

Peoples University of Medical Health & Sciences NAWABSHAH (SBA)

INTERMEDIATE MODULE / MIDTERM EVALUATION

IN

INTERNAL MEDICINE FOR M.D 2017



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INTRODUCTION:

The PUMHS was established in 2011. The objectives and functions of the university include: promotion of specialist practice by securing improvement of teaching and training; arranging postgraduate medical, surgical and other specialist training; holding and conducting examinations for awarding degree and diplomas to the promotion of researches betterment in the clinical practices.

Since its inception the university has actively pursued improvements in postgraduate medical education in Pakistan. Currently the university offers degree and diploma courses in many discipline; and training programs have been developed, criteria for recognition of training institutes have been laid down, and format of examinations has been improved with unbiased objective, reliable and candidates friendly methods of assessment. Constant efforts are made to improve the standards of examinations and make them relevant, transparent objective and fair to the candidates. In this endeavor to decrease inter-rater variability and increase fairness and transparency, the university has introduced the midterm evaluation (MTE)/intermediate module (IMM) for MD internal medicine courses.

Midterm evaluation (MTE) / Inter Mediate Module (IMM):

To ensure better training, the university introduced an intermediate module/midterm evaluation examination in several discipline from March 2017. This mid-training assessment strengthens the monitoring and in-training assessment systems by providing trainees with an estimate of mid-training competence. It also serves as a diagnostic tool for trainees and supervisors, provides a circular link between basic and advanced training, and an opportunity for sampling a wider domain of knowledge and skills. Vide notification no.....

The intermediate module (IMM)/ midterm evaluation (MTE), examination is mandatory eligibility requirement for all MD-II examination as from March 2017. Trainees who passed MD-I 2017 and onwards are required to complete two years training in basic medicine and take the intermediate module (IMM)/ midterm evaluation (MTE) examination.

In case of failure in the intermediate module examination the trainees are permitted to continue their training in the chosen specialty but must pass the intermediate module (IMM), / midterm evaluation (MTE) examination prior to appearing in the final MD-II examination.

TRAINING AND EXAMINATION:

GENERAL REGULATIONS:

Candidate will be admitted to the examination in the name (surname and other names) as given in the MBBS degree and PMDC certificate. University will not entertain any application for change of name on the basis of marriage/ divorce/ deed.

REGISTRATION AND SUPERVISION:

All trainings must be supervised and trainees are required to register with the PG Center.

APPROVED TRAINING CENTERS:

Training must be undertaken in units, departments and institutions approved by the university.

BASIC MEDICAL TRAINING PROGRAM FOR INTERMEDIATE MODULE/ MIDTERM EVALUATION:

DURATION:

The duration of training for the intermediate module (IMM)/ midterm evaluation (MTE) is two years; the intermediate module examination/ midterm evaluation Examination (MTE) is taken on completion of the basic training.

✓1. 17th Months training in general Medicine unit.

2. Rotation each in following discipline

1st year

➤ Cardiology 02 months

➤ Neurology 01 months

➤ ICU 01 months

2nd year

● Pulmonology 01 month

● Gastroenterology 01 month

● Nephrology 01 month

Rotation after completion of two year training:

3rd year

- Psychiatry 01 month
- Oncology 01 month
- Endocrinology 01 month
- Dermatology 01 month

NOTE:

If any discipline is not available candidate is allowed to complete training in general medicine ward with the permission of supervisor and also complete training in other PMDC/ HEC registered hospital.

COMPONENTS OF TRAINING:

MANDATORY WORKSHOP:

It is mandatory for all trainees to attend all certified workshops in the first year of training.

1. Introduction to computer and internet
2. Research methodology and dissertation writing
3. Communication skills

Any other workshops as may be introduced by the university.

Note: no candidate will be allowed to appear in IMM/MTE examination without attending the above mentioned workshops including BLS.

LOGBOOK:

Trainees are required to maintain a logbook in which entries of academic/ professional work done during of training should be made on a daily basis, and signed by the supervisor. First part of logbook must be completed in first two year, and duly certified logbook will be the part of the application for appearing in IMM/MTE examination.

GENERAL REQUIREMENTS:

Training should incorporate the principle of gradually increasing responsibility, and provide each trainee with a sufficient scope, volume and variety of experience in a range of settings that include inpatients, outpatients, emergency and intensive care. Teaching occurs using several methods that range from formal didactic lectures to planned clinical experiences. Aspects covered will include knowledge, skills and practices relevant to the discipline in order to achieve specific learning outcomes and competencies. The theoretical part of the curriculum presents the current body of knowledge necessary for practice. This can be imparted

using lectures, grand teaching rounds, clinic-pathological meetings, morbidity/mortality review meetings, literatures reviews and presentations, journal clubs, self directed learning, conferences and seminars. Clinical learning is organized to provide appropriate expertise and competence necessary to evaluate and manage common clinical problems. Demonstration in outpatient clinics and wards and procedural skill training on simulators, manikins and patients are all practical training modalities. A competent authority appointed by the college has the power to debar any candidate from any examination if it is satisfied that the candidate has indulged in unfair practices in college examination, misconduct or because of any other disciplinary reason.

FORMAT OF EXAMINATION:

Intermediate module examination/ midterm evaluation examination consists of theory and TOACS examination. Details are given below:

Theory examination: Theory examination consists of:

Paper-I: 100 BCQS

Paper-II: SEQ-10

CLINICAL EXAMINATION:

To test basic clinical skills, the clinical examination consists of: TOACS (task oriented assessment of clinical skills)

TOACS:

TOACS will comprise of 12 to 20 stations with a task to be completed in a specified time. The stations may have an examiner, a patient or both. Structured clinical tasks will be set at each station. The examiners will assess the performance of each candidate on a rating scale. At stations where no examiner is present the candidates will have to submit written responses to short answer questions/MCQs on a response sheet. There will be two types of stations: static and interactive. At static stations the candidates will be presented with patient data, a clinical problem or a research study and will be asked to give written responses to the questions asked.

At the interactive stations the candidates will have to perform a procedure for example taking history performing a clinical examination, counseling assembling an instrument etc. one examiner will be present at each interactive station and will either rate the performance of the candidate or ask questions testing reasoning and problem solving skills.

PASS /FAIL CRITERIA:

Candidates have to pass the theory to be eligible to sit the TOACS examination.

COURSES FOR BASIC MEDICAL TRAINING:

GENERAL OBJECTIVES:

Upon completion of specified training in the chosen discipline a resident must acquire the knowledge skills and attitudes required for practice of the discipline including its foundations in the basic medical sciences and research scholarship in order to:

- Provide appropriate and cost-effective care to patients at all levels.
- Promote health and prevent disease in patient's families and communities.
- Practice continuing professional development

TO ATTAIN COMPETENCY THE TRAINEE MUST ACHIEVE:

- Knowledge and expertise in clinical and procedural management of relevant diseases.
- Basics of relevant skills
- Effective clinical judgment and decision making in dealing with health problems using evidence based medicine.

CURRICULUM INTERMEDIATE MODULE/ MIDTERM EVALUATION IN MEDICINE:

AIM:

The overall aim of training for MD is to facilitate the developments of a physician who is capable of functioning as an independent consultant in general medicine.

TRAINING FOR INTERMEDIATE MODULE/ MIDTERM EVALUATION:

The curriculum of first two years in medicine involves balanced and objective integration of basic medical sciences and essential core clinical knowledge in medicine. The trainee should be able to diagnose and manage uncomplicated conditions prevalent in the region and recognize, stabilize and refer complicated. The minimum number of required competencies by second year of training he/she can submit the logbook before intermediate module/ midterm evaluation examination. The coverage that each discipline receives below is not indicative of the relative importance placed on each discipline in the training program, or in the examination. These are guidelines and not comprehensive definitive lists. Only minimum levels of expected competence have been identified but sufficient scope, volume and variety of experience are desirable.

CORE COMPETENCIES:

Competencies are an individual's behavioral acts that require a combination of knowledge skills and abilities. Core competencies expected of a trainee by the end of two years of training and before appearing in intermediate module/ midterm evaluation examination in medicine are.

HISTORY TAKING:

- Understand the symptomatology and recognize alarm symptoms
- Take history in problem situations as when patients language is different from trainee's language or when confronted with confused and deaf patients
- Formulate a differential diagnosis after analysis and synthesis of identified problems
- Recognized psychological and social issues developing due to disease or infirmity
- Show empathy with the patient

EXAMINATION:

- Take permission to examine and explain the procedure
- Elicit signs and use instruments with maximum care
- Comprehend the ethics of privacy and confidentiality and apply it for individual cases
- Recognize the role of and seek help of attendances/ relatives where required

MEDICAL RECORD KEEPING:

- Record accurately patients history examination differential diagnosis investigations and management plan
- Fill in all the required hospital record forms accurately and honestly
- Maintain records with dates and sign each entry
- Ensure that notes are accessible to all members of the team and patients/ relatives (if required)
- Use latest technology for the benefit of patient e.g fax, email etc

TIME MANAGEMENT:

- Set priorities for tasks (clinical and others) to be accomplished
- Plan line of action while keeping realistic expectations of tasks to be completed by self and others

DECISION MAKING:

- Analyze and synthesize clinical problems
- Recognize the role of and consult other members of the health care team
- Approach tasks with flexibility

BASIC LIFE SUPPORT:

- Examine and assess a collapsed patient
- Maintain adequate airway and perform effective cardiopulmonary resuscitation
- Control one's own emotions and enable others to keep calm

COMMUNICATION SKILLS:

- Use open ended questions for gaining information
- Communicate effectively with patients taking care of their level of understanding
- Encourage questions from the patients and relatives
- Avoid technical terms
- Use interpreters where necessary
- Provide information to patients in simple and precise language
- Give due respect to patients and their relatives and share information when appropriate
- While counseling give choices and help the patient in decision making
- Show empathy and concern during breaking bad news
- Discuss ethics, medical procedure & legal implications related to organ donation with the patient and relatives when required

LIFELONG LEARNING:

- Pursue professional development activities/ programs
- Understand the role of appraisal and of assessment
- Recognize and make full use of learning opportunities
- Make effort to learn from seniors colleagues and others
- Demonstrator proficiency in the use of information technology

PRACTICE EVIDENCE BASED MEDICINE:

- Show competence in use of all sources of information e.g. databases as Medline, library and the internet
- Use evidence to support patient care effectively
- Critically evaluate medical evidence using principles of EBM

CLINICAL AUDIT, GUIDELINES:

- Recognize the relevance of audit to benefit patient care
- Participate in clinical audits
- Comprehends the problems and benefits of existing guidelines
- Use local guidelines where applied
- Take care of individual patient needs when using guidelines

ETHICAL AND LEGAL ISSUES:

- Recognize the importance of informed consent and practice it in a manner that the patient is able to understand it fully
- Respect the right to confidentiality
- Maintain patients confidentiality
- Use and share all information with the patient and relatives as and where appropriate
- Partake legal responsibilities of writing death certificate mental health certificate

PROFESSIONAL BEHAVIOR:

- Show responsibility in maintaining continuity of care
- Ensure satisfactory completion of delegated tasks by the end of the shift/day with appropriate handover
- Display non discriminatory attitude towards all the patients
- Refrain from giving unnecessary personal comments
- Exercise care in managing inappropriate behavior e.g aggression violence sexual harassment in patients
- Recognize own limitations and accept constructive criticism
- Act as a responsible member of health care team

PATIENT EDUCATION:

- Educated patients about: disease, investigation, therapy
- Possible alternatives/ choices, rehabilitations etc
- Counsel patients, explaining individual treatment plans and the action to be taken if the condition deteriorates or improves
- Encourage patients to access further information/ patient support groups

DISEASE PREVENTION:

- Identify role of environment and lifestyle risk factor such as diet, exercise, social deprivation, occupation and substance abuse in disease causation
- Comprehends the epidemiology and screening procedures for risk factors
- Provide support and advice on quitting the use of tobacco/alcohol etc
- Assess individual patients risk factors
- Encourage participation in appropriate disease prevention or screening programs

TEACHING AND TRAINING:

- Communicate and share information with all members of health care team
- Adopt learner-centered approach while teaching/training
- Demonstrator willingness, enthusiasm and patience to teach
- Seek feedback from peers as well as from juniors
- Make best use of all teaching opportunities
- Develop effective presentation skills
- Use effectively multiple audio-visual aids for presentation

SAFE MANAGEMENT WHILE ON CALL:

- Recognize medical indications for urgent investigations and therapy
- Identify skills and competencies of other members of the 'on call' team
- Prioritize the tasks to be carried out
- Call for help and refer the case whenever required
- Effectively interact with other health care professionals
- Keep patients and relatives informed
- Hand over all the information to the proceeding team staff safely

DISCHARGE PLANNING:

- Recognize the impact of unnecessary hospitalization
- Educated the patient and relatives regarding impact of physical problems on daily activities
- Liaise and communicate with patient, family and primary care services
- Write reports for appropriate bodies

RESUSCITATION AND ADVANCED CARDIAC LIFE SUPPORT:

- Recognize critically ill patients
- Practice advanced cardiac life support algorithms
- Recognize cardiac arrhythmias
- Manage patients on commonly used anti arrhythmic and cardiac support drugs
- Perform emergency defibrillation
- Lead a cardiac arrest team
- Understand legal and ethical considerations regarding
- Do not resuscitate orders (DNR)
- Act with empathy and sensitivity while dealing with patients and families

NUTRITION:

- Identify impact of disease on nutritional status and malnutrition on clinical outcomes
- Assess nutritional status of patients
- Recognize cultural and religious issues
- Utilize proper routes of nutrition support
- Refer cases to nutritionist when Required

CLINICAL COMPETENCIES:

The clinical competencies, a specialist must have are varied and complex. A complete list of the skills necessary for trainees and trainers is given below. The level of competence to be achieved each year is specified according to the key, as follows:

1. Observer status
2. Assistant status
3. Performed under supervision
4. Performed under indirect supervision
5. Performed independently

SYLLABUS FOR MEDICINE:

By the end of second year of training in medicine the trainee should be able to:

- a) Assess symptoms and signs
- b) Formulate a differential diagnosis
- c) Select appropriate investigations and accurately interpret investigation reports
- d) Communicate the diagnosis and prognosis
- e) Institute appropriate treatment recognize indications, contraindications and side effects of the following clinical condition:

MULTI DISCIPLINARY CLINICAL SCENARIOS:

- Breathlessness
- Lethargy
- Weight gain/loss
- Nauseas/vomiting
- Pressure sores etc

CARDIOLOGY:

- Preventive cardiology
- Coronary heart disease
- Acute rheumatic fever
- Rheumatic heart disease
- Valvular heart disease
- Infective endocarditis
- Dizziness/syncope and palpitation
- Arrhythmias
- Haemodynamic disturbance
- Hypotension and shock
- CPR, basic life support
- Advanced cardiac life support
- Heart failure
- Myocarditis cardiomyopathy
- Pericarditis
- Hypertension

PULMONARY:

- Prevention of respiratory disease
- Cough, haemoptysis dyspnoea
- Pneumonias, lung abscess
- bronchiectasis
- Bronchial asthma
- COPD
- Pulmonary tuberculosis
- Pleural effusion
- Pneumothorax
- Lung cancer
- Interstitial lung disease and fibrosis
- DVT/ pulmonary embolism
- Oxygen therapy

- Assisted ventilation

HEMATOLOGY AND MEDICAL ONCOLOGY:

- Anemia's
- Haemoglobinopathies
- Neutropenia, neutropenic sepsis
- Bone marrow failure
- Transfusion of blood products
- Leukemia
- Lymphomas other myeloproliferative disorders
- Multiple myeloma
- Disorders of hemostasis
- Platelet disorders, DIC
- Bleeding disorders
- Hypercoagulable state
- Anticoagulation
- Prevention of cancer, staging of cancer
- Oncological emergencies
- Hypercalcemia
- Malignant effusion

GI TRACT AND LIVER:

- Nausea, vomiting
- Hiccup, dyspepsia
- GERD, dysphagia
- Upper GI bleed
- Oesophageal varices
- Gastritis , NSAID gastritis
- Peptic ulcer disease
- Diarrhea, malabsorption syndrome
- Coeliac disease
- Irritable bowel disease
- Inflammatory bowel disease
- Constipation
- Antibiotic associated colitis
- Lower GI and rectal bleed
- Abdominal distension
- Jaundice, acute hepatitis
- Chronic hepatitis, chronic liver disease
- Portal hypertension
- Decompensated cirrhosis
- Encephalopathy
- Fulminant liver failure

NEUROLOGY:

- Headache, facial pain
- Meningitis, encephalitis
- Brain abscess epilepsy
- Intracranial space occupying lesions
- Benign intracranial hypertension
- Raised intracranial pressure
- TIAs, stroke, weakness and paralysis
- Sub-arachnoid hemorrhage
- Coma
- Parkinsonism, other movement disorders
- Spasticity
- Dementia, multiple sclerosis
- Polyneuropathy
- Motor neuron diseases
- Sub acute combined degeneration of spinal cord
- Disorders of neuromuscular transmission
- Myopathies periodic paralysis

INFECTIONS, DISORDERS DUE TO PHYSICAL AGENTS AND ENVIRONMENT:

- Fever of unknown origin
- Sepsis syndrome
- Infections in immunocompromised host
- Nosocomial infections
- Infections due to resistant organisms, MRSA, mycobacterium
- HIV,AIDS
- Sexually transmitted diseases
- Infections in drug users
- Food poisoning
- Acute infectious diarrhea
- Bacillary dysentery
- Typhoid and paratyphoid fevers
- Malaria
- Giardiasis
- Amebiasis
- Leishmaniasis
- Toxoplasmosis
- Helminthic infections
- Viral diseases
- Rabies
- Rickettsial diseases
- Fungal diseases
- Bacterial diseases

- Chlamydial and siprochetal diseases
- Antibiotics, antiviral drugs, anti fungal drugs, anti tuberculosis drugs, drug reaction desensitization
- Disorders due to physical agents and environment
- Effects of heat and cold
- Electric shock
- Drowning
- Inset bite , snake bite
- Carbon monoxide

NEPHROLOGY:

- Acute renal failure
- Chronic renal failure
- Glomerulopathies
- Nephrotic syndrome, proteinuria
- Haematuria
- Urinary infections
- Cystic diseases of kidney
- Tubulointerstitial diseases
- Multisystem diseases with kidney involvement
- Renal replacement therapy
- Hypertensions and kidney

FLUID, ELECTROLYTES, ACID BASE DISORDERS AND POISONING:

- Hypo and hyper natremia
- Hypo and hyper kalemia
- Hypo and hyper calcemia
- Acid base disorders
- Hyperosmolar disorders
- Anion gap
- Fluid management
- Poisoning: salicylates, tricyclics
- Benzodiazepam, narcotics
- Paracetamol
- Organ phosphorous components

ENDOCRINOLOGY DIABETES MELLITUS LIPID DISORDERS:

- Diabetes mellitus
- Diabetic coma
- The hypoglycemic state
- Diseases of hypothalamus, pituitary gland
- Disorders of thyroid and parathyroid glands
- Adrenocortical deficiency
- Cushing syndrome
- Clinical uses of corticosteroids
- Dyslipidemias
- Metabolic bone disease

MUSCULOSKELETAL, ALLERGIC AND IMMUNOLOGICAL DISORDERS:

- Degenerative and crystal induced arthropathies
- Osteoporosis
- Osteoarthritis
- Autoimmune diseases
 - SLE
 - Scleroderma
 - Polymyositis, dermatomyositis
 - Polymyalgia rheumatica
- Monoarthritis, infective arthritis, polyarthritis
- Seronegative spondyloarthritides
- Rheumatoid arthritis and its variants
- Atopic disorders
- Anaphylaxis, urticaria, angioedema
- Immunodeficiency disorders
- Immunosuppressive/ immunomodulating therapies

SUGGESTED READING LIST:

STANDARD TEXT BOOK OF MEDICINE SUCH AS:

- Haslett C, Chilvers ER, Bom NA eds. Davidson's principles and practice of medicine. 19th ed. Edinburgh: Churchill Livingstone 2002.
- Carpenter CCJ, Griggs RC, Loscalzo J eds. Cecil essentials of medicine. 6th Philadelphia: Saunders, 2004
- Kumar P, Clarke M eds, Kumar and Clark clinical medicine. 5th ed. Edinburgh: WB Saunders, 2002
- Munro JF, Campbell IW eds. McLeod's clinical examination 10th ed. Edinburgh: Churchill Livingstone 2000
- Swash M. Hutchison's clinical methods. 21st ed. London Saunders 2002.

REFERENCE BOOK:

- Weather DJ. Oxford text book of medicine. Oxford university press.
- Goldman L. Cecil's text book of medicine. 22nd ed. Philadelphia: Saunders 2004.
- Braunwald E. Harrison's principles of internal medicine. 2 vols. 15th ed. New York : McGraw Hill 2004
- Davidson's principle of medicine
- CMDT latest edition
- Hutchison clinical medicine
- McLeod clinical medicine

SUGGEST MEDICAL JOURNALS:

- BMJ (British medical journal)
- NEJM (new England journal of medicine)
- JAMA (journal of the American medical association)
- The lancet
- JCPSP (journal of college of physicians and surgeons Pakistan)