"This prospectus is made under the provisions of the Universities Act, the Postgraduate Institute of Medicine Ordinance, and the General By-Laws No. 1 of 2016 and By-Laws No. 2 of 2016 for Degree of Doctor of Medicine(MD) and Board Certification as a Specialist"





# POSTGRADUATE INSTITUTE OF MEDICINE UNIVERSITY OF COLOMBO, SRI LANKA

# **Prospectus**

# Doctor of Medicine in General Medicine and

# **Board Certification in General Medicine**

(To be effective from the year 2016)

Board of Study in Medicine

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#### **Abbreviations**

AAAEDC Academic Affairs, Accreditation, Examinations and Discipline

Committee

AKI Acute kidney injury

ACAT Acute care assessment tool

BALS Basic and advanced life support

BHT Bed head ticket (patient's clinical records file)

CbD Case-based discussion

CCP Ceylon College of Physicians

CCST Certification of Completion of Specialist Training

CKD Chronic kidney disease

CME Continued medical education

CPD Continued professional development
CT Computed tomogram/tomograph
DOPS Directly-observed procedural skill

ECG Electrocardiogram/electrocardiograph

ETU Emergency Treatment Unit MCQ/MCQs Multiple choice question/s

MD Doctor of Medicine

MERC Medical Education Resource Centre
Mini-CEX Mini-clinical evaluation exercise

MRCP Membership of the Royal College of Physicians

MRI Magnetic resonance imaging

OHT/CS Observed history-taking/communication skills
OSCE Objective Structured Clinical Examination

PBCA Pre-Board Certification Assessment
PGIM Postgraduate Institute of Medicine

PTR Peer-team rating

RCP Royal College of Physicians

RITA Record of In-service Training Assessment
RPGN Rapidly progressive glomerulonephritis

SEQ/SEQs Structured essay question/s
SLMA Sri Lanka Medical Association
SLMC Sri Lanka Medical Council

SLQF Sri Lanka Qualification Framework

TH Teaching Hospital

WBA Workplace-based assessment

#### 1. Nomenclature

- Full title: Doctor of Medicine in General Medicine& board certification in General Medicine.
- Abbreviated title: M.D. (General Medicine)
- University: University of Colombo, Sri Lanka.
- Faculty/Institute: Postgraduate Institute of Medicine.
- Department: Board of Study in Medicine.

#### 2. Background and justification/Introduction

### 2.1. Introduction to the Prospectus

This Prospectus provides detailed information on the Medicine Programme, which leads to the award of the postgraduate degree of Doctor of Medicine (M.D.) in Medicine of the University of Colombo, and board certification in General Medicine by the Postgraduate Institute of Medicine (PGIM), University of Colombo. These activities come under the academic supervision of the Board of Study in Medicine of the PGIM. The award of the MD (General Medicine) degree and board certification in General Medicine stands at Level 10 in the Sri Lanka Qualification Framework (SLQF) of the Ministry of Higher Education, published in 2012 by the University Grants Commission.

Trainees who obtain the M.D. (Medicine) degree may also be offered the opportunity to specialize in one of the specialties of general medicine, viz. Cardiac Electrophysiology, Cardiology, Clinical Neurophysiology, Endocrinology & Metabolic Medicine, Gastroenterology, Nephrology, Neurology, Respiratory Medicine, and Rheumatology & Rehabilitation Medicine. The post-MD training programmes in these specialties are organized by the respective specialty boards set up for this purpose by the Board of Study in Medicine, and the details of these are published separately in separate prospectuses.

Trainees who are successful in the M.D. (Medicine) Examination are also offered the choice of post-MD training conducted by other boards of study or their specialty boards leading to board certifications in other specialties, viz., Clinical Pharmacology & Therapeutics, and Critical Care Medicine. The details of these are published separately by the respective boards.

The M.D. (Geriatric Medicine) programme and board certification in Geriatric Medicine, which will be conducted by the Specialty Board in Geriatric Medicine of the Board of Study in Medicine, are also published separately. The details of the Postgraduate Diploma in Tuberculosis and Chest Diseases (D.T.C.D.), which is conducted by the Specialty Board in Respiratory Medicine of the Board of Study in Medicine, are also published separately.

#### 2.2. Background to the Programme

The M.D. (Medicine) degree was first offered in 1959 by the Department of Medicine, Faculty of Medicine, University of Ceylon (at that time the only medical school in the country), during the professorial tenure of Professor Kumaradasa Rajasuriya. It was the first postgraduate medical degree in the country, and was awarded directly following an examination.

After the establishment of the PGIM in 1980, the M.D. (Medicine) was brought under its purview, and a formal training programme was started. The training programme subsequently underwent several changes. At present the pre-MD programme consists of hands-on, in-service clinical training for 2½ years. This is followed by the MD Medicine Examination, and post-MD training (ranging from 2 to 4 years, depending on the specialty), which includes a research component. With the new Programme introduced in this Prospectus, the training will be further broadened, and its assessment broadened to include new, internationally accepted methods, including workplace-based assessment and a portfolio.

The academic matters of the Programme are determined by the Board of Study in Medicine, in concurrence with the relevant units of the PGIM. It has representations from all departments of medicine/clinical medicine of medical faculties, trainers in general medicine from all teaching hospitals, and the Ceylon College of Physicians (CCP). The training is conducted in units in teaching hospitals of the Ministry of Health (including university professorial units of medicine) and units in the state and private sectors recognized for this purpose by the Board of Study in Medicine. The PGIM is therefore in the ideal position to provide this Programme for the whole nation, in terms of its access to expertise and facilities, and its inclusivity and representativeness, which have evolved and developed over the past decades. This development has taken into consideration both national requirements and international trends, paid due regard to academic standards and rigor suitable for the postgraduate level, and has taken account of the practical situation of the state and private health care sectors.

### 2.3. Justification for the Programme

The overall aim of the training is to facilitate the development of a physician who is able to function as an independent specialist in general (internal) medicine. General physicians are those with expertise in the diagnosis and management of acute and complex, chronic and multisystem disorders in adult patients. They specialize in the diagnosis and treatment of general medical problems, especially those involving non-specific symptoms, atypical presentations, multiple problems or multi-system disorders. They are skilled in the management of acute unselected medical emergencies. They undertake a comprehensive, holistic assessment of a patient's problems, both biomedical and psychosocial. They are

competent to provide coordinated care with the assistance of multidisciplinary teams to optimize health outcomes, including the quality of life, while working in hospitals and clinics.

In view of the breadth of knowledge and experience required to manage acute unselected medical emergencies and chronic complex diseases and disorders, the general physician will be trained in common and/or important diseases in the following specialties: cardiology, clinical haematology, clinical pharmacology & therapeutics, dermatology, endocrinology & metabolic medicine, gastroenterology & hepatology, genito-urinary medicine, geriatrics, infectious diseases, intensive care/critical care medicine, medical oncology, neurology, renal medicine, respiratory medicine, rheumatology & rehabilitation medicine, palliative medicine, psychological medicine, and toxicology & toxinology. In addition, the general physician will become familiar with some aspects of related specialties, such as clinical biochemistry, genomic medicine, haematology, immunology, microbiology & parasitology, pathology, and radiology & nuclear medicine.

In most such cases the treatment is non-surgical, but it is essential that the general physician is able to make a total evaluation of the patient and prioritize the treatment, which may include surgery. Although triage is one important aspect of the general physician's role, he/she is not merely a triage officer who transfers patients, but continues to co-ordinate and provides the care for all the patients involving other specialists as required.

The general physician will function in a number of roles, including clinical, counselling, educating, leading and managing. The aims of training include the development of the necessary competencies to perform these roles.

General physicians adopt a scientific approach to the patient as a whole person, which requires a detailed knowledge of pathophysiology, diagnostics and therapeutics for a broad range of health problems. Their breadth and depth of knowledge makes them ideally suited to provide high quality consultant services across a wide spectrum of health and illness.

These competencies place general physicians in a unique position to give clinical expertise, teach, advocate for health promotion and conduct research, particularly where health problems are caused by several determinants, affect multiple organ systems, and/or require integration of multidisciplinary expertise.

The work of general physicians is complemented by that of physicians who specialize in its allied specialties. They play the important role of effectively managing patients with highly complicated problems of a single organ or system, which can only be carried out with further specialized and elaborate knowledge and skills that build upon a vigorous foundation in general medicine. These specialists also play the important role of teaching,

advocacy and research carried out by general physicians. A sound foundation in general medicine is indispensable for the effectiveness of these specialists.

In combination, general physicians and specialists in these specialties provide a high quality, advanced and comprehensive care that covers the health problems of all patients falling within this spectrum. Such a combination of generalist and specialist care is an internationally recognized phenomenon, in both developed and underdeveloped countries.

Board certified specialists in these fields have manned such services with success and effectiveness in our country, in state and private sectors, and abroad. The new Programme will build on these successes and reach out to further improvements and refinements that will train the physicians of tomorrow.

# 2.4. Introduction to the Program

Once a trainee is selected for training at the Medicine Selection Examination, the training programme consists of the following 4 stages:

Stage 1: Registrar training (pre-MD training), for a total period of 2½ years

Stage 2: the MD examination

Stage 3: Senior Registrar training (post-MD training), for a total period of 2 years for General Medicine

Stage 4: Pre-Board Certification Assessment (PBCA)

The completion of the stages 1-2 of this programme lead to the award of the degree of Doctor of Medicine (M.D.) in Medicine, while the completion of the stages 3-4 lead to board certification in General Medicine. The total minimum duration of the programme is 4% years, excluding the time taken for the conduct of the M.D. (Medicine) Examination and the PBCA.

For details of attendance requirements in all components of training, leave, line of communication and other general matters pertaining to all stages of the training, please refer to *PGIM General Regulations and Guidelines*.

### 3. Eligibility for entry into training programme

To be eligible to sit for the Medicine Selection Examination and to be selected for admission to the Programme, a candidate should fulfill all of the following eligibility criteria:

- 1. Hold a medical degree registered with the Sri Lanka Medical Council (SLMC).
- 2. Complete an internship recognized by the SLMC.
- 3. Complete one year work experience in Sri Lanka, after internship.

- 4. Have six (6) months of experience in general medicine as an intern house officer, and/or six (6) months of experience as a full-time medical officer after internship (consecutively or in total), with both in-ward and out-patient care, with first-on-call commitments, under the supervision of a full-time specialist, in general medicine or in cardiology, clinical oncology, dermatology, gastroenterology, nephrology, neurology, respiratory medicine, or rheumatology.
- 5. Produce a medical certificate from a specialist physician to confirm general mental and physical fitness.
- 6. Comply with any other PGIM regulations.

Those who fulfill the above criteria should be successful at the Medicine Selection Examination in order to enter the in-service training programme.

A candidate with a certificate of completion of specialist training from a foreign country may be exempted from the Medicine Selection Examination, provided this is in accordance with the prevailing general regulations of the PGIM. However, such candidate should comply with requirements 1, 2, 5 and 6 above to be eligible to enter the programme. Furthermore, such candidate should complete Stage 1 (complete the pre-MD training appointments recommended by the Board of Study), Stage 2 (be successful at the MD Examination), Stage 3 (complete the post-MD training appointments recommended by the Board of Study), and Stage 4 (be successful at the PBCA) in order to be eligible for board certification.

#### 4. Selection examination

To enter the Programme, a candidate is required to pass the Medicine Selection Examination. The permitted number of attempts is unlimited. The examination questions shall be based on the syllabus given in Annex 1. The approximate distribution of subjects among the questions and the competencies tested in the practical component are given in Annex 2.

The Board of Examiners, consisting of the chief examiner and the other examiners, shall be appointed, for each examination, by the Board of Management of the PGIM and the Senate on the recommendation of the Board of Study in Medicine. The examiners shall be PGIM trainers in general medicine or one of its specialties, in active service or within one year of retirement from service. The responsibilities of the examiners are described in the book *Guideline to Examiners* published by the PGIM.

The examination consists of a written component and a practical component. The written component will be held first. Candidates who are successful at the written component will be eligible to sit the practical component. Only candidates who have passed both components at the same sitting will be considered for entry into the training programme.

### 4.1. The written component

The written component consists of the following written question papers:

# 1. Paper 1: Biomedical Sciences Paper

The Biomedical Sciences Paper consists of True/False-type multiple choice questions (MCQs). It contains 60 stems, each with 5 items, constituting a total of 300 responses. Each correct response will earn 1 mark, each incorrect response -1 mark, and each non-response 0 mark. Within the 5 items of any given stem, negative marks will be taken into consideration in the marking, while there will be no carry-over of negative marks from one stem to the others. The total duration of the paper is 3 hours. The total mark for this paper is finally calculated to 100 marks, with each question carrying equal marks.

# 2. Paper 2: General Medicine Paper

The General Medicine Paper is a 3-hour paper, and consists of two subcomponents:

- a) A 2-hour True/False-type MCQ paper in medicine, containing 40 stems with each question having 5 responses (a total of 200 questions/responses). Each correct response will earn 1 mark, each incorrect response -1 mark, and each non-response 0 mark. Within the 5 items of any given stem, negative marks will be taken into consideration in the marking, while there will be no carry-over of negative marks from one stem to the others; in other words, the possible mark range for any given 5-item stem will be from 0 to 5. This subcomponent carries a total of 200 marks.
- b) A 1-hour, Single Best Answer-type MCQ paper with 30 questions, each question giving 5 possible answers to select the best one from. Each question carries equal marks. This subcomponent carries a total of 100 marks.

The marks of the two subcomponents (200 and 100) are added (to 300), and this mark is finally calculated to 100 marks.

To be successful in the written component, a candidate must obtain a minimum aggregate of 50%, with a minimum of 40% in Paper 1 and a minimum of 50% in Paper 2.

The approximate distribution of subjects among the questions in Paper 1 and Paper 2 are given in Annex 2.

### 4.2. The practical component

The practical component consists of an Objective Structured Clinical Examination (OSCE)-type practical examination. It has 12 stations, each lasting 5 minutes. Each station will have two examiners assessing the candidates. Assessment at these stations will be domain-based. The domains assessed in the examination are:

- A. History-taking skills
- B. Physical examination skills

- C. Eliciting symptoms and physical signs correctly
- D. Interpretation of investigation material (such as electrocardiographs, radiographs, charts) or identification of clinically useful material (such as plants, snakes)
- E. Interpretation of data to provide a logical conclusion, such as a differential diagnosis, diagnosis, identification of problems, or an appropriate management step
- F. Effective communication skills
- G. Treating patients/surrogates kindly, humanely and professionally

Plus: One Station devoted to Basic and Advanced Life Support (BALS) skills

Apart from the BALS Station, any given station may assess any number of domains, and for each assessed domain the candidate will be graded as Unsatisfactory (0 mark), Borderline (1 mark) or Satisfactory (2 marks). The number of marks available for each station will vary according to the number of domains assessed. The total number of marks in any one domain as well as for the whole practical component will also vary. The total mark will be brought to a final mark of 100. In addition, the total mark for each domain will also be calculated separately.

The competencies tested in the practical component are given in Annex 2.

To be successful at the practical component, a candidate must:

- 1. Obtain a Pass in the BALS station
- 2. Obtain a minimum mark of 40% of available marks in each domain (A-G)
- Obtain a minimum overall mark of 50%.

### 4.3. Criteria for passing the Medicine Selection Examination

Candidates who have passed the written component, as indicated in 4.1 above, will be eligible to sit the practical component. The criteria for passing the practical component are outlined in 4.2 above. Candidates who have passed both written and practical components in the same sitting will be deemed to have qualified to be selected for the MD programme.

### 4.4. Dr. Soma De Sylva Gold Medal for the Medicine Selection Examination

The Dr. Soma De Sylva Gold Medal for the best performance in the Medicine Selection Examination is awarded by the CCP, upon the recommendation of the Board of Examiners, to the candidate who has been successful at the first attempt and obtained the highest total mark (written component plus practical component) amongst all candidates at the Medicine Selection Examination. If there are two candidates with the highest mark among the qualified candidates, the prize shall be shared. The awardee is decided by the Board of Examiners, and the decision of this Board is final.

# 5. Number to be selected for training and their merit ranking

The number to be admitted to the training programme (from the candidates who have passed the Medicine Selection Examination) will depend on the training facilities available and the requirements of the Ministry of Health, as determined by the Board of Study in Medicine. The number to be admitted each year will be indicated in the circular/newspaper advertisement calling for applications. The number may vary from year to year.

Allocation of training posts would be done by a subcommittee appointed by the Board of Study in Medicine according to the available training posts based on the ranking obtained at the Selection Examination and the preference of the candidate. Recommendations and requirements of the Ministry of Health will be taken in to account when applicable.

The merit ranking of candidates who are enrolled into the training programme shall be done by taking into consideration the numerical order of the attempt by the candidate (those who pass after a lesser number of attempts will be placed above those who pass after a greater number of attempts) and the total mark obtained by him/her at both written and practical components at the given selection examination, as given above.

## 6. Aims and learning objectives

The aims of the Programme will be:

#### Vision

A caring, competent, and compassionate physician for the twenty-first century.

#### Mission

To develop a physician competent in providing effective care while being sensitive to human needs.

#### **Objectives**

#### A. Clinical domain

- 1. Demonstrates knowledge of the aetiology, pathophysiology, diagnostics and therapeutics for a broad range of health problems that are relevant to Sri Lanka, and at regional and global level.
- 2. Possesses the necessary procedural skills and competencies of data gathering (i.e. skills of history-taking, physical examination and practical procedures), synthesis and analysis of information (i.e. decision-making), and therapeutic procedures.

- 3. Makes comprehensive assessments of patients' problems and is able to diagnose and manage acute and chronic, complex and multisystem disorders in adult patients.
- 4. Provides competent and coordinated, high quality care with the assistance of multidisciplinary teams in the hospital and in the community, which includes rehabilitation, palliation, and end-of-life care.
- 5. Effectively seeks and critically evaluates information and provides cost-effective care based on scientific evidence.

#### B. Professionalism domain

- 6. Bases clinical practice on our values and ethics.
- 7. Communicates effectively with patients, relatives, members of the health care team and community in a culturally sensitive manner.
- 8. Demonstrates kindness, humaneness and shows compassion towards patients.
- 9. Knows and is able to practice medicine with due attention to patient safety and the safety of the healthcare team.
- 10. Takes an advocacy role, especially in issues relating to health.

#### C. Management domain

- 11. Demonstrates knowledge of the functioning and structure of the health system, functions effectively within the administrative structure, and is able to lead and mange healthcare teams.
- 12. Maintains health records and communicates effectively using the written medium.

#### D. Other diverse domains

- 13. Is motivated and skilled in self-learning and reflection.
- 14. Uses Information Technology in clinical practice.
- 15. Is able to teach, mentor and train health professionals including undergraduates, postgraduates and other specialists, educate the public, and advocate for health promotion.
- 16. Is able to formulate, plan, conduct and report ethically conducted original research or clinical observations that makes a significant contribution to the development of the discipline and satisfies peer review and merits publication.
- 17. Is able to function in different settings locally in Sri Lanka and in other parts of the world.

# 7. MD Curriculum

Provided in Annexure 3

# 8. Structure of pre-MD training programme

Candidates who are selected in to this programme after the selection examination will be allocated as Registrars to the available vacancies in teaching hospitals to train under a supervisor who is a recognized trainer by the PGIM. Trainees will rotate through various appointments as given in sections 8.1 and 8.2 below.

The learning outcomes of these appointments will be to focus on achieving the overall outcomes and learning objectives listed in Section 6. These may be developed and changed from time to time, with regard to changing practices and needs.

The trainee will be given instructions on completing a Portfolio at the commencement of the training programme; this will reflect the prevailing expectations for each appointment and guide the trainee accordingly.

The pre-MD training programme consists of two components:

- **8.1.** Registrar training in general medicine, which will be done under one supervisor/trainer, who is a specialist physician, over a period of 18 months. This period will include a 2-week appointment on-site in a general medicine unit in a non-teaching hospital (non-TH) that refers/transfers patients to the general medicine unit in which the registrar is training. This appointment will be arranged by the supervisor/trainer in conjunction and discussion with the consultant physician in the non-TH, and supervised by both, with the TH supervisor/trainer as the overall supervisor.
- **8.2.** Registrar training in <u>specialities</u>, which will be done under one supervisor/trainer at a time, over a total period of 12 months. These appointments are as follows:
  - i. 8 weeks each in cardiology and neurology.
  - ii. 4 weeks each in dermatology, endocrinology, gastroenterology, nephrology, psychiatry/psychological medicine, respiratory medicine, and rheumatology.
  - iii. 2 weeks in an intensive care unit (preferably in the hospital in which the registrar carried out the general medicine training)
  - iv. 2 weeks of an elective appointment in any one of the following specialties: clinical microbiology, clinical oncology, clinical pathology, emergency medicine, geriatrics, haematology, infectious diseases, obstetric medicine, palliative care, radiology, surgery or its allied specialties, or venereology (genito-urinary medicine). The centres will be approved by the Board of Study in Medicine.

# 9. Learning activities during pre-MD training

#### **9.1.** Types of learning activities

The learning activities during the pre-MD training programme will be as follows:

- 1. Full-time, hands-on training in the clinical setting in the general medicine and short appointments; with both in-patient and out-patient duties; which include second-on-call in general medicine (with the intern house officer as the first-on-call doctor); a minimum of 1-in-3 on-calls after regular hours, including public holidays and weekends; under the supervision of the supervisor/trainer (the consultant of the unit).
  - a. In the in-patient setting, the registrar is responsible for the initial assessment and periodic reassessment of each patient; the institution of emergent, urgent and early management; the conduct of the ward rounds; attending to referrals; the performance of practical procedures appropriate to the patient and relevant to the training; the liaison with other units as appropriate; the maintenance of basic ward organization and efficiency; the practice of appropriate infection control and other patient- and staff-safety procedures; the teaching of medical students and allied healthcare staff/students; the liaison with patients' family members, relatives and bystanders; and assisting the supervisor/trainer in the carrying out of clinical duties, including the conducting of clinical assessments of medical students/graduates and postgraduate trainees.
  - b. In the out-patient setting, the registrar is responsible for the care of out-patients; and assisting the supervisor/trainer in running the clinics efficiently.

This training will provide the trainee with the opportunity to receive experiential learning relevant to his/her future work setting.

- Regular ward-based teaching sessions such as ward classes, case discussions, journal/book clubs, other teaching sessions and multi-disciplinary meetings, which are organized and/or recommended by the supervisor/trainer and the Board of Study in Medicine.
- 3. Academic teaching, such as academic/CME/CPD events conducted by the CCP, Sri Lanka Medical Association (SLMA), other regional or national clinical or professional societies/associations/colleges, and the PGIM.
- 4. Library-based and web-based learning, from textbooks, manuals, periodicals and scholarly journals.

# **9.2.** Scholarly reading/writing

The specialist physician must be capable of scholarly communication with his/her professional peers. The ability to write effectively in the English language in the style appropriate for scholarly medical journals of an international standard is a must. It will enable the specialist physician to share important facets of his/her professional experience

with his/her peers, which is an obligation to one's profession as well as a source of self-satisfaction and recognition by peers.

The trainee is required and encouraged (at both pre-MD and post-MD stages), to regularly read scholarly medical journals of international standard, such as *Ceylon Medical Journal* ('CMJ'), *New England Journal of Medicine* ('NEJM'), *The Lancet, Annals of Internal Medicine, British Medical Journal* ('BMJ'), *National Medical Journal of India, Clinical Medicine* (published by the Royal College of Physicians of London), *Journal of the American Medical Association* ('JAMA'), *The Sri Lanka Prescriber, Australian Prescriber* and *Journal of the Ceylon College of Physicians* ('JCCP').He/she is encouraged to develop the habit of 'scanning' these journals for important and/or interesting articles, and reading these selected articles fully; this habit is best carried out at a regular, dedicated time each week.

This will help achieve several objectives simultaneously: Encourage clinical research, improvement in English literacy (which is essential for obtaining an overseas training placement), familiarization with scholarly writing, updating of medical knowledge, improvement in the quality of patient care, and enhanced self-satisfaction.

The programme will support the trainee to achieve these objectives and will assess him/her in the following ways:

- a. By encouraging the trainee to carry out regular reading as indicated above, through the supervisor's/trainer's supervision. This will be assessed at the Record of In-service Training Assessment (RITA).
- b. By conducting regular training workshops in scholarly writing and publishing, both through the PGIM and the CCP, as well as medical faculties and the SLMA.
- c. By providing supervisors/trainers with training on supporting trainees in these activities.
- d. By assessing each trainee's scholarly writing skills, through the Casebook or alternative forms of assessment duly approved by the Board of Study in Medicine (see Section 11.2 for details).

### 10. Trainers and training units

The supervisors/trainers and training units for the Programme will be approved by the Board of Management of the PGIM, on the recommendation of the Board of Study in Medicine, in accordance with *PGIM General Regulations and Guidelines*.

Accordingly, specialists with at least 3 years' experience after board certification may be appointed as supervisors/trainers. Training units must be accredited by the Board of Study in Medicine as suitable for training in medicine or its specialties (as

the case may be). Training units will be recognized after evaluation, as per the said regulations.

#### 11. Monitoring progress during pre-MD training

The Portfolio will be used to guide the trainee regarding training requirements, progress achieved, and discussions carried out with the trainer regarding the training. In addition, the trainee will also need to furnish a Casebook based on the clinical experience gathered during the first 24 months of the pre-MD training programme.

### **11.1.** The Portfolio (including RITA, WBA and Portfolio viva)

The Portfolio for Stage 1 (Annex 4) will be maintained by the trainee from the point of entry into the Programme until Stage 2. All entries must be made by the trainee through his/her own initiative, with all necessary details (e.g., patient's BHT number, date and time of teaching/learning activity), and duly and promptly certified by the relevant supervisor/trainer.

The portfolio will provide documentary proof of learning in the professional setting, such as logs of:

- a. Common and rare medical conditions, both acute and chronic, seen and managed by the trainee.
- b. Practical procedures carried out, in accordance with Miller's pyramid.
- c. unusual, interesting, instructive or problematic cases or experiences (including discussions with trainer) in the professional setting, in relation to clinical work, administrative or managerial work, and organizational work.
- d. Presentations, teachings and readings related to clinical work.
- e. Attendance at formal teaching/learning activities, including teaching sessions, multidisciplinary sessions, meetings and conferences.

The portfolio will provide documentary proof of workplace-based assessment (WBA), including:

- a. Mini-clinical evaluation exercise (mini-CEx) (a minimum of 6 in 18 months).
- b. Case-based discussions (CbDs) in general medicine (a minimum of 4 in 18 months).
- c. Acute care assessment tools (ACATs) at post-casualty ward rounds and ETU admissions (a minimum of 6in 18 months).
- d. Directly-observed procedures (DOPS).
- e. Peer team rating (PTR) assessment (1 each as registrar in general medicine and senior registrar).

The portfolio will provide space for the documentation of reflective logs, with a view to encouraging reflective practice.

The portfolio will provide a documentary record of appraisals and continuous assessments, including:

- a. Quarterly self-assessments.
- b. Quarterly supervisor/trainer-trainee discussions on the trainee's progress.
- c. Record of In-service Training Assessments (RITAs) and the learning agreements generated at them. Each registrar in general medicine will undergo 2 RITAs (with the supervisor/trainer and an external supervisor/trainer at each RITA), the first at the completion of 6 months, and the second at the completion of 12 months. The registrar must obtain a minimum mark of 60% in the second RITA. If he/she fails to do so, he/she must have a third RITA in the third six months and obtain a minimum of 60% in it. Registrars who fail to obtain a minimum of 60% in both second and third RITAs are not eligible to sit the MD examination, and will be referred to the Board of Study in Medicine for appropriate remedial action.
- d. A Portfolio viva at the end of 18 months of the general medicine appointment, which is called the General Medicine Registrar Portfolio Viva. This will be held with the supervisor/trainer and an external supervisor/trainer (similar to the RITA assessment), and will take approximately 30 minutes. The purpose is to make an overall assessment of the general medicine appointment, identify strengths, and areas that require further attention and suggest strategies to address these areas. A clear record of the findings of the assessment and the suggested and agreed actions will be made in the Portfolio, and it is up to the trainee to carry out the agreed actions. There is no 'pass' or 'fail' for this viva, but the record made here will be taken into consideration at the PBCA Portfolio Viva (see Section 15) to ensure that any identified gaps in training are addressed by the time of board certification.

### **11.2.** The Casebook, and options for exemptions

The trainee must submit a Casebook consisting of 5 case histories, at the completion of 24 months of the registrar training (i.e., when half the short appointment-time has been completed). The 5 cases must consist of 3-4 cases from the general medicine appointment and 1-2 cases from the short appointments. Trainees will be provided with the latest guidelines on the preparation of the Casebook at the commencement of the registrar training.

The current guidelines are given in Annex 5.

#### 12. MD Examination

#### **12.1.** General aspects

A trainee must fulfill the following requirements to be eligible to sit the MD examination:

- Satisfactory completion of the 30-month pre-MD training programme, with documentary proof of same, including the satisfactory evaluation from all respective supervisors/trainers (altogether 12 supervisors/trainers).
- Satisfactory performance at the RITA.
- Submission of the Casebook with a pass rating.
- Submission of the up-to-date, completed Portfolio for Stage 1.
- Any other requirements laid down by the PGIM.

The MD examination consists of 4 components: the written component, the clinical component, the observed history-taking/communication skills (OHT/CS) component, and the viva voce component. The written component is carried out first, and only candidates who obtain a minimum of 50% will be allowed to proceed to the other three components.

#### 12.2. The written component

The written component has the following 4 subcomponents:

- 1. **Paper 1: Structured essay questions (SEQs).** This Paper consists of 5 SEQs with equal marks, of 2 hours' duration, and awards 200 marks.
  - It examines the following: core knowledge in medicine; accurate and relevant recall of information; ability to determine points supported by evidence and to critically evaluate evidence; knowledge of recent advances in medicine; and ability to write in a clear, well-structured manner.
- 2. **Paper 2: Case histories.** This Paper will have 10 questions with equal marks, and is of 2½ hours' duration, and awards 150 marks.
  - It examines the following: ability to synthesize and analyze clinical information; ability to differentiate between important and non-essential information; interpret pertinent data in order to develop a differential diagnosis for clinical problems; ability to diagnose atypical presentations of common diseases; and ability to recognize and manage life threatening diseases.
- 3. **Paper 3: Data interpretation.** This Paper will have 15 questions with equal marks, is of 2½ hours' duration, and awards 150 marks.
  - It examines the following: ability to interpret diagnostic tests; ability to use and interpret investigations in a patient's context; analyze clinical pictures, graphs, ECG and radiological images (except CT, MRI & X-rays); and problem solving exercises.

4. **Paper 4: Slide interpretation.** This Paper consists of 20 projected slides with equal marks, conducted over 1 hour, and awards 100 marks.

It examines the following: ability to promptly recognize signs, appearances and other visual images (including pathology specimens, histology, CT, MRI, radiographs, etc.); diagnostic skills; and background knowledge about the illustrated conditions.

The questions in the written component will be blue-printed (see Annex 6). The weightage of the marks is: SEQs 200 + Case histories 150 + Data interpretation 150 + Slide interpretation 100 = 600, brought down to the final 100.

To pass the written component, the candidate must obtain a minimum of 50% of this final 100 and secure a minimum of 40% in each of the 4 subcomponents.

**Written component exemptions**: Candidates who obtain 50% or more in the written component will be given exemption from sitting the theory paper for a maximum number of four (04) more attempts or for a maximum period of two (02)years whichever is the earlier, from the date of commencement of the examination where the candidate passes the theory component.

# 12.3. The clinical component

The clinical component consists of the following 2 subcomponents: the long case, the short cases.

The weightage given to the components is as follows: the long case mark and the short cases marks will contribute equally towards the clinical component. To pass the clinical component, the candidate must obtain an overall minimum 50%, as well as a minimum of 40% in the long case and a minimum average of 50% for the short cases.

1. The long case: The long case will consist of 1 patient, who will be allocated to a candidate for 45 minutes, during which time the candidate must take a history, perform a relevant physical examination, and be ready to carry out a comprehensive holistic discussion with two examiners over 30 minutes.

The domains assessed will be: data gathering (30%), data interpretation (20%), plan of management (30%), and relevant background knowledge (20%). The mark will be allocated independently by the two examiners. The total mark is 100%.

 The short cases: This subcomponent consists of 5 stations: cardiovascular system (1 patient); respiratory system (1 patient); abdomen (1 patient); nervous system (1 patient); and other systems (2 patients from any of: endocrine system, musculoskeletal system, dermatology, and ophthalmoscopy). A candidate will be examined at each station for 10 minutes by two examiners, one of whom is a specialist in general medicine and the other from the relevant specialty to the case whenever feasible. Each Station carries equal marks; the two cases in the Other Systems Station shares the Station's allocated mark equally between them.

The mark will be allocated independently by each examiner. The final total mark is 100%.

The domains examined will be: methodical, systematic, sequential and correct technique of examination; eliciting of signs correctly and their interpretation; awareness of patient welfare and comfort; and professionalism.

### 12.4. The observed history-taking/communication skills component

This component has 2 stations, each with a patient or surrogate, lasting 20 minutes each, and observed by two examiners. One station will assess history-taking skills, and the other will assess communication skills.

- 1. The observed history-taking station will assess for the following competencies: Introduction and permission; use of open-ended questions, questions with options and leading questions; analysis of presenting complaint and other complaints in a chronological order; obtaining other relevant information in the past medical history and social history etc.; making a tentative diagnosis; professional attitudes; and ability to evaluate the information gathered for reliability and usefulness.
- 2. The communication station will assess for the following competencies: Introduction and explanation; explore present understanding; tone of voice, non-verbal cues; explanation in simple language; pauses and pace of the interview; checks understanding; explores and addresses patient's/surrogate's concerns adequately; thanks patient and concludes; professional attitude; empathy; demonstrates adequate knowledge of the issues related to the encounter; demonstrates good insight into the success, failure and difficulties in the encounter.

**Marks**: The observed history-taking and the communication stations will contribute equally to the observed history-taking/communications component. The marks will be allocated independently by each examiner. The final total mark is 100%.

#### 12.5. The viva voce component

The viva voce component will be of 40 minutes duration, and will be with 2 panels of examiners with each panel having 2 examiners. Each panel will examine a candidate for 20 minutes. The viva will assess the following 4 areas:(a) management of emergencies;(b) ethical reasoning in clinical practice; (c) knowledge of current literature and recent advances; and (d) management of chronic diseases.

It will have a structured format; written, standardized scenarios will be given to candidates. Candidates will be tested using predetermined questions and the expected answers will be determined before the examination, with some flexibility allowed.

The mark will be allocated independently by the four examiners. The final total mark is 100%.

#### 12.6. Marking grid

The marking grid for the long case, short cases, observed history-taking, communication skills, and viva voce components will be as follows:

Highly unsatisfactory:	0-29%
Clear fail:	30-39%
Bare fail:	40-49%
Bare pass:	50-59%
Clear pass:	60-69%
Excellent:	70-100%

# 12.7. Criteria for passing the MD Examination

The weightage for the 4components in the final 100 marks is as follows:

- written component: 30%
- clinical component (long case and short cases): 50%
- observed history-taking/communication skills component: 10%
- viva voce component: 10%

The criteria to pass the MD Examination are as follows:

- Overall mark must be 50% or more.
- Minimum of 50%in the theory component, with at least 40% in each of its subcomponents.
- Minimum of 50% in the clinical component, with a minimum of 40% in the long case and a minimum of 50% in the short cases.
- Minimum of 40% in the observed history-taking/communication skills component.
- Minimum of 40% in the viva component.

#### 12.8. The John Stokes Gold Medal and the P.T. De Silva Gold Medal

**The Dr John F. Stokes Gold Medal in Medicine** is awarded to the candidate who fulfills the following criteria:

- (a) should be a PGIM trainee;
- (b) has to be successful at the first attempt at the MD Examination;
- (c) should have obtained the highest marks among all candidates;
- (d) should have been recommended by the Board of Examiners of the MD Examination, whose decision shall be final.

If there are two or more candidates with equal marks in the MD Examination among the qualified candidates, the medal shall be awarded jointly.

**The Dr P.T. De Silva Gold Medal for the clinical component** is awarded to the candidate who fulfills the following criteria:

- (a) should be a PGIM trainee;
- (b) has to be successful at the first attempt at the MD Examination;
- (c) should have obtained the highest marks among all candidates at the clinical component of the MD Examination;
- (d) should have been recommended by the Board of Examiners of the MD Examination, whose decision shall be final.

If there are two or more candidates with equal marks in the clinical component examination among the qualified candidates, the medal shall be awarded jointly.

#### 12.9. Candidates who fail the MD Examination

Candidates who fail the MD Examination will be reverted back to their previous post, pending the next available MD Examination. The Board of Study in Medicine will conduct a counselling session for failed candidates after each MD Examination, to offer guidance and advice of a general nature.

For details regarding re-sitting the examination and the allowed number of attempts, etc., please refer *PGIM General Regulations and Guidelines*. The maximum number of attempts at the clinical component, the observed history-taking/communications skills component and the viva component, which three components must be taken together, is 6. Candidates who have used up 5 of these attempts unsuccessfully will be referred by the Board of Study in Medicine for mandatory retraining under a specialist physician before the sixth and final attempt.

For details regarding exemption from the written component, please see Section 12.2.

### 13. Stage 3: Post-MD training (General Medicine)

#### 13.1. Structure of the post-MD training programme

The trainees who have successfully completed the Stages 1 and 2 will be given the opportunity to select a specialty, according to availability of specialties and the merit position of the candidate at the MD examination. The allocation and selection of trainees to respective specialties will be done according to merit, and will be done in accordance with *PGIM General Regulations and Guidelines*.

The merit position will be decided on the basis of two criteria:

- Trainees who have passed the examination at the first attempt will get priority over those who passed at a second or subsequent attempt
- When the number of attempts are the same, the person with higher marks get priority
- If both the number of attempts and marks are similar then the marks of previous summative examination/s is/are taken in to consideration, when applicable
- If the number of attempts, marks of the exam concerned and marks of the previous summative examination/s are similar then the senior trainee/s get/s priority over the junior/s

The senior registrar training in General Medicine in Sri Lanka will be for a period of one year, and will be provided in a training unit recognized for this purpose by the Board of Study in Medicine. The full period of one year will be supervised by one supervisor/trainer. This will be followed by the mandatory overseas training period, which is for another one year.

The structure, learning outcomes and programmes of the post-MD training periods in the specialties are published separately. Such training will be provided in training units recognized for this purpose by the Board of Study in Medicine.

## 13.2. Learning objectives

The trainee entering the post-MD training period in General Medicine is expected to have acquired the knowledge and practical skills and developed the attitudes necessary to function as a senior registrar in General Medicine.

In the case of a candidate who takes up General Medicine as the area of specialty, the learning objectives for the post-MD training period will be aimed at fulfilling the general learning objectives outlined in Section 6 and reaching up to the SLQF 10 level, and is specifically geared to the following:

- i. Fulfillment or completion of any outstanding training requirements identified and decided upon at the General Medicine Registrar Portfolio Viva (see Section 11.1).
- ii. Acquisition of knowledge and skills and development of attitudes to a level required to function without supervision as a consultant physician in any part of the country.
- iii. Preparation for overseas postgraduate training, including acquiring proficiency in relevant practical procedures.
- iv. The completion of an original research or clinical audit project initiated and completed by the trainee.
- v. The maintenance of the Portfolio for Stage 3, which will be continued throughout the period of local senior registrar training.

#### 13.3. Learning activities: local senior registrar training

#### 13.3.1. Learning activities

The learning activities of the local senior registrar period include those of the registrar period listed in Section 9.1, but focused to the acquisition of knowledge and skills and the development of attitudes to the higher level required of a future consultant physician. In addition to those listed in Section 9.1, the following will also apply.

#### 13.3.2. Portfolio

The Portfolio for Stage 3 (Annex 7) will document evidence of learning in the following areas:

- The 6 areas identified by the PGIM for assessment of the PBCA, which are:
  - 1. Subject expertise (including logs of practical procedures and WBAs, which consists of 2 CbDs, 2 ACATs, DOPS and 1 PTR assessment)
  - 2. Teaching experience
  - 3. Research and audit
  - 4. Ethics and medico-legal issues
  - 5. Information technology
  - 6. Lifelong learning.
- Log of experience relating to organizational, administrative and advocacy issues relating to patients and ward work.
- Reflective practice.

## 13.4. Research/audit project

# 13.4.1. Learning objectives

At the end of this activity, the trainee should be able to:

- Explain the basic steps involved in clinical research or audit.
- Plan and complete a clinical research/audit project, with due appreciation of the need for scientific validity and ethical principles, and within organizational and financial constraints.
- Effectively communicate the findings of clinical research/audit to the profession.

#### **13.4.2.** Time frame

**First quarter (of the senior registrar year):** submit the research/audit project proposal to the Board of Study in Medicine through the supervisor/trainer, and obtain approval for the proposal.

**Second and third quarters:** obtain necessary pre-requisites (eg, ethics clearance, funds, permission from hospital committees) and collect data.

**Fourth quarter:** analyze data and write up the research project report, and submit same to the Board of Study through the supervisor/trainer.

The project proposal and/or report will be examined and approved, where appropriate, by the committee of regional advisors before they are forwarded to the Board of Study in Medicine.

#### 13.4.3. Format

**The research/audit question:** The project should be on a clinical question or be clinically relevant. It should have social value, and it should be a question that can be researched within the time available (eg, data gathering should be completed in a maximum of 6 months and funding required should not be impractical).

The research/audit project proposal: This should include an introduction with justification; literature review; methods section; plan for data gathering (including study instruments); plan for data analysis; any pilot studies (if necessary); budget and proposed funding sources; a discussion of ethical issues (and ethics clearance, if already obtained) and permission issues; a timeline; bibliography. The proposal submitted to the Board of Study in Medicine should be already recommended by the trainer and the committee of regional advisors.

**The project report:** This should include, in addition to the above, any alterations or amendments to the above; the results; discussion; recommendations and conclusions; and documents pertaining to funding, ethics and permissions. The project report must be accepted and approved by the Board of Study.

Research or audit projects conducted overseas during the overseas training program and which are accepted for publication in a peer-reviewed journal will be accepted in lieu of the local research/audit project, following the approval of the Board of Study in Medicine.

The Board of Study in Medicine will provide support to the trainee in the following manner:

- a. The supervisor/trainer and regional advisor will guide the trainee on a regular basis and also on demand.
- b. The PGIM will conduct regular (6-monthly), part-time research methodology workshops.
- c. The trainee will be actively encouraged and permitted to participate in workshops/meetings organized by other organizations (eg, SLMA, the universities) that deal with research methodology, writing up papers, obtaining funding, making budgets etc.

# 13.5. Assessment: local senior registrar training

The assessment consists of the following:

- The research/clinical audit project report, which must be approved by the Board of Study in Medicine.
- A portfolio viva, at the end of the local training. This is known as the General Medicine Senior Registrar Portfolio Viva.
- The supervisor's/trainers confidential appraisal/report (Annex 8).

#### 13.6. Overseas training

The learning objectives of the overseas training are the fulfillment of the overall learning objectives listed in Section 6. The Board of Study in Medicine considers the overseas training opportunity as an important, indispensable component in the training of a postgraduate trainee to the level of proficiency and overall performance that the Sri Lankan public has the right to expect from consultant physicians serving its healthcare needs. In particular, some of the unique characteristics of this learning activity include the following:

- Receiving hands-on experience in the manner modern specialist medicine is practiced in centers of excellence in other countries.
- Gain experience in the use and institution of the latest knowledge and methods, which the trainee can then use and institute as appropriate in the local setting.
- Acquire skills and develop attitudes and confidence in the adoption of patientcentered healthcare and multi-disciplinary team work, which are major needs for Sri Lanka's health care system in the twenty-first century.
- Be able to adapt to the rapid changes in the field of general internal medicine in the coming decades.

The overseas senior registrar training will be for a period of one year, and will be carried out in an overseas training center approved for that purpose by the Board of Study in Medicine.

The trainee should have completed the following requirement before embarking on overseas training:

- Completion of a minimum 6 months of local training as a senior registrar.
- A satisfactory report of work from the local supervisor/trainer for the period completed up to that point.
  - The trainee must obtain the approval of the Board of Study in Medicine for the overseas training appointment before embarking on it. The application for the approval must contain the following information:
- The confidential report of the local supervisor/trainer for the period of senior registrar local training, which must indicate that the trainee is ready to embark on overseas training. The relevant appraisal form is in the Portfolio; however, if the trainee is embarking on overseas training before the completion of local training, a separate appraisal form must be used, which can be obtained from the PGIM and also approval of the following by the Board f Study.
  - The work profile of the overseas training unit.
  - The job description of the contract offered to the trainee by that unit.
  - The letter of job offer from that unit.

The appraisal of the overseas training will consist of quarterly appraisals by the overseas trainer, in the prescribed form (Annex9).

### 13.7. Flexible Pre-Board Certification Training Options

In accordance with *PGIM General Regulations and Guidelines*, the Board of Study may approve and recommend Flexible Pre-Board Certification Training Options in exceptional circumstances. The details are provided in the said guidelines.

# 13 Eligibility for Pre-Board Certification Assessment

The conditions that must be met to apply for the PBCA are as follows:

- 1. Completion of the required training (Stages 1-3), with satisfactory appraisals from all relevant trainers.
- 2. Approval of the research/audit project report.
- 3. Submission of the completed Portfolio for Stage 3.
- 4. Any other requirements that is prescribed by the PGIM.

# 14. Format of Pre-Board Certification Assessment (PBCA)

The PBCA will be carried out by a board of examiners appointed by the Board of Study. This board will consist of 3 trainers, 2 in General Medicine and 1 from a specialty. The PBCA will consist of the following components:

- 1. A brief *presentation* of the post-MD training program, including the overseas training experience. This should normally be about 10-15 minutes long.
- 2. A *portfolio viva*. This examination will be based on the Portfolio for Stage 3 in General Medicine, but it will also take into account the outcome of the General Medicine Registrar Portfolio Viva (please see section 11.1.d). It will last 30 minutes, and will:
  - i. Examine each of the 6 components of the Portfolio and reflective practice.
  - ii. Examine the overall adequacy of the training experience, including learning in the professional setting, workplace-based assessments, fulfillment of learning agreements, and actions taken following self-appraisals and previous appraisals. Any reflective logs and records of reflective practice will also be considered.
  - iii. Examine the adequacy of the fulfillment of any learning agreements and the commitment to personal and professional development.

The overall decision of the panel/s will be one of the following categories:

- Successful.
- Unsuccessful

If unsuccessful, the PBCA will be followed by counselling regarding improving the portfolio, and re-sitting of the PBCA after a minimum period of 3 months. If the trainee is successful at this sitting, the date of board certification will not be delayed. If the trainee is unsuccessful at this attempt as well, then a further training (in a unit selected by the Board of Study in Medicine) of a minimum of 6 months will be prescribed, followed by another PBCA, in which case the date of board certification will be the date of the passing PBCA. A trainee who is unsuccessful in such PBCA may be required to re-do further training(minimum period of 6 months) and re-sit PBCAs, provided the trainee can complete the requirements for board certification within the maximum period allowed in *PGIM General Regulations and Guidelines*. In each case (i.e., where the trainee passes a third or a subsequent PBCA), the date of board certification will be the date of the PBCA that the trainee passes.

#### 15. Board certification

A trainee who has successfully completed the PBCA is eligible for Board Certification as a Specialist in General Medicine on the recommendation of the Board of Study in Medicine.

## 16. Recommended reading

## Recommended reading for the Medicine Selection Examination:

**Biomedical Sciences:** 

- Clinically Oriented Anatomy by Moore et al
- Guyton and Hall Textbook of Medical Physiology
- Ganong's Review of Medical Physiology
- Clinical Biochemistry by Marshall et al
- Harper's Illustrated Biochemistry
- Walter and Israel General Pathology
- Robbins and Cotran Pathologic Basis of Disease
- Medical Microbiology by Greenwood et al
- Paniker's Textbook of Medical Parasitology
- Clinical Pharmacology by Bennett and Brown
- British National Formulary
- Statistics at Square One

#### General Medicine:

- Davidson's Principles and Practice of Medicine
- Kumar and Clark's Clinical Medicine
- Current Medical Diagnosis and Treatment
- Harrison's Principles of Internal Medicine

- Manson's Tropical Diseases
- Lecture Notes in Infectious Disease
- Lecture Notes in Tropical Medicine
- Wallach's Interpretation of Diagnostic Tests
- Diagnostic Imaging by Rockall et al
- Oxford Textbook of Medicine

### Recommended reading for the training programme and the MD Examination:

The trainee is advised to read a wide selection of books, including general medicine texts and specialty texts, along with a selection of high-quality journals in general medicine.

Some of the general medicine texts are listed above. Some of the journals are listed in Section 9.2. In addition, some of the journals published by local regional medical associations, professional colleges and specialty associations/colleges are extremely useful to obtain an up-to-date account of local developments in the practice of medicine.

The trainee is also advised to be guided by one of the following books for clinical skills development:

- Macleod's Clinical Examination
- Clinical Examination by Talley & O'Connor
- Hutchison's Clinical Methods

#### 17. Contributors to development/revision of Prospectus

The Board of Study would like to thank the Post-Graduate Institute of Medicine, and the many trainers and trainees who contributed to curriculum reform over 4½ years, leading to the development of this new edition of the Prospectus.

In particular, the continuing support and encouragement of Prof Jayantha Jayawardena and Prof H.J. De Silva (as Directors), Dr M.K. Ragunathan and Prof S.B. Gunatilake (as Chairpersons of the Board of Study in Medicine) are gratefully acknowledged. Dr Nick Beeching and Dr Fraz Mir and their colleagues in the RCP London too are gratefully acknowledged for their interactions, inputs and advice during their visits to Sri Lanka as official delegates of the Royal College of Physicians of London, UK. The curriculum reform benefited immensely from several workshops and seminars conducted by the Medical Education Resource Centre of the PGIM and the Ceylon College of Physicians. The Academic Affairs, Accreditation, Examinations and Discipline Committee is also gratefully acknowledged for helpful comments.

The committee appointed by the Board of Study in Medicine to develop the new curriculum, on which this Prospectus was built, included: Prof Saroj Jayasinghe (chairperson), Dr Shamila De Silva (convenor), Prof P.L. Ariyananda, Prof S.S.D. Fernando, Prof S.B. Gunatilake, Prof J. Indrakumar, Dr W.A.T.A. Jayalath, Prof S.D. Jayaratne, Dr S.A.A.P. Karunanayake, Prof S.A.M. Kularatne, Dr A. Kulatunga, Prof M.R. Mohideen, Dr R. Premaratne, Dr M.K. Ragunathan, Dr K. Thirumavalavan and Prof K. Wanigasuriya.

The following persons contributed to the designing and the writing of this Prospectus:

- Sections 2, 4, 6, 12, 17 and annexes 1, 2, 3, 6 were developed by the committee that developed the new curriculum, and written by Prof Saroj Jayasinghe and Dr Shamila De Silva. Prof S.B. Gunatilake wrote Part of Section 2.3and edited the final draft.
- Sections 8, 9, 11, 13 and annexes 4 (except the WBA assessment forms, which were developed by the PGIM) and 7 (except the WBA assessment forms and the 7-item framework for PBCA assessment, which were developed by the PGIM) were developed by Dr S.A.A.P. Karunanayake, who also did the overall collation and writing of the Prospectus.

Mrs Priyanka Rajapathirana and Mrs Lalitha Embuldeniya (clerical staff) in the PGIM is thanked for their tireless efforts in helping to coordinate the activities in relation to development of this prospectus.

# Postgraduate Institute of Medicine

# **Annexes**

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#### **Annexure 1: Syllabus of the Medicine Selection Examination**

The syllabus of the Medicine Selection Examination, or the curriculum/content areas that are tested in the examination, are arranged under ten objectives. The detailed contents for clinical and basic sciences sections are given subsequently. This format inevitably results in the same topic appearing in more than one place. This guide is designed to indicate the general scope of preparation necessary for the examination. Candidates are expected to be up to date in their knowledge and in the current advances.

# **Objectives of the Examination:**

#### Candidates should:

- 1. know the relevant basic sciences in relation to normal human functioning
- 2. know the relevant basic sciences in relation to presenting problems
- 3. know the aetiology, pathophysiology, pathology, clinical features, investigation (including imaging), treatment (including pharmacology), complications and prevention of important diseases and disorders
- 4. know the anatomical and physiological basis, and be able to describe and perform important procedures and skills
- 5. know the anatomical, physiological, pathophysiological basis, indications and interpretation of results of important investigations
- 6. know the principles of ethics and ethical reasoning in relation to important health related issues
- 7. be able to describe, analyze and interpret statistical and epidemiological data and know the application and practice of evidence based medicine and its limitations
- 8. be competent in the communication skills required at registrar level
- 9. have basic competencies in administrative and medico-legal procedures
- 10. have essential generic skills relevant to clinical practice.

#### The detailed contents:

- 1. Know the relevant basic sciences in relation to normal human functioning (i.e. anatomy, genetics and immunology, psychology, physiology, biochemistry, microbiology, parasitology and pathology).
- **2.** Know the relevant basic sciences in relation to common presenting problems (not limited to symptoms and signs)
  - Endocrine and metabolic disorders
  - Infectious diseases: fever and hyperpyrexia, multi-organ failure, fever and rash.
  - Hematology: pallor, excessive bleeding, prothrombotic presentations, neutrophilia and neutropenia, pancytopenia, thrombocytopenia, polycythemia/erythrocytosis.

- Cardiovascular disorders: syncope and presyncope, chest pain, acute and chronic shortness of breath, palpitations, cardiac arrest, high blood pressure, unilateral limb swelling.
- Respiratory disorders: wheeze, pleuritic pain, cough, hemoptysis, rhinorrhea and sore throat.
- Gastrointestinal disorders: dysphagia, dyspepsia and reflux, loss of appetite, nausea & vomiting, loss of weight, acute and chronic diarrhea, constipation, hematemesis & malena, jaundice, ascites, oedema.
- Nephrological disorders: oliguria/anuria, polyuria, dysuria, frequency, proteinuria, abnormal urine sediment, uremia & azotemia.
- Rheumatological disorders: poly-, oligo- and mono-arthritis, regional pain syndrome, backache, neck pain and pain along the upper limb, soft tissue rheumatism.
- Neurological disorders: hemiplegia, lower limb weakness, blackouts and seizures, numbness of limbs, tremor of hands, impaired vision, diplopia, impaired consciousness, headache, facial pain, dizziness and vertigo, ataxia, dysphasia, cranial nerve lesions (facial asymmetry, ptosis, diplopia, squint, swallowing difficulty), impaired memory, wasting of small muscles of hand, sphincter disturbances.
- Dermatological disorders: pruritus, scaly and erythematous eruptions, skin ulcers, urticarial and angioedema, blistering disorders, hyperpigmentation and hypopigmentation, vesicular and bullous disorders, skin reactions to light.
- Toxicology and toxinology: snake bite, insect stings and exposures, exposure or ingestion of agrochemicals, drug overdose, plant poison.
- Care of the elderly: falls/postural instability, incontinence, confusion.
- Psychiatric disorders: delusions and hallucinations, delirium, loss of memory, mood disorders, personality disorders.
- Other: anaphylaxis.
- **3.** Candidates should know the aetiology, pathophysiology, patho-anatomy, clinical features, investigation (including imaging), treatment (including pharmacology), natural history, complications and prevention of important diseases and disorders
  - Endocrine and metabolic disorders: Newly diagnosed diabetes mellitus,
    metabolic syndrome, chronic diabetic complications, acute diabetic
    complications, disorders of acid-base balance, hypothyroidism,
    thyrotoxicosis, water & electrolyte imbalances, endocrine hypertension,
    Cushing syndrome, Addison disease, hyperprolactinaemia, growth hormone
    excess and deficiency, SIADH, diabetes insipidius, hyper and hypo-calcaemia,
    metabolic bone diseases (osteoporosis, osteomalacia, osteopenia),
    hyperparathyroidism, hypoparathyroidism, pheochromocytom,

- hyperaldosteronism, disorders of multiple endocrine systems, panhypopituitarism, haemochromatosis, Wilson disease.
- Infectious diseases: Dengue, pyrexia of unknown origin, leptospirosis, typhoid, tuberculosis, malaria, herpes virus infections, typhus, amebiasis, sexually transmitted infections, HIV/AIDS, filariasis, leishmaniasis, leprosy, parasitic infections of the intestines, microbiological zoonoses, rabies, hospital associated infections, parasitological zoonoses, latent infections, influenza, vaccines/immunization, emerging infections, melioidosis, infections in immune compromised, travel medicine.
- Hematology: anemia, lymphoma, hemolytic anemia, multiple myeloma,
   Transfusions and reaction, polycythemia rubravera (primary erythrocytosis),
   myeloproliferative disorders, disseminated intravascular coagulation, pro thrombotic diseases, myelodysplastic syndromes, acute & chronic
   leukaemias, platelet disorders.
- Immunology: immunodeficiency, transplant medicine, autoimmunity and hypersensitivity, anaphylaxis.
- Cardiovascular disorders: acute coronary syndromes, cardiac arrest, arrhythmias, ECG abnormalities, systemic hypertension, Acute left ventricular failure, chronic heart failure, endocarditis, disorders of valves, limb ischemia, cardiomyopathy, pericardial diseases, pulmonary hypertension, DVT and pulmonary embolism, rheumatic fever, congenital heart disease, shock, myocarditis.
- Respiratory disorders: asthma, lung fibrosis, chronic obstructive pulmonary disease, tuberculosis, pneumonia, pleural effusion, bronchiectasis, lung abscess, pneumothorax, respiratory failure, upper respiratory tract infections, pulmonary embolism, diffuse parenchymal lung disease, lung carcinoma, basic ventilator care (invasive and non-invasive ventilation), occupational lung diseases, diseases of pleura, obstructive sleep apnoea& sleep disorders, environmental pollution, oxygen therapy.
- Gastrointestinal disorders: peptic ulcer disease and Helicobacter pylori infection, viral hepatitis, chronic liver disease, non-alcoholic fatty liver disease, acute liver failure, alcoholic liver disease, portal hypertension, hepatic encephalopathy, irritable bowel disease, inflammatory bowel disease, malabsorption syndrome, nutrition in chronic disease, hepatocellular carcinoma, cholecystitis and cholelithiasis, acute and chronic pancreatitis
- Nephrological disorders: acute kidney injury, chronic kidney disease, glomerulonephritis (nephrotic, nephritic), diabetic nephropathy, urinary tract infections & pyelonephritis, CKDu, polycystic kidney disease, immunological renal diseases, renal complications of systemic diseases, obstructive uropathy, renal replacement, malignancies of the KUB, nephrolithiasis,renovascular disease.

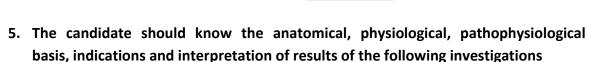
- Rheumatological disorders: rheumatoid arthritis, osteoarthritis, immunological arthropathies, SLE and other connective diseases, spondylosis and disc prolapse, cervical spondylosis, seronegative arthritides, gout and hyperuricemia, pseudogout, polymyalgia rheumatica, Raynaud's disease, infections of bones and joints, antiphospholipid syndrome, polymyositis, dermatomyositis, vasculitis, musculoskeletal rehabilitation.
- Neurological disorders: epilepsy, stroke and transient ischemic attack, central
  nervous system infections, dementias, sleep disorders, spinal cord
  syndromes, neuropathies, Parkinson disease and other movement disorders,
  meningitis and encephalitis, encephalopathies, coma/ brain death, cerebellar
  disorders, neuromuscular junction disorders, myopathies, motor neuron
  disease, Gullain-Barre syndrome and other inflammatory neuropathies,
  respiratory muscle paralysis, increased intracranial pressure, normal pressure
  hydrocephalus, gait disorders, myelopathies, demyelination, syringomyelia,
  subarachnoid haemorrhage, brain tumours.
- Dermatological disorders: eczema, leprosy, fungal infections, parasitic skin infections, drug induced skin lesions, immunologically mediated skin diseases, infections (bacterial, viral, fungal, parasitic, entomological), skin manifestations of systemic diseases, urticaria and angio-oedema, psoriasis and lichen planus, acne, milia, blistering diseases, skin tumours, pigmentary disorders, nail and hair disorders, vesiclular& bullous diseases, erythroderma, skin reactions to light.
- Toxicology and toxinology: ethanol & methanol poisoning, alcohol and drug withdrawal, venoms and stings, drugs and pesticides, plant toxins, ingestion of corrosives, metallic poisons (As, Pb, Hg, CuSO4), irrespirable gases (CO, Cl2, NH3, SO2, CN).
- Care of the elderly; frailty, palliative care, the dying patient.
- Psychological medicine: deliberate self-harm, anxiety, alcohol, tobacco and drug dependency and withdrawal, demetia, mood disorders, psychoses.
- Other: multi-organ failure, nutrition and malnutrition, pressure sores, preand post-operative management of medical conditions, standard (universal) precautions, male and female sexual dysfunction, menopause and hormone replacement therapy, adolescent medicine, maternal medicine, palliative care, patient safety.

The candidate should know the anatomical and physiological basis, be able to describe and perform key procedures and skills. The levels of competency is indicated in shaded

human	Describe procedure	Do procedure in a model	Do procedure in a human
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- 1. CPR and defibrillation
- 2. Giving IM, SC injections
- 3. Venepuncture and obtaining samples
- 4. Inserting an intravenous cannula
- 5. Setting up an IV infusion and IV drugs
- 6. Inserting a nasogastric tube
- 7. Urinary catheterization
- 8. Nebulization
- 9. Glasgow coma scale
- 10. Maintaining a fluid balance chart
- 11. Measuring the peak flow rate
- 12. Collection and transport of specimens to lab
- 13. Using a glucometer
- 14. Urine tests (strips)
- 15. Connecting to a monitor (ECG, SpO2, BP)
- 16. Doing a 12 lead ECG
- 17. Cardioversion
- 18. Hand washing
- 19. Blood pressure recording
- 20. Demonstrating inhaler technique
- 21. Bag and mask ventilation
- 22. Setting up a blood transfusion
- 23. Basic physiotherapy
- 24. Insert a peritoneal dialysis catheter and manage a PD
- 25. Endotracheal intubation
- 26. Arterial puncture
- 27. Lumbar puncture
- 28. Pleural aspiration
- 29. Enema
- 30. Gastric lavage
- 31. Central line insertion
- 32. Pacing
- 33. Peritoneal tap
- 34. Pituitary and adrenal function test
- 35. Knee joint aspiration of & intra-articular inj.
- 36. Insertion and reading CVP
- 37. Insert a haemodialysis catheter and manage a HD

- 38. Liver biopsy
- 39. Renal biopsy
- 40. Pleural biopsy
- 41. Artificial ventilation



- 1. ECG.
- 2. Biochemical tests (e.g. renal, liver function tests, electrolytes)
- 3. Haematological tests and serological tests for autoimmune disorders (e.g. –SLE)
- 4. Acid-base balance, oxygen saturation and basic ventilator readings
- 5. Microbiology and parasitology and basic serological tests
- 6. X-rays: Chest X-Ray, abdominal and GU X-rays, skull X-rays, X-ray of spine
- 7. Ultrasound (abdomen, doppler of carotids, doppler of lower limbs)
- 8. CT, MRI and PET scanning
- 9. Contrast studies of the GI and GU tracts
- 10. Echocardiogram, exercise stress ECG, Coronary angiogram, 24 -hour ECG, 24-hr BP
- 11. Pathology: FNAC, histological analysis
- 12. Endoscopy (upper and lower GI, bronchoscopy)
- 13. CSF examination (techniques, samples and interpretation)
- 14. EEG, EMG and nerve conduction studies
- 15. Spirometry

# 6. The candidate should know the principles of ethics and ethical reasoning in relation to important health related issues

- 1. Informed consent: consent for procedures, therapies
- 2. Confidentiality: maintaining confidentiality of sensitive information
- 3. Patient's right to know about illness: when a patient wants to know about illness
- 4. Prolonging life
- 5. Brain death and end-of-life decisions
- 6. Allocating resources (e.g. how do we allocate ventilator care)
- 7. Need for a 'good death'

# 7. The candidate should be able to describe, analyse and interpret statistical and epidemiological data, and apply Evidence Based Medicine

- describe and analyse basic statistics and interpret epidemiological data
- 2. describe and apply principles of EBM in diagnosis and treatment

#### 8. The candidate should be competent in the following key communication scenarios

- 1. Dying patient and relatives: Myocardial infarction, stroke, COPD, cancers, CKD, sepsis
- 2. Breaking bad news: Myocardial infarction, stroke, COPD, cancers, CKD, sepsis
- 3. Unhappy or angry patient or relative of patient: "doctors did not do enough for my patient"
- 4. Explaining illnesses in a language the patient understands: (Common illnesses: diabetes, CVA, IHD, COPD, asthma, CKD, snake bite, dengue, TB, HIV, epilepsy, osteoarthritis), (Serious illnesses where there is an immediate threat to life: coma, ARF, pulmonary oedema, sepsis)
- 5. Explaining procedures in a language the patient understands (please see list of procedures)
- 6. Manage poorly compliant patient
- 7. Motivational interviews to facilitate behavior change
- 8. Documentation in hospital and clinic notes including prescription writing
- 9. Writing discharge summaries or diagnosis card
- 10. Communicating with colleagues about patients
- 11. Demonstrate empathy and compassion
- 12. Communicate via telephone
- 13. Communication in English at a level required by the profession

# 9. The candidate should have basic competencies in administrative and medico-legal procedures

- 1. know the principles of documentation in hospital and clinic (e.g. requests for local purchase of drugs)
- 2. know the process death certification
- 3. principles in relation to treating without patient's consent, advanced directive, 'do not resuscitate' and restraining patients
- 4. know the legal procedures in relation to clinical practice (e.g. when to request an inquest, reporting suspected homicides or assault, organ donation)
- 5. know the procedures for post-mortems for pathological diagnosis
- 6. be able to notify 'notifiable diseases'
- 7. be aware of the healthcare systems in Sri Lanka (including the indigenous sector) and services available
- 8. know the principles of teamwork as applied to the ward setting, interprofessional interactions and leadership
- 9. be aware of costs of care

# 10. The candidate should have the have essential generic skills relevant to clinical practice

- 1. Clinical decision-making
- 2. Critical thinking
- 3. Research and clinical audit
- 4. Search and access literature
- 5. Basic IT skills and social media
- 6. Self-directed learning and self-appraisal
- 7. Time management
- 8. Teamwork/ team leader
- 9. Conflict resolution
- 10. Continuing Professional Development

# Annexure 2: Subjects and competencies tested in the Medicine Selection Examination and their approximate distribution

### Biomedical science paper:

•	Clinical physiology	20%
•	Clinical pathology	20%
•	Clinical pharmacology	20%
•	Genetics, molecular medicine and immunology	15%
•	Microbiology & parasitology	15%
•	Clinical anatomy	5%
•	Statistics & epidemiology	5%
•	TOTAL	100%

### General medicine paper (T/F MCQs):

•	Cardiology	10%
•	Infectious diseases, tropical diseases, HIV, STD	10%
•	Neurology	10%
•	Respiratory medicine	10%
•	Endocrinology	8-10%
•	Gastroenterology	8-10%
•	Hematology and oncology	8-10%
•	Critical care medicine	5%
•	Nephrology	5%
•	Geriatric medicine	5%
•	Rheumatology	5%
•	Dermatology	5%
•	Psychiatry	5%
•	Toxicology and toxinology	5%

- Statistics and other areas specified under detailed objectives: At least 1 question
- TOTAL 100%

### General medicine paper (SBA MCQs):

- Diagnostic issues
- Best option of investigation
- Best option of treatment
- Clinical features
- Best or initial option in management
- Most likely aetiology or causative factor
- Ethical and medico-legal issues

### OSCE:

Eleven of the 12 stations will be based on the variety of clinical, practical, diagnostic, analytical and professional skills relevant to the objectives 4-10. The twelfth station will be based on Advanced Life Support- a must pass station.

### **Annexure 3: MD Curriculum**

The detailed content areas or curriculum of the Programme will reflect the objectives of the Programme set out in the Prospectus (see Section 6), and will broadly reflect, but not limited to, the content areas listed for the Medicine Selection Examination in Annex 1. The trainee is required to read a diversity of recommended textbooks and journals, attend recommended academic activities and take part in regular discussions with the supervisor/trainer, other trainers and peers, and thereby be aware of the current scope and breadth of general internal medicine. The trainee will receive guidance on a day-to-day basis from his/her supervisors/ trainers in the prescribed learning activities of the Programme.

The detailed curriculum of the MD Programme will be issued later.

### **Annexure 4: Portfolio for Stage 1**

Please see from overleaf

Postgraduate Institute of Medicine
University of Colombo

The Medicine Programme

PORTFOLIO FOR STAGE 1

2015

#### **Details of the trainee**

Name:

Permanent address:

E-mail address:

Contact phone numbers:

Date of passing the Medicine Selection Examination:

Date of registration as a PGIM trainee:

This book contains information that is very important to a doctor who is training to serve as a medical specialist in the future. In case this book is lost and found, please return it to the owner above, or contact the owner, or please return it to:

Postgraduate Institute of Medicine, 160 Nandadasa Kodagoda Mawatha, Colombo 07 (telephone +94 11 2696261 or +94 11 2697758).

Thank you.

#### **MESSAGE TO THE TRAINEE**

Congratulations on your selection to the Medicine Programme of the Postgraduate Institute of Medicine (PGIM), University of Colombo, and welcome to the Programme. This Programme will support you to obtain the M.D. (Medicine) degree of the University of Colombo and to follow this up with board certification in General Medicine (or one of its specialties, which are outlined in the *Prospectus of the Medicine Programme*).

### What does this portfolio help to do?

This Portfolio will be guiding and supporting you through the pre-MD training programme and the MD Examination. (Once you are successful in the MD Examination, a separate portfolio will be issued to you for the post-MD training programme and Pre-Board Certification Assessment.)

This Portfolio is a 'training & assessment portfolio': it is designed to guide and support you through your training and to streamline the assessment of this training. You will find that it has a lot of pages with a lot of 'empty spaces.' At the end of the training programme, you will find that these empty spaces are filled up — with your own, individualized entries. That is what makes this portfolio *your* portfolio — the Board of Study in Medicine has carefully designed it so that it will guide and support you through your training, but in the end your own training experience is unique to you, and this portfolio, therefore, will also be unique to you. We hope that, in the end, this portfolio will be a personal document, a memorable item in your collection that you will be proud of.

For details of your training, you should read and familiarize yourself with the following documents:

- 1. PGIM General Regulations and Guidelines. (This gives details of general regulations applicable to all PGIM trainees, such as on issues like leave, attendance, maximum number of attempts allowed at the MD Examination, how the attempt is counted, etc., which are determined by the Board of Management of the PGIM.)
- 2. Prospectus of the Medicine Programme. (This gives details specific to the Medicine Programme, including the MD Examination, which are determined by the Board of Study in Medicine and approved by the Board of Management.)

#### What does this portfolio have?

This portfolio will record the following contents, for the Stage 1 of your training programme (pre-MD training or registrar training):

- 1. An outline of the weekly *training and work plan* in the general medicine units you train in.
- 2. A *log of your experience,* and where appropriate *reflective practice* on it, as a trainee in the following aspects:
  - a. Some of the common medical emergencies that you have personally managed. Try to collect a variety of emergencies rather than several examples of the same emergency: e.g., acute left ventricular failure, respiratory failure, acute kidney injury, acute impaired consciousness,

- epileptic status, acute liver failure, severe sepsis, multi-organ failure, acute pulmonary embolism, acute flaccid paralysis, acute poisoning, snake bite with systemic envenoming, severe dengue, severe leptospirosis, severe pneumonia, etc.
- b. Some of the diagnostic problems that you have personally managed; e.g., pyrexia of unknown origin, unexplained weight loss, anemia & hepatosplenomegaly, complex endocrine problems, chronic liver disease, etc.
- c. Some of the therapeutic problems that you have personally managed; e.g., uncontrolled hypertension, brittle diabetes, anti-tuberculosis therapy in a patient with liver failure, dengue with hypotensive shock, palliative care problems, etc.
- d. Some of the difficult clinical problems; e.g., giving a diagnosis of cancer, explaining to relatives about a patient with a dismal prognosis, dealing with an arrogant patient, dealing with a collection of demanding relatives, etc.
- e. Some of the difficult scenarios that you encountered unexpectedly; e.g., dealing with a staff nurse who is rude and discourteous to you or patients, dealing with non-availability of an intensive care unit bed, dealing with a rude colleague who does not want to attend to your referral, etc. You can also make use of these opportunities to *reflect on your experience* to find ways to improve how you can handle similar encounters better in the future.
- 3. Selected *practical procedures* you have performed, as a registrar in both the general medicine appointment and the short appointments.
- 4. Documentation of the *academic activities* that you have attended, *presentations* you have made (such as case presentations and journal clubs) and *teaching* of undergraduates.
- 5. List of any articles, original papers that you have read which made a significant impact on your practice prevailing at that time.
- 6. The record of your workplace-based assessments:
  - a. Mini-Clinical Examinations (mini-CEx): a minimum of 6.
  - b. Case-Based Discussions (CBDs): a minimum of 4.
  - c. Acute Care Assessment Tools (ACATs): a minimum of 4.
  - d. Directly-Observed Procedural Skills (DOPS)
  - e. Peer Team Rating (PTR)
- 7. Special comments (both positive and negative), summaries of quarterly appraisals (self-appraisals and trainer's appraisals), photocopies of Record of In-service Training Assessments (RITAs) and the learning agreements developed following them.
- 8. Outcome of the General Medicine Registrar Portfolio Viva.

**IMPORTANT:** Please note that it is *your* responsibility to take the initiative in filling out the relevant parts of this Portfolio. Your trainer will certify each entry only once you have taken the initiative on them.

#### **CONTENTS**

Summary of Stage 1 training
General Medicine registrar training

Workplan of the Unit and regular learning activities in the Unit and Hospital

Medical emergencies personally managed by the trainee

Diagnostic problems encountered by the trainee

Therapeutic problems encountered by the trainee

Difficult clinical problems encountered by the trainee

Unexpected scenarios encountered by the trainee

Basic practical procedures

Practical procedures

Academic activities attended

Presentations to postgraduate audiences

Medical literature that made an impact on practice

Teaching undergraduate students

Mini-CEx forms (Annex 9) – to be added 6 sets

CbD forms (Annex 10) - to be added 4 sets

ACAT forms (Annex 11) - to be added 4 sets

#### **Special comments**

Summaries of quarterly assessments (6)

Summaries of RITAs (3)

General Medicine Registrar Portfolio Viva

Short appointments

Cardiology

Dermatology

Elective appointment: intensive care unit

Elective appointment: other

Endocrinology

Gastroenterology

Nephrology

Neurology

Psychiatry/psychological medicine

Respiratory medicine

Rheumatology

### **SUMMARY OF STAGE 1 TRAINING**

Appointment	Dates	Signature and frank of trainer
GENERAL MEDICINE	1-6 months	
18 months	7-12 months	
	13-18 months	
CARDIOLOGY		
8 weeks		
NEUROLOGY		
8 weeks		
RESPIRATORY MEDICINE		
4 weeks		
RHEUMATOLOGY		
4 weeks		
DERMATOLOGY		
4 weeks		
PSYCHIATRY		
4 weeks		
GASTROENTEROLOGY		
4 weeks		
NEPHROLOGY		
4 weeks		
ENDOCRINOLOGY		
4 weeks		
ELECTIVE:		
INTENSIVECARE UNIT		
(2 weeks)		
ELECTIVE (2 weeks)		

### **GENERAL MEDICINE REGISTRAR TRAINING**

## Work plan of the Unit and regular learning activities in the Unit and Hospital:

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
			Lunch time			
			Lunch time			

# Medical emergencies personally managed by the trainee (minimum 10):

Patient's name & BHT number	Emergency and date of	Outcome, lessons learnt and source of learning	Trainer's signature
	presentation		org.racar c

# Diagnostic problems encountered by the trainee (minimum 10):

Patient's name	Diagnostic problem	Outcome, lessons learnt and	Trainer's
& BHT number		source of learning	signature

# Therapeutic problems encountered by the trainee (minimum 10):

Patient's name	Therapeutic	Outcome, lessons learnt and	Trainer's
& BHT number	problem	source of learning	signature
	I .		<u> </u>

# Difficult clinical problems encountered by the trainee (minimum 5):

Patient's name	Nature of the	Outcome and lessons learnt	Trainer's
& BHT number	clinical problem		signature

# Unexpected scenarios in the clinical setting (minimum 3):

Give a brief description of the	Give a brief description. What	Trainer's
scenario, and the unexpected	happened? What went right? What	signature
issue. Give the time & place.	went wrong? What could you do	
	differently if there was a 'next time'?	
	any eventury by there was a mest time.	

### **Basic practical procedures:**

The trainee must be able to correctly and confidently perform the following practical procedures, and to effectively train intern house officers to do them:

Procedure	Can correctly and	Can effectively train intern
	confidently perform it	house officers to do it
	(trainer's signature)	(trainer's signature)
Giving IM and SC injections		
Venipuncture and obtaining		
blood samples correctly		
Inserting an IV cannula		
aseptically, and maintaining it		
Setting up an IV infusion correctly		
Giving an IV drug correctly		
Inserting a NG tube, checking it		
and maintaining it		
Inserting a urethral catheter and		
maintaining it		
Nebulization		
Peak flow rate measurement		
Training inhaler technique for a		
dry powder inhaler		
Training inhaler technique for a		
metered dose inhaler		
Maintaining a fluid balance chart		
Using a glucometer		
Obtaining a 12-lead ECG		
Medical hand washing		
Setting up a blood transfusion		
and monitoring it		
CPR (BLS)		
Lumbar puncture		
Pleural fluid aspiration		
Ascitic fluid aspiration		

# Practical procedures (appropriate models may not be available):

Procedure	Describes (trainer's signature)	Does on model (trainer's	Does on patients (trainer's
	Signaturey	signature)	signature)
ET intubation			
CPR (ALS)			
Insertion of femoral line			
Insertion of central			
venous line (subclavian or			
IJ)			
Gastric lavage			
Insertion of PD catheter			
Hemodialysis prescription			
Knee joint aspiration and			
intra-articular injection			
Pleural biopsy			
Liver biopsy			
Renal biopsy			
Artificial ventilation of a			
patient			
Arranging the safe			
transfer of a patient out			
of the ward			
Arranging the safe			
transfer of a patient out			
of the hospital			

# Academic activities (regional, national or international) attended (minimum 3):

Event, date and venue	Three key new things learnt, which can	Trainer's
	be applied to practice	signature

# Satisfactory presentations to postgraduate audiences (minimum 5):

Event, date and venue	t, date and venue Topic of presentation		
		signature	
	l		

# Medical literature that made an impact on the trainee-Unit's practice (minimum 6):

Citation	Impact or change produced	Trainer's signature
		I

# Teaching undergraduate students (medicine or allied health sciences) (minimum 6):

# Special comments (commendations, endorsements, warnings, reprimands):

Comment	Trainer's signature
	Comment

## Quarterly self-assessments:

Number &	Statement following self-	Outcome of trainer-trainee	Trainer's
date	assessment	discussion	signature

### **Summary of RITAs:**

RITA number &	Mark	Summary of learning agreements developed
date		

# **General Medicine Registrar Portfolio Viva:**

Date:	Name/signature of external supervisor:
Brief summary of finding	s, both positive and negative:
Learning agreements agi	reed by the trainee:
Action suggested:	
33	

#### **CARDIOLOGY**

During the cardiology appointment, the registrar will be required to attend regular ward rounds, clinics and ancillary sessions (such as echocardiography, stress tests, tilt table testing), and provide 1-in-3 second-on-call for cardiology up to 8 pm on working weekdays (with the cardiology medical officer first-on-call and cardiology senior registrar third-on-call). The registrar will be exposed to the common and important cardiology problems, both acute and chronic, during these activities, and will receive bedside teaching as well as small group discussions on these problems.

The workplace-based assessment in cardiology will be the following:

- Mini-CEx: at least 2 from complex valvar heart disease, non-valvar structural heart disease, or pericardial disease.
- CbD: at least 1 from on cardiac arrhythmias, or ischemic heart disease.
- ACATs: at least 1 each from acute left heart failure, cardiogenic shock, acute coronary syndrome, tachyarrhythmia, bradyarrhythmia, or cardiac tamponade.
- DOPs: at least 1 from cardiac pacing or pericardiocentesis.

#### DERMATOLOGY

During the dermatology appointment, the registrar will be required to attend regular ward rounds, clinics and ancillary sessions (such as punch biopsy, phototherapy, cryotherapy, cauterisation). The registrar will be exposed to the common and important dermatology problems, both acute and chronic, during these activities, and will receive bedside teaching as well as small group discussions on these problems.

The workplace-based assessment in dermatology will be the following:

- Mini-CEx: at least 2 from examination of patients with bullous disorders, druginduced skin disease, leprosy, vasculitis or psoriasis.
- CbDs: at least 2 from bullous disorders, drug-induced skin disease, leprosy, vasculitis or psoriasis.
- DOPs: at least 2 from skin scraping, nail clipping, Tzank smear etc.

**ELECTIVE: INTENSIVE CARE UNIT** 

### **INTENSIVE CARE MEDICINE**

# ASSESSMENT FOR POSTGRADUATE TRAINEES IN MEDICINE

Unit of Training:
<u> </u>
Trainee:
Starting Date:
Ending Date:

Prepared by the

**Board of Study in Anaesthesiology** 

# ICM ASSESSMENT 1: PATIENT MANAGEMENT: ASSESSMENT, INVESTIGATION, MONITORING AND DIAGNOSIS

### The Trainee:

		Yes	Satisfac	ctory	No	Assessor
Is able to obtain relevant clinical information from						
Conducts an effective clinical exami	nation					
Proposes appropriate clinical invest	igations					
Discusses and evaluates differential diagnoses						
Propose appropriate initial treatme	nt plan					
Evaluates patients responses and modifies treatment						
Identifies major abnormalities on portable chest x-ray						
Interprets results of blood gas analyses correctly						
Discusses techniques for cross infec	tion prevention					
Discusses conditions in which senio	r/more					
Signed	Print name	····		Date	•••••	
Signed	Print name			Date		
Signed by trainee						

# ICM ASSESSMENT 2: PRACTICAL PROCEDURES, COMFORT CARE AND ORGAN SYSTEM SUPPORT

### The Trainee:

		Yes	Satisfactory	No	Assessor
Plans procedures, and prepares working	g				
environment appropriately					
Perform tracheal intubation of a patien	t in the				
intensive care unit					
Performs/describes CVP catheter insert	ion				
Interprets results from CVP line					
Discusses use of vasoactive drugs and fl	uids to				
optimal endpoints					
Describes technique for cricothyroidoto	omy				
Performs/describes insertion of chest d	rain				
Mechanical ventilation of a critically ill	patient				
Prescribes hypnotic, analgesics and neu	romuscular				
blockers safely					
Manages fluid balance in patients appro	opriate to				
the clinical condition					
Describes suitable antimicrobial regime	ns				
Planning of nutritional support					
Handling of ethical issues brain dead/ o	do not				
resuscitate					
	L				
Signed	Print name			Date	
Signed	Print name			Date	
Signed by trainee					

## ICM ASSESSMENT 3: OUTREACH AND TRANSPORT CARE

### The Trainee:

		Yes	Satisfactory	No	Assessor
Responds to requests for help					
Makes an accurate initial assessment	of patient				
informs senior colleagues of referral, proposed and taken	actions				
Supports clinical staff outside the ICU effective care	in delivering				
Manages and identifies common caus hypoxemia and hypotension	ses of				
Describes methods of managing posto pain safely	operative				
Describes immediate management of status epilepticus					
Stabilizes the patient appropriately before transfer					
Anticipates and prevents complication during transfer	ns				
Communicates effectively with receiv department or hospital	ring				
Maintain a safe environment at all times					
Signed	Print name		Date		
Signed	Print name	••••	Date	······	
Signed by trainee					

### **ICM ASSESSMENT 4: THE CARDIOPULMONARY RESUSCITATION**

This assessment may be undertaken at any time and may be comb	ined with a pract	tical
teaching session.		
Name of trainee		
The Trainee:		
	Yes	No
Ensures personal safety and that of the staff		
Calls for help		
Demonstrates the diagnostic method		
Demonstrate mask to mouth rescue breathing		
Demonstrate ventilation with mask and bag		
Demonstrate satisfactory insertion of and ventilation with ET tube		
Demonstrate satisfactory cardiac compression		
Satisfactorily interprets common arrhythmias on ECG monitor		
Explain the indications for defibrillation		
Demonstrate correct use of defibrillation		
Explain the use of appropriate drugs during resuscitation		
Can undertake the lead role in directing CPR		
Demonstrates moving a patient into the recovery position		
-8	Date Date	
If a trainee has a valid CPR provider certificate, the assessment of assumed and signed with a comment made to that effect under the	•	can be
NAME OF TRAINEE:		

### ASSESSMENT OF COMMUNICATION SKILLS, ATTITUDES AND BEHAVIOUR

Please put a tick in the appropriate box. Any 'cause for concern' must be qualified with information.

This form should be completed annually or whenever a trainee rotates between hospitals. If difficulties

arise, it can be used more frequently.

Attitude or hehevieral net	tous	Catisfactam	Initials of assessment with	
Attitude or behavioral pat	tern	Satisfactory	Initials of assessors(with	
			dates)	
Communication skills (1:w	ith			
patients and relatives)				
Communication skills (11:)	with			
seniors)				
Communication skills				
(111:collagues)				
Communication skills (1V:				
juniors)				
Communication skills (v:				
nurses)				
Signed Print nam		ne	Date	
Signed	Print name		Date	

#### **ENDOCRINOLOGY**

During the endocrinology appointment, the registrar will be required to attend regular ward rounds, clinics and ancillary sessions (such as dynamic tests, retinal photography, foot care sessions, DEXA scans). The registrar will be exposed to the common and important endocrinology problems, both acute and chronic, during these activities, and will receive bedside teaching as well as small group discussions on these problems.

The workplace-based assessment in endocrinology will be the following:

• CbDs: at least 2 from complex hormone profiles, metabolic profiles or bone profiles.

#### **GASTROENTEROLOGY**

During the gastroenterology appointment, the registrar will be required to attend regular ward rounds, clinics and ancillary sessions (such as endoscopy, ERCP, therapeutic procedures), and provide 1-in-3 second-on-call for gastroenterology up to 8 pm on working weekdays (with the gastroenterology medical officer first-on-call and gastroenterology senior registrar third-on-call). The registrar will be exposed to the common and important gastroenterology problems, both acute and chronic, during these activities, and will receive bedside teaching as well as small group discussions on these problems.

The workplace-based assessment in gastroenterology will be the following:

- Mini-CEx: at least 2 from nutrition assessment, and prognosis assessment in a chronic liver disease patient.
- CbDs: at least 2 from liver diseases, malabsorption states, or GI malignancy.
- ACATs: at least 2 from upper gastrointestinal disease bleeding, hepatic encephalopathy or acute colitis.

#### **NEPHROLOGY**

During the nephrology appointment, the registrar will be required to attend regular ward rounds, clinics and ancillary sessions (such as CKD counselling, transplant meeting), and provide 1-in-3 second-on-call for nephrology up to 8 pm on working weekdays (with the nephrology medical officer first-on-call and nephrology senior registrar third-on-call). The registrar will be exposed to the common and important nephrology problems, both acute and chronic, during these activities, and will receive bedside teaching as well as small group discussions on these problems.

The workplace-based assessment in nephrology will be the following:

- CbDs: at least 2 from nephrotic syndrome with renal biopsy, AKI, RPGN (or rapidly progressive renal failure), or CKD.
- ACATs: at least 2 dialysis prescriptions.
- DOPs: at least 2 of internal jugular and/or femoral vein access.

#### **NEUROLOGY**

During the neurology appointment, the registrar will be required to attend regular ward rounds, clinics and ancillary sessions (such as clinical neurophysiology, neuroradiology

meetings, neurorehabilitation), and provide 1-in-3 second-on-call for neurology up to 8 pm on working weekdays (with the neurology medical officer first-on-call and neurology senior registrar third-on-call). The registrar will be exposed to the common and important neurology problems, both acute and chronic, during these activities, and will receive bedside teaching as well as small group discussions on these problems.

The workplace-based assessment in neurology will be the following:

- Mini-CEx: at least 2 from spinal cord disease, cranial nerve disease, or spaceoccupying lesion.
- CbDs: at least 2 from epilepsy,central nervous system (CNS) infection, peripheral neuropathy, cognitive impairment, Parkinson disease.
- ACATs: at least 3 from stroke, subarachnoid hemorrhage, acute CNS infection, epileptic status, or impending respiratory failure.

#### **PSYCHIATRY**

During the psychiatry appointment, the registrar will be required to attend regular ward rounds, clinics and ancillary sessions (such as electroconvulsive therapy sessions, psychotherapy sessions). The registrar will be exposed to the common and important psychiatry problems, both acute and chronic, during these activities, and will receive bedside teaching as well as small group discussions on these problems.

The workplace-based assessment in psychiatry will be the following:

- Mini-CEx: 1 each from mental state examination and cognitive impairment assessment etc.
- CbDs: at least 2 from medically unexplained symptoms, substance use, depression etc.

#### **RESPIRATORY MEDICINE**

During the respiratory medicine appointment, the registrar will be required to attend regular ward rounds, clinics and ancillary sessions (such as bronchoscopy, medical thoracoscopy, lung function tests, and chest ultrasound), and provide 1-in-3 second-on-call for respiratory medicine up to 8 pm on working weekdays (with the respiratory medicine medical officer first-on-call and respiratory medicine senior registrar third-on-call). The registrar will be exposed to the common and important respiratory medicine problems, both acute and chronic, during these activities, and will receive bedside teaching as well as small group discussions on these problems.

The workplace-based assessment will be the following:

- Mini-CEx: at least 2 from chronic breathlessness, hemoptysis, or pulmonary fibrosis.
- CbDs: at least 2 from lung function tests, sleep studies, lung cancer, or pleural effusion.
- ACATs: 1 each of massive hemoptysis and ICU referrals.

#### **RHEUMATOLOGY**

During the rheumatology appointment, the registrar will be required to attend regular ward rounds, clinics and ancillary sessions (such as procedure sessions). The registrar will be exposed to the common and important rheumatology problems, both acute and chronic, during these activities, and will receive bedside teaching as well as small group discussions on these problems.

The workplace-based assessment will be the following:

- Mini-CEx: at least 2 from regional examinations (neck, shoulder, hand, low back, or knee), or clinical assessment tools etc.
- CbDs: 1 each of synovial fluid analysis, or multi-system disorders.
- DOPs: at least 2 from knee joint injection, knee joint aspiration, or trigger finger injection.

#### Annexure 5: Guidelines for the preparation of the Casebook

#### Introduction

- 1. The trainee must submit a Casebook consisting of 5 case histories, at the completion of 24 months of the registrar training (i.e., when half the short appointment-time has been completed). The 5 cases must consist of 3-4 cases from the general medicine appointment and 1-2 cases from the short appointments. The cases must be from institutions recognized by the Board of Study in Medicine to which the candidate was attached for training. It is mandatory to have the case records corrected and certified by the relevant supervisor/trainer. Trainees will be provided with the latest guidelines on the preparation of the Casebook at the commencement of the registrar training.
- 2. The case reports must be written out in the format prescribed below, duly corrected and approved by the relevant supervisor/trainer, and submitted along with the fulfillment of any other requirements outlined in the guidelines. In general, we recommend following the formatting and style for case reports prescribed in *Ceylon Medical Journal*, except for the limit on the word count. Further advice regarding the preparation of the Casebook is given in the Prospectus (see Section 9.2).
- 3. The guidelines for obtaining exemptions for case histories in the Casebook on account of published work are as follows:
  - a. Published work that may qualify for exemption are case reports, case series, original papers on audit or research, and research letters, in peer-reviewed journals (in print format and/or online format).
  - b. In case of papers with multiple authorship, the first (principal) author will receive credit for the paper. If the candidate is not the principal author he/she should submit a letter from the chief investigator regarding his/her contribution to the paper before he/she can be given 'credit' for the paper by the evaluators, and the decision of the Board of Study shall be final.
  - c. An exemption for 1 case is given for each published case report or case series, and an exemption for 2 cases for each original publication (including each research letter).
  - d. Such case reports or research publications must be based on work carried out during the registrar training period.
  - e. Please note that unpublished work (i.e., free paper presentations [either oral or poster] or lectures at conferences or meetings) or work published as abstracts or in conference/meeting proceedings do not qualify for such exemption.
  - f. The published articles in print/bound form (in the case of print format) and printouts (in the case of online formats) must be submitted.
  - g. All requests for such exemptions must be made in writing to the Board of Study in Medicine, with all relevant documents as indicated in the guidelines, well in advance of the deadline for the submission of the Casebook. Please

note that letters of approval of such exemptions (which are given after the Board of Study in Medicine has met and approved the exemption) must be submitted along with the Casebook on time.

- 4. A copy of the submitted Casebook should be retained by the candidate. The Casebook should either be handed over personally or sent under registered cover, to the Senior Assistant Registrar/ Examinations, on or before the stipulated date (end of two years of Registrar training) together with the payment of the relevant assessment fee.
- 5. The procedure for the assessment of the Casebook, including correction and resubmission, is given below. The Casebook will be returned to the trainee for corrections, if any, after one month. The trainee is expected to re-submit the corrected Casebook at least four months before the scheduled MD Medicine Examination.
- 6. The exemptions for submitting a casebook are as follows:
  - a. Candidates who sat for the MD (Medicine) examination when mandatory submission of a casebook was not a requirement.
  - b. Candidates who were unsuccessful at the MD (Medicine) examination whose casebooks have already been accepted at a previous examination.
- 7. Assessment: The Board of Assessors will be nominated by the Board of Study in Medicine. If the assessors find that the case record book is not satisfactory and requires further modification, it will be sent back to the candidate for recorrection/modification. The revised case book must be submitted at least four months prior to the MD Medicine Examination. Resubmitted Casebooks will be assessed by all the assessors and a final decision taken. Their decision will be final, and the candidate will not be allowed to sit for the MD Medicine Examination if it is rejected again.

#### **Assessment of the Casebook:**

The case book would demonstrate the following abilities in the trainee:

- 1. Ability to write up a case record
- 2. Ability to read the literature on the topic
- 3. Ability to use knowledge gained from the literature to discuss problem areas, eg., values of various investigations, diagnosis and differential diagnosis, points of interest in initial management, particular form of therapy carried out with reasons, alternate forms of therapy available and arguments for or against the use of such, treatment, points needing particular emphasis in other forms of therapy used in patient management that one has managed patients continuously with adequate skill from admission to discharge and rehabilitation.

The trainee, therefore, should select a variety of clinical problems preferably with possible different methods of management in each case which would enable adequate discussion. Five selected cases in Medicine should be presented as critical commentaries and not simply as a summary of the particular case. Short commentaries should analyse the clinical

presentation and diagnosis and be critical of the management based on the specific problems in the case and should include a relevant literature survey.

#### Format of the cases:

- SUMMARY
- 2. CASE RECORD should include –Name of Hospital, Name of Consultant, Case No., Ward, BHT, Name, Age, Address, Date of Admission, Date of discharge/death, Presenting complaint, Subsidiary complaint, History of complaint, Relevant past medical history, family, social, history; Examination findings.

HISTORY & EXAMINATION: 15 MARKS

Enumerate problems in order of priority: Include initial diagnosis (clinical) with reasons and personal, social and other problems relevant to the patient, Investigations carried out, Diagnosis after investigations with reasons for investigation and explanation for any normal/abnormal findings.

#### DIFFERENTIALDIAGNOSIS ANDINVESTIGATIONS: 15 MARKS

Plan for further management: (include medical and other social/psychological support in managing the patient).

Outcome.

Plan for rehabilitation and for follow- up in your institution and in the community.

MANAGEMENT: 15 MARKS DISCUSSION: 25 MARKS

(This is a discussion similar to that seen in the Discussion of Case reports in the medical journals)

- (a) Brief review of the subject giving references.
- (b) Discuss critically clinical diagnosis giving reasons and other related problems you have identified and why this case was chosen.
- (c) The value of various investigations giving reasons (including cost effectiveness)
- (d) Management: Discuss aspects which need special emphasis, eg. Ventilation, monitoring antibiotics, steroids etc., and discuss deficiencies in the available facilities.
- (e) Discuss plans for rehabilitation and follow up both ideal and practical and problems faced by the patient and the doctor.
- (f) If there are new ideas on the management of this problems in the literature mention if and quote source..

PRESENTATION, ORIGINALITY, STYLE OF WRITING: 20 MARKS

Use size A4 paper (one side only). Typewritten, double spaced with 1½ inch margins on either side. Illustrations (Photographs) are encouraged. The case books should preferably be bound. It should have a title page, table of contents at the beginning. In the case of the candidate submitting published work, reprints should be submitted for evaluation in a bound form.

BIBLIOGRAPHY – 10 MARKS (References as for the Ceylon Medical Journal.)

#### **Evaluation:**

The candidate should obtain a 60% total for the case book with not less than 50% for any single case. Those obtaining less than 60% will be asked to resubmit the case book with the modifications required. If the total mark obtained is less than 50% after resubmission, that candidate will be not allowed to sit the MD par II examination. Candidates scoring between 50 and 60% on resubmitting the books will be considered by the Board of Study in consultation with their supervisors as to the candidates eligibility to sit the exam.

Published case reports or papers that are submitted in lieu of case records as described earlier will not be evaluated under this scheme, as they would already have been peer reviewed.

# Annexure 6: Blue-printing plan for the written component of the MD Examination

Diseases by system / domain	Pathogenesis	Clinical features	Diagnosis /DD	Investigations	Treatment	Prognosis	Follow up / Prevention
CVS							
Pulmonary							
Endocrine							
Musculoskeletal/							
Rheumatology							
GI/Liver							
Renal/Genito-							
urinary							
Neurology							
Infect/Trop Med							
Elderly							
Hemato/Onco							
Dermatology							
Poisoning/							
toxicology							
Emergency Med/							
Critical care							
Opthalmology							
Psychiatry							

#### **Annexure 7: Portfolio for Stage 3**

Please see from overleaf
Postgraduate Institute of Medicine
University of Colombo

The Medicine Programme

# PORTFOLIO FOR STAGE 3 IN GENERAL MEDICINE

2015

#### **Details of the trainee**

Name:
Permanent address:
E-mail address:
Contact phone numbers:
Date of registration as a PGIM trainee:
Date of passing the MD (Medicine) Examination:

This book contains information that is very important to a doctor who is training to serve as a consultant physician in the future. In case this book is lost and found, please return it to the owner above, or contact the owner, or please return it to:

Postgraduate Institute of Medicine, 160 NandadasaKodagoda Mawatha, Colombo 07 (telephone +94 11 2696261 or +94 11 2697758).

Thank you.

#### **MESSAGE TO THE TRAINEE**

Congratulations on your success at the MD (Medicine) examination, and welcome to the Stage 3 (post-MD training) of your training programme in General Medicine! This portfolio will support and guide you through your Stage 3, which includes senior registrar training in general medicine for 2 years, to be spent 1 year each locally and overseas. Upon completion of the Stage 3, you will be able to sit the Pre-Board Certification Assessment (PBCA) in General Medicine. Upon success at the PBCA, you will receive board certification as a specialist in General Medicine from the PGIM.

Further details of the programme are given in the *Prospectus*, which was given to you at the time you were selected to join the Medicine Programme. However, it is possible that some details pertaining to the Programme may have changed since then, and these changes may now apply to your Stage 3 training. You will be informed of such changes at the time you select your specialty, and it is important that you make a note of them in the *Prospectus* that was given to you.

At the same time, there may also be changes to other documents you may have received earlier, such as *PGIM General Regulations and Guidelines*, as well as new documents and regulations that have been introduced since you entry into the Medicine Programme; you will be informed of them if they apply to you now, and you should note these as well.

#### What does this portfolio have?

This portfolio provides a framework for you to gather evidence of the acquisition of the necessary knowledge, skills and attitudes to be a consultant physician (which are encompassed in the outcomes and learning objectives, listed in section 6 of the *Prospectus*). This framework consists of 7 sections (of which the first 6 are recommended by the PGIM), namely:

- 1. Subject expertise
- 2. Teaching experience
- 3. Research and audit
- 4. Ethics and medico-legal issues
- 5. Information technology (IT)
- 6. Life-long learning
- 7. Reflective practice

The evidence you record in this portfolio will be used to assess you at the PBCA, which will use this framework.

### **CONTENTS**

1.	Subject expertise (forms for	r WBA	s to be a	idded).		
2.	Teaching experience .					
3.	Research and audit .					
4.	Ethics and medico-legal issu	ıes	•			
5.	Information technology					
5.	Lifelong learning .					
7.	Reflective practice .					

#### 1. SUBJECT EXPERTISE

In this section, you will be gathering evidence for the acquisition of knowledge and skills in general medicine. This acquisition will be built on the significant level of knowledge and skills that you had already acquired as part of your training and preparation for the MD examination. Therefore, such evidence must demonstrate a more advanced level of achievement than what was demonstrated in *Portfolio for Stage 1*. This evidence is categorized under the following headings:

- 1. Advanced reading on important general medicine topics, followed by presentation (e.g., coronary artery disease, cerebrovascular accident, common malignancies, general geriatrics, general palliative care, critical care medicine).
- 2. Advanced reading on medical problems important in Sri Lanka, followed by presentation (e.g., snake bite, agrochemical poisoning, dengue, post-primary pulmonary tuberculosis, leptospirosis, typhus, enteric fever, rabies, visceral leishmaniasis, antimicrobial resistance in Sri Lanka, CKDu, heatstroke).
- 3. Experience in rare, new or difficult clinical problems (e.g., complicated dengue, tuberculosis with drug-induced fulminant/acute liver failure, diuretic-resistant ascites, familial CKD, systemic vasculitis with multi-organ failure, poisoning following an industrial accident).
- 4. Log of practical procedures (e.g., liver biopsy).
- 5. Workplace-based assessments: CBDs (to be added 2 sets of Annex 11) and ACATs(to be added 4 sets of Annex 12).
- 6. Trainer's progress reports (in the prescribed form) and quarterly appraisals.

# 1.1 Advanced reading on general medicine topics (minimum 5):

Topic/problem	Sources of information	Presentation: time,	Trainer's
		place, audience	signature

# 1.2 Advanced reading on topics important in Sri Lanka (minimum 5):

Topic/problem	Sources of information	Presentation: time,	Trainer's
		place, audience	signature

# 1.3 Experience in rare, new or difficult clinical problems (minimum 5):

Problem	Sources of information and	Trainer's
	solution/s	signature

# 1.4 Log of practical procedures:

Date	Procedure	Trainer's signature

## 1.5 Quarterly appraisals:

Date	Findings/feedback	Action/s planned	Trainer's
		, - p.s	signature
			- 0

#### 2. TEACHING EXPERIENCE

You are advised to gain extensive experience in doing clinical, bedside teaching as preparation for your future work as a consultant physician. This should mainly be for medical students and doctors (intern house officer, post-intern medical officers and registrars), but should also include students in other categories such as nursing, physiotherapy, pharmacy, etc. It will include not only formal classroom teaching, but also 1-to-1 teaching of practical procedures.

This will help you to build a wide repertoire of knowledge and teaching skills, as well as give you an important insight into the levels of knowledge of colleagues in various fields and at different levels; this is extremely important for your work as a team leader.

During your teaching, you should make every effort possible to ensure that the teaching is useful and appropriate to their level (i.e., you should aim your teaching to your audience), that it is student-centered and student-friendly, and that they have correctly understood what you had taught.

Some of the activities logged here may overlap with those in sections 1.1 and 1.2 above; this is quite acceptable. (This may need entering one activity in several places.)

# Teaching activities (minimum 5):

Date	Audience	Topic	Your reflective thoughts on the teaching event	Trainer's signature
			the teaching event	Signature

#### 3. RESEARCH AND AUDIT

As a senior registrar in general medicine, it is mandatory that you carry out and complete a research or audit project during the local training period. Details of this task, known as the research/audit project, is given in the *Prospectus*, in section 13.3.3. In this section of the portfolio, you are required to maintain an activity log pertaining to your work in the research/audit project.

#### **Activity log:**

Date	Action taken	Result/s, or future action planned	Trainer's signature

#### 4. ETHICS AND MEDICO-LEGAL ISSUES

In this section, you will have an opportunity to identify and reflect on your experience relating to ethical issues in clinical practice and clinical research, as well as expand your knowledge on medico-legal issues. Although these two components are lumped together (as per PGIM requirements), it is important to note that they are not really the same; they continue to be lumped together because medical ethics was traditionally taught by university departments of forensic medicine.

With regard to medico-legal issues, you are advised to find out the latest position on important aspects such as writing a death certificate, statutory requirements where patients are found to have undergone physical and/or mental abuse (e.g., children, women, the elderly) etc.

#### Activity log (medico-legal issues):

Topic/issue explored	Date	Source of information	Trainer's signature
Writing the cause of			
death in a death			
certificate			
Statutory requirements:			
child abuse			
Statutory requirements:			
abuse of women			
Statutory requirements:			
elderly abuse			

You will doubtless come across numerous occasions when ethical issues became central to the problems your team had to face. Traditionally, medical ethics has been considered under the 4 topics of autonomy, beneficence, non-maleficence and justice, and a fifth topic, viz. addressing vulnerability, has also come into prominence. However, these topics/issues have come up during discussions of medical ethics in the West, and it is possible that you will have to experience other issues as well.

It is important that we develop the skill to *identify* ethical issues when they arise, *update* ourselves on the current thinking on what our responses should be, *explore* the issues so that we can also think broadly on them, and *reflect* on our personal experience so that we can deal with them better in the future. Throughout these steps, it is important that we also *discuss* these issues with our colleagues, especially senior, experienced colleagues, so that we can learn from each other's experiences (including mistakes!).

# Activity log (ethical issues):

Issue	Sources of	With whom did	What are your	Trainer's
	information	you discuss?	reflections?	signature

Please also include the completed Professionalism Observation Forms and PTR forms here.

#### 5. INFORMATION TECHNOLOGY

In this section, you should gather evidence of learning and proficiency on IT skills relevant to your clinical practice. This may include skills such as *searching* for information on the Internet, regularly *updating* yourself on new developments (both nationally and internationally), and developing *presentation skills*. This section encourages you to *identify* your requirements as they arise in your work, *take* meaningful, effective steps to address them (including attending training programmes or workshops), *incorporate* what you have learnt into practice, and *share* this knowledge with others.

#### **Activity log:**

Requirement	Date	Source of	Change to practice	Trainer's
		information		signature

## 6. LIFELONG LEARNING

# Participation in conferences/meetings (regional, national or international) (minimum 3):

Name/date of	New learning and/or changed	Trainer's signature
conference/meeting	practice	

## 7. REFLECTIVE PRACTICE

What was the event/experience that stimulated your reflection?
What was unusual or unexpected about the event/experience?
, ,
Why do you think this unusual or unexpected thing happened?
What can we learn from this?
If a similar situation arose again, how can we handle it better?
j ,

#### Annexure 8: Trainer's appraisal for the senior registrar local training

Date of report
----------------

#### **APPRAISAL FORM**

# EVALUATION OF THE POST-MD (MEDICINE) TRAINEE POSTGRADUATE INSTITUTE OF MEDICINE, SRI LANKA

(First part to be filled by the trainee and handed over to the trainer at the end of the SR training)

Trainee's Name:	Date of commencement
	of the training:
Supervisor's Name:	Date of completion
	of the training:
Training Unit & Address:	
Special interests of the unit and educational & tr	raining opportunities available to the
trainee:	

#### **SELF APPRAISAL BY THE TRAINEE**

(to be completed by the trainee before handing over to the supervisor)

Attendance at	Per month	Comments			
Grand rounds					
Audit meetings					
Journal clubs					
Research/Clinical meetings					
		New patients			
Outpatient Clinics		Old patients			
		Supervised	Yes	No	
On-take sessions					
Cardiac arrest team					
Others					
Special Procedural skills acquired					

Presenting cases, literature reviews at postgraduate meetings:

Research undertaken

Are there any new areas in which you would like to be involved?

Are there any specific areas where further training might improve your performance?

#### **COMMENTS BY THE SUPERVISOR**

(to be completed and sent directly under confidential cover by the supervisor to the Director, Postgraduate Institute of Medicine, No.160, Norris Cannel Road, Colombo 8, Sri Lanka)

Please comment on the following abilities the trainee has developed during the period

Medical Knowledge

Clinical skills (taking histories, clinical examination, presenting cases, making decisions etc.)

Communication skills (talking to patients, families & GPS, breaking bad news, communicating with team members, record keeping, writing referral letters etc.)

Skills in patient-management & procedures

Attitude and commitment to work & participation at educational activities

In your opinion, what do you see as trainee's main strengths in his ability to practice at a consultant level?

What weakness do you think the trainee needs to improve on in order to practice effectively at a consultant level?

Are there any special matters of concern?

General comments and recommendations

Name & Signature of the Supervisor Date

# Annexure 9: Trainer's appraisal for the senior registrar overseas training FORMAT FOR PROGRESS REPORT ON TRAINEES - POST MD (STAGE 5 - OVERSEAS TRAINING)

NAME OF TRAINEE:	SPECIALITY:
PERIOD OF TRAINING:	
HOSPITAL AND UNIT:	
NAME OF THE SUPERVISOR:	

	Excellent	Good	Average	Poor
Operative skills				
Ability to cope with emergencies and				
complications				
Thinks independently and rationally				
Seek appropriate consultations				
Ability to follow instructions				
Quality of documentation				
Dedication to work				
Professional attitudes				
Reliability				
Availability/punctuality				
Communication skills				
Doctor-patient relationship				
Relationship with colleagues				
Relationship with other staff				
Supervises and help juniors				
Teaching of medical student/junior staff				
Other Comments:				

#### Annexure 10 - Mini Clinical Evaluation Exercise



#### POSTGRADUATE INSTITUTE OF MEDICINE UNIVERSITY OF COLOMBO, SRI LANKA MINI CLINICAL EVALUATION EXCERCISE



Tra	ainee's Name:		Training Year:				PGIM Reg. No:		
Ass	sessor's Name:					Desi	gnation	:	
Bri	ef summary of Case:								
Fo	cus: O Data gathering		O Diagnosis	O Thera	ару	O Co	unsellin	g	
1.	Medical Interviewing Sl	cills	o Not Observe	ed)					
	1 2 3	/	4 5	6	/	7	8	9	
	UNSATISFACTORY		SATISFAC	TORY		SUPI	ERIOR		
2.	Physical Examination Sk	cills	o Not Ohserve	۰q)					
	1 2 3	/	4 5	•	/	7	8	9	
	UNSATISFACTORY	•			,	-	ERIOR	3	
3.	Humanistic Qualities/Pr	ofe	ssionalism(o N	ot Observ	ved)				
	1 2 3	/	4 5	6	/	7	8	9	
	UNSATISFACTORY		SATISFAC	TORY		SUPI	ERIOR		
4.	Clinical Judgement(o No	ot O	bserved)						
	1 2 3	/	4 5	6	/	7	8	9	
	UNSATISFACTORY		SATISFAC	TORY		SUPI	ERIOR		
5.	Counselling Skills(o Not	Ob:	served)						
	1 2 3	/	4 5	6	/	7	8	9	
	UNSATISFACTORY	•	SATISFAC	TORY	·	SUPI	ERIOR		
6.	Organisation/Efficiency	( o I							
	1 2 3	/	4 5		/	7	8	9	
UNSATISFACTORY SATISFACTORY							ERIOR		
7.	Overall Clinical Compet	enc	e( o Not Observ	/ed)					
	1 2 3		-	-	/	7	8	9	
	UNSATISFACTORY		SATISFAC	TORY		SUPI	ERIOR		
Ra	ting Scale: Nine point rat	ing:	scale is used. R	ating of 4	is define	ed as 'm	narginal'	and conveys	

the expectation that with remediation that the trainee will meet the expected standards.

#### **DESCRIPTORS OF COMPETENCIES DEMONSTRATED DURING MINI-CEX**

**Medical Interviewing Skills**: facilitates patient's telling of story, effectively uses questions directions to obtain accurate information needed, responds appropriately to affect, nonverbal cues.

**Physical Examination Skills**: follows efficient, logical sequence, balances screening/diagnostic steps for problem, informs patient, sensitive to patient's comfort, modesty

Humanistic/Qualitative Professionalism: shows respect, compassion, empathy, establishes trust, attends to patient's needs of comfort, modesty, confidentiality, information Clinical Judgement: selectively orders/performs diagnostic studies, considers risks/benefits Counselling Skills: explains rationale for test/treatment, obtains patient's consent, educates/counsels regarding management

Organization/Efficiency: prioritize, is timely, succinct

**Overall Clinical Competence**: Demonstrates judgement, synthesis, caring, effectiveness, efficiency

Which	Which aspects of the encounter were done well?										
			••••••								
	••										
Any s	uggeste	ed area	as for ir	nprove	ment?						
				•••••	•••••		•••••	•••••	•••••		
				•••••			•••••	•••••			
	••										
Agree	d actio	n:									
		•••••		•••••			•••••	•••••	•••••		•••••
••••••	•••••	•••••	•••••	•••••	•••••	••••••	•••••	•••••	•••••	•••••	•••••
	••										
Asses	sor Sat	isfactio	on with	Mini-C	EX						
LOW	1	2	3	4	5	6	7	8	9	HIGH	
Traine	ee Satis	factio	n with I	Mini-CE	X						
LOW	1	2	3	4	5	6	7	8	9	HIGH	
Comments:											
Asses	Assessors Signature: Trainee's Signature:										

#### Annexure 11 - Case Base Discussion



# POSTGRADUATE INSTITUTE OF MEDICINE



# UNIVERSITY OF COLOMBO, SRI LANKA CASE BASE DISCUSSION

Study Programme: Date of Assessment:

Trainee's Name: Training Year: PGIM Reg. No:

Assessor's Name: Designation:

Bri	ef sumn	nary of C	Case:									
Sat	ting	O In Da	tiont	0.0	ıt Datio	nt O	Emora	ancu.	0.0	thor (pl	oaco cnoc	if.,\
							cillerge	ericy	0.0	ther (pr	ease spec	пу)
1.	Medica		=			-				_		
	1		3	•				/	7	_	9	
	UNS	SATISFA	CTORY		SATI	SFACTO	DRY		SUP	ERIOR		
2.	History	taking(	o Not C	bserve	ed)							
	1	2	3	/	4	5	6	/	7	8	9	
	UNS	SATISFA	CTORY		SATI	SFACTO	DRY		SUP	ERIOR		
3.	Clinical	findings	s and Int	terpret	ation( o	o Not C	bserve	d)				
	1	_	3	_	-			. /	7	8	9	
	UNS	SATISFA		•				,	SUP	ERIOR		
4.	Treatm	ent/ma	nageme	nt Plar	ı( o Not	Obser	ved)					
	1		3					/	7	8	9	
	UNS	SATISFA		•				,		ERIOR		
5.	Follow-	up and	Future F	Plannin	g( o No	t Obse	rved)					
		2					-	/	7	8	9	
		SATISFA		•				,	SUP	ERIOR	_	
6.	5. Professionalism( o Not Observed)											
٠.	1		•		•	5	6	/	7	8	9	
	-		2 3 / 4 5 6 / ATISFACTORY SATISFACTORY							ERIOR	J	
7.	Overall	Clinical	Judgem	ent( o			)					
	1	2	3	/	4	5	6	/	7	8	9	
UNSATISFACTORY SATISFACTORY								SUP	ERIOR			

**Rating Scale:** Nine point rating scale is used. Rating of 4 is defined as 'marginal" and conveys the expectation that with remediation that the trainee will meet the expected standards.

DESCRIPTORS OF COMPETENCIES DEMONSTRATED DURING CBD

**Medical Record Keeping:** Understood the need for an accurate and appropriate clinical record

**History taking:** : facilitates patient's telling of story, effectively uses questions directions to obtain accurate information needed, responds appropriately to affect, non-verbal cues **Clinical Findings and Interpretation:** Was able to describe the key issues and their clinical relevance

**Treatment/Management Plan:** Reviewed and understood the significance of appropriate investigations, requested additional information and was able to formulate a treatment/management plan

**Follow-up and Future Planning:** Was able to formulate a plan for future care based on knowledge of potential problems and their severity.

**Professionalism:** Where relevant, knew and followed appropriate standards, guidelines and protocols. Selectively orders/performs diagnostic studies, considers risks/benefits **Overall Clinical Judgement and Clinical care:** Demonstrates an appropriate, systematic and co-ordinated approach to clinical care. The Case-based Discussion encounter takes approximately 30 minutes, including a 10 minute feedback session.

- The trainee discusses the case(s) with their assessor, including their approach, the results, and reflection on what went well and what they would change in similar situations in the future.
- The assessor may prompt for further information when required.
- The assessor makes notes and rates the trainee's performance on the PGIM Casebased Discussion rating form throughout the session. The assessor provides an overall 'competence' rating based on the outcome of the encounter.
- If a trainee receives a rating which is unsatisfactory, the assessor must complete the 'Suggestions for development' section. The form cannot be submitted if this section is left blank.
- Discussion of the case(s) is immediately followed by feedback from the assessor.
- Feedback should focus on the trainee's clinical decision making skills and include comments on what the trainee did well and areas for improvement.
- If any significant areas for development are identified during the session, the assessor and the trainee should devise a remediation plan.

Strengths		
•••••		

Sugge	stions f	for dev	/elopm	ent							
			•••••			•••••	• • • • • • • • • • • • • • • • • • • •	•••••	•••••	•••••	
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•••••	•••••										
Agree	d actio	n:									
	•		••••••	•••••••	•		•	•	•	•	••••••
Time taken for discussion			n	minutes			Time taken for discussion				
Assess	sor Sati	sfactio	on with	CBD							
			_	_	5	6	7	8	9	HIGH	
LOW		2	3	4	5	6	7	8	9	HIGH	
LOW Traine	1 ee Satis	2 faction	3 n with (	4 CBD	5					HIGH	
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#### Annexure 12 – Acute Care Assessment Tool (ACAT) Form



# POSTGRADUATE INSTITUTE OF MEDICINE UNIVERSITY OF COLOMBO, SRI LANKA Acute Care Assessment Tool (ACAT) Form



Study Programme: Date of Assessment:

Trainee's Name: Training Year: PGIM Reg. No:

Assessor's Name: Designation:

Please TICK (✓) to indicate the standard of the trainee's	Not observed	Unsatisfactory			Satisfactory			Above Expected		
performance in each area		1	2	3	4	5	6	7	8	9
Clinical assessment										
Medical record keeping										
Investigations and referrals										
Management of critically ill patient										
Time management										
Management of Take / Team working										
Clinical leadership										
Handover										
OVERALL CLINICAL										
JUDGEMENT										
Which aspects were done well?	Suggested areas for development?									
Trainee's Comments			Agreed action							
Assessor			Trainee							
Signature:			Signa	iture:						

#### **ACAT Instructions:**

• A different observer for each assessment

• An ACAT should take no longer than 15 minutes, and this includes the feedback given over the different sections of the ACAT assessment forms

The completed ACAT forms should be entered onto the trainee's 'e' portfolio.

Clinical assessment	Quality of History and Examination to arrive at appropriate differential diagnoses
Medical record keeping	Quality of recording of patient encounters on the take, and including drug and fluid prescriptions
Investigations and referrals	Quality of a trainee's choice of investigations, and referrals over a take period
Management of critically ill patient	Quality of treatment given to critically ill patients encountered on the take (assessment, investigations, urgent treatment administered, involvement of appropriate colleagues including senior)
Time management	Prioritisation of cases and issues within the take, ensuring sickest patients seen first and the patient's most pressing issues are dealt with initially.  Recognition of the quality of a colleague's initial clerking to inform how much further detail is needed. A full repeat clerking is not always needed by a more senior doctor.
Management of Take / Team working	Appropriate relationship with and involvement of other health professionals
Clinical leadership	Appropriate delegation and supervision of junior staff.
Handover	Quality of the handover of care of patients from the take to the relieving team. If patients have been transferred to a different area of care then this applies to the quality of the handover to the new team.
OVERALL CLINICAL JUDGEMENT	Quality of the trainee's integrated thinking based on clinical assessment, investigations and referrals resulting in the patients' management plan