written/Vova voce/ Skill assessment | 5 |

| Number | COMPETENCY<br>The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching learning methods | Suggested Assessment methods | Number required to certify P |
|---|---|---|---|---|---|---|---|
| CM2.2 | Describe the socio-cultural factors, family (types), its role in health anddisease&demonstrateinasimulatedenvironmentthecorrect assessment of socio-economic status | S | SH | Y | LGT,SGT, DOAP FAP Clinical posting | Written/Vova voce/ Skill assessment /OSCE | 5 |
| CM2.3 | Describe and demonstrate in a simulated environment the assessmentofbarrierstogoodhealthandhealthseekingbehavior | S | SH | Y | LGT,SGT, DOAP FAP Clinical posting | Written/Vova voce/ Skill assessment /OSCE | |
| CM2.4 | Describe social psychology, community behaviour and community relationship and their impact on health and disease | K | KH | Y | LGT,SGT,FAP Clinical posting | Written/Vova voce | |
| CM2.5 | Describepovertyandsocialsecuritymeasuresanditsrelationship to health and disease | K | KH | Y | LGT,SGT,FAP Clinical posting | Written/Vova voce | |
| **Topic 3: Environmental Health Problems** | | **Number of competencies:(08)** | | **Number of competencies that require certification:(NIL)** | | | |
| CM3.1 | Describe the health hazards of air, water, noise, radiation and pollution | K | KH | Y | LGT,SGT FAP Clinical posting | Written/Vova voce | |
| CM3.2 | Describe concepts of safe and wholesome water, sanitary sources of water, water purification processes, water quality standards, concepts of water conservation and rainwater harvesting | K | KH | Y | LGT,SGT, DOAPFAP Clinical posting | Written/Vova voce | |
| CM3.3 | Describe the aetiology and basis of water borne diseases /jaundice /hepatitis /diarrheal diseases | K | KH | Y | LGT,SGT, DOAPFAP Clinical posting | Written/Vova voce | |
| CM3.4 | Describe the concept of solid waste, human excreta and sewage disposal | K | KH | Y | LGT,SGT | Written/Vova voce | |
| CM3.5 | Describe the standards of housing and the effect of housing on health | K | KH | Y | LGT,SGT FAP Clinical posting | Written/Vova voce | |
| CM3.6 | Describe the role of vectors in the causation of diseases. Also discuss National Vector Borne disease Control Program | K | KH | Y | LGT,SGT FAP Clinical posting | Written/Vova voce | |
| CM3.7 | Identify and describe the identifying features and life cycles of vectors of Public Health Importance and their control measures | S | SH | Y | LGT,SGT, DOAPFAP Clinical posting | Written/Vova voce/ Skill assessment/OSCE | |

| Number | COMPETENCY<br>The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching learning methods | Suggested Assessment methods | Number required to certify P |
|---|---|---|---|---|---|---|---|
| CM3.8 | Describe the mode of action, application cycle of commonly used insecticides and rodenticides | K | KH | Y | LGT,SGT FAP Clinical posting | Written/Vova voce | |
| | **Topic 4: Principles of health promotion and education Number of competencies:(4) Number of competencies that require certification:(01)** | | | | | | |
| CM4.1 | Describe various methods of health education with their advantages and limitations | K | KH | Y | LGT,SGT FAP Clinical posting | Written/Vova voce | |
| CM4.2 | Describe the methods of organizing health promotion and education and counselling activities at individual family and community settings | K | KH | Y | LGT,SGT FAP Clinical posting | Written/Vova voce | |
| CM4.3 | Demonstrate and describe the steps in evaluationof health promotion and education program | S | SH | Y | SGT, DOAPFAP Clinical posting | Written/Vova voce/ Skill assessment /OSCE | |
| CM 4.4 | Conduct a health education session for community awareness in a simulated environment/FAP/clinical posting | S | SH | Y | SGT, DOAPFAP Clinical posting | Written/Vova voce/ Skill assessment /OSCE | 1 |
| **Topic 5: Nutrition Numberofcompetencies:(22) Numberofcompetenciesthatrequire certification:(5)** | | | | | | | |
| CM5.1 | Describe the common sources of various nutrients and special nutritional requirements according to age, sex, activity, physiological Conditions | K | KH | Y | LGT,SGT FAP Clinical posting | Written/Vova voce | |
| CM5.2 | Describe and demonstrate the correct method of performing a nutritional assessmentof individuals, families andthecommunity by using the appropriate method | S | SH | Y | DOAP, FAP Clinical posting | Skill assessment /OSCE | |
| CM5.3 | Define and describe common nutrition related health disorders (includingmacro-PEM, Micro-iron, Zn, iodine, Vit.A), their control and management | K | KH | Y | LGT,SGT FAP Clinical posting | Written/Vova voce | |
| CM5.4 | Plan and recommend a suitable diet for the individuals and families based on local availability of foods and economic status, etc in a simulated environment | S | SH | Y | DOAP, FAP Clinical posting | Skill assessment /OSCE | |

| Number | COMPETENCY<br>The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching learning methods | Suggested Assessment methods | Number required to certify P |
|---|---|---|---|---|---|---|---|
| CM5.5 | Describe the methods of nutritional surveillance principles nutritional education and rehabilitation in the context of socio-cultural factors. | K | KH | Y | LGT,SGT FAP Clinical posting | Written/Vova voce | |
| CM5.6 | Enumerate and discuss the National Nutrition Policy, important national nutritional Programs including the Integrated Child Development Services Scheme (ICDS) etc | K | KH | Y | LGT,SGT FAP Clinical posting | Written/Vova voce | |
| CM5.7 | Describe food hygiene | K | KH | Y | LGT, SGT FAP Clinical posting | Written/Vova voce FAP Clinical posting | |
| CM5.8 | Describe and discuss the importance and methods of food fortification and effects of additives and adulteration | K | KH | Y | LGT, SGT FAP Clinical posting | Written/Vova voce | |
| CM5.9 | Perform nutritional assessment of individual, family and community using appropriate method and plan a diet for health promotion based on the assessment | S | SH | Y | LGT, SGT | Written/Vova voce/OSCE | 5 |
| CM 5.10 | Recommend a dietary plan for a person with DM/ HTN/ Obesity in a simulated environment/FAP/Clinical posting | S | SH | Y | LGT, SGT | Written/Vova voce/OSCE | 5 |
| CM5.11 | Plan a diet for an adult which meets the protein (macro nutrients) requirements as per latest RDA-NIN guidelines for vegetarian/ ovo-vegetarian/non-vegetarian | S | SH | Y | LGT, SGT | Written/Vova voce/OSCE | 5 |
| CM5.12 | Demonstrate different types of breastfeeding holds, latching, manual expression of breast milk using a baby model and breast model. | S | SH | Y | LGT, SGT | Written/Vova voce/OSCE | 5 |
| CM 5.13 | Counsel a mother about complementary feeding for different age groups of the child covering the 8 dietary diversity food groups, quantity, frequency, consistency of the food. | S | SH | Y | LGT, SGT | Written/Vova voce/OSCE | 5 |
| CM 5.14 | Demonstrate an awareness of their own personal health and nutrition | S | SH | Y | LGT, SGT | Written/Vova voce/OSCE | |
| CM 5.15 | Demonstrate knowledge of the role of nutrition in health promotion and disease prevention | S | SH | Y | LGT, SGT | Written/Vova voce/OSCE | |
| CM 5.16 | Have knowledge of breast feeding and complementary feeding Practices | S | SH | Y | LGT, SGT | Written/Vova voce/OSCE | |

| Number | COMPETENCY<br>The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching learning methods | Suggested Assessment methods | Number required to certify P |
|---|---|---|---|---|---|---|---|
| CM 5.17 | Ability to counsel mothers on breast feeding with focus on attachment to breast and correct position of the newborn | S | SH | Y | LGT, SGT | Written/Vova voce/OSCE | |
| CM 5.18 | Ability to counsel mothers on complementary feeding using National guidelines while being sensitive of cultural and socioeconomic influences | S | SH | Y | LGT, SGT | Written/Vova voce/OSCE | |
| CM 5.19 | Assess the nutritional content of processed foods learning to understand labels, and empower patients to make informed nutritional decisions. | S | SH | Y | LGT, SGT | Written/Vova voce/OSCE | |
| CM 5.20 | Counsel for diet modification for a diabetic/ hypertensive/obese individual | S | SH | Y | LGT, SGT | Written/Vova voce/OSCE | |
| CM 5.21 | Plan and conduct a health education session on nutrition in NCD clinic / in community | S | SH | Y | LGT, SGT | Written/Vova voce/OSCE | |
| CM 5.22 | Counsel mother on breast feeding and complementary feeding | S | SH | Y | LGT, SGT | Written/Vova voce/OSCE | |
| **Topic 6: Basic statistics and its applications** | **Number of competencies:(06)** | | | | **Number of competencies that require certification:(1)** | | |
| CM6.1 | Formulate research question for a study | K | KH | Y | SGT, LGT, DOAP | Written/Vova voce/ Skill assessment | |
| CM6.2 | Describe and discuss the principles and demonstrate the methods of collection, classification, analysis, interpretation and presentation of statistical data | S | SH | Y | SGT, LGT, DOAP | Written/Vova voce/ Skill assessment/OSCE | |
| CM6.3 | Describe, discuss and demonstrate the application of elementary statistical methods including test of significance in various study designs | S | SH | Y | SGT, LGT, DOAP | Written/Vova voce/ Skill assessment/OSCE | |
| CM6.4 | Enumerate, discuss and demonstrate Common sampling techniques, simple statistical methods, frequency distribution, measures of central tendency and dispersion | S | SH | Y | SGT, LGT, DOAP | Written/Vova voce/ Skill assessment/OSCE | |
| CM 6.5 | Able to understand use of statistical software for the data analysis | S | SH | Y | LGT, SGT | Written/Vova voce/OSCE | |
| CM 6.6 | Perform descriptive statistics of a given data-set and interpret | S | SH | Y | LGT, SGT | Written/Vova voce/OSCE | 5 |

| Number | COMPETENCY<br>The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching learning methods | Suggested Assessment methods | Number required to certify P |
|---|---|---|---|---|---|---|---|
| **Topic 7: Epidemiology** | **Numberof competencies:(11)** | | | **Number of competencies that require certification: (01)** | | | |
| CM7.1 | Define Epidemiology and describe and enumerate the principles, concepts and uses | K | KH | Y | SGT, LGT | Written/Vova voce | |
| CM7.2 | Enumerate, describe and discuss the modes of transmission and measures for prevention and control of communicable and non-communicable diseases | K | KH | Y | SGT, LGT | Written/Vova voce | |
| CM7.3 | Enumerate, describe and discuss the sources of epidemiological data | K | KH | Y | SGT, LGT | Written/Vova voce | |
| CM7.4 | Define, calculate and interpret morbidity andmortality indicators based on given set of data | S | SH | Y | SGT,DOAP | Written/Skill assessment, OSCE | 5 |
| CM7.5 | Enumerate, define, describe anddiscuss epidemiologicalstudy designs | K | KH | Y | SGT, LGT | Written/Vova voce | |
| CM7.6 | Enumerate and evaluate the need ofscreening tests | S | SH | Y | SGT,DOAP | Written/Skill Assessment | |
| CM7.7 | Describe and demonstrate the steps in the Investigation of an epidemic of communicable diseaseand describethe principles of control measures | S | SH | Y | SGT,DOAP | Written/Skill assessment /OSCE | |
| CM7.8 | Describe the principles ofassociation, causation and biases in epidemiological studies | K | KH | Y | SGT, LGT | Written/Vova voce | |
| CM7.9 | Describe and demonstrate the application of computers in epidemiology | S | KH | Y | SGT,DOAP | Written | |
| CM 7.10 | Able to demonstrate development of research proposal | S | SH | Y | LGT, SGT | Written/Vova voce/OSCE | |
| CM 7.11 | Able to demonstrate the skills for critically appraise the research articles or research data | S | SH | Y | LGT, SGT | Written/Vova voce/OSCE | |
| **Topic 8: Epidemiologyof communicable and non- communicable diseases** | | **Number ofcompetencies:(07)** | | **Number of competencies that require certification:(NIL)** | | | |
| CM8.1 | Describe and discuss the epidemiological and control measures including the use of essential laboratory tests atthe primary care level for communicable diseases | K | KH | Y | SGT, LGT FAP Clinical posting | Written/Vova voce | |

| Number | COMPETENCY<br>The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching learning methods | Suggested Assessment methods | Number required to certify P |
|---|---|---|---|---|---|---|---|
| CM8.2 | Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at theprimary care level for Non-Communicable diseases (diabetes, Hypertension, Stroke, obesity and cancer etc.) | K | KH | Y | SGT, LGT FAP Clinical posting | Written/Vova voce | |
| CM8.3 | Enumerate and describedisease specific National Health Programs including their prevention and treatment of a case | K | KH | Y | SGT, LGT FAP Clinical posting | Written/Vova voce | |
| CM8.4 | Describe the principles and enumerate the measures to control a disease epidemic | K | KH | Y | SGT, LGT FAP Clinical posting | Written/Vova voce | |
| CM8.5 | Describe and discuss the principles of planning, Implementing and evaluating control measures for disease at community level bearing in mind the public health importance of the disease | K | KH | Y | SGT, LGT FAP Clinical posting | Written/Vova voce | |
| CM8.6 | Educate and train health workers in disease surveillance, control & treatment and health education | S | SH | Y | DOAP FAP Clinical posting | Skill assessment /OSCE | |
| CM8.7 | Describe the principles of management of information systems | K | KH | Y | SGT, LGT FAP Clinical posting | Written/Vova voce | |
| **Topic 9: Demography andvital statistics** | | **Number ofcompetencies:(07)** | | **Number of competencies that require certification:(NIL)** | | | |
| CM9.1 | Define and describe the principles of Demography, Demographic cycle, Vital statistics | K | KH | Y | SGT, LGT | Written/Vova voce | |
| CM9.2 | Define, calculate and interpret demographic indices including birth rate, death rate, fertility rates | S | SH | Y | LGT,SGT, DOAP | Skill assessment /OSCE | |
| CM9.3 | Enumerate and describe the causes of declining sex-ratio and its social and health Implications | K | KH | Y | SGT, LGT | Written/Vova voce | |
| CM9.4 | Enumerate and describe the causes and consequences of population explosion and population dynamics of India. | K | KH | Y | SGT, LGT | Written/Vova voce | |
| CM9.5 | Describe the methods of population control | K | KH | Y | SGT, LGT | Written/Vova voce | |

| Number | COMPETENCY<br>The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching learning methods | Suggested Assessment methods | Number required to certify P |
|---|---|---|---|---|---|---|---|
| CM9.6 | Describe theNational PopulationPolicy | K | KH | Y | SGT, LGT | Written/Vova voce | |
| CM9.7 | Enumerate the sources of vital statistics including census, SRS, NFHS, NSSO etc | K | KH | Y | SGT, LGT | Written/Vova voce | |
| **Topic 10: Reproductive maternal and child health Number ofcompetencies:(10) Number of competencies that require certification:(NIL)** | | | | | | | |
| CM10.1 | Describe thecurrentstatus of Reproductive, maternal, newborn and Child Health | K | KH | Y | SGT, LGT FAP Clinical posting | Written/Vova voce | |
| CM10.2 | Enumerate and describe the methods of screening high-risk groups and common health problems | K | KH | Y | SGT, LGT FAP Clinical posting | Written/Vova voce | |
| CM10.3 | Describe local customs and practices during pregnancy, child birth, lactation and child feeding practices | K | KH | Y | SGT, LGT FAP Clinical posting | Written/Vova voce | |
| CM10.4 | Describe thereproductive, maternal, newborn &child health (RMCH); child survival and safe motherhood interventions | K | KH | Y | SGT, LGT FAP Clinical posting | Written/Vova voce | |
| CM10.5 | Describe Universal Immunization Program; Integrated Management of Neonatal and Childhood Illness (GMNCI) and other existing Programs. | K | KH | Y | SGT, LGT FAP Clinical posting | Written/Vova voce | |
| CM10.6 | Enumerate and describe various family planning methods, their advantages and shortcomings | K | KH | Y | SGT, LGT FAP Clinical posting | Written/Vova voce | |
| CM10.7 | Enumerate and describe the basis and principles of the Family Welfare Program including the organization, technical and operational aspects | K | KH | Y | SGT, LGT FAP Clinical posting | Written/Vova voce | |
| CM10.8 | Describe the physiology, clinical management and principles of adolescent health including ARSH | K | KH | Y | SGT, LGT FAP Clinical posting | Written/Vova voce FAP Clinical posting | |
| CM10.9 | Describe and discuss gender issues and women empowerment | K | KH | Y | SGT, LGT FAP Clinical posting | Written/Vova voce | |
| CM 10.10 | Able to manage the health care services for reproductive and child care services under supervision | S | SH | Y | LGT, SGT | Written/Vova voce/OSCE | |
| **Topic 11: Occupational Health Number ofcompetencies:(06) Number of competenciesthat requirecertification:(NIL)** | | | | | | | |
| CM11.1 | Enumerate and describe the presenting features of patients with occupational illness including agriculture | K | KH | Y | SGT, LGT | Written/Vova voce | |

| Number | COMPETENCY<br>The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching learning methods | Suggested Assessment methods | Number required to certify P |
|---|---|---|---|---|---|---|---|
| CM11.2 | Describe the role, benefits and functioning of the employees state insurance scheme | K | KH | Y | SGT, LGT | Written/Vova voce | |
| CM11.3 | Enumerate and describe specific occupational health hazards, their risk factors and preventive measures | K | KH | Y | SGT, LGT | Written/Vova voce | |
| CM11.4 | Describe the principles of ergonomics in health preservation | K | KH | Y | SGT, LGT | Written/Vova voce | |
| CM11.5 | Describe occupational disorders of health professionals and their prevention & management | K | KH | Y | SGT, LGT | Written/Vova voce | |
| CM 11.6 | Able to manage the occupational health services at factory or industry level in a simulated environment | S | SH | Y | LGT, SGT | Written/Vova voce/OSCE | |
| **Topic 12: Geriatric services** | **Number ofcompetencies:(05)** | | **Number of competencies that require certification:(NIL)** | | | | |
| CM12.1 | Define and describe the concept of Geriatric services | K | KH | Y | LGT,SGT FAP Clinical posting | Written/Vova voce | |
| CM12.2 | Describe health problems of aged population | K | KH | Y | LGT,SGT FAP Clinical posting | Written/Vova voce | |
| CM12.3 | Describe the prevention of health problems of aged population | K | KH | Y | LGT,SGT FAP Clinical posting | Written/Vova voce | |
| CM12.4 | Describe National program for elderly | K | KH | Y | LGT,SGT | Written/Vova voce | |
| CM 12.5 | Able to identify the health needs to elderly individuals at the earliest | S | SH | Y | LGT, SGT FAP Clinical posting | Written/Vova voce/OSCE | |
| **Topic 13:** | **Disaster Management Number of competencies:(05)** | | **Number of competencies that require certification:(NIL)** | | | | |
| CM13.1 | Define and describe the concept of Disaster management | K | KH | Y | LGT,SGT | Written/Vova voce | |
| CM13.2 | Describe disaster management cycle | K | KH | Y | LGT,SGT | Written/Vova voce | |
| CM13.3 | Describe man-made disasters in terworld And in India | K | KH | Y | LGT,SGT | Written/Vova voce | |
| CM13.4 | Describe the details ofthe National Disaster management Authority | K | KH | Y | LGT, SGT | Written/Vova voce | |
| CM 13.5 | Able to understand the management of handing a disaster in a simulated environment | S | SH | Y | LGT, SGT | Written/Vova voce/OSCE | |

| Number | COMPETENCY<br>The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching learning methods | Suggested Assessment methods | Number required to certify P |
|---|---|---|---|---|---|---|---|
| **Topic 14: Hospitalwaste management Number ofcompetencies:(04) Number of competencies that require certification:(NIL)** | | | | | | | |
| CM14.1 | Define and classify hospital waste | K | KH | Y | LGT,SGT, visit to hospital | Written/Vova voce | |
| CM14.2 | Describe various methods of treatment of hospital waste | K | KH | Y | LGT,SGT,visit to hospital | Written/Vova voce | |
| CM14.3 | Describe laws related to hospital waste management | K | KH | Y | LGT, SGT | Written/Vova voce | |
| CM 14.4 | Able to segregate the various hospital waste | S | SH | Y | LGT, SGT | Written/Vova voce/OSCE | |
| **Topic 15: Mental Health Number of competencies:(04) Number of competencies that require certification: (NIL)** | | | | | | | |
| CM15.1 | Define and describe the concept of mental Health | K | KH | Y | LGT,SGT FAP Clinical posting | Written/Vova voce | |
| CM15.2 | Describe warning signals of mental health disorder | K | KH | Y | LGT,SGT FAP Clinical posting | Written/Vova voce | |
| CM15.3 | Describe National Mental Health program | K | KH | Y | LGT,SGT FAP Clinical posting | Written/Vova voce | |
| CM 15.4 | Able to recognise the mental issues among individuals, families and communities at the earlier stages | S | SH | Y | LGT, SGT FAP Clinical posting | Written/Vova voce/OSCE | |
| **Topic 16: Health planning and management Number of competencies:(05) Number of competencies that require certification:(NIL)** | | | | | | | |
| CM16.1 | Define anddescribe theconcept ofHealthplanning | K | KH | Y | LGT,SGT | Written/Vova voce | |
| CM16.2 | Describeplanningcycle | K | KH | Y | LGT,SGT | Written/Vova voce | |
| CM16.3 | Describe Healthmanagement techniques | K | KH | Y | LGT,SGT | Written/Vova voce | |
| CM16.4 | Describe health planning in India and National policies related to health and health planning | K | KH | Y | LGT, SGT | Written/Vova voce | |
| CM 16.5 | Demonstrate understanding of concepts of Health planning in India, various health care economics analysis | S | SH | Y | LGT, SGT | Written/Vova voce/OSCE | |
| **Topic 17: Health care of the community Number of competencies:(06) Number of competencies that require certification: (NIL)** | | | | | | | |
| CM17.1 | Define and describe the concept of health care to community | K | KH | Y | LGT,SGT | Written/Vova voce | |
| CM17.2 | Describe community diagnosis | K | KH | Y | LGT,SGT | Written/Vova voce | |

| Number | COMPETENCY<br>The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching learning methods | Suggested Assessment methods | Number required to certify P |
|---|---|---|---|---|---|---|---|
| CM17.3 | Describe primary health care, its components and principles | K | KH | Y | LGT,SGT | Written/Vova voce | |
| CM17.4 | Describe National policies related to health and health planning and millennium development goals | K | KH | Y | LGT,SGT | Written/Vova voce | |
| CM17.5 | Describe healthcare delivery in India | K | KH | Y | LGT,SGT | Written/Vova voce | |
| CM 17.6 | Demonstrate understanding of health system functioning in India | S | SH | Y | LGT, SGT, FAP Clinical posting | Written/Vova voce/OSCE | |
| **Topic 18: International Health** | **Number of competencies:(3)** | **Number of competencies that require certification (NIL)** | | | | | |
| CM18.1 | Define and describe the concept of International health | K | KH | Y | LGT,SGT | Written/Vova voce | |
| CM18.2 | Describe roles of various international health agencies | K | KH | Y | LGT,SGT | Written/Vova voce | |
| CM 18.3 | Demonstrate understanding role of various international and national agencies in health & disease with prevention of emergence and re-emergence of diseases and prevention of pandemic and handling the Pandemic | S | SH | Y | LGT, SGT | Written/Vova voce/OSCE | |
| **Topic 19: Essential Medicine** | **Number of competencies:(04)** | **Number of competencies that require certification:(NIL)** | | | | | |
| CM19.1 | Define and describe the concept of Essential Medicine List (EML) | K | KH | Y | LGT,SGT | Written/Vova voce | |
| CM19.2 | Describe roles of essential medicine in primary health care | K | KH | Y | LGT,SGT | Written/Vova voce | |
| CM19.3 | Describe counterfeit medicine and its prevention | K | KH | Y | LGT, SGT | Written/Vova voce | |
| CM19.4 | Demonstrate understanding of mechanism of identifying and calculation of requirements of various medicines and essential medicine at primary health care | S | SH | Y | LGT, SGT FAP Clinical posting | Written/Vova voce/OSCE | |
| **Topic 20: Recent advances in Community Medicine** | **Number of competencies:(04)** | **Number of competencies that require certification:(NIL)** | | | | | |
| CM20.1 | List Important public health events of last five years | K | KH | Y | LGT, SGT | Written/Vova voce | |
| CM20.2 | Describe various issues during outbreaks and their prevention | K | KH | Y | LGT, SGT | Written/Vova voce | |
| CM 20.3 | Describe any event important to Health of the Community | K | KH | Y | LGT, SGT | Written/Vova voce | |
| CM 20.4 | Demonstrate awareness about laws pertaining to practice of community medicine | K | KH | Y | LGT, SGT | Written/Vova voce | |

# GENERAL MEDICINE (CODE: GM)

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| **GENERAL MEDICINE (Topics=29,Competencies=525)** | | | | | | | |
| **Topic 1: Heart failureNumber of competencies: (27) Number of competencies that require certification : ( 3)** | | | | | | | |
| GM 1.1 | Describe and discuss the epidemiology, genetic basis ,pathogenesis clinical evolution and course of common causes of heart disease including: rheumatic/ valvular, ischemic, hypertrophic inflammatory | K | KH | Y | LGT / SGT | Application based question/ Viva voice | |
| GM 1.2 | Describe and discuss the aetiology, microbiology, pathogenesis Clinical evolution, criteria, recognition and management of rheumatic fever, and rheumatic valvular heart disease, penicillin prophylaxis and its complications including infective endocarditis | K | KH | Y | LGT / SGT | Application based question/ Viva voice | |
| GM 1.3 | Define and Stage heart failure | K | KH | Y | LGT / SGT | Application based question/ Viva voice | |
| GM 1.4 | Describe, discuss, and differentiate the processes involved in Right Vs Left heart failure, systolic vs diastolic failure | K | KH | Y | LGT / SGT | Application based question/ Viva voice | |
| GM 1.5 | Describe and discuss the compensatory mechanisms involved in heart failure including cardiac remodelling and neurohormonal adaptations | K | KH | Y | LGT / SGT | Application based question/ Viva voice | |
| GM 1.6 | Enumerate, describe and discuss the factors that exacerbate heart failure including ischemia, arrhythmias, anaemia, thyrotoxicosis, dietary factors drugs etc. | K | KH | Y | LGT / SGT | Application based question/ Viva voice | |
| GM 1.7 | Describe and discuss the pathogenesis and development of common arrhythmias involved in heart failure particularly atrial fibrillation | K | KH | Y | LGT / SGT | Application based question/ Viva voice | |
| GM 1.8 | 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 | S | SH | Y | Bedside clinic | Long case /Short case Skill assessment OSCE | |
| GM 1.9 | Perform and demonstrate a systematic examination based on the history that will help establish the diagnosis and Estimate its | S | SH | Y | Bed side clinic, DOAP | Long case /Short case | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| | severity including: measurement of pulse, blood pressure and respiratory rate, jugular venous 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 | | | | | Skill assessment<br>OSCE | |
| GM 1.10 | Demonstrate peripheral pulse, volume, character, quality and variation in various causes of heart failure | S | SH | Y | Bed side clinic,<br>DOAP | Long case / Short case, Skill assessment, OSCE | |
| GM 1.11 | Measure the blood pressure accurately, recognise and discuss alterations in blood pressure in valvular heart disease and other causes of heart failure and cardiac tamponade | S | SH | Y | Bed side clinic,<br>DOAP | Long case /Short case, Skill assessment, OSCE | |
| GM 1.12 | Demonstrate and measure jugular venous distension | S | SH | Y | Bed side clinic,<br>DOAP | Long case /Short case, Skill assessment, OSCE | 3 |
| GM 1.13 | Identify and describe the Timing, pitch quality conduction and significance of precordial murmurs ,their variations , use of dynamic auscultation | S | SH | Y | Bed side clinic,<br>DOAP | Long case /Short case, Skill assessment, OSCE | 3 |
| GM 1.14 | Generate a differential diagnosis based on the clinical presentation of various heart diseases and prioritise it based on the most likely diagnosis | S | SH | Y | Bed side clinic,<br>DOAP | Long case /Short case, Skill assessment, OSCE | |
| GM 1.15 | Order and interpret diagnostic testing based on the clinical diagnosis including 12 lead ECG, Chest radiograph, blood cultures | S | SH | Y | Bed side clinic,<br>DOAP | Long case /Short case, Skill assessment, OSCE | |
| GM 1.16 | Perform and interpret a 12 lead ECG | S | SH | Y | Bed side clinic DOAP | Skill assessment<br>OSCE | |
| GM 1.17 | Enumerate the indications for and describe the findings of heart failure with the following investigations including: 2D echocardiography, brain natriuretic peptide, exercise testing, nuclear medicine testing and coronary angiogram | K | KH | N | LGT,<br>SGT,<br>Bed side clinic | Application based question/<br>Viva voice | |
| GM 1.18 | Discuss the severity of valvular heart disease based on the clinical and laboratory and Imaging features and describe the level of intervention required including surgery | K<br>S | KH/<br>SH | Y | LGT,<br>SGT,<br>Bed side clinic | Application based question,<br>Long case /short | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/S H/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| | | | | | | case,Skill assessment, OSCE Viva voce | |
| GM 1.19 | Describe and discuss and identify the clinical features of acute and sub-acute endocarditis, echocardiographic findings, blood culture and sensitivity and therapy | K<br>S | KH/<br>SH | Y | LGT,<br>SGT,<br>Bed side clinic | Application based question,<br>Long case /short case, Skill assessment, OSCE,<br>Viva voce | |
| GM 1.20 | Assist and demonstrate the proper technique in collecting specimen for blood culture | S | SH | Y | DOAP<br>Skills lab | Skill assessment<br>OSCE | |
| GM 1.21 | Describe, prescribe and communicate non pharmacologic management of heart failure including sodium restriction, physical activity and limitations | K<br>S/C | K<br>SH | Y | LGT,<br>SGT,<br><br>Role play | Application based question,<br>Skill assessment<br>OSCE | |
| GM 1.22 | 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 | K | KH | | LGT,<br>SGT | Application based question,<br>/Viva voce | |
| GM 1.23 | Enumerate the indications for valvuloplasty, valvotomy, coronary revascularization and cardiac transplantation | K | KH | Y | LGT,<br>SGT,<br>Bedside clinic | Application based question,/Viva | |
| GM 1.24 | Develop document and present a management plan for patients with heart failure based on type of failure, underlying aetiology | S | SH | Y | SGT,<br>Bedside clinic | Application based question,<br>Long case /Short case, Skill assessment, OSCE | |
| GM 1.25 | Enumerate the causes of adult presentations of congenital heart disease and describe the distinguishing features between cyanotic and acyanotic heart disease | K | KH | Y | SGT,<br>Bedside clinic | Application based question<br>Viva voce | |
| GM 1.26 | Elicit document and present an appropriate history, demonstrate correctly general examination, relevant clinical findings and | S | SH | | SGT,<br>Bedside clinic | Long case /Short case | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| | formulate document and present a management plan for an adult patient presenting with a common form of congenital heart disease | | | | | Skill assessment<br>OSCE, Viva voce | |
| GM 1.27 | Administer an intramuscular injection with an appropriate communication to the patient | S | SH | Y | Bedside clinic<br>Skills lab | Skill assessment<br>OSCE<br>Log book | 2 |
| **Topic 2: Acute Myocardial Infarction / IHD** | | **Number of competencies: (24)** | | **Number of competencies that require certification : ( 03)** | | | |
| GM 2.1 | Discuss and describe the epidemiology, antecedents and risk factors for atherosclerosis and ischemic heart disease | K | KH | Y | LGT / SGT | Application based question /Viva voce | |
| GM 2.2 | Discuss the aetiology of risk factors both modifiable and non modifiable of atherosclerosis and IHD | K | KH | Y | LGT / SGT | Application based question /Viva voce | |
| GM 2.3 | Discuss and describe the lipid cycle and the role of dyslipidemia in the pathogenesis of atherosclerosis | K | KH | Y | LGT / SGT | Application based question /Viva voce | |
| GM 2.4 | Discuss and describe the pathogenesis natural history, evolution and complications of atherosclerosis and IHD | K | KH | Y | LGT / SGT | Application based question /Viva voce | |
| GM 2.5 | Define the various acute coronary syndromes and describe their evolution, natural history and outcomes | K | KH | Y | LGT / SGT | Application based question /Viva voce | |
| GM 2.6 | 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 | S | SH | Y | Bedside clinic/DOAP | Skill assessment | |
| GM 2.7 | Perform, demonstrate and document a physical examination including a vascular and cardiac examination that is appropriate for the clinical presentation | S | SH | Y | Bedside clinic/DOAP | Skill assessment | |
| GM 2.8 | Generate document and present a differential diagnosis based on the clinical presentation and prioritise based on “cannot miss”, most likely diagnosis and severity | S | SH | y | SGT/Bedside clinic | Skill assessment | |
| GM 2.9 | Distinguish and differentiate between stable and unstable angina and AMI based on the clinical presentation | S | SH | y | Bedside clinic/DOAP | Skill assessment | |
| GM 2.10 | Order, perform and interpret an ECG | S | SH | y | Bedside clinic/DOAP | Skill assessment | 3 |
| GM 2.11 | Order and interpret a Chest X-ray and markers of acute myocardial | S | SH | | Bedside clinic/DOAP | Skill assessment | 3 |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| | Infarction | | | | | | |
| GM 2.12 | Choose and interpret a lipid profile and identify the desirable lipid profile in the clinical context | S | SH | | Bedside clinic/DOAP | Skill assessment | |
| GM 2.13 | Discuss and enumerate the indications for and findings on echocardiogram, stress testing and coronary angiogram | K | KH | Y | LGT / SGT | Written/Viva voce | |
| GM 2.14 | Discuss and describe the indications for admission to a coronary care unit and supportive therapy for a patient with acute coronary Syndrome | K | KH | Y | LGT / SGT | Written/Viva voce | |
| GM 2.15 | Discuss and describe the medications used in patients with an acute coronary syndrome based on the clinical presentation | K | KH | Y | LGT / SGT | Written/Viva voce | |
| GM 2.16 | Discuss and describe the indications for acute thrombolysis, PTCA and CABG | K | KH | Y | LGT / SGT | Written/Viva voce | |
| GM 2.17 | Discuss and describe the indications and methods of cardiac Rehabilitation | K | KH | Y | LGT / SGT | Written/Viva voce | |
| GM 2.18 | Discuss and describe the indications, formulations, doses, side effects and monitoring for drugs used in the management of Dyslipidemia | K | KH | Y | LGT / SGT | Written/Viva voce | |
| GM 2.19 | Discuss and describe the pathogenesis, recognition and management of complications of acute coronary syndromes including arrhythmias, shock, LV dysfunction, papillary muscle rupture and pericarditis | K | KH | Y | LGT / SGT | Written/Viva voce | |
| GM 2.20 | Discuss and describe the assessment and relief of pain in acute coronary syndromes | K | KH | Y | LGT / SGT | Written/Viva voce | |
| GM 2.21 | Observe and participate in a controlled environment of ACLS Program | S | SH | Y | DOAP | Skill assessment | |
| GM 2.22 | Perform and demonstrate in a mannequin BLS | S | P | Y | DOAP | Skill assessment(WPBA) | 3 |
| GM 2.23 | Describe and discuss the indications for nitrates, anti-platelet agents, gpIIb IIIa inhibitors, beta blockers, ACE inhibitors etc in the management of coronary syndromes | K | KH | Y | LGT / SGT | Written /Viva | |
| GM 2.24 | Counsel and communicate to patients with empathy lifestyle | C/A | SH | Y | DOAP,Role play | Skill | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| | changes in atherosclerosis / post coronary syndromes | | | | | assessment(WPBA) | |
| **Topic 3: Pneumonia** | **Number of competencies: (22)** | **Number of competencies that require certification : ( 04)** | | | | | |
| GM3.1 | Define, discuss, describe and distinguish community acquired pneumonia nosocomial pneumonia and aspiration pneumonia. | K | KH | Y | LGT, SGT | Application Based Questions / Viva voce | |
| GM3.2 | Discuss and describe the aetiologies of various kinds of pneumonia and their microbiology depending on the setting and Immune status of the host | K | KH | Y | LGT, SGT | Application Based Questions / Viva voce | |
| GM3.3 | Discuss and describe the pathogenesis, presentation, natural history and complications of pneumonia | K | KH | Y | LGT, SGT | Application Based Questions / Viva voce | |
| GM3.4 | Elicit document and present an appropriate history including the evolution, risk factors including Immune status and occupational Risk | S | SH | Y | Bedside clinic, DOAP | Long/short case/OSCE | |
| GM3.5 | Perform, document and demonstrate a physical examination including general examination and appropriate examination of the lungs that establishes the diagnosis, complications and severity of Disease | S | SH | Y | Bedside clinic, DOAP | Long/short case/OSCE | 3 |
| GM3.6 | Generate document and present a differential diagnosis based on the clinical features, and prioritize the diagnosis based on the Presentation | K | KH | Y | Bedside clinic, DOAP | Long/short case | |
| GM3.7 | 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 | S | SH | Y | Bedside clinic, DOAP, Tutorial | Skill assessment OSCE/ viva Voce | |
| GM3.8 | Demonstrate on a mannequin, correct technique of collection of blood sample for an arterial blood gas examination | S | SH | Y | DOAP | Skill assessment OSCE | |
| GM3.9 | Interpret results of arterial blood gas examination report | K | KH | Y | Bedside clinic, SGT | Viva voce | 2 |
| GM3.10 | Demonstrate on a mannequin, correct technique of pleural fluid Aspiration | S | SH | Y | DOAP | Skill assessment OSCE | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| GM3.11 | Outline the correct tests that require to be performed and interpret results of pleural fluid aspiration report | K<br>S | KH<br>SH | Y | Bedside clinic,<br>SGT | Skill assessment<br>OSCE<br>Viva voce | 2 |
| GM3.12 | Demonstrate on a mannequin, the correct technique of collection of blood for culture | S | SH | Y | DOAP, | Skill assessment<br>OSCE | |
| GM 3.13 | Interpret results of blood culture report. | K | KH | Y | Bedside clinic,<br>SGT | Viva voce | |
| GM3.14 | Describe and enumerate the indications for further testing including HRCT, Viral cultures, PCR and specialized testing | K | KH | Y | Bedside clinic, Tutorial | Viva voce | |
| GM3.15 | Select, describe and prescribe based on the most likely aetiology, an appropriate empirical antimicrobial based on the pharmacology and ant Microbial spectrum | S | SH | Y | Bedside clinic,<br>Tutorial | OSCE<br>Viva voce | 2 |
| GM3.16 | Select, describe and prescribe based on culture and sensitivity appropriate empirical Antimicrobial based on the pharmacology and antimicrobial spectrum. | S | SH | Y | Bedside clinic,<br>SGT | OSCE<br>Viva voce | |
| GM3.17 | Describe and enumerate the indications for hospitalization in patients with pneumonia | K | KH | Y | LGT, SGT | Application based question/<br>Viva voce | |
| GM3.18 | Describe and enumerate the indications for isolation and barrier nursing in patients with pneumonia | K | KH | Y | LGT, SGT | Application based question/<br>Viva voce | |
| GM 3.19 | Describe and discuss the supportive therapy in patients with pneumonia including oxygen use and indications for ventilation | K | KH | Y | LGT, SGT | Application based question/<br>Viva voce | |
| GM 3.20 | Communicate and counsel patient on family on the diagnosis and therapy of pneumonia | C/A | SH | Y | Bedside clinic,<br>DOAP | Skill assessment<br>OSCE | |
| GM 3.21 | Discuss, describe, enumerate the indications for pneumococcal and influenza vaccines | K | KH | Y | LGT /<br>SGT | Application based questions/<br>Viva voce | |
| GM 3.22 | Communicate and counsel patient for pneumococcal and influenza Vaccines | S/C | SH | Y | Bedside clinic /<br>DOAP | OSCE | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| **Topic 4: Fever and febrile syndromes** | **Number of competencies: (20)** | | **Number of competencies that require certification : ( 01)** | | | | |
| GM4.1 | Describe and discuss the febrile response and the influence of host Immune status, risk factors, special populations (elderly, Immunosuppressed, malignancy, neutropenia HIV and travel) and comorbidities on the febrile response | K | KH | Y | LGT, SGT | Application based question/ Viva voce | |
| GM 4.2 | Describe and discuss the patho-physiology and differences between fever and hyperthermia. | K | KH | Y | LGT, SGT | Application based question, Viva voce | |
| GM 4.3 | Enumerate various common causes of fever and hyperthermia in various regions in India. | K | K | Y | LGT, SGT | MCQs/ Written, Viva voce | |
| GM4.4 | Describe and discuss the pathophysiology and manifestations of inflammatory causes of fever | K | KH | Y | LGT, SGT | Application based question, Viva voce | |
| GM4.5 | Describe and discuss the pathophysiology and manifestations of malignant causes of fever including hematologic and lymph node Malignancies | K | KH | Y | LGT, SGT | Application based question, Viva voce | |
| GM4.6 | Discuss the approach to the patient with Acute Febrile Illness. | K | KH | Y | LGT, SGT | Application based question, , Viva voce | |
| GM4.7 | Discuss and describe the pathophysiology and manifestations of the sepsis syndrome | K | KH | Y | LGT, SGT | Application based question, Viva voce | |
| GM4.8 | Describe and discuss the pathophysiology, clinical features and management of heat related illness (heat cramps, heat exhaustion and heat stroke). | K | KH | Y | LGT, SGT | Application based question, Viva voce | |
| GM4.9 | 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 Disease | K | KH | Y | LGT, SGT | Application based question, Viva voce | |
| GM4.10 | 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 | S | SH | Y | Bedside clinic, DOAP | Long/short case/OSCE | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| | medication use | | | | | | |
| GM4.11 | Perform a systematic examination that establishes the diagnosis and severity of presentation that includes: general skin mucosal and lymph node examination, chest and abdominal examination (including examination of the liver and spleen) | S | SH | Y | Bedside clinic, DOAP | Long/short case or OSCE | 2 |
| GM4.12 | Generate a differential diagnosis and prioritise based on clinical features that help distinguish between infective, inflammatory, malignant and rheumatologic causes | K | SH | Y | Bedside clinic, SGT | Long/short case | |
| GM4.13 | Order and interpret diagnostic tests based on the differential diagnosis including: CBC with differential, peripheral smear, urinary analysis with sediment, Chest X ray and other Imaging, blood and urine cultures, sputum gram stain and cultures, sputum AFB and cultures, CSF analysis, pleural and body fluid analysis, stool routine and culture, serology, FNAC, biopsy, bone marrow examination and QBC. | K | SH | Y | Bedside clinic, SGT, Tutorial | Skill assessment (OSCE/ viva Voce) | |
| GM4.14 | Enumerate in a patient with prolonged fever, the indications for various tests and describe the findings in tests of inflammation and specific rheumatologic tests, serologic testing for pathogens including HIV, bone marrow aspiration and biopsy | K | KH | N | LGT, SGT | Viva voce | |
| GM4.15 | Observe and assist in the performance of a bone marrow aspiration and biopsy in a simulated environment | S | SH | N | Skills lab-<br>DOAP | Log book/documentation | |
| GM4.16 | Enumerate the indications for use of Imaging in the diagnosis of febrile syndromes | K | K | N | LGT, SGT | MCQ/ Written, Viva voce | |
| GM4.17 | Interpret a PPD (Mantoux) in a given patient | S | SH | Y | DOAP | Logbook Documentation/OSCE | |
| GM4.18 | Develop and present an appropriate diagnostic plan for patient with prolonged fever based on the clinical presentation, most likely diagnosis in a prioritised and cost-effective manner | K | KH | Y | Bedside clinic<br>SGT | Application based question/<br>Viva voce | |
| GM4.19 | Develop an appropriate empiric treatment plan based on the patient's clinical and Immune status pending definitive diagnosis | S | SH | Y | SGT<br>Tutorial | Skill assessment<br>OSCE | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| GM4.20 | Communicate to the patient and family the diagnosis and treatment in a case of prolonged fever | C | SH | Y | Bedside clinic, DOAP | Skill assessment OSCE | |
| **Topic 5: Liver disease** | **Number of competencies: (17)** | | | **Number of competencies that require certification : ( 02)** | | | |
| GM 5.1 | Describe and discuss the physiologic and biochemical basis of hyperbilirubinemia | K | KH | Y | LGT, SGT | Application based questions / Viva voce | |
| GM 5.2 | Describe and discuss the etiology and pathophysiology of various types of liver diseases. | K | KH | Y | LGT, SGT | Application based questions / Viva voce | |
| GM 5.3 | Describe and discuss the epidemiology, microbiology, Immunology and clinical evolution of infective (viral) hepatitis | K | KH | Y | LGT, SGT | Application based questions / Viva voce | |
| GM 5.4 | Describe and discuss the pathophysiology and clinical evolution of alcoholic liver disease | K | KH | Y | LGT, SGT | Application based questions / Viva voce | |
| GM 5.5 | Describe and discuss the pathophysiology, clinical evolution and complications of cirrhosis of liver and portal hypertension including ascites, spontaneous bacterial peritonitis, hepato-renal syndrome, hepatic encephalopathy, acute GI bleed and hepatocellular Carcinoma | K | KH | Y | LGT, SGT | Application based questions / Viva voce | |
| GM 5.6 | Enumerate and describe the causes and pathophysiology of drug induced liver injury | K | KH | Y | LGT, SGT | Application based questions / Viva voce | |
| GM 5.7 | Describe and discuss the pathophysiology, clinical evolution and complications Cholelithiasis and cholecystitis | K | KH | Y | LGT, SGT | Application based questions / Viva voce | |
| GM 5.8 | 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 in patients with liver disease | S | SH | Y | Bedside clinic, DOAP session | (Long/short case/OSCE) Documentation in Journal | |
| GM 5.9 | Perform a systematic examination that establishes the diagnosis | S | SH | Y | Bedside clinic, DOAP | (Long/short case or | 2 |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| | and severity that includes nutritional status, mental status, jaundice, abdominal distension ascites, features of porto-systemic hypertension and hepatic encephalopathy | | | | session | OSCE)<br>Documentation in Journal | |
| GM 5.10 | Generate a differential diagnosis and prioritize based on clinical features that suggest a specific aetiology for the presenting symptom in patient with liver disease | K<br>S | KH<br>SH | Y | Bedside clinic, SGT | (Long/short case)<br>Documentation in Journal | |
| GM 5.11 | Choose and interpret appropriate diagnostic tests including: CBC, bilirubin, liver function tests, Hepatitis serology and ascitic fluid examination in patient with liver diseases | S | SH | Y | Bedside clinic, SGT<br>Tutorial | (OSCE/ viva Voce) | |
| GM 5.12 | Enumerate the indications for ultrasound and other Imaging studies including MRCP and ERCP and describe the findings in liver disease | K | KH | Y | Bedside clinic, SGT<br>Tutorial | Application based question /<br>Viva voce | |
| GM 5.13 | Outline a diagnostic approach to liver disease based on hyperbilirubinemia, liver function changes and hepatitis serology | K | KH | Y | LGT/ Bedside clinic/ SGT<br>Tutorial | Application based question /<br>Viva voce | |
| GM 5.14 | Assist in the performance and interpret the findings of an ascitic fluid analysis | S | SH | Y | Bedside, DOAP, Skills Lab | Documentation in Logbook /<br>Viva voce,OSCE | 2 |
| GM 5.15 | Describe and discuss the management of hepatitis, cirrhosis, portal hypertension, ascites spontaneous, bacterial peritonitis, acute GI Bleed , hepatic encephalopathy and hepatocellular carcinoma | K | KH | Y | LGT, SGT | Application based questions /<br>Viva voce | |
| GM 5.16 | Enumerate the indications, precautions and counsel patients on vaccination for hepatitis | K<br>/C | KH<br>SH | Y | LGT, SGT<br>Bedside clinic<br>Role play | Application based questions /<br>Viva voce/ OSCE | |
| GM 5.17 | Enumerate the indications for hepatic transplantation | K | K | Y | LGT, SGT | Application based questions /<br>Viva voce | |
| **Topic 6: HIV** | **Number of competencies: (22)** | | **Number of competencies that require certification : (01)** | | | | |
| GM6.1 | Describe and discuss the symptoms and signs of acute HIV sero-conversion | K | KH | Y | LGT, SGT | Application based question, Viva voce | |
| GM6.2 | Define and classify HIV AIDS based on the CDC criteria | K | K | Y | LGT, SGT | MCQ/Written | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| | | | | | | Viva voce | |
| GM6.3 | Describe and discuss the relationship between CD4 count and the risk of opportunistic infections | K | KH | Y | LGT, SGT | Application based question, Viva voce | |
| GM6.4 | Describe and discuss the pathogenesis, evolution and clinical features of common HIV related opportunistic infections | K | KH | Y | LGT, SGT | Application based question, Viva voce | |
| GM6.5 | Describe and discuss the pathogenesis, evolution and clinical features of common HIV related malignancies | K | KH | Y | LGT, SGT | Application based question, Viva voce | |
| GM6.6 | Describe and discuss the pathogenesis, evolution and clinical features of common HIV related skin and oral lesions | K | KH | Y | LGT, SGT | Application based question, Viva voce | |
| GM6.7 | 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 | S | SH | Y | Bedside clinic, DOAP | Short case/OSCE | |
| GM6.8 | Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology for the presenting symptom | S | SH | Y | Bedside clinic, DOAP,SGT | Short case/OSCE | |
| GM6.9 | Choose and interpret appropriate diagnostic tests to diagnose and classify the severity of HIV-AIDS including specific tests of HIV, CDC | S | SH | Y | Bedside clinic, SGT Tutorial | Skill assessment (OSCE/ viva Voce) | |
| GM6.10 | Choose and interpret appropriate diagnostic tests to diagnose opportunistic infections including CBC, sputum examination and cultures, blood cultures, stool analysis, CSF analysis, Chest radiographs. | S | KH | Y | Bedside clinic, SGT Tutorial | Skill assessment (OSCE/ viva Voce) | |
| GM6.11 | Enumerate the indications and describe the findings for CT of the chest, brain and MRI Brain in a patient with opportunistic infections | K | KH | N | Bedside clinic SGT, Tutorial | Application based question, Viva voce | |
| GM6.12 | Enumerate the indications for and interpret the results of: Pulse oximetry, ABG, Chest Radiograph in a patient with opportunistic infections | K | K, KH | Y | Bedside clinic, SGT Tutorial | Written/MCQ, Viva voce | |
| GM6.13 | Describe and enumerate the indications and side effects of drugs for bacterial, viral and other types of diarrhea in a patient suffering from HIV/AIDS | K | K, KH | Y | LGT, SGT | Written/MCQ, Viva voce | |
| GM6.14 | Discuss and describe the principles of HAART, the classes of | K | KH | Y | LGT, | Application based | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| | antiretroviral used, adverse reactions and interactions in a patient suffering from HIV/AIDS | | | | SGT | question, Viva voce | |
| GM 6.15 | Discuss and describe the pathogenesis of IRIS and its management. | K | KH | Y | LGT,<br>SGT | Application based question, Viva voce | |
| GM6.16 | Discuss and describe the principles and regimens used in post exposure prophylaxis | K | KH | Y | LGT,<br>SGT | Application based question, Viva voce | |
| GM6.17 | Enumerate the indications and discuss prophylactic drugs used to prevent HIV related opportunistic infections | K | KH | Y | LGT,<br>SGT | Application based question, Viva voce | |
| GM6.18 | Counsel patients on prevention of HIV transmission. | C/S | SH | Y | Bedside clinic DOAP | Skills assessment - OSCE | 3 |
| GM6.19 | Communicate diagnosis, treatment plan and subsequent follow up plan to patients with HIV/AIDS | C/S | SH | Y | Bedside clinic<br>DOAP | Skills assessment - OSCE | |
| GM6.20 | Communicate with patients with HIV/AIDS on the importance of medication adherence | C/S | SH | Y | Bedside clinic<br>DOAP | Skills assessment - OSCE | |
| GM6.21 | Demonstrate understanding of ethical and legal issues regarding patient confidentiality and disclosure in patients with HIV/AIDS | K/A | SH | Y | Bedside clinic<br>DOAP, SGT | Skills assessment - OSCE<br>Viva voce | |
| GM6.22 | Demonstrate a non- judgmental attitude to patients with HIV/AIDS and to their lifestyles including gender orientation | A | SH | Y | Bedside clinic<br>DOAP<br>SGT | Skills assessment - OSCE | |
| **Topic 7: Rheumatologic problems** | | **Number of competencies: (22)** | | **Number of competencies that require certification : ( NIL)** | | | |
| GM7.1 | Describe the pathophysiology and genetic basis of autoimmune disease | K | KH | Y | LGT, SGT | Written/ Vivavoce | |
| GM7.2 | Classify cause of joint pain based on the pathophysiology | K | KH | Y | LGT, SGT | Written/ Vivavoce | |
| GM7.3 | Develop a systematic clinical approach to joint pain based on The pathophysiology | K | KH | Y | LGT, SGT | Written/ Vivavoce | |
| GM7.4 | Describe and discriminate acute, subacute and chronic causes Of joint pain | K | KH | Y | LGT, SGT | Written/ Vivavoce | |
| GM7.5 | Discriminate, describe and discuss arthralgia from arthritis, articular from periarticular complaints and Mechanical from inflammatory causes of joint pain | K | KH | Y | LGT, SGT | Written/ Vivavoce | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/S H/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| GM7.6 | Describe the common signs and symptoms of Articular and periarticular diseases | K | KH | Y | LGT, SGT | Written/ Vivavoce | |
| GM7.7 | Describe the systemic manifestations of rheumatologic disease | K | KH | Y | LGT, SGT | Written/ Vivavoce | |
| GM7.8 | Elicit document and present a medical history that will differentiate the aetiologies of disease | S | SH | Y | Bedside clinic,DOAP | Skill assessment/OSCE | |
| GM7.9 | Perform a systematic examination of all joints, muscle and skin That will establish the diagnosis andseverity of disease | S | SH | Y | Bedside clinic,DOAP | Skill assessment | |
| GM7.10 | Generate a differential diagnosis and prioritise based on Clinical features that suggest a specific aetiology | K/S | KH | Y | Bedside clinic, SGT | Skill assessment/Written | |
| GM7.11 | Describe the appropriate diagnostic work up based on the presumed aetiology and Enumerate the indications for and interpret the results of : CBC, anti-CCP,RA, ANA,DNA andother tests Of autoimmunity | K | KH | Y | Bedside clinic, SGT | Skill assessment/Written /OSCE | |
| GM7.12 | Enumerate the indications for arthrocentesis | K | K | Y | SGT,LGT | Written/ Vivavoce/log book | |
| GM7.13 | Enumerate the indications and interpret plain radiographs of joints | K | SH | Y | Bedside clinic, SGT | Skill assessment/OSCE | |
| GM7.14 | Communicate diagnosis, treatment plan and subsequent follow Up plan to patients | C | SH | Y | DOAP | Skill Assessment /OSCE | |
| GM7.15 | Develop an appropriate treatment plan for patients with rheumatologic diseases | K | KH | Y | Bedside clinic, SGT | Application Based questions/Skil l assessment/Written | |
| GM7.16 | Select, prescribe and communicate appropriate medications for relief of joint pain and preventive therapy for crystalline arthropathies | K/C | SH | Y | DOAP | Application based questions/Skill assessment/Written | |
| GM7.17 | Select, prescribe and communicate treatment option for systemic rheumatologic conditions | K/C | SH | Y | DOAP | Skill assessment/OSCE | |
| GM7.18 | Describe the basis for biologic and disease modifying therapy in rheumatologic diseases | K | KH | Y | Bedside clinic, SGT | Skill assessment/Written //OSCE | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| GM7.19 | Communicate and incorporate patient preferences in the choice Of therapy | C/A | SH | Y | DOAP | Skill assessment//OSCE | |
| GM7.20 | Develop and communicate appropriate follow up and monitoring plans for patients with rheumatologic conditions | C | SH | Y | DOAP | Application based questions/Skill assessment//OSCE | |
| GM7.21 | Demonstrate an understanding of the impact of Rheumatologic conditions on quality of life, well-being, work and family | A | SH | Y | DOAP | Skill assessment/OSCE | |
| GM7.22 | Determine the need fors pecialist consultation | K | K | Y | SGT,LGT | Vivavoce | |
| **Topic 8: Hypertension** | **Number of competencies: (19)** | | **Number of competencies that require certification : (NIL)** | | | | |
| GM 8.1 | Describe and discuss the epidemiology, genetic basis aetiology and the prevalence of primary and secondary hypertension | K | KH | Y | LGT,SGT | Written/Viva voce | |
| GM 8.2 | Describe and discuss the pathophysiology of hypertension | K | KH | Y | LGT,SGT | Written/Viva voce | |
| GM 8.3 | Define and classify hypertension | K | KH | Y | LGT,SGT | Written/Viva voce | |
| GM 8.4 | Describe and discuss the differences between primary and secondary hypertension | K | KH | Y | LGT,SGT | Written/Viva voce | |
| GM 8.5 | Define, describe and discuss and recognise hypertensive urgency and emergency | K | KH | Y | LGT,SGT | Written/Viva voce | |
| GM 8.6 | Describe and discuss the clinical manifestations of the various aetiologies of secondary causes of hypertension | K | KH | Y | LGT,SGT | Written/Viva voce | |
| GM 8.7 | Describe, discuss and identify target organ damage due to Hypertension | K | KH | Y | LGT,SGT | Written/Viva voce | |
| GM 8.8 | 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 | S | SH | Y | Bedside clinic, DOAP | Skill assessment | |
| GM 8.10 | Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology | S | SH | Y | Bedside clinic, DOAP | Skill assessment | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| GM 8.11 | Describe the appropriate diagnostic work up based on the presumed aetiology | K | KH | Y | SGT | Written / Viva | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| GM 8.12 | Enumerate the indications for and interpret the results of : CBC, Urine routine, BUN, Cr, Electrolytes, Uric acid, ECG | K | KH | Y | LGT,SGT | Written/Viva voce | |
| GM 8.13 | Develop an appropriate treatment plan for essential hypertension | K | KH | Y | LGT,SGT | Written/Viva voce | |
| GM 8.14 | Recognise, prioritise and manage hypertensive emergencies | K | KH | Y | LGT,SGT | Written/Viva voce | |
| GM 8.15 | Develop and communicate to the patient lifestyle modification including weight reduction, moderation of alcohol intake, physical activity and sodium intake | C | SH | Y | DOAP | SELF ASSESSMENT | |
| GM 8.16 | Perform and interpret a 12 lead ECG | S | P | Y | DOAP | Log Book/Skills Station | |
| GM 8.17 | Counsel a patient and incorporate patient preferences in the management of HTN | A/C | SH | Y | DOAP | Skill assessment | |
| GM 8.18 | Demonstrate understanding of the impact of Hypertension on quality of life, well being, work and family | A | SH | Y | Bed Side Clinic/DOAP | Faculty Observation | |
| GM 8.19 | Determine the need for specialist consultation | K | KH | Y | LGT/SGT | Written / Viva | |
| **Topic 9: Anaemia** | | **Number of competencies: (21)** | | **Number of competencies that require certification : (NIL)** | | | |
| GM9.1 | Define, describe and classify anemia based on red blood cell sizeandreticulocyte count | K | KH | Y | LGT, SGT | Written/ Vivavoce | |
| GM9.2 | Describe and discuss the morphological characteristics, aetiologyandprevalence ofeachofthe causes ofanemia | K | KH | Y | LGT, SGT | Written/ Vivavoce | |
| GM9.3 | Elicit document and present a medical history that includes symptoms, risk factors including GI bleeding, prior history, medications, menstrual history, andfamilyhistory | S | SH | Y | Bed side clinic, DOAP | Skill assessment | |
| GM9.4 | Perform a systematic examination that includes : generalexamination for pallor, oral examination, DOAP of Hyperdynamic circulation, lymphnode and splenic examination | S | SH | Y | Bedside clinic | Skill assessment/OSCE | |
| GM9.5 | Generate a differential diagnosis and prioritise based on Clinical features that suggest a specific aetiology | S | SH | Y | Bedside clinic, DOAP | Skill assessment/Written | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| GM9.6 | Describe the appropriate diagnostic work up based on The presumed aetiology | S | SH | Y | Bedside clinic, DOAP | Skill assessment/Written | |
| GM9.7 | Describe and discuss the meaning and utility of components of the hemogram, various tests for iron deficiency, red cell indices, reticulocytecount, ironstudies, peripheral smear, B12 and folate levels | K | KH | Y | LGT, SGT | Written/ Viva voce/ Skill assessment | |
| GM9.8 | Describe the indications and interpret the results of a bone marrowaspirations and biopsy | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| GM9.8 | Describe the indications and interpret the results of a bone marrowaspirations and biopsy | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| GM9.9 | Describe, develop a diagnostic plan to determine the aetiology Ofanemia | K | KH | Y | LGT, SGT | Written/ Viva voce/ Skill assessment | |
| GM9.10 | Prescribe replacement therapy with iron, B12, folate | S | SH | Y | Bedside clinic, DOAP | Skill assessment/Written | |
| GM9.11 | Describe the national programs for anemia prevention | K | KH | Y | LGT, SGT | Written/Vivavoce | |
| GM9.12 | Communicate the diagnosis and treatment appropriately to patients | C | SH | Y | DOAP | Skill assessment/OSCE | |
| GM9.13 | Incorporatepatientpreferencesinthemanagementofanemia | C | SH | Y | DOAP | Skill assessment/OSCE | |
| GM9.14 | Describe the indications for blood transfusion and the Appropriate use of blood components | K | KH | Y | LGT, SGT | Written/ Viva voce/ Skill assessment | |
| GM9.15 | Describe the precautions required necessary when performing A blood transfusion | K | KH | Y | LGT, SGT | Written/ Viva voce/ Skill assessment | |
| GM9.16 | Communicate and counsel patients with methods to prevent nutritional Anemia | C | SH | Y | DOAP | Skill assessment/OSCE | |
| GM9.17 | Determine the need fors pecialist consultation | K | KH | Y | LGT,SGT | Written/OSCE | |
| **Topic 10: Acute Kidney Injury and Chronic renal failure** | | **Number of competencies: (24)** | | **Number of competencies that require certification : (01 )** | | | |
| GM10.1 | Define, describe, classify, differentiate between the pathophysiologic causes of acute and chronic renal failure | K | KH | Y | LGT, SGT | Written/ Vivavoce | |
| GM10.2 | Describe the pathophysiology and causes of pre renal ARF, Renal and post-renal ARF | K | KH | Y | LGT, SGT | Written/ Vivavoce | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| GM10.3 | Describe the evolution, natural history and treatment of ARF | K | KH | Y | LGT, SGT | Written/ Vivavoce | |
| GM10.4 | Describe and discuss the aetiology and staging ofCKD | K | KH | Y | LGT,SGT | Written/ Vivavoce | |
| GM10.5 | Describe and discuss the pathophysiology and clinical findings Of uraemia | K | KH | Y | LGT, SGT | Written/ Vivavoce | |
| GM10.6 | Classify, describe and discuss the significance ofproteinuria in CKD | K | KH | Y | LGT, SGT | Written/ Vivavoce | |
| GM10.7 | Describe and discuss the pathophysiology of anemia and hyperparathyroidismin CKD | K | KH | Y | LGT, SGT | Written/ Vivavoce | |
| GM10.8 | Describe and discuss the association between CKD glycemia And hypertension | K | KH | Y | LGT, SGT | Written/ Vivavoce | |
| GM10.9 | Elicit document and present a medical history that will differentiatethe aetiologies of disease, distinguish acute and chronic disease, identify predisposing conditions, nephrotoxic drugs and Systemiccauses | S | SH | Y | Bedside clinic, DOAP | Skill assessment | |
| GM10.10 | Perform a systematic examination that establishes the diagnosisand severity including determination of volume status, presence ofedema and heart failure, features of uraemia and Associated systemic disease | S | SH | Y | Bedside clinic, DOAP | Skill assessment | |
| GM10.11 | Generate a differential diagnosis and prioritise based on clinical features that suggest a specificaetiology | K | KH | Y | DOAP, SGT | Skill assessment/Written / Vivavoce | |
| GM10.12 | Describe the appropriate diagnostic work up based on the presumed aetiology | K | SH | Y | DOAP, SGT | Skill assessment/Written / Vivavoce | |
| GM10.13 | Enumerate the indications for and interpret the results of : renal function tests, calcium, phosphorus, PTH, urine electrolytes, osmolality, Anion gap, FENa (Fractional Excretion of Sodium),CrCl (Creatinine Clearance) and renal ultrasound | K | KH | Y | DOAP, SGT | Skill assessment/Written / Vivavoce | 2 |
| GM10.14 | Identify theECG findings in hyperkalemia | S | SH | Y | DOAP, SGT | Skill assessment/Written / Vivavoce | |
| GM10.15 | Describe and discuss the indications to performarterial blood | S | P | Y | DOAP | documentation in | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| | gasanalysis: interpret the data | | | | | logbook | |
| GM10.16 | Describe and discuss the indications for and insert a Peripheral intravenous catheter | S | P | Y | DOAP,Bedside clinic | documentation inlogbook | |
| GM10.17 | Communicate diagnosis, treatment plan and subsequent follow up plan to patients | C | SH | Y | DOAP | Skill assessment/OSCE | |
| GM10.18 | Counsel patients on a renal diet | K | SH | Y | DOAP | Skillassessment/OSCE | |
| GM10.19 | Identify and describe the priorities in the management of ARFincluding diet, volume management, alteration in doses of drugs, monitoring and indicationsfor dialysis | K/C | KH | Y | LGT, SGT | Written/ Vivavoce | |
| GM10.20 | Describe and discuss supportive therapy in CKD including diet, anti-hypertensives, glycemic therapy, dyslipidemia, anemia, hyperkalemia, hyperphosphatemia and Secondary hyperparathyroidism | K | KH | Y | LGT, SGT | Written/ Vivavoce | |
| GM10.21 | Describe and discuss the indications for renal dialysis | C/A | KH | Y | LGT, SGT | Written/ Vivavoce | |
| GM10.22 | Describe and discuss the indications for renal replacement therapy | C | KH | Y | LGT,SGT | Written/ Vivavoce//OSCE | |
| GM10.23 | Describe discuss and communicate the ethical and legal Issues involved in renal replacement therapy | C/A | KH | Y | LGT, SGT | Written/ Vivavoce | |
| GM10.24 | Recognise the Impact of CKD on patient's quality of life, well- being, work and family and Incorporate patient preferences into the care of CKD | A/C | KH | Y | LGT, SGT,Bedside clinic | observationbyfaculty/OSCE | |
| **Topic 11: Diabetes Mellitus** | | **Number of competencies: (24)** | | | **Number of competencies that require certification : ( 01)** | | |
| GM 11.1 | Define and classify diabetes | K | KH | Y | LGT, SGT | Written/Viva voce | |
| GM 11.2 | Describe and discuss the epidemiology and pathogenesis and risk factors and clinical evolution of type 1 diabetes | K | KH | Y | LGT, SGT | Written/Viva voce | |
| GM 11.3 | Describe and discuss the epidemiology and pathogenesis and risk factors economic Impact and clinical evolution of type 2 diabetes | K | KH | Y | LGT, SGT | Written/Viva voce | |
| GM 11.4 | Describe and discuss the genetic background and the influence of the environment on diabetes | K | KH | Y | LGT, SGT | Written/Viva voce | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| GM 11.5 | Describe and discuss the pathogenesis and temporal evolution of microvascular and macrovascular complications of diabetes | | | | | | |
| GM 11.6 | Describe and discuss the pathogenesis and precipitating factors, recognition and management of diabetic emergencies | K | KH | Y | LGT, SGT | Written/Viva voce | |
| GM 11.7 | Elicit document and present a medical history that will differentiate the aetiologies of diabetes including risk factors, precipitating factors, lifestyle, nutritional history, family history, medication history, co-morbidities and target organ disease | K | KH | Y | LGT, SGT | Written/Viva voce | |
| GM 11.8 | Perform a systematic examination that establishes the diagnosis and severity that includes skin, peripheral pulses, blood pressure measurement, fundus examination, detailed examination of the foot (pulses, nervous and deformities and injuries) | K | KH | Y | LGT, SGT | Written/Viva voce | |
| GM 11.9 | Describe and recognise the clinical features of patients who present with a diabetic emergency | K | KH | Y | LGT, SGT | Written/Viva voce | |
| GM 11.10 | Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology | K | KH | Y | LGT, SGT | Written/Viva voce | |
| GM 11.11 | Order and interpret laboratory tests to diagnose diabetes and its complications including: glucoses, glucose tolerance test, glycosylated hemoglobin, urinary micro albumin, ECG, electrolytes, ABG, ketones, renal function tests and lipid profile | K | KH | Y | LGT, SGT | Written/Viva voce | |
| GM 11.12 | Perform and interpret a capillary blood glucose test | K | KH | Y | LGT, SGT | Written/Viva voce | 2 |
| GM 11.13 | Perform and interpret a urinary ketone estimation with a dipstick | K | KH | Y | LGT, SGT | Written/Viva voce | |
| GM 11.14 | Recognise the presentation of hypoglycaemia and outline the principles on its therapy | K | KH | Y | LGT, SGT | Written/Viva voce | |
| GM 11.15 | Recognise the presentation of diabetic emergencies and outline the principles of therapy | K | KH | Y | LGT, SGT | Written/Viva voce | |
| GM 11.16 | Discuss and describe the pharmacologic therapies for diabetes their indications, contraindications, adverse reactions and interactions | K | KH | Y | LGT, SGT | Written/Viva voce | |
| GM 11.17 | Outline a therapeutic approach to therapy of T2Diabetes based on presentation, severity and complications in a cost-effective manner | K | KH | Y | LGT, SGT | Written/Viva voce | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| GM 11.18 | Describe and discuss the pharmacology, indications, adverse reactions and interactions of drugs used in the prevention and treatment of target organ damage and complications of Type II Diabetes including neuropathy, nephropathy, retinopathy, hypertension, dyslipidemia and cardiovascular disease | K | KH | Y | LGT, SGT | Written/Viva voce | |
| GM 11.19 | Demonstrate and counsel patients on the correct technique to administer insulin | K | KH | Y | LGT,SGT | Written/Viva voce | |
| GM11.20 | Demonstrate to and counsel patients correct technique on the of self-monitoring of blood glucoses | K | KH | Y | LGT,SGT | Written/Viva voce | |
| GM11.21 | Recognise the Importance of patient preference while selecting therapy for diabetes | K | KH | Y | LGT,<br>SGT | Written/Viva voce | |
| GM 11.22 | Enumerate the causes of hypoglycaemia and describe the counter hormone response and the initial approach and treatment | K | KH | Y | LGT,<br>SGT | Written/Viva voce | |
| GM 11.23 | Describe the precipitating causes,<br>pathophysiology, recognition, clinical features, diagnosis, stabilisation and management of diabetic ketoacidosis | K | KH | Y | LGT,<br>SGT | Written/Viva voce | |
| GM 11.24 | Describe the precipitating causes, pathophysiology, recognition, clinical features, diagnosis, stabilisation and management of Hyperosmolar non ketotic state | K | KH | Y | LGT,<br>SGT | Written/Viva voce | |
| **Topic 12: Thyroid Dysfunction** | | **Number of competencies: (14)** | | **Number of competencies that require certification : ( 01)** | | | |
| GM 12.1 | Describe the epidemiology, genetic basis and pathogenesis of hypothyroidism and hyperthyroidism including the influence of iodine deficiency and autoimmunity in the pathogenesis of thyroid disease | K | KH | Y | LGT,SGT | Written/Viva voce | |
| GM 12.2 | Describe and discuss the physiology of the hypothalamopituitary - thyroid axis, principles of thyroid function testing and alterations in physiologic function | K | K | Y | LGT,SGT | Written | |
| GM 12.3 | Describe and discuss the principles of radio iodine uptake in the diagnosis of thyroid disorders | K | KH | Y | LGT,SGT | Written/Viva voce | |
| GM 12.4 | Elicit document and present an appropriate history that will establish the diagnosis cause of thyroid dysfunction and its severity | S | SH | Y | Bedside clinic, Skill Lab | Skills assessment | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| GM 12.5 | Perform and demonstrate a systematic examination based on the history that will help establish the diagnosis and severity including systemic signs of thyrotoxicosis and hypothyroidism, palpation of the rhythm abnormalities neck palpation of the thyroid and lymph nodes and cardiovascular findings | S | SH | Y | Bedside clinic, Skill Lab | Skills assessment | |
| GM 12.6 | Demonstrate the correct technique to palpate the thyroid | S | SH | Y | Bedside clinic,DOAP | Skill assessment | |
| GM 12.7 | Generate a differential diagnosis based on the clinical presentation and prioritise it based on the most likely diagnosis | K | KH | Y | Bedside clinic,SGT | Written | |
| GM 12.8 | Order and interpret diagnostic testing based on the clinical diagnosis including CBC, thyroid function tests and ECG and radio iodine uptake and scan | S | SH | Y | Bedside clinic,DOAP | Skill assessment | |
| GM 12.9 | Identify atrial fibrillation, pericardial effusion and bradycardia on ECG | S | SH | Y | Bedside clinic,DOAP | Skill assessment | |
| GM 12.10 | Interpret thyroid function tests in hypo and hyperthyroidism | K | KH | Y | LGT,SGT | Written/Viva voce | 2 |
| GM 12.11 | Describe and discuss the iodisation programs of the government of India | K | KH | Y | LGT,SGT | Written/Viva voce | |
| GM 12.12 | Describe the pharmacology, indications, adverse reaction, interactions of thyroxine and antithyroid drugs | K | KH | Y | LGT,SGT | Written/Viva voce | |
| GM 12.13 | Write and communicate to the patient appropriately a prescription for thyroxine based on age, sex, and clinical and biochemical status | S/C | SH | Y | Skill Lab | Skill assessment | |
| GM 12.14 | Describe and discuss the indications of thionamide therapy, radio iodine therapy and surgery in the management of thyrotoxicosis | K | KH | Y | Bedside clinic | Written/Viva voce | |
| | **Topic 13: Common Malignancies / Oncology** | **Number of competencies: (19)** | | **Number of competencies that require certification : ( NIL)** | | | |
| GM 13.1 | Describe the clinical epidemiology and inherited & modifiable risk factors for common malignancies in India | K | K | Y | LGT,SGT | Short note/Viva Voice | |
| GM 13.2 | Describe the genetic basis of selected cancers | K | K | Y | LGT,SGT | Short note/Viva Voice | |
| GM 13.3 | Describe the relationship between infection and cancers | K | K | Y | LGT,SGT | Short note/Viva Voice | |
| GM 13.4 | Describe the natural history, presentation, course, complications | K | K | N | LGT,SGT | Short note/Viva | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| | and cause of death for common cancers | | | | | Voice | |
| GM 13.5 | Describe the common issues encountered in patients at the end of life and principles of management of end-of-life care. | K | K | N | LGT,SGT | Short note/Viva Voice | |
| GM13.6 | Describe and distinguish the difference between curative and palliative care in patients with cancer | K | K | N | LGT,SGT | Short note/Viva voice | |
| GM 13.7 | Elicit document and present a history that will help establish the aetiology of cancer and includes the appropriate risk factors, duration and evolution | S | K | Y | Bedside clinic | Skill assessment/Short Case | |
| GM13.8 | Perform and demonstrate a physical examination that includes an appropriate general and local examination that leads to the diagnosis, extent spread and complications of cancer | S | SH | Y | Bedside clinic | Skill assessment/Short case | |
| GM13.9 | Demonstrate in a mannequin the correct technique for performing breast exam rectal examination and cervical examination and pap smear | S | K | Y | Bedside clinic | Skill assessment/Short Case | |
| GM13.10 | Generate a differential diagnosis based on the presenting symptoms and clinical features in a cancer patient and identify the most likely diagnosis | S | K | Y | Bedside clinic | Skill assessment / Short Case | |
| GM13.11 | Order and interpret diagnostic testing based on the clinical diagnosis in a cancer patient. Including CBC and stool occult blood and prostate specific antigen | S | K | K | Bedside clinic | Skill assessment/ Short case | |
| GM13.12 | Describe the indications and interpret the results of Chest X Ray, mammogram, skin and tissue biopsies and tumor markers used in common cancers | K | KH | Y | Bedside clinic,SGT | Short note/Viva voice | |
| GM13.13 | Describe and assess pain and suffering objectively in a patient with cancer | K | KH | Y | Bedside clinic,SGT | Short note/Vivavoice | |
| GM13.14 | Describe the indications for surgery, radiation and chemotherapy for common malignancies | K | KH | Y | Bedside clinic,SGT | Short note/Viva Voice | |
| GM13.15 | Describe the need, tests involved, their utility in the prevention of common malignancies | K | KH | Y | Bedside clinic,SGT | Short note/Viva Voice | |
| GM13.16 | Demonstrate an understanding of needs and preferences of patients when choosing curative and palliative therapy | A/C | KH | Y | Bedside clinic,SGT | Short note/Viva voice | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| GM13.17 | Describe and enumerate the indications, use, side effects of narcotics in pain alleviation in patients with cancer | K | KH | Y | Bedside clinic,SGT | Short note/Viva Voice | |
| GM13.18 | Describe and discuss the ethical and the medico legal issues involved in end-of-life care | K | KH | Y | Bedside clinic,SGT | Short note/Viva Voice | |
| GM13.19 | Describe the therapies used in alleviating suffering in patients at the end of life | K | KH | Y | Bedside clinic,SGT | Short note/Viva Voice | |
| **Topic 14: Obesity** | **Number of competencies: (14)** | | | **Number of competencies that require certification : ( NIL)** | | | |
| GM 14.1 | Define and measure obesity as it relates to the Indian population | K | KH | Y | LGT,SGT | Written/Viva voce | |
| GM 14.2 | Describe and discuss the aetiology of obesity including modifiable and non-modifiable risk factors and secondary causes | K | KH | Y | LGT,SGT | Written/Viva voce | |
| GM 14.1 | Define and measure obesity as it relates to the Indian population | K | KH | Y | LGT,SGT | Written/Viva voce | |
| GM 14.2 | Describe and discuss the aetiology of obesity including modifiable and non-modifiable risk factors and secondary causes | K | KH | Y | LGT,SGT | Written/Viva voce | |
| GM 14.3 | Describe and discuss the monogenic forms of obesity | K | KH | Y | LGT,SGT | Written/Viva voce | |
| GM 14.4 | Describe and discuss the impact of environmental factors including eating habits, food, work, environment and physical activity on the incidence of obesity | K | K | Y | LGT,SGT | Written/Viva voce | |
| GM 14.5 | Describe and discuss the natural history of obesity and its complications | K | K | Y | LGT,SGT | Written/Viva voce | |
| GM 14.6 | Elicit and document and present an appropriate history that includes the natural history, dietary history, modifiable risk factors, family history clues for secondary causes and motivation to lose weight | S | SH | Y | Bedside clinic, Skill Lab | Skills assessment | |
| GM 14.7 | Perform, document and demonstrate a physical examination based on the history that includes general examination, measurement of abdominal obesity, signs of secondary causes and comorbidities | S | SH | Y | Bedside clinic, Skill Lab | Skills assessment | |
| GM 14.8 | Generate a differential diagnosis based on the presenting symptoms and clinical features and prioritise based on the most likely diagnosis | S | SH | Y | Bedside clinic, Skill Lab | Skills assessment | |
| GM 14.9 | Order and interpret diagnostic tests based on the clinical diagnosis | S | SH | Y | Bedside clinic, Skill Lab | Skills assessment | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| | including blood glucose, lipids, thyroid function tests etc. | | | | | | |
| GM 14.10 | Describe the indications and interpret the results of tests for secondary causes of obesity | S | SH | Y | Bedside clinic, Skill Lab | Skills assessment | |
| GM 14.11 | Communicate and counsel patient on behavioural, dietary and lifestyle modifications | C | SH | Y | Bedside clinic, Skill Lab | Skills assessment | |
| GM 14.12 | Demonstrate an understanding of patient's inability to adhere to lifestyle instructions and counsel them in a non - judgemental way | A/C | SH | Y | Bedside clinic, Skill Lab | Skills assessment | |
| GM 14.13 | Describe and enumerate the indications, pharmacology, and side effects of pharmacotherapy for obesity and describe and enumerate indications and side effects bariatric surgery | K | K | Y | LGT,SGT | Written/Viva voce | |
| GM 14.14 | Describe and enumerate and educate patients, health care workers and the public on measures to prevent obesity and promote a healthy lifestyle | K | K | Y | LGT,SGT | Written/Viva voce | |
| **Topic 15: GI Bleeding** | **Number of competencies: (18)** | | | **Number of competencies that require certification : ( 01)** | | | |
| GM 15.1 | Enumerate, describe and discuss the aetiology of upper and lower GI bleeding | K | KH | Y | LGT, SGT<br>(SGT) | Application based questions /<br>Viva voce | |
| GM 15.2 | Enumerate, describe and discuss the evaluation and steps involved in stabilizing a patient who presents with acute volume loss and GI bleed | K | KH | Y | LGT, SGT | Application based questions /<br>Viva voce | |
| GM 15.3 | Describe and discuss the patho-physiological effects of acute blood and volume loss | K | KH | Y | LGT,<br>SGT | Application based questions /<br>Viva voce | |
| GM 15.4 | 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 | S | SH | Y | Bedside clinic / Tutorial | Skills assessment - Short case/ OSCE/ Documentation in Journal | |
| GM 15.5 | Perform, demonstrate and document a physical examination based on the history that includes general examination, volume assessment and appropriate abdominal examination | S | SH | Y | Bedside clinic / Tutorial | Skills assessment - Short case/OSCE Documentation in | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| | | | | | | Journal | |
| GM 15.6 | Distinguish between upper and lower gastrointestinal bleeding based on the clinical features | K | KH | Y | LGT,<br>SGT | Application based questions<br>Viva voce | |
| GM 15.7 | Demonstrate the correct technique to perform an anal and rectal examination in a mannequin or equivalent | S | SH | Y | DOAP in skills lab | Skills assessment – OSCE on mannequin | |
| GM 15.8 | Generate a differential diagnosis based on the presenting symptoms and clinical features and prioritize based on the most likely diagnosis | K | KH | Y | LGT,<br>SGT/<br>Bedside clinic | Application based questions /<br>Viva voce/ Short Case | |
| GM 15.9 | 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. | S | SH | Y | Bedside clinic, SGT<br>Tutorial | Skill assessment<br>OSCE/ viva Voce) | |
| GM 15.10 | Enumerate the indications for endoscopy, colonoscopy and other Imagingcompetencies in the investigation of Upper GI bleeding | K | KH | Y | Bedside clinic, SGT<br>Tutorial | Application based questions /<br>Viva voce/ | |
| GM 15.11 | Develop, document and present a treatment plan that includes fluid resuscitation, blood and blood component transfusion, and specific therapy for arresting blood loss | K | KH | Y | LGT,<br>SGT/ Tutorial | Application based questions /<br>Viva voce | |
| GM 15.12 | Enumerate the indications for whole blood, component and platelet transfusion and describe the clinical features and management of a mismatched transfusion | K | KH | Y | LGT,<br>SGT/ Tutorial | Application based questions /<br>Viva voce | |
| GM 15.13 | Observe cross matching and blood / blood component transfusion | S | SH | Y | Bedside clinic, Direct observation in elective/ emergency Situation | Skill assessment (OSCE/ viva Voce) | 2 |
| GM 15.14 | Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy of vasopressors used in the treatment of Upper GI bleed | K | KH | Y | LGT,<br>SGT/ Tutorial | Application based questions /<br>Viva voce | |
| GM 15.15 | Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy of acid peptic disease including Helicobacter pylori | K | K, KH | Y | LGT,<br>SGT | Application based questions /<br>Viva voce | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| GM 15.16 | Enumerate the indications for endoscopic interventions and Surgery in patient with GI Bleeding | K | K, KH | Y | LGT,<br>SGT | Application based questions /<br>Viva voce | |
| GM 15.17 | Determine appropriate level of specialist consultation as per clinical, hemodynamic status of the patient with GI bleed | K | K | Y | SGT | Application based questions /<br>Viva voce | |
| GM 15.18 | Counsel the family and patient with GI Bleeding on the diagnosis and therapeutic options in an empathetic non-judgmental manner | S<br>C | SH | Y | Bedside clinic, DOAP<br>Role play | Skills assessment - OSCE | |
| **Topic 16: Diarrheal Disorders** | **Number of competencies: (17)** | | | **Number of competencies that require certification : ( NIL )** | | | |
| GM 16.1 | Describe and discuss the aetiology of acute and chronic diarrhea including infectious and non- infectious causes | K | K<br>KH | Y | LGT,<br>SGT | Application based questions /<br>Viva voce | |
| GM 16.2 | Describe and discuss the acute systemic consequences of diarrhea including its impact on fluid balance | K | K<br>KH | Y | LGT<br>SGT | Application based questions /<br>Viva voce | |
| GM 16.3 | Describe and discuss the chronic effects of diarrhea including malabsorption | K | K<br>KH | Y | LGT<br>SGT | Application based questions /<br>Viva voce | |
| GM 16.4 | Elicit and document and present an appropriate history that includes the natural history, dietary history, travel, sexual history and other concomitant illnesses in a patient with Diarrhea | S | SH | Y | Bedside clinic, SGT | Skill assessment (Short case or OSCE) | |
| GM 16.5 | Perform, document and demonstrate a physical examination based on the history that includes general examination, including an appropriate abdominal examination | S | SH | Y | Bedside clinic, DOAP session | Skill assessment (Short case / OSCE) | |
| GM 16.6 | Distinguish between diarrhea and dysentery based on clinical features | K | KH | Y | Bedside clinic, SGT | Skill assessment (Short case / OSCE )<br>Viva Voce | |
| GM 16.7 | Generate a differential diagnosis based on the presenting symptoms and clinical features and prioritize based on the most likely diagnosis | K | KH | Y | Bedside clinic, SGT | Skill assessment (Long/short case)<br>Viva voce | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| GM 16.8 | Choose and interpret diagnostic tests based on the clinical diagnosis including complete blood count, and stool examination in a patient with acute/chronic diarrhea | S | SH | Y | Bedside clinic, SGT Tutorial | Skill assessment (OSCE/ viva Voce) | |
| GM 16.9 | Identify common parasitic causes of diarrhea under the microscope in a stool specimen | S | SH | Y | DOAP | Skill assessment OSCE | |
| GM 16.10 | Identify vibrio cholera in a hanging drop specimen | S | SH | Y | DOAP | Skill assessment OSCE | |
| GM 16.11 | Enumerate the indications for stool cultures and blood cultures in patients with acute diarrhea | K | KH | Y | LGT<br>SGT | Application based questions /<br>Viva voce | |
| GM 16.12 | Enumerate and discuss the indications for further investigations including antibodies, colonoscopy, diagnostic Imaging and biopsy in the diagnosis of chronic diarrhea | K | KH | Y | LGT<br>SGT | Application based questions /<br>Viva voce | |
| GM 16.13 | Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy for parasitic causes of diarrhea | K | KH | Y | LGT<br>SGT | Application based questions /<br>Viva voce | |
| GM 16.14 | Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy for bacterial and viral diarrhea | K | KH | Y | LGT<br>SGT | Application based questions /<br>Viva voce | |
| GM 16.15 | Distinguish based on the clinical presentation Crohn's disease from Ulcerative Colitis | K | KH | Y | LGT<br>SGT | Application based questions /<br>Viva voce | |
| GM 16.16 | Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy including Immunotherapy in a patient with chronic diarrhea | K | KH | Y | LGT<br>SGT | Application based questions /<br>Viva voce | |
| GM 16.17 | Describe and enumerate the indications for surgery in inflammatory bowel disease | K | KH | Y | LGT<br>SGT | Application based questions /<br>Viva voce | |
| **Topic 17: Headache** | **Number of competencies: (14)** | | **Number of competencies that require certification : ( 01)** | | | | |
| GM 17.1 | Define and classify headache and describe the presenting features, | K | KH | Y | LGT | Application based | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| | precipitating factors, aggravating and relieving factors of various kinds of headache | | | | SGT | question/ Viva voice | |
| GM 17.2 | Elicit and document and present an appropriate history including aura, precipitating aggravating and relieving factors, associated symptoms that help identify the cause of headaches | S | SH | Y | Bedside clinic<br>SGT | Skill assessment<br>OSCE | |
| GM 17.3 | Classify migraine and describe the distinguishing features between classical and non-classical forms of migraine | K | KH | Y | LGT<br>SGT | Application based question/ Viva voice | |
| GM 17.4 | Demonstrate a detailed neurologic examination in a patient of headache and raised intracranial tension including signs of meningitis | S | SH | Y | Bedside clinic<br>SGT | Long case/ Short case Skill assessment, OSCE | |
| GM 17.5 | Generate, document and present a differential diagnosis based on clinical features in a patient with headache. | S | SH | Y | Bedside clinic<br>SGT | Long case/ Short case Skill assessment, OSCE | |
| GM 17.6 | Choose and interpret diagnostic testing including Imaging based on clinical diagnosis in a patient with headache | S | SH | Y | Bedside clinic<br>SGT | Skill assessment<br>OSCE<br>Viva voce | |
| GM17.7 | Enumerate the indication of lumbar puncture and describe the findings in CSF in different types of meningitis. | K | KH | Y | LGT<br>SGT | Application based question/ Viva voice | |
| GM17.8 | Demonstrate in a mannequin or equivalent the correct technique for performing a lumbar puncture | S | SH | Y | DOAP<br>Skills lab | Skill assessment<br>OSCE | |
| GM17.9 | Interpret the CSF findings with various parameters in a given CSF fluid analysis report | S | SH | Y | Bedside clinic<br>SGT | Skill assessment<br>OSCE, Viva voce | 2 |
| GM17.10 | Enumerate the indications for emergency care admission and describe Immediate supportive care in patients with headache | K | KH | Y | LGT<br>SGT | Application based question/ Viva voice | |
| GM17.11 | Describe the indications, pharmacology, dose, side effects of abortive therapy in migraine | K | KH | Y | LGT<br>SGT | Application based question/ Viva voice | |
| GM17.12 | Describe the indications, pharmacology, dose, side effects of prophylactic therapy in migraine | K | KH | Y | LGT<br>SGT | Application based question/ Viva voice | |
| GM17.13 | Describe the pharmacology, dose, adverse reactions and regimens of drugs used in the treatment of bacterial, tubercular and viral meningitis | K | KH | Y | LGT<br>SGT | Application based question/ Viva voice | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| GM17.14 | Counsel patients with migraine and tension headache on lifestyle changes and need for prophylactic therapy | A/C | SH | Y | Bedside clinicDOAP | Skill assessment OSCE | |
| **Topic 18 : Cerebrovascular Accident** | | **Number of competencies: (16 )** | | **Number of competencies that require certification : (01)** | | | |
| GM 18.1 | Describe the functional and the vascular anatomy of the brain | K | KH | Y | LGT, SGT | Application based question /Viva voce | |
| GM 18.2 | Classify cerebrovascular accidents and describe the aetiology, predisposing genetic and acquired risk factors and pathogenesis of haemorrhagic and non-haemorrhagic stroke | K | KH | Y | LGT, SGT | Application based question /Viva voce | |
| GM 18.3 | Elicit and document and present an appropriate history in a cerebrovascular patient including onset, progression, precipitating and aggravating relieving factors, associated symptoms that help identify the cause of the cerebrovascular accidents | S | SH | Y | Bedside clinic, SGT | Long case /Short case Skills assessment OSCE | |
| GM 18.4 | Perform, demonstrate & document physical examination that includes general and a detailed neurologic examination as appropriate, based on the history in a stroke patient | S | SH | Y | Bedside clinic, DOAP | Long case /Short case Skills assessment OSCE | 3 |
| GM 18.5 | Distinguish the lesion based on upper verses lower motor neuron, side, site and most probable nature of the lesion in a given patient with neurological symptoms/signs | K<br>S | KH<br>SH | Y | LGT<br>Bedside clinic, DOAP | Application based question<br>Long case /Short case, Skills assessment, OSCE | |
| GM 18.6 | Elicit, document and present clinical examination of a stroke patient with speech disorder.<br>Enumerate and describe the points for distinguishing the various disorders of speech based on site of lesion. | K<br>S | KH<br>SH | Y | Bedside clinic, DOAP | Application based question<br>Long case /Short case, Skills assessment, OSCE | |
| GM18.7 | Describe and distinguish, based on the clinical presentation, the types of bladder dysfunction seen in neurological diseases | K | KH | Y | LGT<br>Bedside clinic, SGT | Application based question /Viva voice | |
| GM18.8 | Choose and interpret the appropriate Imaging tests that will identify the anatomical site, type and etiology of the lesion in stroke patient | S | SH | Y | Bedside clinic, SGT | Skill assessment OSCE, Viva voce | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| GM18.9 | Choose and interpret the appropriate diagnostic testing in young patients with a cerebrovascular accident (CVA) | S | SH | Y | Bedside clinic,<br>SGT | Skill assessment<br>OSCE<br>Viva voce | |
| GM 18.10 | Describe the initial supportive management of a patient presenting with a cerebrovascular accident (CVA) | K | KH | Y | LGT<br>SGT | Application based question /Viva voice | |
| GM 18.11 | Describe management of non-haemorrhagic stroke including use of thrombolytic agents. Enumerate the indications and contraindications of thrombolytic agents in a stroke patient | K | KH | Y | LGT<br>SGT | Application based question /Viva voice | |
| GM 18.12 | Enumerate the indications and contraindications of antiplatelet agents in non-haemorrhagic stroke.<br>Describe the role of antiplatelet agents in stroke patients. | K | KH | Y | LGT<br>SGT | Application based question /Viva voice | |
| GM 18.13 | Describe the management of a patient with haemorrhagic stroke. | K | KH | Y | LGT<br>SGT | Application based question /Viva voice | |
| GM 18.14 | Enumerate the indications for surgery in a haemorrhagic stroke | K | K | Y | LGT<br>SGT | Written<br>/Viva voice | |
| GM 18.15 | Enumerate and describe the indications and modalities of multidisciplinary rehabilitation of patients with a CVA | K | KH | Y | LGT ,SGT,<br>Bedside clinic | Application based question /Viva voice | |
| GM 18.16 | Counsel regarding diagnosis, therapy, prognosis and outcome to patient with stroke and his/her family members in an empathetic manner | A/C | SH | Y | Bedside clinic<br>DOAP | Skill assessment<br>OSCE | |
| | **Topic 19: Movement Disorders** | **Number of competencies: (09)** | | | **Number of competencies that require certification : ( NIL)** | | |
| GM 19.1 | Describe the functional neuro-anatomy of the locomotor system of the brain | K | KH | Y | LGT,<br>SGT | Application based question<br>/Viva voce | |
| GM 19.2 | Classify movement disorders of the brain based on distribution, rhythm, repetition, exacerbating and relieving factor | K | KH | Y | LGT,<br>SGT | Application based question<br>/Viva voce | |
| GM 19.3 | Elicit and document and present an appropriate history including onset, progression precipitating, aggravating and relieving factors, associated symptoms that help identify the cause of the movement | S | SH | Y | Bedside clinic<br>SGT | Short case<br>Skill assessment<br>OSCE | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| | disorder | | | | | | |
| GM 19.4 | Perform, demonstrate and document a physical examination that includes a general examination and a detailed neurologic examination using standard movement rating scales | S | SH | Y | Bedside clinic<br>SGT | Short case<br>Skill assessment<br>OSCE | |
| GM 19.5 | Generate, document and present a differential diagnosis based on the history and physical examination in a patient with movement disorder | S | SH | Y | Bedside clinic<br>SGT | Short case<br>Skill assessment<br>OSCE | |
| GM 19.6 | Document and describe clinical diagnosis regarding the anatomical location, nature and cause of the lesion based on the clinical presentation and physical examination in a patient with movement disorder | S | SH | Y | Bedside clinic<br>SGT | Short case<br>Skill assessment<br>OSCE | |
| GM 19.7 | Choose and interpret diagnostic Imaging tests in the diagnosis of movement disorder | S | SH | Y | Bedside clinic<br>SGT | Short case<br>Skill assessment<br>OSCE, Viva voce | |
| GM 19.8 | Discuss and describe the pharmacology, their dose, side effects and interactions of the drugs used in the management of Parkinson's syndrome | K | KH | Y | LGT, SGT | Application based question<br>/Viva voce | |
| GM 19. 9 | Enumerate the indications for use of surgery and botulinum toxin in the treatment of movement disorders | K | KH | Y | LGT, SGT | Written/Viva voce | |
| **Topic 20: Seizure Disorders** | **Number of competencies: (05)** | | **Number of competencies that require certification : (NIL )** | | | | |
| GM 20.1 | Define and differentiate between seizures, convulsions and epilepsy. | K | K | Y | LGT<br>SGT | Application based question,<br>Viva voce | |
| GM 20.2 | Enumerate the etiological classification of epilepsy. Discuss the pathophysiology, clinical evaluation and diagnosis of epilepsy including description of how to recognize different types of epilepsy. Enumerate and discuss the diagnostic tests in epilepsy. | K | KH | Y | LGT<br>SGT | Application based question,<br>Viva voce | |
| GM20.3 | Discuss the management of epilepsy including various antiepileptic medications, their usage and drug interactions. | K | KH | Y | LGT<br>SGT | Application based question, Viva voce | |
| GM 20.4 | Counsel the patient and relatives regarding the safety precautions to be taken during and after an episode of seizure. Demonstrate | S/A/C | SH | Y | Bedside clinic<br>DOAP | Skills assessment<br>OSCE | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| | patient education on lifestyle modifications including sleep patterns, stress management, alcohol or drug avoidance. | | | | Role play | | |
| GM 20.5 | Discuss acute management of seizure episode | K | KH | Y | LGT,<br>SGT | Application based question, Viva voce | |
| **Topic 21: Envenomation** | **Number of competencies: (09)** | | **Number of competencies that require certification : (NIL )** | | | | |
| GM21.1 | Enumerate the local poisonous snakes and describe the distinguishing marks of each | K | K/<br>KH | Y | LGT<br>SGT | MCQ/Written/ Viva voce | |
| GM21.2 | Describe and 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 | K<br>S | KH<br>SH | Y | LGT<br>SGT<br>DOAP | Skill assessment<br>OSCE<br>Viva voce | |
| GM21.3 | Describe the initial approach to the stabilisation of the patient who presents with snake bite | K | KH | Y | LGT<br>SGT | Application based question / Viva voce | |
| GM21.4 | Elicit and document and present an appropriate history, the circumstances, time, kind of snake, evolution of symptoms in a patient with snake bite | S | SH | Y | Bedside clinic, DOAP | Skill assessment<br>OSCE<br>Viva voce | |
| GM21.5 | Perform a systematic examination, document and present a physical examination that includes general examination, local examination, appropriate cardiac and neurologic examination in a patient with snake bite | S | SH | Y | Bedside clinic, DOAP | Skill assessment<br>OSCE<br>Viva voce | |
| GM21.6 | Choose and interpret the appropriate diagnostic tests in patients with snake bite | S | SH | Y | Bedside clinic<br>SGT | Skill assessment<br>OSCE<br>/ Viva voce | |
| GM21.7 | Enumerate the indications and describe the pharmacology, dose, adverse reactions, hypersensitivity reactions of anti-snake venom | K | KH | Y | LGTSGT | Written/MCQ / Viva voce | |
| GM21.8 | Describe the diagnosis, initial approach, stabilisation and therapy of scorpion envenomation | K | KH | Y | LGTSGT | Written/MCQ<br>/ Viva voce | |
| GM21.9 | Describe the diagnosis, initial approach, stabilisation and therapy of bee sting and other envenomation | K | KH | N | LGTSGT | Written/ MCQ<br>/ Viva voce | |
| **Topic 22: Poisoning** | **Number of competencies: (13)** | | **Number of competencies that require certification : ( NIL)** | | | | |
| GM22.1 | Describe the initial approach to the stabilisation of the patient who presents with poisoning | K | KH | Y | LGT, SGT | Application based question, Viva voce | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| GM22.2 | Enumerate the common plant poisons seen in your area and describe their toxicology, clinical features, prognosis and specific approach to detoxification | K | K<br>KH | Y | LGT, SGT | MCQ/Written, Viva voce | |
| GM 22.3 | Enumerate the common corrosives used in your area and describe their toxicology, clinical features, prognosis and approach to therapy | K | KH | Y | LGT, SGT | MCQ/Written, Viva voce | |
| GM 22.4 | Enumerate the commonly observed drug overdose in your area and describe their toxicology, clinical features, prognosis and approach to therapy | K | KH | Y | LGT, SGT | MCQ/ Written, Viva voce | |
| GM22.5 | Identify and describe a pathophysiologic pattern or toxic syndrome (toxidrome) based on the observed findings | K | KH | Y | LGT, SGT | Application based question, Viva voce | |
| GM22.6 | Describe and discuss the toxicology, clinical features, complications, prognosis and specific approach to management of common insecticide poisoning (Organophosphate and carbamate poisoning). | K | KH | Y | LGT, SGT | MCQ/Written, Viva voce | |
| GM22.7 | Describe and discuss the clinical features, prognosis and management of aluminium phosphide and zinc phosphide poisoning. | K | KH | Y | LGT, SGT | MCQ/Written, Viva voce | |
| GM22.8 | Describe and discuss the clinical features, prognosis and management of Methanol and Ethylene glycol poisoning | K | KH | Y | LGT, SGT | MCQ/Written, Viva voce | |
| GM22.9 | Observe and describe the functions and role of a poison centre in suspected poisoning | K | KH | Y | Centre visit -<br>SGT | Log book documentation<br>Viva voce | |
| GM22.10 | Describe the medico legal aspects of suspected suicidal or homicidal poisoning | K | KH | Y | LGT, SGT, | Written<br>Viva voce | |
| GM22.11 | Demonstrate the correct procedure to write a medico legal report on a suspected poisoning | S | SH | Y | DOAP<br>SGT | Skill assessment<br>OSCE | |
| GM22.12 | Counsel family members of a patient with suspected poisoning about the clinical and medico legal aspects with empathy | A/C | SH | Y | DOAP | Skill assessment<br>OSCE | |
| GM22.13 | Enumerate the indications for psychiatric consultation and describe the precautions to be taken in a patient with suspected suicidal ideation / gesture | K | KH | Y | SGT | MCQ/Written Viva voce | |
| **Topic 23: Mineral, Fluid Electrolyte and Acid base Disorder** | | **Number of competencies: (12)** | | | **Number of competencies that require certification : (NIL )** | | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| GM 23.1 | Enumerate the causes of hypercalcemia and distinguish the features of PTH vs non PTH mediated hypercalcemia | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| GM 23.2 | Describe the aetiology, clinical manifestations, diagnosis and clinical approach to primary hyperparathyroidism | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| GM 23.3 | Describe the approach to the management of hypercalcemia | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| GM 23.4 | Enumerate the causes and describe the clinical features and the correct approach to the diagnosis and management for a patient with hyponatremia | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| GM 23.5 | Enumerate the causes and describe the clinical and laboratory features and the correct approach to the diagnosis and management of the patient t with hyponatremia | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| GM 23.6 | Enumerate the causes and describe the clinical and laboratory features and the correct approach to the diagnosis and management of the patient with hypokalemia | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| GM 23.7 | Enumerate the causes and describe the clinical and laboratory features and the correct approach to the diagnosis and management of the patient with hyperkalemia | K | KH | Y | LGT, SGT | Written/ Viva voce/application based questions | |
| GM 23.8 | Enumerate the causes and describe the clinical and laboratory features of metabolic acidosis | K | KH | Y | LGT, SGT | Written/ Viva voce/application based questions | |
| GM 23.9 | Enumerate the causes and describe the clinical and laboratory features of metabolic alkalosis | K | KH | Y | LGT, SGT | Written/ Viva voce/MCQ | |
| GM 23.10 | Enumerate the causes and describe the clinical and laboratory features of respiratory acidosis | K | KH | Y | LGT, SGT | Written/ Viva voce/MCQ | |
| GM 23.11 | Enumerate the causes and describe the clinical and laboratory features of respiratory alkalosis | K | KH | Y | LGT, SGT | Written/ Viva voce/MCQ | |
| GM 23.12 | Identify the underlying acid-based disorder based on an ABG report and interpret it in the context of clinical situation | K | KH | Y | LGT, SGT | Written/ Viva voce/MCQ | |
| **Topic: 24 Nutritional and Vitamin Deficiencies** | | **Number of competencies: (05)** | | | **Number of competencies that require certification : ( NIL)** | | |
| GM 24.1 | Discuss and describe the methods of nutritional assessment in | K | KH | Y | LGT, SGT | Application | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| | anadultandcalculationofcaloricrequirementsduringillnesses | | | | | based questions/Written/ Vivavoce | |
| GM 24.2 | Discuss and describe the causes and consequences of proteincaloric malnutrition in the hospital | K | KH | Y | LGT, SGT | Written/ Vivavoce | |
| GM 24.3 | Discuss and describe the aetiology, causes, clinical manifestations, complications, diagnosis and management of common vitamindeficiencies | K | KH | Y | LGT, SGT | Application based questions/Written/ Vivavoce | |
| GM 24.4 | Enumerate the indications for enteral and parenteral nutrition incriticallyill patients | K | KH | Y | LGT, SGT | Written/ Vivavoce | |
| GM 24.5 | Counsel and communicate to patients in a simulated environment on an appropriate balanced diet | S | SH | Y | DOAP | Skill assessment/OSCE | |
| **Topic 25: Geriatrics** | **Number of competencies: (22)** | | **Number of competencies that require certification : ( NIL)** | | | | |
| GM 25.1 | Describe and discuss the epidemiology, pathogenesis, clinical evolution, presentation and course of common diseases in the elderly | K | KH | Y | LGT, SGT | Written/viva voice | |
| GM 25.2 | Describe the multidimensional geriatric assessments that includes medical, psycho-social and functional components | K | K | Y | Bedside clinic, DOAP | Skill assessment /OSCE | |
| GM 25.3 | Describe and discuss the etiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of acute confusional states | K | KH | Y | LGT, SGT | Written/viva voice | |
| GM 25.4 | Describe and discuss the etiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of vascular events in the elderly | K | KH | Y | LGT, SGT | Written/viva voice | |
| GM 25.5 | Describe and discuss the etiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of depression in the elderly | K | KH | Y | LGT, SGT | Written/viva voice | |
| GM 25.6 | Describe the etiopathogenesis and clinical presentation of dementia in the elderly.<br>Describe the acute care, stabilization, management and rehabilitation of dementia in elderly | K | KH | Y | LGT,<br>SGT | Written/viva voice | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| GM25.7 | Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of personality changes in the Elderly | K | KH | N | LGT, SGT | Written/viva voice | |
| GM25.8 | Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of osteoporosis in the elderly | K | KH | Y | LGT, SGT | Written/viva voice | |
| GM25.9 | Describe and discuss the aetiopathogenesis clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of CVA in the elderly | K | KH | Y | LGT, SGT | Written/viva voice | |
| GM25.10 | Describe and discuss the etiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of COPD in the elderly | K | KH | Y | LGT,<br>SGT | Written/viva voice | |
| GM25.11 | Describe and discuss the functional changes, acute care, stabilization, management and rehabilitation of the elderly undergoing surgery | K | KH | Y | LGT, SGT | Written/viva voice | |
| GM25.12 | Describe and discuss the etiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of degenerative joint disease | K | KH | Y | LGT, SGT | Written/viva voice | |
| GM25.13 | Describe and discuss the etiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of falls in the elderly | K | KH | Y | LGT, SGT | Written/viva voice | |
| GM25.14 | Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of common fractures in the elderly | K | KH | Y | LGT,<br>SGT | Written/viva voice | |
| GM25.15 | Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of vision abnormalities and visual loss in the elderly | K | KH | Y | LGT,<br>SGT | Written/viva voice | |
| GM25.16 | Describe and discuss the principles of physical and social rehabilitation, functional assessment, role of physiotherapy and occupational therapy in the management of disability in the elderly | K | KH | Y | LGT,<br>SGT | Written/viva voice | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| GM25.17 | Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of hearing loss in the elderly | K | KH | Y | LGT, SGT | Written/viva voice | |
| GM25.18 | Describe the Impact of the demographic changes in ageing on the population | K | KH | Y | LGT, SGT | Written/viva voice | |
| GM25.19 | Enumerate and describe the social problems in the elderly including isolation, abuse, change in family structure and their impact on Health | K | KH | Y | LGT, SGT | Written/viva voice | |
| GM25.20 | Enumerate and describe social interventions in the care of elderly including domiciliary services, rehabilitation facilities, old age homes and state interventions | K | KH | Y | LGT,<br>SGT | Written/viva voice | |
| GM25.21 | Enumerate and describe ethical issues in the care of the elderly | K | KH | Y | LGT,<br>SGT | Written/viva voice | |
| GM25.22 | Describe and discuss the aetiopathogenesis, clinical presentation, complications, assessment and management of nutritional disorders in the elderly | K | KH | Y | LGT, SGT | Written/viva voice | |
| **Topic 26: Infectious Diseases** | | **Number of competencies: (35)** | | **Number of competencies that require certification : ( NIL)** | | | |
| GM 26.1 | Describe and discuss the molecular mechanisms of microbial pathogenesis. | K | KH | Y | LGT<br>SGT | Application based question,<br>Viva voce | |
| GM26.2 | Discuss the approach to a patient with an Infectious Disease. | K | KH | Y | LGT<br>SGT | Application based question<br>Viva voce | |
| GM 26.3 | Elicit document and present a medical history that helps delineate the aetiology of infectious diseases that includes the evolution and pattern of symptoms, risk factors, exposure through occupation and Travel | S | SH | Y | Bedside clinic, DOAP | Skill assessment<br>OSCE | |
| GM 26.4 | Perform a systematic examination that establishes the diagnosis and severity of presentation that includes: general skin, mucosal and lymph node examination, chest and abdominal examination (including examination of the liver and spleen) | S | SH | Y | Bedside clinic, DOAP | Skill assessment<br>OSCE | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| GM 26.5 | 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, blood and urine cultures, sputum gram stain and cultures, sputum AFB and cultures, CSF analysis, pleural and body fluid analysis, stool | K | KH | Y | LGT<br>Bedside clinic, DOAP | Skill assessment<br>OSCE | |
| GM 26.6 | Enumerate and describe the indications for use of newer techniques in the diagnosis of these infections | K | K<br>KH | Y | LGT, SGT | MCQ/Written<br>/ Viva voce | |
| GM 26.7 | Discuss the approach to the Acutely Ill Infected Febrile Patient | K | KH | Y | LGT, SGT | Application based question, Viva voce | |
| GM 26.8 | Describe and discuss the common causes, clinical features and management of infections of the Skin, Muscles and Soft Tissues. | K | KH | Y | LGT, SGT | Application based question, Viva voce | |
| GM 26.9 | Describe and discuss the common causes, clinical features and management of liver and other Visceral abscesses**.** | K | KH | Y | LGT, SGT | Application based question<br>/ Viva voce | |
| GM 26.10 | Describe and discuss the common causes, clinical features and management of acute infectious diarrheal diseases and bacterial food poisoning. | K | KH | Y | LGT, SGT | Application based question<br>/ Viva voce | |
| GM 26.11 | Describe and discuss the common causes, clinical features and management of Urinary Tract Infections, Pyelonephritis, and Prostatitis. | K | KH | Y | LGT, SGT | Application based question<br>/ Viva voce | |
| GM 26.12 | Describe and discuss the common causes, clinical features and management of encephalitis and meningitis. | K | KH | Y | LGT, SGT | Application based question<br>/ Viva voce | |
| GM 26.13 | Describe and discuss the etiology, pathogenesis, clinical features and management of Clostridial infections like tetanus, botulism and gas gangrene. | K | KH | Y | LGT, SGT | Application based question<br>/ Viva voce | |
| GM26.14 | Describe and discuss the common causes, clinical features and management OF diseases caused by Gram-Negative Enteric Bacilli. | K | KH | N | LGT, SGT | Application based question<br>/ Viva voce | |
| GM26.15 | Describe and discuss the etiopathogenesis, clinical features, complications and management of Helicobacter pylori Infections. | K | KH | Y | LGT, SGT | Application based question<br>/ Viva voce | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| GM26.16 | Describe and discuss the clinical features, complications and management OF infections due to Pseudomonas and Burkholderia Species. | K | KH | N | LGT, SGT | MCQ/Written / Viva voce | |
| GM26.17 | Describe and discuss the etiopathogenesis, clinical features, complications and management of enteric fever. | K | KH | Y | LGT, SGT | Application based question / Viva voce | |
| GM26.18 | Describe and discuss the common causes, etiopathogenesis, clinical features and management of bacterial zoonotic diseases like Leptospirosis, Brucellosis, Plague and Anthrax. | K | KH | Y | LGT, SGT | Application based question / Viva voce | |
| GM26.19 | Describe and discuss the pathogenesis, clinical features and management of common diseases caused by Actinomycosis and Nocardia. | K | KH | Y | LGT, SGT | MCQ/Written / Viva voce | |
| GM26.20 | Describe and discuss the pathogenesis, clinical features and management of Rickettsial diseases especially of typhus group (Scrub typhus, epidemic typhus and endemic typhus). | K | KH | N | LGT, SGT | MCQ/Written / Viva voce | |
| GM26.21 | Describe and discuss the etiopathogenesis, clinical features, complications and management of Herpes Simplex Virus Infections. | K | KH | Y | LGT, SGT | MCQ/Written / Viva voce | |
| GM26.22 | Describe and discuss the etiopathogenesis, clinical features, complications and management of Varicella-Zoster Virus Infections | K | KH | Y | LGT, SGT | MCQ/Written / Viva voce | |
| GM26.23 | Describe and discuss the etiopathogenesis, clinical features, complications and management of Common Viral Respiratory Infections, Including COVID-19, SARS, Influenza. | K | KH | Y | LGT, SGT | MCQ/Written / Viva voce | |
| GM26.24 | Describe and discuss the etiopathogenesis, clinical features, management and prevention of Rabies. | K | KH | Y | LGT, SGT | MCQ/Written / Viva voce | |
| GM26.25 | Describe and discuss the etiopathogenesis, clinical features, complications and management of Dengue. | K | KH | Y | LGT, SGT | Application based question, Viva voce | |
| GM26.26 | Describe and discuss the etiopathogenesis, clinical features and management of candidiasis. | K | KH | N | LGT, SGT | MCQ/Written / Viva voce | |
| GM26.27 | Describe and discuss the etiopathogenesis, clinical features, and management of Aspergillosis | K | KH | N | LGT, SGT | MCQ/Written / Viva voce | |
| GM26.28 | Describe and discuss the etiopathogenesis, clinical features, complications and management of Amebiasis. | K | KH | Y | LGT, SGT | Application based question | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| | | | | | | / Viva voce | |
| GM26.29 | Describe and discuss the etiopathogenesis, clinical features, complications and management of Malaria | K | KH | Y | LGT, SGT | Application based question, Viva voce | |
| GM26.30 | Prescribe drugs for malaria based on the species identified, prevalence of drug resistance and national programs. | K | KH | Y | SGT | Sill assessment | |
| GM26.31 | Describe and discuss the etiopathogenesis, clinical features and management of Leishmaniasis. | K | KH | Y | LGT, SGT | Application based question<br>/ Viva voce | |
| GM 26.32 | Describe and discuss the etiopathogenesis, clinical features and management of Filarial disease. | K | KH | Y | LGT, SGT | MCQ/Written<br>/ Viva voce | |
| GM26.33 | Describe and discuss the etiopathogenesis, clinical features, complications and management of Cysticercosis. | K | KH | N | LGT, SGT | MCQ/Written<br>/ Viva voce | |
| GM26.34 | Communicate to the patient and family the diagnosis and treatment of identified infection | C | SH | Y | Bedside clinic<br>DOAP | Skill assessment<br>OSCE | |
| GM26.35 | Counsel the patient and family on prevention of various infections due to environmental issues | C | SH | Y | Bedside clinic<br>DOAP | Skill assessment<br>OSCE | |
| **Topic 27: Tuberculosis** | | **Number of competencies: (15)** | | **Number of competencies that require certification : (01)** | | | |
| GM 27.1 | Describe and discuss the epidemiology of tuberculosis and its impact on the work, life and economy of India | K | KH | Y | LGT, SGT | Application based question, Viva voce | |
| GM 27.2 | Describe and discuss the microbiology of tubercle bacillus, mode of transmission, pathogenesis, clinical evolution and natural history of pulmonary and extra pulmonary forms (including lymph node, bone and CNS) | K | KH | Y | LGT,<br>SGT | Application based question<br>/ Viva voce | |
| GM 27.3 | Discuss and describe the impact of co-infection with HIV and other co-morbid conditions such as diabetes on the natural history of tuberculosis | K | KH | Y | LGT,<br>SGT | Application based question<br>/ Viva voce | |
| GM 27.4 | Describe the epidemiology, the predisposing factors, microbial and therapeutic factors that determine resistance to anti-tubercular drugs | K | KH | Y | LGT,<br>SGT | Application based question<br>/ Viva voce | |
| GM 27.5 | Elicit, document and present an appropriate medical history that includes risk factor, contacts, symptoms including cough, fever, | S | SH | Y | Bed side clinic, DOAP session | Short/long case ,<br>Skill assessment - | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| | anorexia, weight loss, hemoptysis and symptoms of extra-pulmonary manifestations | | | | | OSCE | |
| GM 27.6 | Demonstrate and perform a systematic examination that establishes the diagnosis based on the clinical presentation that includes a a) general examination, b) examination of the chest and lung including loss of volume, mediastinal shift, percussion and auscultation of lung sounds and added sounds c) examination of the lymphatic system and d) relevant CNS examination | S | SH | Y | Bed side clinic, DOAP session | Short/long case<br>Skill assessment – OSCE | |
| GM 27.7 | Interpret a PPD (Mantoux Test) and describe and discuss the indications and pitfalls of the test | K | KH | Y | Bedside clinic,<br>SGT | MCQ/Written<br>Viva voce | |
| GM 27.8 | Generate a differential diagnosis based on the clinical history and evolution of the disease that prioritizes the most likely diagnosis in patient with history/ examination findings suggestive of Tuberculosis | S | SH | Y | Bedside clinic, Small group discussion | Long case /short case, Skill assessment, OSCE | |
| GM 27.9 | Order and interpret diagnostic tests based on the clinical presentation in patient with history/ examination findings suggestive of Tuberculosis including: CBC, Chest X ray PA view, Mantoux Test, sputum smear, culture and sensitivity, pleural fluid examination and culture, HIV testing | K<br>S | KH<br>SH | Y | Bedside clinic, DOAP session | Long case /short case<br>Skill assessment – OSCE,<br>Viva voce | |
| GM 27.10 | Interpret a sputum gram stain and AFB with antibiotic sensitivity test from a given report | S | SH | Y | DOAP<br>Tutorial | Skill assessment<br>OSCE | |
| GM 27.11 | Enumerate and describe the indications for tests including: serology, special cultures, Polymerase Chain Reaction and anti-tubercular drug sensitivity testing | K | KH | Y | SGT,<br>LGT | Short note/ Viva voce | |
| GM 27.12 | Describe and discuss the origin, indications, technique of administration, efficacy and complications of the BCG vaccine | K | KH | Y | LGT, SGT discussion | Short note/ Viva Voce | |
| GM 27.13 | Describe and discuss the pharmacology of various anti-tuberculous agents, their indications, contraindications, interactions and adverse reactions | K | KH | Y | LGT, SGT discussion | Short note/ Viva voce | |
| GM 27.14 | Prescribe an appropriate anti-tuberculosis Regimen based on the location of disease, smear positivity and negativity and comorbidities based on current national guidelines including | K<br>S | KH<br>SH | Y | LGT<br>Bedside clinic, SGT, | Application based question<br>Skill assessment- | 2 |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| | directly observed tuberculosis therapy (DOTS) | | | | | OSCE, Viva voce | |
| GM 27.15 | Describe the appropriate precautions, screening, testing and indications for chemoprophylaxis for contacts and exposed health care workers | K | KH | Y | LGT, SGT | Application based question/ Viva voce | |
| GM 27.16 | Define criteria for the cure of Tuberculosis; describe and recognize the features of drug-resistant tuberculosis, prevention and therapeutic regimens | K | KH | Y | LGT, SGT | Application based question/<br>Viva voce | |
| GM 27.17 | Educate health care workers on National Program of Tuberculosis and administering and monitoring the DOTS program | K<br>C/S | KH<br>SH | Y | DOAP | Skill assessment<br>OSCE<br>Viva voce | |
| GM 27.18 | Communicate with patients and family in an empathetic manner about the diagnosis and therapy of tuberculosis. | S | SH | Y | Bedside clinic<br>DOAP | Skill assessment<br>OSCE | |
| **Topic 28: Obstructive Airway Diseases** | | **Number of competencies: (26)** | **Number of competencies that require certification : ( 01)** | | | | |
| GM 28.1 | Define and classify obstructive airway disease | K | K | Y | LGT, SGT | MCQs/Written/ Viva Voce | |
| GM 28.2 | Describe and discuss the epidemiology, risk factors and evolution of obstructive airway disease | K | KH | Y | LGT, SGT | Application based question/ Viva voce | |
| GM 28.3 | Enumerate and describe the causes of acute episodes in patients with obstructive airway disease | K | KH | Y | LGT, SGT | MCQ/ Application based question/ Viva voce | |
| GM 28.4 | Describe and discuss the physiology and pathophysiology of hypoxia and hypercapnia | K | KH | Y | LGT, SGT | Application based question/ Viva voce | |
| GM 28.5 | Describe and discuss the genetics of alpha 1 antitrypsin deficiency in emphysema | K | KH | N | LGT, SGT | Application based question/ Viva voce | |
| GM 28.6 | Describe the role of the environment in the cause and exacerbation of obstructive airway disease | K | KH | Y | LGT, SGT | Application based question/ Viva voce | |
| GM 28.7 | Describe and discuss allergic and non-allergic precipitants of obstructive airway disease | K | KH | Y | LGT, SGT | Application based question/ Viva voce | |
| GM 28.8 | Elicit document and present a medical history that will differentiate the aetiologies of obstructive airway disease, severity and precipitants | S | SH | Y | Bed side clinic, DOAP | Long case/ short case Skill assessment, OSCE | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| GM 28.9 | Perform a systematic examination that establishes the diagnosis and severity that includes measurement of respiratory rate, level of respiratory distress, effort tolerance, breath sounds, added sounds, identification of signs of consolidation, pleural effusion and pneumothorax | S | SH | Y | Bed side clinic, DOAP | Long case/ short case<br>Skill assessment<br>OSCE | |
| GM 28.10 | Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology | S | SH | Y | Bed side clinic, DOAP session | Long case/ short case, Skill assessment<br>OSCE | |
| GM 28.11 | Describe, discuss and interpret pulmonary function tests | K<br>S | KH<br>SH | Y | Bed side clinic, DOAP session | MCQ/Written<br>Skill assessment<br>OSCE | 2 |
| GM 28.12 | Perform and interpret peak expiratory flow rate | S | P | Y | Bed side clinic, DOAP session | Documentation in logbook<br>Skill assessment<br>OSCE | |
| GM 28.13 | Describe the appropriate diagnostic work up based on the presumed aetiology in patient with Obstructive Airway Disease | S | SH | Y | Bed side clinic, DOAP session | Long case/ short case, Skill assessment<br>Viva voce, OSCE | |
| GM 28.14 | Enumerate the indications for and interpret the results of : Pulse Oximetry, ABG, Chest Radiograph | K | KH | Y | Bed side clinic, SGT<br>DOAP<br>Session | MCQ/ Written<br>Skill assessment<br>Viva voce<br>OSCE | |
| GM 28.15 | Discuss and describe therapies for OAD including bronchodilators, leukotriene inhibitors, mast cell stabilizers, theophylline, inhaled and systemic steroids, oxygen and immunotherapy | K | KH | Y | LGT, SGT | MCQ/ Written<br>Viva voce | |
| GM 28.16 | Describe and discuss the indications for vaccinations in OAD | K | KH | Y | LGT, SGT | MCQ/ Written<br>Viva voce | |
| GM 28.17 | Develop a therapeutic plan including use of bronchodilators and inhaled corticosteroids | K<br>S | KH<br>SH | Y | Bed side clinic, SGT<br>DOAP<br>Session | MCQ/ Written<br>Skill assessment<br>Viva voce | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| | | | | | | OSCE | |
| GM 28.18 | Develop a management plan for acute exacerbations including bronchodilators, systemic steroids, Antimicrobial therapy | K<br>S | KH<br>SH | Y | Bed side clinic, SGT<br>DOAP<br>Session | MCQ/ Written<br>Skill assessment<br>Viva voce<br>OSCE | |
| GM 28.19 | Describe and discuss the principles and use of oxygen therapy in the hospital and at home | K | KH | Y | LGT, SGT | MCQ/ Written<br>Viva voce | |
| GM 28.20 | Describe discuss and counsel patients appropriately on smoking cessation | K<br>C | KH<br>SH | Y | DOAP<br>Role play | Viva voce<br>Skills assessment<br>OSCE | |
| GM 28.21 | Demonstrate and counsel patient on the correct use of inhalers | S<br>C | SH | Y | DOAP<br>Role play | Skill assessment<br>OSCE | |
| GM 28.22 | Communicate diagnosis, treatment plan and subsequent follow up plan to patients | S<br>C | SH | Y | DOAP<br>Role play | Skill assessment<br>OSCE | |
| GM 28.23 | Discuss and describe the impact of OAD on patient's quality of life, wellbeing, work, family, society and workplace | K | KH | Y | LGT, SGT<br>discussion | Application based question/<br>Viva voce | |
| GM 28.24 | Discuss and describe preventive measures to reduce OAD in workplaces | K | KH | Y | LGT, SGT<br>discussion | Application based question/<br>Viva voce | |
| GM 28.25 | Demonstrate an understanding of patient's inability to change working, living and environmental factors that influence progression of airway disease | A<br>C | SH | Y | SGT,<br>Bedside clinics<br>Role play | Observation by faculty<br>OSCE | |
| GM 28.26 | Demonstrate an understanding for the difficulties faced by patients during smoking cessation | A<br>C | SH | Y | SGT,<br>Bedside clinics<br>Role play | Observation by faculty<br>OSCE | |
| **Topic 29: The role of the physician in the community** | | **Number of competencies: (26)** | | **Number of competencies that require certification : ( NIL)** | | | |
| GM 29.1 | Describe and discuss the role of non-maleficence as a guiding principle in patient care | K | KH | Y | Bedside clinic, SGT | Application based questions/ Viva Voce | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| GM 29.2 | Describe and discuss the role of autonomy and shared responsibility as a guiding principle in patient care | K | KH | Y | Bedside clinic, SGT | Application based questions/ Viva Voce | |
| GM 29.3 | Describe and discuss the role of beneficence of a guiding principle in patient care | K | KH | Y | Bedside clinic, SGT | Application based questions/ Viva Voce | |
| GM 29.4 | Identify, discuss and defend medico-legal, sociocultural, economic and ethical issues as it pertains to rights, equity and justice in access to health care | K | KH | Y | Bedside clinic, SGT | Application based questions/ Viva Voce | |
| GM 29.5 | Identify, discuss and defend medico-legal, socio-cultural and ethical issues as it pertains to decision making in health care including advanced directives and surrogate decision making | K | KH | Y | SGT | Application based questions/ Viva Voce | |
| GM 29.6 | Identify, discuss and defend medico-legal, socio-cultural and ethical issues as it pertains to decision making in emergency care including situations where patients do not have the capability or capacity to give consent | K | KH | Y | Bedside clinic, SGT | Application based questions/ Viva Voce | |
| GM 29.7 | Identify, discuss and defend medico-legal, socio-cultural and ethical issues as it pertains to research in study participants | K | KH | Y | SGT | Application based questions/ Viva Voce | |
| GM 29.8 | Demonstrate ability to work in a team of peers and superiors | S | SH | Y | Bedside clinic, SGT – Role Play | Skill assessment (Formative) | |
| GM 29.9 | Demonstrate respect to patient privacy | S | SH | Y | Bedside clinic, SGT – Role play | Skill assessment OSCE | |
| GM 29.10 | Demonstrate ability to maintain confidentiality in patient care | S | SH | Y | Bedside clinic, SGT – Role play | Skill assessment OSCE | |
| GM 29.11 | Demonstrate a commitment to continued learning | S | SH | Y | Bedside clinic, SGT Reflections writing | Skill assessment (Formative)/ Viva voce | |
| GM 29.12 | Demonstrate responsibility and work ethics while working in the health care team | S | SH | Y | Bedside clinic, DOAP, Role play | Skill assessment Formative)/ Viva voce | |
| GM 29.13 | Demonstrate ability to maintain required documentation in health care (including correct use of medical records) | S | SH | Y | SGT | Skill assessment Formative) / Viva voce | |
| GM 29.14 | Demonstrate personal grooming that is adequate and appropriate for health care responsibilities | S | SH | Y | SGT Role play | Skill assessment Formative) | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| GM 29.15 | Demonstrate adequate knowledge and use of information technology that permits appropriate patient care and continued learning | S | SH | Y | SGT | Skill assessment Formative)/ Viva voce | |
| GM 29.16 | Demonstrate awareness of limitations and seeks help and consultations appropriately | S | SH | Y | Bedside clinic, DOAP<br>Role play | Skill assessment Formative/ Viva voce | |
| GM 29.17 | Demonstrate ability to balance personal and professional priorities | S | SH | N | SGT<br>Role plays<br>Role modelling | Skill assessment Formative / Viva voce | |
| GM 29.18 | Demonstrate ability to manage time appropriately | S | SH | Y | SGT<br>Role plays | Skill assessment Formative / Viva voce | |
| GM 29.19 | Demonstrate ability to form and function in appropriate professional networks | S | SH | N | SGT | Skill assessment Formative/ Viva voce | |
| GM 29.20 | Demonstrate ability to pursue and seek career advancement | S | SH | N | SGT | Skill assessment Formative / Viva voce | |
| GM 29.21 | Demonstrate ability to follow risk management and medical error reduction practices where appropriate | S | SH | N | SGT<br>Role play | Skill assessment Formative / Viva voce | |
| GM 29.22 | Demonstrate ability to work in a mentoring relationship with junior colleagues | S | SH | N | SGT | Skill assessment Formative / Viva voce | |
| GM 29.23 | Demonstrate commitment to learning and scholarship | S | SH | N | SGT | Skill assessment Formative / Viva voce | |
| GM 29.24 | Identify, discuss and defend medico-legal, socio-cultural professional and ethical issues in dealing with Impaired physicians | K | KH | N | SGT | Application based questions/ Viva Voce | |
| GM 29.25 | Demonstrate altruism | S | SH | Y | SGT<br>Role play<br>Role modelling | Skill assessment, OSCE | |
| GM 29.26 | Administer informed consent and appropriately address patient queries to a patient being enrolled in a research protocol in a simulated environment | S | SH | Y | Bedside clinic, DOAP<br>Role play | Skill assessment OSCE | |

# PEDIATRICS (CODE: PE)

| Number | COMPETENCY<br>Thestudentshouldbeableto | Predominant Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | SuggestedTeaching Learning methods | SuggestedAssessment methods | Number required tocertify P |
|---|---|---|---|---|---|---|---|
| **PEDIATRICS(Topics:35, Competencies: 406)** | | | | | | | |
| **Topic 1: Normal Growth and Development** | **Number of competencies: (03)** | **Number of competencies that require certification: (NIL)** | | | | | |
| PE1.1 | Define the terminologies Growth and development and describe the factors affecting normal growth. | K | KH | Y | LGT,SGT | Written/Vivavoce | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required to certify P |
|---|---|---|---|---|---|---|---|
| PE1.2 | Describe the methods of assessment of growth including use of WHO and Indian national standards. Enumerate the parameters used for assessment of physical growth in infants, children and adolescents and Perform Anthropometric measurements, document in growth-charts and interpret. | K | KH | Y | LGT,SGT | Written/Vivavoce | |
| PE1.3 | Define development and Describe the normal developmental milestones with respect to motor, behaviour, social, adaptive and language.<br>Discuss the factors affecting development and describe the assessment methods of development. | K | KH | Y | LGT,SGT | Written/Vivavoce | |
| **Topic2: Common problems related to Growth** | **Number of competencies:(03)** | | | **Number of competencies that require certification: (NIL)** | | | |
| PE2.1 | Discusstheetio-pathogenesis, clinical features, assessment and management of a child who fails to thrive | K | KH | Y | LGT,SGT | Written/Vivavoce | |
| PE2.2 | Counselling the parent of a child with failure to thrive. | A/C | SH | Y | OSPE | DocumentinLogbook | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PE2.3 | Discuss the etio-pathogenesis, clinical features and managementof a child with short stature. Assessmentofachildwithshortstature. | K | KH | Y | LGT,SGT | Written/Vivavoce | |
| | **Topic 3: Common problems related to Development-1 (Developmental delay, Cerebral palsy)** **Number of competencies:(04)** **Number of competencies that require certification:(NIL)** | | | | | | |
| PE3.1 | Define developmental delay. Describe the causes of developmental delay and disability including intellectual disability in children | K | K | Y | LGT,SGT | Written/Vivavoce | |
| PE3.2 | Explain the approach to a child with developmental delay | S | SH | Y | Bedside clinics, Skills lab | Skill assessment | |
| PE3.3 | Counsel a parent ofachild with developmental delay | S+C | SH | Y | DOAP | DocumentinLogBook | |
| PE3.4 | Visit a Child Developmental Unit and observe its functioning | S | KH | Y | LGT, SGT | LogbookEntry | |
| | **Topic 4: Common problems related to Development-2 (Autism, ADHD)** **Number of competencies: (02)** **Number of competencies that require certification: (NIL)** | | | | | | |
| PE4.1 | Describe the etiology, clinical features, diagnosis and management of a child with Attention Deficit Hyperactivity Disorder (ADHD) | K | K | N | LGT,SGT | Written | |

| **Number** | **COMPETENCY**<br>**The student should be able to** | **Predominant Domain K/S/A/C** | **Level K/KH/ SH/P** | **Core Y/N** | **SuggestedTeaching Learning methods** | **SuggestedAssessment methods** | **Number required tocertify P** |
|---|---|---|---|---|---|---|---|
| PE4.2 | Describe the etiology, clinical features, diagnosis and management of a child with Autism | K | K | N | LGT,SGT | Written | |
| | **Topic 5: Common problems related to behavior** **Number of competencies: (04)** **Number of competencies that require certification: (NIL)** | | | | | | |
| PE5.1 | Describe the clinical features, diagnosis and management of Feeding problems | K | K | N | LGT,SGT | Written | |
| PE5.2 | Describe the clinical features, diagnosis and management of Breath Holding spells | K | K | N | LGT,SGT | Written/Vivavoce | |
| PE5.3 | Describe the clinical features, diagnosis and management of temper tantrums and Pica | K | K | N | LGT,SGT | Written/Vivavoce | |
| PE5.4 | Explain the etiology, clinical features and management of Enuresis | K | K | N | LGT,SGT | Written/Vivavoce | |
| | **Topic 6: Adolescent Health & common problems related to Adolescent Health** **Number of competencies: (12)** **Number of competencies that require certification: (NIL)** | | | | | | |
| PE6.1 | Define Adolescence and Describe the stages of adolescence | K | K | Y | LGT,SGT | Written/Vivavoce | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PE6.2 | Describe the physical, physiological and psychologicalchanges during adolescence (Puberty) | K | KH | Y | LGT,SGT | Written/Vivavoce | |
| PE6.3 | Describe the general health problems during adolescence | K | KH | Y | LGT,SGT | Written/Vivavoce | |
| PE6.4 | Describe adolescent sexuality and common problems related to it | K | KH | N | LGT,SGT | Written/Vivavoce | |
| PE6.5 | Describe the common Adolescent eating disorders (Anorexia Nervosa, Bulimia) | K | KH | N | LGT,SGT | Written/Vivavoce | |
| PE6.6 | Describe the commonmental health problems during adolescence | K | KH | Y | LGT,SGT | Written/Vivavoce | |
| PE6.7 | Respecting patient privacy and maintaining confidentiality while dealing with adolescence | A | SH | Y | Bedside clinics | Document in log book | |
| PE6.8 | Perform routine Adolescent Health check up including eliciting history, performing examination including SMR (Sex Maturity Rating),growth assessments(usingGrowthcharts)andsystemic exam including thyroid and Breast exam and the HEADSS screening | S | SH | Y | Bedside clinics | Skillsstation | |

| **Number** | **COMPETENCY**<br>**The student should be able to** | **Predominant Domain K/S/A/C** | **Level K/KH/ SH/P** | **Core Y/N** | **Suggested Teaching Learning methods** | **Suggested Assessment methods** | **Number required tocertify P** |
|---|---|---|---|---|---|---|---|
| PE6.9 | Explain the objectives and functions of AFHS (Adolescent Friendly Health Services) and the referral criteria | K | K | N | LGT,SGT | Written/Viva voce | |
| PE6.10 | Visit to the Adolescent Clinic | S | KH | Y | DOAP | Document in Log Book | |
| PE6.11 | Enumerate the importance of obesity and other NCD in adolescents | K | K | Y | LGT,SGT | Written/Viva voce | |
| PE6.12 | Enumerate the prevalence and importance of recognition of sexual abuse and drug abuse in adolescents and children | K | K | N | LGT,SGT | Written/Viva voce | |
| **Topic 7: To promote and support optimal Breast feeding for Infants** | | **Number of competencies: (08)** | | | **Number of competencies that require certification: (01)** | | |
| PE7.1 | Awareness on the cultural beliefs and practices of breastfeeding and explain physiology of lactation | K | K | N | LGT,SGT | Viva | |
| PE7.2 | Describe the composition and types of breast milk and discuss the differences between cow’s milk and Human milk | K | KH | Y | LGT,debate | Written/Vivavoce | |
| PE7.3 | Describe the advantages of breast milk | K | KH | Y | LGT,SGT | Written/Vivavoce | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PE7.4 | Observe the correct technique of breastfeeding and distinguish right from wrong techniques | S | P | Y | Bedside clinics, Skills lab | Skill assessment | 3 |
| PE7.5 | Enumerate the baby friendly hospital initiatives | K | KH | Y | LGT,SGT | Written/Vivavoce | |
| PE7.6 | Describe the principles of IYCF (Infant and Young Child Feeding) | K | KH | N | SGT | Viva voce | |
| PE7.7 | Participate in World Breastfeeding Week (WBW) celebration at your institute | K,S,C | SH,P | N | Outreach activities | | |
| PE7.8 | Describe the structure and functioning of human milk bank and visit the nearest human bilk bank | K,C | KH | N | SGT | Viva voce | |
| | **Topic 8: Complementary Feeding** | **Number of competencies : (05)** | | | **Number of competencies that require certification: (NIL)** | | |
| PE8.1 | Define the term Complementary Feeding | K | K | Y | LGT,SGT | Written/Vivavoce | |
| PE8.2 | Explain the principles, the initiation, attributes, frequency, techniques and hygiene related to Complementary Feeding. | K | KH | Y | LGT,SGT | Written/Vivavoce | |

| **Number** | **COMPETENCY**<br>**The student should be able to** | **Predominant Domain K/S/A/C** | **Level K/KH/ SH/P** | **Core Y/N** | **Suggested Teaching Learning methods** | **Suggested Assessment methods** | **Number required tocertify P** |
|---|---|---|---|---|---|---|---|
| PE8.3 | Enumeratethecommoncomplementaryfoods | K | K | Y | LGT,SGT | Written/Vivavoce | |
| PE8.4 | ElicithistoryontheComplementaryFeedinghabits | S | SH | Y | Bedside clinics,Skills lab | Skill assessment | |
| PE8.5 | Counselandeducatemothersonthebestpracticesin Complementary Feeding | A/C | SH | Y | DOAP | DocumentinLogBook | |
| | **Topic 9: Normal nutrition, assessment and monitoring** | **Number of competencies : (07)** | | | **Number of competencies that require certification: (NIL)** | | |
| PE9.1 | Describe age-related nutritional needs of infants, children and adolescents including micronutrients and vitamins | K | KH | Y | LGT,SGT | Written/Vivavoce | |
| PE9.2 | Describe the tools and methods for assessment and classification of nutritional status of infants, children and adolescents | K | KH | Y | LGT,SGT | Written/Vivavoce | |
| PE9.3 | Explain the Calorific value of common Indian foods | K | K | Y | LGT,SGT | Written/Vivavoce | |
| PE9.4 | Elicit document and present an appropriate nutritional history and perform a dietary recall | S | SH | Y | Bedside clinic, Skills lab | Skill assessment | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PE9.5 | Calculate the age-related calorie requirement in Health and Disease, and identify gap | S | SH | Y | Bedside clinics,SGT | Skill assessment | |
| PE9.6 | Assess and classify the nutrition status of infants, children and adolescents and recognize deviations | S | SH | Y | Bedside clinic,SGT | Skill assessment | |
| PE9.7 | Plan an appropriate diet in health and isease | S | SH | N | Bedside clinic,SGT | Documentinlogbook | |
| | **Topic 10: Provide nutritional support, assessment and monitoring for common nutritional problems** | | **Number of competencies: (06)** | | | **Number of competencies that require certification: (NIL)** | |
| PE10.1 | Define and describe the etio-pathogenesis, classify includingWHO classification, clinical features, complication and management of Severe Acute Malnutrition (SAM) and Moderate Acute Malnutrition (MAM) | K | KH | Y | LGT,SGT | Written/Vivavoce | |
| PE10.2 | OutlinetheclinicalapproachtoachildwithSAMandMAM | K | KH | Y | LGT,SGT | Written/Vivavoce | |
| PE10.3 | Assessment of a patient with SAM and MAM, diagnosis, classification and planning management including hospital and community based intervention, rehabilitation and prevention | S | SH | Y | Bedside clinics, Skills lab | Skillstation | |

| **Number** | **COMPETENCY**<br>**The student should be able to** | **Predominant Domain K/S/A/C** | **Level K/KH/ SH/P** | **Core Y/N** | **Suggested Teaching Learning methods** | **Suggested Assessment methods** | **Number required tocertify P** |
|---|---|---|---|---|---|---|---|
| PE10.4 | Counsel parents of children with SAM and MAM | S | SH | Y | Bedside clinic, Skills Station | Document in Logbook | |
| PE10.5 | Enumerate the role of locally prepared therapeutic diets and ready to use therapeutic diets | K | K | N | LGT,SGT | Written/Vivavoce | |
| PE10.6 | Explain the Adolescent Nutrition and common nutritional problems | K | KH | Y | LGT, SGT | Written/ Vivavoce | |
| | **Topic 11: Obesity in children** | | **Number of competencies: (04)** | | | **Number of competencies that require certification: (01)** | |
| PE11.1 | Describe the etiology, clinical features and management of obesity in children | K | KH | Y | LGT,SGT | Written/Vivavoce | |
| PE11.2 | Describe the risk approach for obesity and discuss the prevention strategies | K | KH | Y | LGT,SGT | Written/Vivavoce | |
| PE11.3 | Assessment of a child with obesity with regard to eliciting history including physical activity, charting and dietary recall | S | SH | Y | Bedside clinics, Standardizedpatients | Documentinlog book | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PE11.4 | Examination including calculation of BMI, measurement of waist-hip ratio, identifying external markers like acanthosis, striae, pseudogynaecomastia etc | S | SH | Y | Bedside clinics, Standardizedpatients, Videos | SkillsStation | |
| | **Topic 12: Micronutrients in Health and disease-1 (Vitamins ADEK, B Complex and C)** | **Number of competencies: (08)** | | | **Number of competencies that require certification: (NIL)** | | |
| PE12.1 | Describe the RDA, dietary sources of Vitamin A, its metabolism. | K | K | Y | LGT,SGT | Written/Vivavoce | |
| PE12.2 | Describe the causes, clinical features, classification, diagnosis and management of Deficiency/excess of Vitamin A | K | KH | Y | LGT,SGT | Written/Vivavoce | |
| PE12.3 | Describe the causes, clinical features, diagnosis and management of Deficiency/excess of Vitamin D (Rickets and Hypervitaminosis D) | K | KH | Y | LGT,SGT | Written/Vivavoce | |
| PE12.4 | Describe the causes, clinical features, diagnosis and management of deficiencyof Vitamin E | K | KH | N | LGT,SGT | Written/Vivavoce | |
| PE12.5 | Describe the RDA, dietary sources of Vitamin K and their role in health and disease | K | K | N | LGT,SGT | Written/Vivavoce | |

| **Number** | **COMPETENCY**<br>**The student should be able to** | **Predominant Domain K/S/A/C** | **Level K/KH/ SH/P** | **Core Y/N** | **Suggested Teaching Learning methods** | **Suggested Assessment methods** | **Number required tocertify P** |
|---|---|---|---|---|---|---|---|
| PE12.6 | Describe the causes, clinical features, diagnosis, management and prevention of deficiency of Vitamin K | K | KH | N | LGT,SGT | Written/Viva voce | |
| PE12.7 | Describe the causes, clinical features, diagnosis and management of deficiency of B complex Vitamins | K | KH | Y | LGT,SGT | Written/Viva voce | |
| PE12.8 | Describe the RDA, dietary sources of Vitamin C and their role in Health and disease, clinical features of deficiency and management | K | KH | N | LGT,SGT | Written/Viva voce | |
| | **Topic 13: Micronutrients in Health and disease -2: Iron, Iodine, Calcium, Magnesium** | **Number of competencies: (04)** | | | **Number of competencies that require certification: (NIL)** | | |
| PE13.1 | Describe the RDA, dietary sources of Iron and their role in health and disease, clinical features of iron deficiency, and management | K | K | Y | LGT,SGT | Written/Viva voce | |
| PE13.2 | Describe the National anaemia control program and its recommendations | K | K | Y | LGT,SGT | Written/Viva voce | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PE13.3 | Describe the RDA, dietary sources of Iodine and their role in Health and disease, deficiency, and Goiter control program | K | K | Y | LGT,SGT | Written/Viva voce | |
| PE13.4 | Describe the RDA, dietary sources of Calcium and Magnesium and their role in health and disease, clinical features and management of deficiency states. | K | K | Y | LGT,SGT | Written/Viva voce | |
| | **Topic 14: Poisoning** | **Number of competencies: (03)** | | | **Number of competencies that require certification (NIL)** | | |
| PE14.1 | Explain the risk factors, clinical features, diagnosis and management of Kerosene ingestion | K | KH | N | LGT,SGT | Written/Viva voce | |
| PE14.2 | Explain the risk factors, clinical features, diagnosis and management of Organophosphorus poisoning | K | KH | N | LGT,SGT | Written/Viva voce | |
| PE14.3 | Describe the risk factors, clinical features, diagnosis and management of paracetamol poisoning | K | KH | N | LGT,SGT | Written/Vivavoce | |
| | **Topic 15: Fluid and electrolyte balance** | **Number of competencies:(04)** | | | **Number of competencies that require certification:(NIL)** | | |
| PE15.1 | Describe the fluid and electrolyte requirement in health and disease | K | KH | Y | LGT,SGT | Written/Viva voce | |

| **Number** | **COMPETENCY**<br>**The student should be able to** | **Predominant Domain K/S/A/C** | **Level K/KH/ SH/P** | **Core Y/N** | **Suggested Teaching Learning methods** | **Suggested Assessment methods** | **Number required tocertify P** |
|---|---|---|---|---|---|---|---|
| PE15.2 | Interpret electrolyte report and describe the management of sodium and potassium imbalance | S | SH | Y | Bedside clinics,SGT | Skill assessment | |
| PE15.3 | Demonstrate the steps of inserting an IV cannula in a model | S | SH | Y | Skills Lab | mannequin | |
| PE15.4 | Demonstrate the steps of inserting an interosseous line in a mannequin | S | SH | Y | Skills Lab | mannequin | |
| **Topic 16: Integrated Management of Neonatal and Childhood Illnesses (IMNCI) Guideline** | | **Number of competencies:(06)** | | | **Number of competencies that require certification: (NIL)** | | |
| PE16.1 | Explain the components of Integrated Management of Neonatal and Childhood Illnesses (IMNCI)guidelines and method of Risk stratification | K | KH | Y | LGT,SGT | Written/Vivavoce | |
| PE16.2 | Assess children<2months using IMNCI Guidelines | S | SH | Y | DOAP | Document in log Book | |
| PE16.3 | Assess children 2 months to 5 years using IMNCI guidelines and Stratify Risk | S | SH | Y | DOAP | Document in log Book | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PE16.4 | Identify children with undernutrition as per IMNCI criteria and plan referral | S | SH | Y | DOAP | Document in log book | |
| PE16.5 | Identify and stratify risk in a sick neonate using IMNCI guidelines | S | SH | Y | DOAP | Document in Log Book | |
| PE16.6 | Apply the IMNCI guidelines in risk stratification of children with diarrheal dehydration and refer | S | SH | Y | Bedside clinics, Skillslab | Document in Log book | |
| **Topic 17: The National Health programs, NHM** | | **Number of competencies:(01)** | | **Number of competencies that require certification: (NIL)** | | | |
| PE17.1 | Describe the vision and outline the goals, strategies and plan of action of NHM and other important national programs pertaining to maternal and child health including RCH, RMNCH A+, RBSK, RKSK, JSSK mission<br>Indradhanush and ICDS | K | KH | Y | LGT,SGT | Written/Viva voce | |
| **Topic 18: National Programs, RCH - Universal Immunizations program** | | **Number of competencies: (14)** | | **Number of competencies that require certification: (01)** | | | |
| PE18.1 | Explain the components of the Universal Immunization Program and the National Immunization Program | K | KH | Y | LGT,SGT | Written/Vivavoce | |
| PE18.2 | Explain the epidemiology of Vaccine preventable diseases | K | KH | Y | LGT,SGT | Written/Vivavoce | |

| **Number** | **COMPETENCY**<br>**The student should be able to** | **Predominant Domain K/S/A/C** | **Level K/KH/ SH/P** | **Core Y/N** | **Suggested Teaching Learning methods** | **Suggested Assessment methods** | **Number required tocertify P** |
|---|---|---|---|---|---|---|---|
| PE18.3 | Describe Vaccine with regards to classification of vaccines, strain used, dose, route, schedule, risks, benefits and side effects, indications and Contraindications | K | KH | Y | LGT,SGT | Written/Viva voce | |
| PE18.4 | Define cold-chain and discuss the methods of safe storage and handling of vaccines | K | KH | Y | LGT,SGT | Written/Viva voce | |
| PE18.5 | Describe immunization in special situations – HIV positive children, immunodeficiency, pre-term, organ transplants, those who received blood and blood products, splenectomised children, adolescents, travelers | K | KH | Y | LGT,SGT | Written/Viva voce | |
| PE18.6 | Assess patient for fitness for immunization and prescribe an age-appropriate immunization schedule | S | P | Y | Out Patient clinics Skills lab | Skill assessment | 5 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PE18.7 | Educate and counsel apparent for immunization | A/C | SH | Y | DOAP | Document in Log Book | |
| PE18.8 | Describe the components of safe vaccine practice – Patient education/ counselling; adverse events following immunization, safe injection practices, documentation and Medico-legal implications | K | KH | Y | LGT,SGT | Written/Vivavoce | |
| PE18.9 | Observe the handling and storing of vaccines | S | SH | Y | DOAP | Written/Vivavoce | |
| PE18.10 | Document Immunization in an immunization record | S | SH | Y | Out Patient clinics, Skills lab | Skill assessment | |
| PE18.11 | Observe the administration of UIP vaccines | S | SH | Y | DOAP | Document in Log Book | |
| PE18.12 | Demonstrate the correct administration of different vaccines ina mannequin | S | SH | Y | DOAP | Document in Log Book | |
| PE18.13 | Explain the term implied consent in Immunization services | K | K | Y | SGT | Written/Viva voce | |
| PE18.14 | Enumerate available newer vaccines and their indications including pentavalent pneumococcal, rotavirus, JE, Hepatitis A, Influenza, COVID, typhoid, IPV & HPV | K | K | N | LGT, SGT | Written/Viva voce | |

**Topic 19: Care of the Normal New born, and High risk New born** **Number of competencies: (17)** **Number of competencies that require certification: (NIL)**

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required tocertify P |
|---|---|---|---|---|---|---|---|
| PE19.1 | Define the common neonatal nomenclatures including the classification new born and describe the characteristics of a Normal Term Neonate and High-Risk Neonates, Explain the care of a normal neonate | K | KH | Y | LGT,SGT | Written/Viva voce | |
| PE19.2 | Perform Neonatal resuscitation on a manikin | S | SH | Y | DOAP | Log book entry of Performance | |
| PE19.3 | Assessment of a normal neonate. Explain the follow up care for neonates including Breast Feeding, Temperature maintenance, immunization, importance of growth monitoring and red flags | S | SH | Y | Bedside clinics, Skills lab | Skill assessment | |
| PE19.4 | Describe the etiology, clinical features and management of Birth asphyxia | K | KH | Y | LGT,SGT | Written/Viva voce | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PE19.5 | Describe the etiology, clinical features and management of Respiratory distress in New-born including meconium aspiration and transient tachypnoea of newborn | K | KH | Y | LGT,SGT | Written/Viva voce | |
| PE19.6 | Explain the etiology, clinical features and management of Birth injuries | K | KH | Y | LGT,SGT | Written/Viva voce | |
| PE19.7 | Explain the etiology, clinical features and management of Hemorrhagic disease of Newborn | K | KH | Y | LGT,SGT | Written/Viva voce | |
| PE19.8 | Describe the clinical characteristics, complications and management of Low birth weight (preterm and Small for gestation) | K | KH | Y | LGT,SGT | Written/Vivavoce | |
| PE19.9 | Describe the temperature regulation in neonates, clinical features and management ofNeonatal Hypothermia | K | KH | Y | LGT,SGT | Written/Viva voce | |
| PE19.10 | Describe the temperature regulation in neonates, clinical features and management of Neonatal Hypoglycemia | K | KH | Y | LGT,SGT | Written/Viva voce | |
| PE19.11 | Explain the etiology, clinical features and management of Neonatal hypocalcemia | K | KH | Y | LGT,SGT | Written/Viva voce | |
| PE19.12 | Describe the etiology, clinical features and management of Neonatal seizures | K | KH | Y | LGT,SGT | Written/Viva voce | |

| **Number** | **COMPETENCY**<br>**The student should be able to** | **Predominant Domain K/S/A/C** | **Level K/KH/ SH/P** | **Core Y/N** | **Suggested Teaching Learning methods** | **Suggested Assessment methods** | **Number required tocertify P** |
|---|---|---|---|---|---|---|---|
| PE19.13 | Explain the etiology, clinical features and management of Neonatal Sepsis | K | KH | Y | LGT,SGT | Written/Viva voce | |
| PE19.14 | Describe the etiology, clinical features and management of Perinatal infections | K | KH | Y | LGT,SGT | Written/Viva voce | |
| PE19.15 | Describe the etiology, clinical features and management of Neonatal hyperbilirubinemia | K | KH | Y | LGT,SGT | Written/Viva voce | |
| PE19.16 | Identify clinical presentations of common surgical conditions in the newborn including TEF, esophageal atresia, anal atresia, cleft lip and palate, congenital diaphragmatic hernia and causes of acute abdomen | K | KH | Y | LGT,SGT | Written/Viva voce | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PE19.17 | Describe the riskfactors, clinical features, diagnosis and management of Oxygen toxicity | K | KH | N | LGT, SGT | Written/ Viva voce | |
| | **Topic 20: Genito-Urinary system** | **Number of competencies (09)** | | | **Number of competencies that require certification: (NIL)** | | |
| PE20.1 | Enumerate the etio-pathogenesis, clinical features, complications and management of Urinary Tract infection in children | K | KH | Y | LGT,SGT | Written/Viva voce | |
| PE20.2 | Enumerate the etio-pathogenesis, clinical features, complications and management of Acute Post-Streptococcal Glomerulonephritis in Children | K | KH | Y | LGT,SGT | Written/Viva voce | |
| PE20.3 | Describe the approach and referral criteria to a child with Proteinuria | K | KH | Y | LGT,SGT | Written/Viva voce | |
| PE20.4 | Describe the approach and referral criteria to a child with Hematuria | K | KH | Y | LGT,SGT | Written/Viva voce | |
| PE20.5 | Enumerate the etio-pathogenesis, clinical features, complications and management of Acute Renal Failure in children | K | KH | Y | LGT,SGT | Written/Viva voce | |
| PE20.6 | Enumerate the etio-pathogenesis, clinical features, complications and management of Chronic Renal Failure in Children | K | KH | Y | LGT,SGT | Written/Viva voce | |
| PE20.7 | Enumerate the etio-pathogenesis, clinical features, complications and management of Wilms Tumor | K | KH | Y | LGT,SGT | Written/Viva voce | |
| PE20.8 | Perform and interpret the common analytes in a Urine examination | S | SH | Y | Bedside clinics, Skills lab | Skill assessment | |

| **Number** | **COMPETENCY**<br>**The student should be able to** | **Predominant Domain K/S/A/C** | **Level K/KH/ SH/P** | **Core Y/N** | **Suggested Teaching Learning methods** | **Suggested Assessment methods** | **Number required tocertify P** |
|---|---|---|---|---|---|---|---|
| PE20.9 | InterpretreportofPlainXRayofKUB | S | SH | Y | Bedside clinics, Skills lab | Log book | |
| **Topic 21: Approach to and recognition of a child with possible Rheumatologic problem** | | **Number of competencies: (050** | | | **Number of competencies that require certification:(NIL)** | | |
| PE21.1 | Enumerate the common Rheumatological problems in children. Discuss the clinical approach to recognition and referral of a child with Rheumatological problem | K | KH | Y | LGT,SGT | Written/Viva voce | |
| PE21.2 | Describe the etiopathogenesis, diagnosis and management of Henoch Schoenlein Purpura. | K | K | N | LGT,SGT | Written/Viva voce | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PE21.3 | Describe the etiopathogenesis, diagnosis and management of Kawasaki Disease | K | K | N | LGT,SGT | Written/Viva voce | |
| PE21.4 | Describe the etiopathogenesis, diagnosis and management of SLE | K | K | N | LGT,SGT | Written/Viva voce | |
| PE21.5 | Describe the etiopathogenesis, diagnosis and management of JIA | K | K | N | LGT,SGT | Written/Viva voce | |
| **Topic 22: Cardiovascular system- Heart Diseases** | | **Number of competencies: (11)** | | **Number of competencies that require certification:(NIL)** | | | |
| PE22.1 | Describe the Hemodynamic changes, clinical presentation, complications and management of Acyanotic Heart Diseases | K | KH | Y | LGT,SGT | Written/Viva voce | |
| PE22.2 | Describe the Hemodynamic changes, clinical presentation, complications and management of Cyanotic Heart Diseases | K | KH | Y | LGT,SGT | Written/Viva voce | |
| PE22.3 | Explain the etio-pathogenesis, clinical presentation and management of cardiac failure in infant and children | K | KH | Y | LGT,SGT | Written/Viva voce | |
| PE22.4 | Explain the etio-pathogenesis, clinical presentation and management of Acute Rheumatic Fever in children | K | KH | Y | LGT,SGT | Written/Viva voce | |
| PE22.5 | Describe the etio-pathogenesis, clinical features and management of Infective endocarditis in children | K | KH | Y | LGT,SGT | Written/Viva voce | |
| PE22.6 | Describe the etiopathogenesis, grading, clinical features and management of hypertension in children | K | KH | Y | LGT,SGT | Short notes | |
| PE22.7 | Record pulse, blood pressure, temperature and respiratory rate and interpret as per the age | S | SH | Y | Bedside clinics, Skills lab | Skill assessment | |

| **Number** | **COMPETENCY**<br>**The student should be able to** | **Predominant Domain K/S/A/C** | **Level K/KH/ SH/P** | **Core Y/N** | **Suggested Teaching Learning methods** | **Suggested Assessment methods** | **Number required tocertify P** |
|---|---|---|---|---|---|---|---|
| PE22.8 | Perform independently examination of the cardiovascular system– look for precordial bulge, pulsations in the precordium, JVP and its significance in children and infants, relevance of percussion in Pediatric examination, Auscultation and other system examination and document | S | SH | Y | Bedside clinics, Skills lab | Skill station | |
| PE22.9 | Interpret a chest X-ray and recognize cardiomegaly | S | SH | Y | Bedside clinics, Skills lab | Log book entry | |
| PE22.10 | Interpret Pediatric ECG | S | SH | Y | Bedside clinics, Skills lab | Log book entry | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PE22.11 | Demonstrate empathy while dealing with children with cardiac diseases in every patient encounter | A | SH | Y | SGT | Document in Log Book | |
| **Topic 23: GIT and Hepatobiliary system** | | **Number of competencies: (21)** | | **Number of competencies that require certification:(02)** | | | |
| PE 23.1 | Define vomiting, discuss causes, evaluation & management of vomiting in children | K | KH | y | LGT, SGT | Written/ Viva voce | |
| PE23.2 | Define constipation discuss causes, evaluation & management of constipation in children | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE23.3 | Discuss the causes, evaluation and management of abdominal pain in children | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE23.4 | Define diarrhea (acute diarrhea, chronic diarrhea, persistent diarrhea). Discuss etiology, risk factors, clinical features, complications, investigations and treatment (according to WHO guidelines) of acute gastroenteritis. | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE23.5 | Discuss the causes, clinical presentation and management of dysentery in children | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE23.6 | Discuss the physiological basis of ORT, types of ORS and the composition of various types of ORS. Discuss composition of fluids used in management of diarrhea. Discuss the role of antibiotics, antispasmodics, anti-secretory drugs, probiotics, anti-emetics in acute diarrheal diseases | K | KH | Y | LGT, SGT | Written/ Viva voce | |

| **Number** | **COMPETENCY**<br>**The student should be able to** | **Predominant Domain K/S/A/C** | **Level K/KH/ SH/P** | **Core Y/N** | **Suggested Teaching Learning methods** | **Suggested Assessment methods** | **Number required tocertify P** |
|---|---|---|---|---|---|---|---|
| PE23.7 | Elicit history pertaining to diarrheal diseases. Assess for signs & symptoms of dehydration, shock, prerenal AKI, electrolyte disturbances, document and present. | S | SH | Y | Bedside clinics, Skills lab | Skill assessment | |
| PE23.8 | Perform and interpret stool examination including Hanging Drop, Interpret RFT and electrolyte report In the context of diarrhea | S | SH | N | Bedside clinics, Skills | lab Log book | |
| PE23.9 | Perform NG tube insertion in a manikin | S | P | Y | DOAP | Document in Log book | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PE23.10 | Perform IV cannulation in a model | S | P | Y | DOAP | Document in Log book | |
| PE23.11 | Perform Interosseous insertion model | S | P | Y | DOAP | Document in Log book | 2 |
| PE23.12 | Discuss the etio-pathogenesis, clinical presentation and management of Malabsorption in Children and its causes including celiac disease | K | KH | N | LGT, SGT | Written/ Viva voce | 2 |
| PE23.13 | Discuss the etio-pathogenesis, clinical features and management of acute hepatitis in children | K | KH | Y | LGT,SGT activity | Written/Viva voce | |
| PE23.14 | Discuss the etio-pathogenesis, clinical features and management of Fulminant Hepatic Failure in children | K | KH | Y | LGT,SGT activity | Written/Viva voce | |
| PE23.15 | Discuss the etio-pathogenesis, clinical features and management of chronic liver diseases in children | K | KH | Y | LGT,SGT activity | Written/Viva voce | |
| PE23.16 | Discuss the etio-pathogenesis, clinical features and management of Portal Hypertension in children | K | KH | Y | LGT,SGT activity | Written/Viva voce | |
| PE23.17 | Elicit, document and present the history related to diseases of Gastrointestinal system | S | SH | Y | Bedside clinics,Skills lab | Skills Station | |
| PE23.18 | Identify external markers for GI and Liver disorders e.g. Jaundice, Pallor, Gynecomastia, Spider angioma, Palmar erythema, Ichthyosis, Caput medusa, Clubbing, failing to thrive, Vitamin A and D deficiency | S | SH | Y | Bedside clinics,Skills lab | Skill assessment | |

| **Number** | **COMPETENCY**<br>**The student should be able to** | **Predominant Domain K/S/A/C** | **Level K/KH/ SH/P** | **Core Y/N** | **Suggested Teaching Learning methods** | **Suggested Assessment methods** | **Number required to certify P** |
|---|---|---|---|---|---|---|---|
| PE23.19 | Perform examination of the abdomen, demonstrate organomegaly, ascites etc. | S | SH | Y | Bedside clinics,Skills lab | Skill assessment | |
| PE23.20 | Interpret Liver Function Tests, viral markers, ultra-sonogram report | S | SH | Y | Bedside clinics,Skills lab | Skill assessment | |
| PE23.21 | Enumerate the indications for Upper GI endoscopy | K | K | N | SGT | Viva voce | |
| | **Topic: 24 Pediatric Emergencies – Common Pediatric Emergencies** | **Number of competencies: (23)** | | | **Number of competencies that require certification:(10)** | | |
| PE24.1 | Describe the etio-pathogenesis, clinical approach and management of cardio-respiratory arrest in children | K | KH | Y | LGT, SGT | Written/ Viva voce | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PE24.2 | Describe the etio-pathogenesis and management of respiratorydistressin children | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE24.3 | Describe the etio-pathogenesis, clinical approach and management of Shock in children | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE24.4 | Describe the etio-pathogenesis, clinical approach and management of Status epilepticus | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE24.5 | Describe theetio-pathogenesis, clinical approach and management of an unconscious child | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE24.6 | Explain oxygen therapy, in Pediatric emergencies and modes of administration | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE24.7 | Observe the various methods of administering Oxygen | S | KH | Y | Demonstration | Document in log book | |
| PE24.8 | Assess airwayand breathing: recognise signs ofsevere respiratory distress. Check for cyanosis, severe chest in drawing, Grunting | S | P | Y | DOAP, Skills lab | Skills Assessment | 3 |
| PE24.9 | Assess airway and breathing. Demonstrate the method of positioning of an infant & child to open airway in a Simulated environment | S | P | Y | DOAP, Skills Lab | Skills Assessment | 3 |
| PE24.10 | Assess airway and breathing: administer oxygen using correct techniqueand appropriateflow rate | S | P | Y | DOAP, Skills Lab | Skills Assessment | 3 |

| **Number** | **COMPETENCY Thestudentshouldbeableto** | **Predominant Domain K/S/A/C** | **Level K/KH/ SH/P** | **Core Y/N** | **Suggested Teaching Learning methods** | **Suggested Assessment methods** | **Number required tocertify P** |
|---|---|---|---|---|---|---|---|
| PE24.11 | Assess airway and breathing perform assisted ventilation by Bag and mask in a simulated environment | S | P | Y | DOAP, Skills lab | Skills Assessment | 3 |
| PE24.12 | Check for signs of shock i.e. pulse, Blood pressure, CRT | S | P | Y | DOAP, Skills Lab | Skills Assessment | 3 |
| PE24.13 | Secure an IV access in a simulated environment | S | P | Y | DOAP, Skills Lab | Skills Assessment | 3 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PE24.14 | Choose the type offluidand calculate the fluid requirement in shock | S | P | Y | DOAP, SGTactivity | Skills Assessment | 3 |
| PE24.15 | Assess level of consciousness & provide emergency treatment to achildwith convulsions/coma position an unconscious child. Position a child with suspected trauma. Administer IV/per rectal Diazepam for a convulsing child in a simulated environment. | S | P | Y | DOAP, Skills Lab | Skills Assessment | 3 |
| PE24.16 | Assess for signs of severe dehydration | S | P | Y | Bedside clinics, Skills lab | Skill station | 3 |
| PE24.17 | Monitoring and maintaining temperature: define hypothermia. Describe the clinical features, complications and management of Hypothermia | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE24.18 | Describe the advantages and correct method of keeping an infant warm by skin- to- skin contact | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE24.19 | Describe the environmental measures to maintain temperature | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE24.20 | Assess for hypothermia and maintain temperature | S | SH | Y | Skillslab | Skills Assessment | |
| PE24.21 | Provide BLS for children in manikin | S | P | Y | SkillsLab | Skills Assessment | 3 |
| PE24.22 | Counsel parents of dangerously ill/ terminally ill child to break a bad news | S | SH | Y | DOAP | Document in Log book | |
| PE24.23 | Obtain Informed Consent | S | SH | Y | DOAP | Document in Log book | |

| **Number** | **COMPETENCY**<br>**The student should be able to** | **Predominant Domain K/S/A/C** | **Level K/KH/ SH/P** | **Core Y/N** | **Suggested Teaching Learning methods** | **Suggested Assessment methods** | **Number required tocertify P** |
|---|---|---|---|---|---|---|---|
| **Topic 25: Respiratory system** | **Number of competencies: (06)** | | **Number of competencies that require certification: (NIL)** | | | | |
| PE25.1 | Describe the etio-pathogenesis, clinical features and management ofAcute Otitis Media (AOM) | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE25.2 | Describe the etio-pathogenesis, clinical features and management of Epiglottitis | K | KH | Y | LGT, SGT | Written/ Viva voce | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PE25.3 | Explain the etio-pathogenesis, clinical features and management ofAcute laryngo- tracheo-bronchitis | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE25.4 | Describe the etiology, clinical features and management of Stridor in children | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE25.5 | Describe the types, clinical presentation, and management of foreign body aspiration in infants and children | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE25.6 | Describe the etio-pathogenesis, diagnosis, clinical features, management and prevention of lower respiratory infections including bronchiolitis, wheeze associated LRTI Pneumonia and empyema | S | SH | Y | Bedside clinics, SGT,LGT | Skill assessment /Written /Viva voce | |
| **Topic 26: Anemia and other Hemato-oncologic disorders in children Number of competencies: (17). Number of competencies that require certification: (NIL)** | | | | | | | |
| PE26.1 | Explain the etio-pathogenesis, clinical features, classification and approach to a child with anaemia | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE26.2 | Describe the etio-pathogenesis, clinical features and management of Iron Deficiency anaemia | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE26.3 | Describe the etiopathogenesis, clinical features and management of VITB12, Folate deficiency anaemia | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE26.4 | Explain the etio-pathogenesis, clinical features and management of Hemolytic anemia, Thalassemia Major, Sickle cell anaemia, Hereditary spherocytosis, Auto-immune hemolytic | K | KH | Y | LGT, SGT | Written/ Viva voce | |

| **Number** | **COMPETENCY The student should be able to** | **Predominant Domain K/S/A/C** | **Level K/KH/ SH/P** | **Core Y/N** | **Suggested Teaching Learning methods** | **Suggested Assessment methods** | **Number required tocertify P** |
|---|---|---|---|---|---|---|---|
| | anaemia and hemolytic uremic syndrome | | | | | | |
| PE26.5 | Describe the National Anaemia Control Program | K | KH | Y | LGT, SGT | Written/ Viva voce | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PE26.6 | Describe the cause of thrombocytopenia in children: describe theclinical features and management of Idiopathic Thrombocytopenic Purpura(ITP) | K | KH | N | LGT, SGT | Written/ Viva voce | |
| PE26.7 | Explain the etiology, classification, pathogenesis and clinical features of Hemophilia in children | K | KH | N | LGT, SGT | Written/ Viva voce | |
| PE26.8 | Explain the etiology, clinical presentation and management of AcuteLymphoblastic Leukemia inchildren | K | KH | N | LGT, SGT | Written/ Viva voce | |
| PE26.9 | Explain the etiology, clinical presentation and management of lymphomain children | K | KH | N | LGT, SGT | Written/ Vivavoce | |
| PE26.10 | Perform examination of the abdomen, demonstrate organomegaly | S | SH | Y | Bedside clinics, Skills lab | Skill assessment | |
| PE26.11 | Interpret CBC, LFT | S | SH | Y | Bedside clinics, Skills lab | Skill assessment | |
| PE26.12 | Perform and interpret peripheral smear | S | SH | Y | DOAP | Document in log book | |
| PE26.13 | Explain the indications for Hemoglobin electrophoresis and interpret report | K | K | N | SGT | Viva voce | |
| PE26.14 | Demonstrate, performance of bone marrow aspiration in manikin | S | SH | Y | Skillslab | Document in log Book | |
| PE26.15 | Enumerate the referral criteria for Hematological conditions | S | SH | Y | Bedside clinics, SGT | Viva voce | |
| PE26.16 | Counsel and educate patients about prevention and treatment ofanemia | A/C | SH | Y | Bedside clinics, Skills lab | Document in log book | |
| PE26.17 | Enumerate the indications for splenectomy and precautions | K | K | N | SGT Activity | Viva voce | |
| **Topic 27: Systemic Pediatrics-Central Nervous system** | | **Number of competencies: (14)** | | **Number of competencies that require certification:(NIL)** | | | |

| **Number** | **COMPETENCY**<br>**The student should be able to** | **Predominant Domain K/S/A/C** | **Level K/KH/ SH/P** | **Core Y/N** | **SuggestedTeaching Learning methods** | **SuggestedAssessment methods** | **Number required tocertify P** |
|---|---|---|---|---|---|---|---|
| PE27.1 | Explain the etio-pathogenesis, clinical features, complications, management, and prevention of acute bacterial Meningitis in children | K | KH | Y | LGT, SGT | Written/ Viva voce | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PE27.2 | Describe the etio-pathogenesis, clinical features, complications, management and preventionof tuberculous meningitis | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE27.3 | Distinguish bacterial, viral and tuberculous meningitis | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE27.4 | Explain the etio-pathogenesis, classification, clinical features, complication and management of Hydrocephalus in children | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE27.5 | Explain the etio-pathogenesis, clinical features, and management of Infantile hemiplegia | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE27.6 | Explain the etio-pathogenesis, clinical features, complications and management of Febrile seizures in children | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE27.7 | Define epilepsy. Discuss the pathogenesis, clinical types, presentation and management of Epilepsy in children | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE27.8 | Define status Epilepticus. Discuss the clinical presentation and management | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE27.9 | Describe the etio-pathogenesis, clinical features and management of Mental retardation in children | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE27.10 | Describe the etio-pathogenesis, clinical features and management of children with cerebral palsy | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE27.11 | Enumerate the causes of floppiness in an infant and discuss the clinical features, differential diagnosis and management | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE27.12 | Explain the etio-pathogenesis, clinical features and management of Duchene muscular dystrophy | K | KH | Y | LGT, SGT | Written/ Viva voce | |

| **Number** | **COMPETENCY**<br>**The student should be able to** | **Predominant Domain K/S/A/C** | **Level K/KH/ SH/P** | **Core Y/N** | **Suggested Teaching Learning methods** | **Suggested Assessment methods** | **Number required tocertify P** |
|---|---|---|---|---|---|---|---|
| PE27.13 | Interpret and explain the findings in a CSF analysis | S | SH | Y | SGT | Logbook | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PE27.14 | Perform in a mannequin lumbar puncture. Discuss the indications, contraindication of the procedure | S | SH | Y | Bedside clinics, Skills lab | Skill assessment | |
| **Topic 28: Allergic Rhinitis, Atopic Dermatitis, Bronchial Asthma Number of competencies: (05) Number of competencies that require certification: (NIL)** | | | | | | | |
| PE28.1 | Describe the etio-pathogenesis, clinical signs, management and prevention of AllergicRhinitis in Children | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE28.2 | Explainthe etio-pathogenesis, clinical types, presentations, management and prevention of childhood Asthma | K | KH | Y | | Written/ Viva voce | |
| PE28.3 | Develop a treatment plan for Asthma appropriate to clinical presentation & severity | S | SH | Y | | Skill assessment | |
| PE28.4 | Enumerate the indications for PFT | K | K | N | | Viva voce | |
| PE28.5 | Observe administration of Nebulization | S | SH | Y | | Document in log book | |
| **Topic 29: Chromosomal Abnormalities Number of competencies: (05) Number of competencies that require certification: (NIL)** | | | | | | | |
| PE29.1 | Describe the genetic basis, risk factors, clinical features, complications, prenatal diagnosis, management and genetic counselling in Down Syndrome. | K | KH | Y | | Written/ Viva voce | |
| PE29.2 | Interpret normal Karyotype and recognize Trisomy 21 | S | SH | Y | Bedside clinics, Skills lab | Log book | |
| PE29.3 | Counsel parents regarding -1.Present child, 2.Risk in the next pregnancy | A/C | SH | N | Bedside clinics, Skills lab | Log book | |
| PE29.4 | Describe the geneticbasis, risk factors, clinical features, complications, prenatal diagnosis, management and genetic counselling in Turner's Syndrome | K | KH | N | LGT, SGT | Written/ Viva voce | |
| PE29.5 | Describe the genetic basis, risk factors, clinical features, complications, prenatal diagnosis, management and genetic counselling in Klinefelter Syndrome | K | KH | Y | LGT, SGT | Written/ Viva voce | |

| **Number** | **COMPETENCY**<br>**The student should be able to** | **Predominant Domain K/S/A/C** | **Level K/KH/ SH/P** | **Core Y/N** | **Suggested Teaching Learning methods** | **Suggested Assessment methods** | **Number required tocertify P** |
|---|---|---|---|---|---|---|---|

| Topic 30: Endocrinology | | Number of competencies: (07) | | Number of competencies that require certification: (01) | | | |
|---|---|---|---|---|---|---|---|
| PE30.1 | Describe the etiology (congenital & acquired), clinical features, management of Hypothyroidism in children | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE30.2 | Interpret and explain neonatal thyroid screening report | S | SH | Y | Bedside clinics, SGT | Skill assessment | |
| PE30.3 | Describe the etiology, clinical types, clinical features, diagnostic criteria, complications and management of Diabetes mellitus in children | K | KH | Y | LGT, SGTs | Written/ Viva voce | |
| PE30.4 | Recognize clinical features DKA, Perform and interpret Urine Dip Stick for Sugar & Ketone bodies & refer | S | P | Y | DOAP | Skill assessment | 3 |
| PE30.5 | Perform genital examination and recognize Ambiguous Genitalia, counsel and refer | S | SH | Y | Bedside clinicSkills lab | Skill assessment | |
| PE30.6 | Define precocious and delayed Puberty, Perform Sexual Maturity Rating (SMR), Recognize precocious and delayed Puberty and refer | K, S | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE30.7 | Identify deviations in growth and plan appropriate referral | S | P | Y | Bedside clinics,Skills Lab | Skill assessment | |
| **Topic 31:Vaccine preventable Diseases – Tuberculosis** | | **Number of competencies: (14)** | | **Number of competencies that require certification: (NIL)** | | | |
| PE31.1 | Describe the epidemiology, clinical features, clinical types, complications of Tuberculosis in Children and Adolescents | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE31.2 | Describe the various diagnostic tools for childhood tuberculosis | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE31.3 | Describe the various regimens for management of Tuberculosis as per National Guidelines | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE31.4 | Describe the preventive strategies adopted and the objectives and outcome of the National Tuberculosis Control Program | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE31.5 | Elicit, document and present history of contact with tuberculosis in every patient encounter, Identify BCG scar and interpret a Mantoux test. | S | SH | Y | Bedside clinics, Skilllab | Skill assessment | |
| PE31.6 | Interpret blood tests in the context of laboratory evidence for tuberculosis | S | SH | N | Bedside clinics, SGT | Log book | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching Learning methods | Suggested Assessment methods | Number required tocertify P |
|---|---|---|---|---|---|---|---|
| PE31.7 | Describe the various samples for demonstrating the organism e.g. Gastric Aspirate, Sputum, CSF, FNAC | K | KH | Y | Bedside clinics, SGT | Written/ Viva voce | |
| PE31.8 | Enumeratethe indications, discuss the limitations of methods of culturing M. Tuberculosis and the newer diagnostic tools for Tuberculosis including BACTEC CBNAAT an-d their indications | K | KH | Y | SGT | Written/ Viva voce | |
| PE31.9 | Enumerate the common causes of fever and describe the etiopathogenesis, clinical features, complications and managementof fever inchildren | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE31.10 | Enumerate the common causes of fever and describe the etiopathogenesis, clinical features, complications and managementof child with exanthematous illnesses like Measles, Mumps, Rubella &Chicken pox | K | KH | Y | LGT, SGT | Written/ Viva voce | |
| PE31.11 | Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and managementof child with Diphtheria, Pertussis, Tetanus. | K | KH | Y | LGT, SGT | Written/ Vivavoce | |
| PE31.12 | Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and managementof child withTyphoid | K | KH | Y | LGT, SGT | Written/ Vivavoce | |
| PE31.13 | Enumerate the common causes of fever and discuss theetiopathogenesis, clinical features, complications and management of child withDengue, Chikungunyaand other vectorborne diseases | K | KH | Y | LGT, SGT | Written/ Vivavoce | |
| PE31.14 | Enumerate the common causes of fever and discuss theetiopathogenesis, clinical features, complications and managementof children with Common Parasitic infections, malaria, leishmaniasis, filariasis, helminthic infestations, amebiasis, giardiasis | K | KH | Y | LGT, SGT | Written/ Vivavoce | |
| **Topic 32: The role of the physician in the community** | | **Number of competencies: (01)** | | **Number of competencies that require certification : (NIL)** | | | |
| PE32.1 | Identify, Describe and Defend medicolegal, socio-cultural and ethicalissuesas they pertain to health care in children (including Parental rights and right to refuse treatment) | K | KH | Y | SGT | Written/ Viva voce | |

# PSYCHIATRY (CODE: PS)

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| **PSYCHIATRY (Topics=13, Competencies=17)** | | | | | | | |
| **Topic 1: Introduction to Psychiatry** | | **Number of competencies:03** | | | **Number of competencies that require certification : (NIL)** | | |
| PS 1.1 | Describe the classification of psychiatric disorders and its basis (neurotic vs psychotic; organic vs non-organic/functional) | K | KH | N | LGT/SDL | Written/ Tutorial | |
| PS1.2 | Elicit history in patient presenting with psychiatric disorder(s) | S | SH | Y | Bedside clinic, DOAP session | Direct Observation | |
| PS1.3 | Perform mental status examination (MSE) in patients presenting with psychiatric disorder(s) | S | SH | Y | Bedside clinic, DOAP session | Direct Observation | |
| **Topic 2: Organic Psychiatric Disorders** | | **Number of competencies:01** | | | **Number of competencies that require certification : (NIL)** | | |
| PS 2.1* | Describe common Organic Psychiatric Disorders with emphasis on Delirium & Dementia | K | KH | Y | LGT/Flipped classroom | Written, Tutorial | |
| **Topic 3: Psychoactive Substance Use Disorders and other addiction disorders** | | **Number of competencies: 01** | | | **Number of competencies that require certification : (NIL)** | | |
| PS 3.1 | Describe and identify clinical presentation of abuse of alcohol, nicotine and other psychoactive substances prevalent in your area and their management. | S, K | SH, KH | Y | Bedside clinic, DOAP | Direct observation, OSCE | |
| **Topic 4: Schizophrenia and other Psychotic disorders** | | **Number of competencies: 01** | | | **Number of competencies that require certification : (NIL)** | | |
| PS 4.1 | Diagnose and manage a case of Schizophrenia at primary care level | S,K | KH | Y | Bedside teaching | Direct observation, OSCE | |
| **Topic 5: Depressive disorders** | | **Number of competencies: 02** | | | **Number of competencies that require certification : 1** | | |
| PS 5.1 | Diagnose and manage case of depression at primary care level | S | SH | Y | Bedside teaching, role-play, DOAP | OSCE, Checklist based Skill assessment | 1 |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| PS 5.2 | Identify red flag signs of depression and refer to a specialist | S | KH/ SH | Y | Role play, Cine-education | Checklist based Skill assessment | |
| **Topic 6: Bipolar disorders** | **Number of competencies: 01** | | | **Nu mber of competencies that require certification : (NIL)** | | | |
| PS 6.1 | Diagnose and manage an episode of Mania at primary care level | S | SH | N | Bedside teaching | Short answer, viva-voce | |
| **Topic 7: Anxiety Disorders (including OCD)** | **Number of competencies: 01** | | | **Number of competencies that require certification : (NIL)** | | | |
| PS 7.1 | Diagnose and manage anxiety disorders at primary care level | S | SH | Y | Bedside teaching, role-play, DOAP | OSCE, Checklist based Skill assessment | |
| **Topic 8: Stress related disorders** | **Number of competencies:01** | | | **Number of competencies that require certification : (NIL)** | | | |
| PS8.1 | Diagnose stress related disorders (Acute Stress Disorder and Adjustment Disorders) and make appropriate referral | K | SH | Y | Bedside clinic, Role play | Skill assessment | |
| **Topic 9: Psychosexual and Gender Identity Disorders** | **Number of competencies:02** | | | **Number of competencies that require certification : (NIL)** | | | |
| PS 9.1 | Describe common psychosexual disorders | K | K | N | LGT | MCQ, Written, Viva voce | |
| PS9.2 | Demonstrate knowledge of medico-legal, societal, ethical and humanitarian principles on dealing with LGBTQA+ community. | K | K | Y | LGT/SDL | MCQ, Written Viva voce | |
| **Topic 10: Psychiatric Disorders in Childhood and Adolescence** | **Number of competencies:01** | | | **Number of competencies that require certification : (NIL)** | | | |
| PS 10.1 | Classify and describe disorders commonly seen in childhood and adolescence with emphasis on ADHD and Autism Spectrum Disorders | K | KH | Y | LGT | MCQ, Written Viva voce | |
| **Topic 11: Intellectual Disability Disorder** | **Number of competencies: 01** | | | **Number of competencies that require certification : (NIL)** | | | |
| PS11.1 | Describe Intellectual Disability Disorder | K | KH | Y | LGT | MCQ, Written Viva voce | |
| **Topic 12: Psychiatric Emergencies** | **Number of Competencies: 01** | | | **Number of competencies that require certification : 1** | | | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number required to certify P |
|---|---|---|---|---|---|---|---|
| PS12.1 | Perform suicide risk assessment | S | SH | Y | Role play, bedside teaching | Skill assessment | 01 |
| **Topic 13: Therapeutics** | **Number of Competencies: 01** | | | **Number of competencies that require certification : (NIL)** | | | |
| PS 13.1 | Describe the process of modified ECT and identify misconceptions associated with ECT | K | KH | Y | SGT observation & discussion, Video | Written/<br>Viva voce | |

# DERMATOLOGY, VENEREOLOGY & LEPROSY (CODE: DR)

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/S H/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number Requiredto certify P |
|---|---|---|---|---|---|---|---|
| **DERMATOLOGY, VENEREOLOGY & LEPROSY** (Topics=15,Competencies=48) | | | | | | | |
| **Topic 1: Acne Number of competencies: (02) Number of competencies that require certification: (NIL)** | | | | | | | |
| DR1.1 | Recognize a patient with acne vulgaris including the risk factors, etiology and clinical grading | K/S/A | KH/SH | Y | LGT, SGT , Bed side teaching, Demonstration | Written, Tutorials, Direct Observation, OSCE | |
| DR1.2 | Device a management plan of a patient with acne | K | KH | Y | LGT, SGT, Bed side teaching | Written, Tutorials, Direct Observation, OSCE, Prescription writing | |
| **Topic 2: Vitiligo Number of competencies: (01) Number of competencies that require certification: (NIL)** | | | | | | | |
| DR 2.1 | Identify and differentiate vitiligo from other causes of hypo pigmented lesions and present a treatment plan | K/S | KH/SH | Y | SGT, Bedside teaching, Demonstration | Written, OSCE, Picture based MCQs | |
| **Topic 3: Papulosquamous disorders Number of competencies:(03) Number of competencies that require certification: (NIL)** | | | | | | | |
| DR 3.1 | Identify and distinguish psoriatic lesions from other causes | K/S | KH/SH | Y | SGT, Bedside teaching, Demonstration | Written, OSCE, Picture based MCQs | |
| DR3.2 | Demonstrate the Grattage test | S | SH | Y | Bedside teaching, Demonstration, DOAP | Direct Observation, OSCE | |
| DR3.3 | Devise a treatment plan for a patient with psoriasis and counsel the patient regarding various treatment options and chronicity of disease | K/S/A/C | SH | Y | SGT, Bedside teaching, Role Play | Mini CEX, Case Based Discussion, OSCE | |
| **Topic 4: Lichen Planus Number of competencies:(01) Number of competencies that require certification: (NIL)** | | | | | | | |
| DR 4.1 | Identify and manage a case of lichen planus | K/S | KH/SH | Y | SGT, Bedside teaching, | Written, OSCE, | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number Requiredto certify P |
|---|---|---|---|---|---|---|---|
| | | | | | Demonstration | Picture based MCQs | |
| **Topic 5: Scabies** | **Number of competencies:(01)** | **Number of competencies that require certification: (NIL)** | | | | | |
| DR5.1 | Devise a treatment plan for management of scabies including adverse drug reactions | K | KH | Y | SGT, Bedside teaching | Written, Case Based Discussion, OSCE | |
| **Topic 6: Pediculosis** | **Number of competencies:(01)** | **Number of competencies that require certification: (NIL)** | | | | | |
| DR 6.1 | Describe the pathogenesis, diagnostic features and management of pediculosis in adults and children | K | KH | Y | LGT, SGT, Seminar, Flipped Classroom | Written, Tutorials | |
| **Topic 7: Fungal Infections** | **Number of competencies:(02)** | **Number of competencies that require certification: (NIL)** | | | | | |
| DR7.1 | Demonstrate candida/dermatophytes in fungal scrapings on KOH mount | S | SH | Y | Bedside teaching, DOAP | DOPS, OSCE | |
| DR7.2 | Manage a case of fungal infections | K | KH | Y | LGT, SGT | Written, Case based discussion | |
| **Topic 8: Common Viral Infections** | **Number of competencies:(05)** | **Number of competencies that require certification: (NIL)** | | | | | |
| DR8.1 | Describe the aetiology, microbiology, pathogenesis, clinical presentations and management of common viral infections of the skin in adults and children | K | KH | Y | LGT, SGT, Bed side teaching, Self-Directed Learning (SDL) | Written, Tutorials, Direct Observation | |
| DR8.2 | Identify and distinguish herpes simplex and herpes labialis from other skin lesions | K/S | KH/SH | Y | SGT, Bedside teaching, Demonstration | Written, OSCE, Picture based MCQs | |
| DR8.3 | Identify and distinguish herpes zoster and varicella from other skin lesions | K/S | KH/SH | Y | SGT, Bedside teaching, Demonstration | Written, OSCE, Picture based MCQs | |
| DR8.4 | Identify and distinguish viral warts from other skin lesions | K/S | KH/SH | Y | SGT, Bedside teaching, Demonstration | Written, OSCE, Picture based MCQs | |
| DR8.5 | Identify and distinguish molluscum contagiosum from other skin | K/S | KH/SH | Y | SGT, Bedside teaching, | Written, OSCE, | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number Requiredto certify P |
|---|---|---|---|---|---|---|---|
| | lesions | | | | Demonstration | Picture based, MCQs | |
| **Topic 9: Leprosy Number of competencies:(06) Number of competencies that require certification: (1)** | | | | | | | |
| DR9.1 | Describe the epidemiology, clinical features and classification ofLeprosy | K | KH | Y | LGT, SGT, Seminar, Flipped Classroom | Written, Tutorials | |
| DR9.2 | Demonstrate an appropriate neurologic examination in Leprosy | S | SH | Y | Bedside teaching, DOAP | DOPS, OSCE | 2 |
| DR9.3 | Enumerate the indications and observe the performance of a slitskin smear in patients with leprosy | K | KH | Y | SGT, Bedside teaching | Written, Tutorials | |
| DR9.4 | Effectively treat a case of Lepra Reaction | K/S/A/C | KH/SH | Y | LGT, SGT, Bed Side teaching | Case Based Discussion, Prescription Writing, Direct Observation | |
| DR9.5 | Effectively manage a case of Leprosy based on National Guidelines and WHO Guidelines | K/S/C | KH/SH | Y | LGT, SGT, Bed Side teaching, SDL | Written, Case Based Discussion, Direct Observation, Prescription Writing | |
| DR9.6 | Effectively manage complications of Leprosy and counsel regarding disability and stigma | K/S/A/C | KH/SH | Y | LGT, SGT, Bed Side teaching, Simulations | Written, Case Based Discussion, OSCE | |
| **Topic 10: Sexually Transmitted Diseases Number of competencies:(11) Number of competencies that require certification: (NIL)** | | | | | | | |
| DR10.1 | Understand the rationale and Effectively use Syndromic case management for patients presenting with sexually transmitted diseases | K | KH | Y | SGT, Bedside teaching | Written, Tutorials, OSCE | |
| DR10.2 | Describe the clinical features, stages, and appropriate use of diagnostic tests for diagnosis of Syphilis | K | KH | Y | LGT, SGT, Bedside teaching | Written, Tutorials, OSCE | |
| DR10.3 | Describe the clinical features, stages, and appropriate use of diagnostic tests for diagnosis of non-syphilitic genital ulcer namely chancroid and herpes genitalis | K | KH | Y | LGT, SGT, Bedside teaching Clinic, SDL | Written, Tutorials, OSCE | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number Requiredto certify P |
|---|---|---|---|---|---|---|---|
| DR10.4 | Conduct a proper examination in a patient with GUD ensuring privacy, confidentiality in presence of chaperone | S/C | SH | Y | Bedside teaching, DOAP | Written, Tutorials, Direct observation, Case based discussion | |
| DR10.5 | Effectively take sexual history and provide patient education on safe sexual behaviours including pretest counselling for HIV | C | SH | Y | Role play, Simulations | OSCE, Rating scale, Direct observation and feedback | |
| DR10.6 | Effectively manage syphilis and genital ulcer disease based on clinical features and serological tests including in pregnancy and neonates and advise as per syndromic case management | K/S/A/C | SH | Y | SGT, Bedside teaching, Role Play | Case Based Discussion, OSCE, Prescription writing | |
| DR10.7 | Recognize a patient with LGV and Donovanosis based on clinical findings and provide appropriate therapy using syndromic case management | K/S | KH/SH | Y | LGT, SGT, Bedside teaching | Written, OSCE, Direct Observation, Picture based MCQs, Prescription writing | |
| DR10.8 | Describe the etiology, diagnostic and clinical features and management of gonococcal and non-gonococcal urethritis | K | KH | Y | LGT, SGT, Flipped Classroom, SDL | Written, Tutorials | |
| DR10.9 | Effectively manage a patient with urethral discharge and counsel regarding prevention as per syndrome case management guidelines | K/S/A/C | SH | Y | SGT, Bedside teaching, Role Play | Case Based Discussion, OSCE, Prescription writing | |
| DR10.10 | Diagnose and manage a patient presenting with vaginal discharge as per syndrome case management guidelines | K/S/C | SH | Y | SGT, Bedside teaching | Written, Case Based Discussion, OSCE | |
| DR 10.11 | Diagnose and treat a patient with genital warts and provide patient education | K/S/A/C | SH | Y | LGT, Bedside teaching, Simulations | Written, OSCE, Case based discussion | |
| **Topic 11:HIV** | **Number of competencies:(02)** | **Number of competencies that require certification: (NIL)** | | | | | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number Requiredto certify P |
|---|---|---|---|---|---|---|---|
| DR11.1 | Diagnose and manage common dermatologic manifestations of HIV including opportunistic infections(OI) based on clinical features and appropriate lab tests | K, S | KH | Y | LGT, Bedside teaching, SDL | Written, Tutorials, Case based discussion, Written, OSCE, Direct Observation, Picture based MCQs | |
| DR11.2 | Recognize common dermatological manifestations of ART drugs and initiate primary management appropriately | K, C | KH | Y | LGT, SGT, Bedside teaching, Flipped Classroom | Written, Tutorials, OSCE, Written,OSCE, Direct Observation, Picture basedMCQs | |
| **Topic 12 : Eczemas, Erythroderma and cutaneous adverse drug reactions Number of competencies:(5) Number of competencies that require certification: (NIL)** | | | | | | | |
| DR12.1 | Identify common types of eczema (both endogenous and exogenous based on clinical features and history | K/S | KH/SH | Y | LGT, SGT, Bedside teaching, Flipped Classroom | Written, Case Based Discussion, OSCE,Picture based MCQs | |
| DR12.2 | Provide basic management for common eczemas including topical and systemic therapy | K/S | KH/SH | Y | SGT, Bedside teaching, SDL | Written, Case Based Discussion, OSCE, Prescription writing | |
| DR12.3 | Diagnose Erythroderma, including medical complications and provide appropriate primary care to stabilize a patient before referral | K,S | KH/SH | Y | SGT, Bedside teaching, SDL | Written, Tutorials, Case based discussion | |
| DR12.4 | Distinguish adverse drug reactions like Fixed drug eruption, Drug Hypersensitivity syndrome and Steven Johnson syndrome/ Toxic epidermal necrolysis from other skin conditions | K/S | KH/SH | Y | LGT, Bedside teaching, Demonstrations, SDL | Written, Tutorials, Case based discussion, OSCE | |
| DR12.5 | Provide primary care in patients with Adverse drug reactions | K/S/A/C | KH/SH | Y | SGT, Bedside teaching, Video LGTs | Written, Viva Voce, Case based discussion | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number Requiredto certify P |
|---|---|---|---|---|---|---|---|
| **Topic 13:Vesiculo- bullous Lesions** | **Number of competencies:(02)** | | **Number of competencies that require certification: (NIL)** | | | | |
| DR13.1 | Diagnose common auto Immune vesiculo- bullous disorders like pemphigus and bullous pemphigoid based on clinical features and appropriate use of Nikolsky's sign and Bulla spread sign | K/S | KH/SH | Y | LGT, SGT, Bedside teaching, Demonstration | Written, Tutorials , Case based discussion, OSCE, Direct Observation, Picture based MCQs | |
| DR 13.2 | Provide primary management for a patient with vesiculo-bullous disorder before referral | K/S/A/C | KH/SH | Y | Bedside teaching, SGT | Written, Tutorials, Case Based Discussion, Prescription writing | |
| **Topic 14 : Urticaria Angioedema** | **Number of competencies: (03)** | | **Number of competencies that require certification : (01)** | | | | |
| DR14.1 | Classify urticaria and angioedema and describe etio-pathogenesis, clinical features and precipitating factors | K | KH | Y | LGT,SGT, Symposium | Written (Short notes, part of structured essay), Tutorials, Problem solving exercises, OSCE | |
| DR14.2 | Identify and distinguish urticaria and angioedema from other skin lesions and provide basic management | K/S | KH/SH | Y | SGT, Bedside teaching, Video LGT | Written examination, Tutorials, OSCE, Picture based MCQs | |
| DR14.3 | Demonstrate Dermographism | S | SH | Y | Bedside teaching, DOAP | DOPS | **2** |
| **Topic 15: Pyoderma** | **Number of competencies: (03)** | | **Number of competencies that require certification: (NIL)** | | | | |
| DR15.1 | Identify the clinical presentation of various types of cutaneous bacterial infections | K/S | KH/SH | Y | Bedside teaching, Video LGT, SGT | Written,Tutorials, Picture based MCQs, OSCE | |
| DR15.2 | Enumerate the indications and adverse reactions of topical and systemic drugs used in the treatment of pyoderma | K | KH | Y | LGT, SGT, Symposium, Flipped Classroom | Written,Tutorials, Prescription | |

| Number | COMPETENCY<br>The student should be able to | Predominant Domain K/S/A/C | Level K/KH/SH/P | Core (Y/N) | Suggested Teaching Learning method | Suggested Assessment method | Number Requiredto certify P |
|---|---|---|---|---|---|---|---|
| | | | | | | writing,<br>Problem solving exercises | |
| DR15.3 | Recognize the need for surgical referral in pyoderma | K | KH | Y | Video LGT,<br>Bedside teaching, SGT | Written, Tutorials, OSCE | |

# LIST OF CONTRIBUTORS

## Anatomy

Chairperson:Dr. Praveen R Singh,Professor of Anatomy and Medical Education,Assistant Dean, Basic Sciences Education, Convener, NMC executive committee on FDP, Convenor, NMC-Nodal Centre for MET,Pramukhswami Medical College,Karamsad-388325, Gujarat.

Members:

1. Dr. Praveen B Iyer,Professor (Additional), Department of Anatomy, Convenor, NMC Nodal CentreSeth G S Medical College, Parel, Mumbai – 400012, Maharashtra
2. Dr. Vivek Singh Malik, Professor, Department of Anatomy, Pt. B.D. Sharma PGIMS, Rohtak, 124001, Haryana
3. Dr. Raghunath Shahaji More, Professor, Department of Anatomy, Institute of Medical Sciences, BANARAS HINDU University, Varanasi-221005,Uttar Pradesh
4. Dr. G Manoj Kumar Reddy, Senior Associate Professor, Department of Anatomy, Government Medical College, Kadapa, 516002, Andhra Pradesh.

## Biochemistry

Chairperson: Dr.KavitaratiDharwadkar, Professor and Head, Director Clinical Biochemistry, Faculty Regional Centre for Medicaleducation Technologies, SAIMS, Sri Aurobindo Medical College and PGI, SAU, Indore453555, Madhya Pradesh

Members:

1. Dr. Vilas U. Chavan, Professor & Head, Dept of Biochemistry, SMIMER, Surat, 395010Gujarat..
2. Dr. Rachna Sabharwal, Professor & Head, Dept. of Biochemistry, Government Medical College, Jammu 180001, Jammu & Kashmir
3. Dr. S P Mishra, Professor & Head, Dept. Of Biochemistry, Institute of Medical Sciences, BHU, Varanasi, 221001, Uttar Pradesh
4. Dr. Mainak Roy, Associate Professor, Dept. of Biochemistry, Faculty, NMC Regional Centre Jorhat Medical College, Jorhat, 785001Assam.

## Physiology

Chairperson: Dr. Aparna Garg, Professor and Head, Department of Physiology, Convenor, NMC- Regional Center Mahatma Gandhi Medical College and Hospital, Sitapura Jaipur 302022 Rajasthan.

Members:

1. Dr. Debasish Chakraborty, Professor, Department of Physiology, Agartala Govt. Medical College Kunjavan, Agartala 799006Tripura (West).
2. Dr. Ravi Kaushik, Associate Professor, Department of Physiology, Maulana Azad Medical College & Associated Hospitals, New Delhi- 110002.
3. Dr. Tripti Waghmare, Professor, Department of Physiology, JNMC, DMIHER(DU), Sawangi (M), Wardha, 442001, Maharashtra
4. Dr. Rajiva Kumar Singh, Prof & HOD, Department of Physiology, Government of Bihar , Patna Medical college Patna 800004, Bihar.

## Microbiology

Chairperson: Dr. Namrata Kumari, Professor and Head, Department of Microbiology, Convenor, NMC Regional Centre (RC-MET), Indira Gandhi Institute of Medical Sciences, Patna- 800014 , Bihar.

Members:

1. Dr. Suman Singh, Professor and Head, Department of Microbiology, Co-Convenor, NMC Nodal Centre, Pramukh Swami medical College, Karamsad -388325, Gujarat.
2. Dr. Purnima Barua, Former Convenor, NMC Regional Centre- Jorhat, Professor, Department of Microbiology, Tinsukia Medical College, Tinsukia- 786146, Assam.
3. Dr. Amresh Kumar Singh, Associate professor and Head, Department of Microbiology, Member, Medical Education Unit, BRD Medical College, Gorakhpur-273013, Uttar Pradesh
4. Dr. M R Vasanthapriyan, Associate Professor, Institute of Microbiology, Member, NMC Regional Centre (RC-MET),Madurai Medical College Madurai-625020, Tamil Nadu

## Pathology

Chairperson: Dr. Mrs. SunitaVagha, Professor and Controller of Examination, Department of Pathology, Jawaharlal Nehru Medical College DMIHER, SawangiMeghe, Wardha-442005, Maharashtra

Members:

1. Dr. Cherry Shah, Professor and Dean, Department of Pathology, Smt NHL Municipal Medical College, Ahmadabad- 380014, Gujarat
2. Dr. V. Geeta, Professor and HOD, Department of Pathology, Kakatiya Medical College, Warangal- 506007, Telangana

3. Dr. K. Chandramouleeswari, Professor and Head, Institute of Child Health, Madras Medical College, Chennai- 600008, Tamil Nadu
4. Dr. Anirudha V Kushtagi, Professor and Head, Department of Pathology, Koppal Institute of Medical Sciences, Koppal- 583231, Karnataka

## Pharmacology

Chairperson: Dr. Dinesh Kuma Badyal, Vice Principal (Med Edu), Professor & Head, Department of Pharmacology, National Convener, NMC-Advance Course in Medical Education, Convener, NMC Nodal Center for Faculty Development, Member-NMC National Curriculum Committee, Christian Medical College, Ludhiana-141008, Punjab

Members:

1. Dr. Shipra Jain, Professor, Dept of Pharmacology, MEU Resource Faculty, NMC-RC, Mahatma Gandhi Medical College & Hospital Jaipur-302022 Rajasthan.
2. Dr .Trupti Rekha Swain, Prof and Head, Dept of Pharmacology, MEU Faculty member, NMC Regional Centre, S C B Medical College, Cuttack, 753007,Odisha.
3. Dr. Juhi Kalra,Professor, Department of Pharmacology, Convenor, NMC Regional Centre, Himalayan Institute of Medical Sciences (HIMS),Dehradun-248001,Uttarakhand
4 Dr. Ashish Yadav, Professor and Head, Department of Pharmacology, UNS Autonomous State Medical College, Jaunpur - 222003, Uttar Pradesh.

## Forensic Medicine & Toxicology

Chairperson: Dr Sandeep Sitaram Kadu, Controller of Examinations, Maharashtra University of Health Sciences, Nashik,422004, Maharashtra.

Members:

1. Dr. Rajesh Kumar Baranwal, Professor(FMT) & Principal, MaharshiDevraha Baba Autonomous State, Medical College, Deoria 274001, Uttar Pradesh.
2. Dr.RaktimPratimTamuli, Associate Professor, Dept. of Forensic Medicine and Toxicology, Gauhati Medical College, Guwahati - 781032, Assam
3. Dr. Venkatesan M, Associate Professor, Sri Ramachandra Medical College and Research Institute, Porur, Chennai 600116, Tamil Nadu
4. Dr. Sanjoy Das, Professor & Head, Forensic Medicine & Toxicology, Himalayan Institute of Medical Sciences, Jolly Grant, Dehradun- 248140, Uttarakhand

## Community Medicine

Chairperson: Dr. Dr. Annarao Kulkarni, Professor and Head, Community Medicine, Sri Madhusudan Sai Institute of Medical Sciences and Research Muddenahalli: 562101, Chikkaballapur District, Karnataka

Members:

1. Dr. Pankaj B. Shah, Associate Dean Research, Professor, Department of Community Medicine, SRMC & RI, Sri Ramachandra Institute of Higher Education & Research (SRIHER), NMC Executive Committee member of FDP, Member DOME, NMC SRMC Nodal center, Porur, Chennai 600116, Tamil Nadu,
2. Dr. Gaurav Kamboj, Associate Professor, Dept of Community Medicine, Deputy Dean (Academics), Kalpana Chawla Government Medical College, Karnal- 132001 Haryana
3. Dr.Shib Sekhar Datta, Prof. and Head, Department of Community Medicine, Tripura Medical College & Dr. BRAM Teaching Hospital Agartala, 799014,Tripura
4. Dr. Abhishek V Raut, Professor, Department of Community Medicine, Mahatma Gandhi Institute of Medical Sciences, Sevagram, 442102, Maharashtra

## Ophthalmology

Chairperson: Dr Viswamithra P, Professor of Ophthalmology, GMC, Paderu, Former HOD of Ophthalmology, Andhra Medical College, Faculty, NMC Regional Centre, Addl DME& Superintendent, GGH, Paderu, ASR District-Pin Code 531024, Andhra Pradesh .

Members:

1. Dr. Radha Ishwar Dass, Associate professor, Ophthalmology, M P Shah govt medical college. Jamnagar, Gujarat.
2. Dr. K. Kavitha, Professor & Head of Ophthalmology, Madurai Medical college, Madurai, 62t5017, Tamil Nadu
3. Dr. Jisha K, Professor, Department of Ophthalmology, Govt Medical college, Gandhinagar, PO Kottayam 68600Kerala
4. Dr. Nitin Nema, Professor in Department of Ophthalmology, and Convener, NMC Regional Center for MET, Sri Aurobindo Medical College & Postgraduate Institute, Indore, 453555, Maharashtra
5. Dr. Suneetha N, Professor and Head, Dept of Ophthalmology, St John's Medical College, Bangalore 560034, Karnataka

## Otorhinolaryngology

Chairperson: Dr. T. Indra, Professor of ENT, Member MEU, Madras Medical College, Rajiv Gandhi Government General HospitalChennai.600003, Tamil Nadu

Members:

1. Dr. Saurabh Gandhi, Associate Professor, NHL Municipal Medical College, Faculty, Nodal Center, Ahmedabad, Gujarat
2. Dr. Vishwambhar Singh, Professor department of Otorhinolaryngology, Institute of Medical Science, Banaras Hindu University, Varanasi 221005, Uttar Pradesh
3. Dr.Subhabrata Sengupta, Professor Department of ENT, Faculty Member NMC Regional Centre, ESIC PGIMSR & Medical College,Joka, 700104, Kolkata
4. Dr. Sridhara S, Associate professor and head of the department, Shivamogga institute of medical sciences, Shimoga. Karnataka.

## General Medicine

Chairperson: Dr. P.V.Balamurugan, Professor, Department of medicine, Co-Convenor, NMC Regional Centre, Madurai Medical CollegeMadurai-625020, Tamil Nadu.

Members:

1. Dr. Santosh B Salagre, Professor and Unit Head, Department of Medicine, Co-Convenor, NMC Nodal Centre, Seth G S Medical College, Mumbai - 400012, Maharashtra.
2. Dr. Mehjabin Hirani, Associate Professor and Unit Head, Department of Medicine, MPSGMC, Jamnagar-361008, Gujarat.
3. Dr. Sudhir Kumar, Professor and Unit head, Department of General Medicine, Co-convenor, NMC Regional Centre, IGIMS, Patna, Bihar. Bihar - 800001.
4. Dr. Neeraj Manikath, Assistant professor, Department of Medicine, Member NMC Regional Centre, GMCH Kozhikode, 673008, Kerala.

## Pediatrics

Chairperson: Dr Jayant Vagha, Professor, Paediatrics, JNMC, Wardha, 442001, Maharashtra,

Members:

1. Dr. Kundan Mittal, Professor, Pediatrics, PGIAMS, Rohtak, Haryana.
2. Dr. Munish Kakkar, Professor and Head, Pediatrics, MGUMST, Jaipur, Rajasthan.
3. Dr. Kumar Angadi, Associate Professor and HOD, Pediatrics, YIMS, Yadgir, Karnataka.

## Psychiatry

Chairperson: Dr. Sujata Sethi, Senior Professor, Department of Psychiatry & Co-convenor NMC Regional Center, Pt. B.D. Sharma PGIMS, Rohtak 124001, Haryana

Members:

1. Dr. Rajesh Kumar, Professor and Head, Department of Psychiatry , IGIMS Patna 800014, Bihar
2. Dr. BheemsainTekkalaki, Associate Professor, Department of Psychiatry, Faculty, NMC Regional Center, KAHER's J. N Medical College, Belagavi, 590010 Karnataka
3. Dr. Smitha C A, Associate Professor, Department of Psychiatry, Faculty, NMC Regional Centre, Govt. Medical College Kozhikode – 673008, Kerala
4. Dr. Nilima Shah, Associate Professor, Department of Psychiatry, Faculty, NMC Regional Centre, NHL Municipal Medical College, Ahmedabad 380006, Gujarat

## Dermatology, Venereology & Leprosy

Chairperson: Dr Abhilasha Williams, Professor of Dermatology, Vice Principal- UG Academics, Member, NMC Nodal Center for Medical Education, Christian Medical College & Hospital, Ludhiana, 141008, Punjab.

Members:

1. Dr. Ishwara Bhat, Professor of Dermatology, Member, NMC Nodal Center for Medical Education, St John's Medical College Hospital, Bangalore. 560034, Karnataka
2. Dr.C.Dharmambal, Professor of DVL, CC member MMC – Regional center, Rajiv Gandhi Govt.General Hospital, Madras Medical College, Chennai – 600003, Tamil Nadu
3. Dr. Chaitanya Namdeo, Professor, Department of Dermatology, Venereology & Leprosy, Sri Aurobindo Medical College & PGI, Indore 453555, Maharashtra

## Obstetrics & Gynaecology

Chairperson: Dr. Anju Agarwal, Professor and Head, Department of Ob/Gyn, KGMU, Lucknow, Member, NMC Nodal Centre, King George Medical University, Lucknow 226003 , Uttar Pradesh

Members:

1. Dr. Isukapalli Vani, Professor and Head, Department of OBG, co-Convenor, NMC regional Centre, Andhra Medical College, Visakhapatnam- 530002, Andhra Pradesh
2. Dr.M. Laxmi Prasanna, Professor and HOD, OBG department, GGH, NIZAMABAD, 503001, Telangana.
3. Dr.Samrat Chakrabarti, Associate Professor, Medical College Kolkata, 88, College Street,Kolkata-700073,West Bengal

## General Surgery

Chairperson: Dr Shailesh Kumar, Director Professor of surgery, ABVIMS Dr RML Hospital New Delhi.110001
Members:

1. Dr. C Gangalakshmi, MS, Professor of General Surgery, Madurai Medical College, Madurai, Tamil Nadu
2. Dr. Satyendra Kumar Tiwary, Professor, Institute of Medical Sciences, Banaras Hindu University, Varanasi, Uttar Pradesh
3. Dr. K Rojaramani, Professor of General surgery, Sri Venkateswara medical college, Tirupati Andhra Pradesh
4. Dr. D. Mohan Das, M.S., Principal/Additional Director Of Medical Medication, Government Medical College,Narsampet, Warangal District, Telangana

## Orthopaedics

Chairperson: Dr Gyaneshwar Tonk, Professor & Head, Department of orthopaedics, Member MEU, LLRM Medical college, Meerut, Uttar Pradesh
Members:

1. Dr. G V S Moorthy, Professor & Head, Department of Orthopaedics, Bhaskara Medical College, Telangana
2. Dr. S K Saidapur, Professor Orthopaedics, JNMC, Belagavi, Karnataka
3. Dr. Umesh Yadav, Associate Professor, Department of Orthopaedics, PGI, Rohtak, Haryana
4. Dr.Vijendra Chauhan, Professor Orthopaedics & Director General, Academic Development SRHU, Ex Vice Chancellor and & Dean, HIMS, Baniyawala Jolly Grant, Dehradun, Uttarakhand

## Anaesthesiology

Chairperson:Dr. G. Madhavi, Associate Professor, Department of Anaesthesiology, Member, Curriculum committee, Faculty, NMC Regional Centre, Gandhi Medical College, Secunderabad-500003, Telangana.
Members:

1. Dr. Dhrubajyoti Sarkar, Professor & Head, Department of Anaesthesiology, Member,MEU, College of Medicine & JNM Hospital, Kalyani- 741235 West Bengal.
2. Dr. Prashant Kumar, Professor, Department of Anaesthesiology, Member, NMC Regional Centre, Pt BD Sharma PGIMS, Rohtak-124001, Haryana.
3. Dr. Radhika. K. P., Professor, Department of Anaesthesiology, Member, Curriculum committee, Member, Institutional Research committee, Govt Medical College, Kozhikode -673008, Kerala.

## Radiodiagnosis

Chairperson: Dr Subathra Adithan, Additional Professor, Department of Radiodiagnosis, Faculty, NMC Nodal Centre, Jawaharlal Institute of Postgraduate Medical Education and

Research (JIPMER), Puducherry - 605006

Members:

1. Dr. Gaurav Mishra, Professor, Department of Radiodiagnosis, Jawaharlal Nehru Medical College; Pro Vice Chancellor, Datta Meghe Institute of Higher Education and Research (deemed to be university), Wardha – 442001 Maharashtra
2. Dr. Ila Dushyant Desai, Professor and Head, Department of Radiodiagnosis, BJ Medical College and Civil hospital, Ahmedabad – 380016 Gujarat
3. Dr. Ashish Verma, Professor, Department of Radiodiagnosis and Imaging, Institute of Medical Sciences, Banaras Hindu University, Varanasi – 221005 Uttar Pradesh