Examination for Registration to Practice Medicine (ERPM)
Criterion based curriculum developed by the Academic Board in Medicine of the Sri Lanka Medical Council

INTRODUCTION
The ERPM Candidates are expected to have the knowledge, attitudes and skills in the subject of medicine in order to practice as Intern medical officer in Sri Lanka.

GENERAL OBJECTIVES
The candidate should be able to

1. Be responsible for the well-being of the patient assigned to him/her and work independently as a house officer under supervision.

2. Be competent in the technique of history taking, physical examination, identify the problems and clinical reasoning, come to a reasonable diagnosis/differential diagnoses, write a concise summary and plan management at a level expected of a basic primary care doctor.

3. Competently document case notes and write discharge summaries.

4. Evaluate patients with common diseases (annex 1) in a rational, analytical way with a view to problem-solving (clinical reasoning).

5. Describe and relate knowledge of basic sciences and epidemiology to clinical situations and explain pathophysiological basis of diseases, judge the prognosis, and plan out investigations and treatment strategies.

6. Perform common diagnostic and therapeutic procedures (annex 2) and state their indications, limitations and undesirable effects.

7. Manage common medical emergencies (annex 3) and perform life-saving therapeutic procedures and common diagnostic procedures.

8. Organize preparation and transport of specimens (including special situations such as suspected viral hepatitis and HIV).

9. Interpret routine investigation results (laboratory, radiological, electrocardiography and others).
10. Competently state a reasonable clinical differential diagnosis, plan out a logical strategy to investigate further and suggest pharmacological and non-pharmacological management including preventive measures.

11. Communicate well with patients their families from different social and cultural backgrounds with particular reference to giving information, obtaining consent and breaking bad news.

SPECIFIC OBJECTIVES
The candidate should be able to

1. Obtain a comprehensive and accurate history, giving due attention to onset and development of symptoms, past medical and surgical history, drug and allergy history, dietetic history, family history and social background.

2. perform a comprehensive clinical examination that includes general examination and the examination of the following;
   - head and neck
   - cardiovascular system
   - respiratory system
   - neurological system
   - abdomen and rectal examination
   - skin
   - musculoskeletal system
   - haematology and lymphatic system
   - other relevant systems (eg. endocrine)

4. Perform competently the following techniques;
   - measurement of the blood pressure
   - ophthalmoscopy
   - auroscopy

4. Identify and prioritize the patient’s medical, social and cultural problems.

5. Analyze the symptoms and physical signs and arrive at a rational differential diagnosis.
6. Explain the clinical features on a pathophysiological basis, predict the natural course of the illness and the prognosis.

7. Map out a plan for further investigations while paying due attention to the benefit, risks and costs.

8. Document clearly the findings of history taking, physical examination, summary, plan for investigations and results, plan for treatment and the daily progress.

9. Competently interpret basic laboratory investigations, radiological and electrocardiographically abnormalities.

10. Pay attention to the special needs of the elderly patients, assess activities of daily living, pay attention to the premorbid state of the patient and the level of care available at the family level.

11. Identify and arrive at a practical diagnosis (or a differential diagnosis) and manage following medical emergency presentations/diseases;

   - cardiac arrest
   - chest pain
   - shock
   - acute breathlessness
   - unconscious patient
   - haematemesis
   - acute neuromuscular paralysis
   - anaphylaxis
   - seizures and status epilepticus
   - snake bite envenoming
   - acute myocardial infarction
   - other acute coronary syndromes
   - acute left ventricular failure
   - arrhythmia
   - hypertensive emergencies
   - acute severe asthma
   - pneumothorax
   - diabetic ketoacidosis
   - hypokalaemia and hyperkalaemia
   - stroke
   - acute renal failure
- poisoning (eg: organophosphate poisoning, paracetamol overdose, plant poisoning)
- sepsis with multi-organ failure
- meningitis

11. Plan the non-pharmacological and pharmacological management on a rational basis, giving due attention to effectiveness, side effects, interactions and the cost of the pharmacological agents.

12. Perform the following:
- peak flow rate assessment
- basic urine analysis
- 12-lead ECG
- intravenous, intramuscular and subcutaneous injections
- capillary blood sugar testing using a glucometer
- intravenous cannulation
- set up an intravenous infusion and a blood transfusion
- cardiopulmonary resuscitation
- defibrillation
- nasogastric tube insertion
- urinary catheterization
- nebulization
- monitor Glasgow Coma Scale
- maintain a fluid balance chart
- measure and chart temperature
- 20-minute whole blood clotting test
- collect and transport specimens for microbiological investigations
- group and direct test for blood transfusion and set-up a blood transfusion
- obtain (eg: by venepuncture) and prepare samples of body fluid for appropriate tests such as peripheral blood film, blood culture, urine culture
- assess a patient with impending respiratory failure and on a ventilator
13. Perform the following procedures under direct supervision or in a model and state their relevance in diagnosis, prognostication and management;
   - endotracheal intubation
   - arterial blood gas analysis
   - lumbar puncture
   - cardioversion
   - pleural aspiration
   - peritoneal tap
   - peritoneal dialysis
   - enema
   - basic physiotherapy

14. Describe the following procedures and state their relevance in diagnosis, prognostication and management;
   - insertion of a central venous line
   - haemodialysis
   - liver biopsy
   - renal biopsy
   - pleural biopsy
   - mechanical ventilation
   - gastrointestinal endoscopy and bronchoscopy
   - pituitary and adrenal function tests
   - aspiration of a joint and intra-articular injection
   - contrast studies of the gastrointestinal and genitourinary tracts
   - EEG, EMG and nerve conduction studies
   - echocardiogram, Exercise Stress ECG, Coronary Angiogram, Holter monitoring
   - spirometry
   - bone marrow aspiration and biopsy
   - haemodialysis

15. Write concise, clear and informative discharge summaries and referral notes.

16. Communicate effectively with patients and empathize with patients and their families when giving information about the illness, prognosis, preventive and offer health educational advice.
17. Break bad news humanely and accurately giving due consideration to the sensitive nature of the information under supervision and on simulated patients.

18. Recognize medico-legal issues that may arise during management and reason out the ethical issues that concern patients and the health care providers.

19. Appreciate the different roles played by the members of the health care team, organization of the administrative structure, administrative procedures, the place of ambulatory care provided by the out-patient clinics, functions of other health care providers in the community and the preventive services.

20. Develop the skills and attitudes of a life-long self-directed learner and participate in group activities such as journal clubs, clinic-pathological meetings, audit meetings and clinical case conferences.

21. Function as a member of a team in the ward setting and acquire leadership skills.
ANNEX 1

The candidate should be familiar with the clinical aspects and the management of following common general medical conditions

CARdiovascular
- Ischaemic Heart Diseases
- Hypertension
- Heart failure
- Valvular heart diseases
- Rheumatic fever
- Infective endocarditis
- Congenital heart diseases
- Rhythm abnormalities
- Peripheral vascular diseases
- Pericarditis
- Cardiomyopathies

GASTROINTESTINAL
- Acute diarrhoea
- Peptic ulcer disease
- Inflammatory bowel disease
- Irritable bowel disease
- Malabsorption syndromes
- Nutrition in chronic diseases

NEUROLOGICAL
- Stroke and TIA
- Meningitis & Encephalitis
- Epilepsy
- Spinal cord compression
- Cranial nerve lesions
- Peripheral neuropathies
- Parkinson’s disease
- Involuntary movements
- Migraine and other headaches
- Vertigo and dizziness

ENDOCRINE AND METABOLIC
- Diabetes and its complications
- Thyrotoxicosis
- Hypothyroidism
- Addison’s disease
- Cushing disease
- Acromegaly
- Short stature
- Obesity
- Osteoporosis
- Hypercalcaemia
- Hyponatraemia
- Hyperkalaemia
- Water and electrolyte imbalance

HEPATOBILIARY
- Acute hepatitis (viral and others)
- Chronic hepatitis
- Cirrhosis, Alcoholic liver disease, encephalopathy
- Portal hypertension and liver failure
- Hepatocellular carcinoma
- Cholecystitis
- Acute liver failure
- Fatty liver
HAEMATOLOGICAL
• Deficiency anaemias
• Thalassaemia.
• Other haemolytic anaemias
• Leukaemia and lymphoma
• Myeloma
• Pancytopenia
• Bleeding disorders
• Thrombophilies
• Myelodysplastic syndrome

MUSCULOSKELETAL
• Acute septic arthritis
• Rheumatoid arthritis
• Connective Tissue Diseases
• Sero-negative arthritides
• Osteoarthritis
• Backache and other spondyloses
• SLE and vasculitis
• Osteoporosis

TOXICOLOGY
• Snake bite envenoming
• Animal bites
• Poisoning (plant agrochemical and drugs eg. paracetamol)

GENERAL MEDICAL
• Care of the elderly
• Falls in the elderly
• Frail elderly

RESPIRATORY
• Asthma
• Pulmonary tuberculosis
• Pneumonia
• Chronic obstructive Airway Disease
• Pleura effusion
• Pneumothorax
• Bronchiectasis
• Lung abscess
• Lung fibrosis
• Malignant diseases

INFECTIONS
• Malaria
• Sepsis
• Tuberculosis
• Leptospirosis
• Dengue fever
• Pyrexia of unknown origin
• Fever with rash
• Typhoid fever
• Typhus
• Leprosy
• Scabies
• Leishmaniasis
• HIV / AIDS

RENNAL
• Urinary tract infections
• Nephritic syndrome
• Nephrotic syndrome
• Acute kidney injury
• Chronic kidney disease
• Renal complications of systemic diseases
ANNEX 2
DIAGNOSTIC AND THERAPEUTIC PROCEDURES

1. Cardio-pulmonary resuscitation (CPR)
2. Cardioversion
3. Mechanical ventilation
4. Arterial blood gas analysis
5. Liver biopsy
6. Renal biopsy
7. Bone marrow aspiration and biopsy
8. Pleural fluid aspiration
9. Ascitic fluid aspiration
10. Lumbar puncture
11. Transfusion of blood or blood products
12. 20-minute whole blood clotting test
13. Peritoneal dialysis
14. Haemodialysis
15. Urinalysis

ANNEX 3
MEDICAL EMERGENCIES

1. Acute ST elevation myocardial infarction
2. Other acute coronary syndromes
3. Acute left ventricular failure
4. Arrhythmia – tachyarrhythmia
5. Arrhythmia – bradyarrhythmia
6. Hypertensive emergencies
7. Cardiac arrest
8. Acute severe asthma
9. Pneumothorax
10. Respiratory failure
11. Haematemesis
12. Severe diarrhoea
13. Acute liver failure
14. An unconscious patient
15. Stroke
16. Seizure
17. Acute renal failure
18. Sepsis with multiorgan failure
19. Dengue Haemorrhagic Shock
20. Anaphylaxis
21. Snakebite envenoming
22. Organophosphate poisoning
23. Paracetamol overdose
24. Plant poisoning eg. Yellow oleander (Kaneru) poisoning
25. Hypokalaemia & Hyperkalaemia
26. Diabetic Ketoacidosis/ Hypoglycaemia

RECOMMENDED TEXT BOOKS

Clinical Methods – Hutchison’s’ Clinical Methods
                  McLeod’s Clinical Examination
                  Clinical Examination by Tally and O’Connor

Main Text Books – Davidson’s Principles and Practice of Medicine
                   Clinical Medicine by Kumar & Clark

Reference Books - Oxford Textbook of Medicine
                   Harrison’s Principles of Internal Medicine
                   Guide to the Management of Medical Emergencies by Prof Ariyananda,
                   Dr T P Weeraratne, Dr Karalliyyedda
ERPM – Medicine - Assessment

Written Examination consists of:

Paper 1 – medicine and Psychiatry
   a. MCQ (True/ False type) - 25 questions
   b. Single Best Answer (SBA) - 25 questions

Sample SBA

1. A 40-year-old farmer is admitted to hospital with shortness of breath and dizziness following spraying of an insecticide in the field. He has pin point pupils and a pulse rate of 40 beats per minute.
   What is the next appropriate step in the management?
   a) Give activated charcoal.
   b) Give intravenous pralidoxime.
   c) Give intravenous atropine.
   d) Perform gastric lavage.
   e) Give salbutamol nebulization.

Answer: c

2. A 45-year-old banker presented with a 4 month history of epigastric discomfort that often woke him during the night and improved after meals. He reported no vomiting or weight loss. Examination was normal apart from mild tenderness in the epigastric region.
   Investigations done included a haemoglobin of 10g/dl with a mean corpuscular volume of 70fl.
   What is the most likely diagnosis?
   a) Hiatus hernia
   b) Gastro oesophageal reflux disease
   c) Gastric carcinoma
   d) Chronic pancreatitis
   e) Duodenal ulcer

Answer: e

3. A 50-year-old male patient presented with severe shortness of breath. He has a past history of anterior myocardial infarction 3 years back. On examination his lungs were found to have bilateral crackles up to mid zone. His BP was 100/80mmHg.
What is the most appropriate drug in this condition?

a) Captopril 25 mg tds
b) IV frusemide
c) Oral bisprolol
d) IV spironolactone
e) Nitrate infusion

Answer: b

MCQ – True/False type

1. In complete heart block
   a) The pulse rate is irregular.
   b) Diastolic murmur is heard at the left sternal edge.
   c) Irregular cannon waves are seen.
   d) The pulse pressure is wide.
   e) Pacing is contraindicated in the elderly.

FFTTF

2. Clinical features of yellow oleander poisoning include
   a) Heart block
   b) Hypotension
   c) Xanthopsia (yellow vision)
   d) Proximal muscle weakness
   e) Convulsions

TTTFT

3. Pan systolic murmur is a feature of
   a) Mitral stenosis
   b) Mitral valve prolapse
   c) Aortic stenosis
   d) Ventricular septal defect
   e) Atrial septal defect

FTFTF
Clinical section

i. Medical consultation

The objective of the Medical consultation is to test the candidate’s ability to

1. Take a history - gather information relevant to the patient’s problem through a comprehensive history and a thorough physical examination, and then present the findings.

2. Identify problems & formulate a differential diagnosis - interpret the information gathered logically, and derive a list of problems/diagnoses, taking social-cultural aspects into consideration.

3. Manage the patients- organise relevant and logical investigations and formulate a management plan for each patient, while demonstrating knowledge on limitation and interpretation of tests, preventive strategies and how to communicate information effectively.

4. Demonstrate knowledge of the pathophysiological basis of symptoms, signs and the disease condition and the pharmacological basis of treatment proposed.

5. Practice appropriate communication skills.

ii. Systems examination

The objective of the Systems examination is to test the candidate’s ability to

1. Perform a physical examination of a given system in a step-wise and technically correct manner.

2. Elicit the physical signs present, interpret them logically and arrive at a diagnosis or differential diagnosis.

3. Demonstrate knowledge of the pathophysiological basis of the physical signs.

4. Demonstrate knowledge of the disease process, the outcome and the further steps to be carried out to confirm the diagnosis.

iii. Oral

Management of emergencies in clinical practice.