POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

PROSPECTUS
Board Certification in Respiratory Medicine

Specialty Board in Respiratory Medicine
Board of Study in Medicine
(To be effective from the year 2017)

BOM Approved – 12.08.2017
Senate Approved – 30.08.2017

Contents

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.

1. Background and justification

The Specialty Board in Respiratory Medicine conducts a Post MD subspecialty training programme leading to Board Certification in Respiratory Medicine. Changes in the higher education sphere in relation to training and assessments coupled with advances in the subspecialty have necessitated revision of the prospectus. The programme meets the requirements of the relevant qualification descriptors and level descriptors of the Sri Lanka Qualifications Framework, and is set at Level 12 of the Sri Lanka Qualifications Framework.

2. Eligibility for entry into training programme

Candidates successful at the MD (Medicine) examination conducted by the Postgraduate Institute of Medicine, University of Colombo are eligible to be enrolled into the training programme.
Applicants should not have already applied to be enrolled in any other subspecialty or be already Board Certified in any medical field.

3. Selection process

The candidates will be selected according to the merit rank of the results of the MD (Medicine) Examination.

4. Number to be selected for training

The number of trainees to be enrolled will be decided based on the regulations and requirements of the Ministry of Health in concurrence with the PGIM.
Available training opportunities will be indicated by the PGIM in the public circular/official communication calling for applications. The number of candidates will be predetermined by the specialty board and approved by the Board of Study in Medicine and Board of Management of the PGIM in consultation with the Ministry of Health. The number selected may vary from year to year.

5. Outcomes, competencies and learning objectives

The objective of the training programme is to enable the trainee to acquire knowledge, clinical and procedural skills, and develop attitudes and communication skills, required to manage respiratory disorders.
The expected outcome is to produce a specialist in Respiratory medicine capable of fulfilling the expectations of the patients, employers and the Higher Education Sector.

A Specialist trained in a subspecialty should:

a) have appropriate diagnostic, clinical management, operative, counselling, risk management, and medico-legal skills
b) have appropriate professional attitudes
c) be able to clearly document and prioritize problems
d) be able to carry out and also supervise research and clinical audits
e) be committed to Continuing Professional Development
f) be able to disseminate knowledge effectively
g) have adequate communication skills
h) have adequate knowledge and skills in Information Technology
i) have administrative and organizational skills

6. Duration and structure of Training

The training programme will consist of

1. A two-year period of training in Sri Lanka
2. One year training in a specialized Respiratory unit overseas recommended by the Specialty Board in Respiratory Medicine and approved by the Board of Study in Medicine.

Two-year period of training in Sri Lanka: The two-year period of training in Sri Lanka will include a 1 year appointment in General respiratory medicine with a principal trainer followed by a six-month period of training in allied sub-specialties. The trainee will then be allocated to a second appointment in General Respiratory medicine under another trainer for a period of three months. Following this the trainee will return to the principal trainer to complete the final three months in General Respiratory Medicine. (Refer table 1).

During the General Respiratory training the trainee would be exposed to a center practicing full lung function studies preferably under a Clinical Physiologist.

One year training in a specialized Respiratory unit overseas: The Specialty Board in Respiratory Medicine on receiving necessary documentation will decide upon the suitability of such overseas centers. The Board of Study in Medicine would be giving the final approval.

Table 01: Duration and structure of the training programme

Stage and assessments	Rotation	Duration
Year 1	General Respiratory with Principal Trainer	12 months
APPRAISAL at 6 months Principal Trainer		
ASSESSMENT at 12 months		
Year 2	Radiology	4 weeks
	ICU	4 weeks
	Thoracic oncology	4 weeks
	Thoracic surgery	2 weeks

	Pathology	2 weeks
	Microbiology	2 weeks
	ENT (adult)	2 weeks
	NPTCCD and chest clinic	2 weeks
	Sleep medicine	2 weeks
	General Respiratory with Second trainer	3 months
	General Respiratory with Principal Trainer	3 months
Year 3/4	Overseas training in Clinical Respiratory Medicine	Minimum 12 months
PRE-BOARD CERTIFICATION ASSESSMENT		

7. Content area and learning objectives

The curriculum has been designed specifically to obtain core knowledge, skills and competencies in General Respiratory Medicine and allied areas of specialization required by a practicing Respiratory Physician. Please refer annexure on curriculum given in **annexure 1.**

8. Trainers and training units

Specialists with at least 3 years of experience after Board Certification as a Specialist in Respiratory Medicine will be appointed as trainers. Training units must be accredited by the Board of Study in Medicine in concurrence with the specialty board in Respiratory medicine as suitable for training in Respiratory Medicine for senior registrars.

9. Monitoring progress

9.1 Progress Reports:

Each completed section of the training programme should be followed by the submission of a Progress Report by the Supervisor/Trainer using the forms in and **Annexure 2**. These reports should reach the PGIM within one month of completing the relevant section of training. Local progress reports need to be submitted at the end of the initial three months by the Principal trainer, at the completion of the second rotation in Respiratory by the second trainer in Respiratory medicine and at the end of the second rotation with the principal trainer once completing the two years. Overseas progress reports need to be submitted after three months, one year and also at the end of the second year of overseas training. The trainee should liaise with the trainers and make sure that the reports are received by the PGIM in time. This includes local as well as overseas training. Satisfactory Progress Reports are a mandatory requirement to qualify for the Pre–Board Certification Assessment (PBCA).

Suitable and appropriate action will be taken by the Board of Study in Medicine with concurrence of the Specialty Board in Respiratory medicine, according to the General Regulations and Disciplinary Code of the PGIM in the event of the receipt of an unsatisfactory or adverse progress report at any stage of training.

9.2 Multi-Source Feedback:
The trainees should adhere to the Multi Source Feedback System of the PGIM (**Annexure 3**).

9.3 Appraisals and Assessments
A summary of appraisals and assessments is given in the flow chart given in figure 1.
The trainees will undergo an appraisal at the end of first 6 months of training, a formal assessment at the end of 12 months and an assessment after completion of training (Pre-Board Certification Assessment) prior to Board Certification.

9.3.1 The Appraisal at the end of first Six Months of Training
A formative appraisal will be conducted at the end of the first six months of training with the objectives of evaluating whether the trainee is fit to proceed to the next stage of training, to identify deficiencies both in the training and the training programme and to agree on a plan of action to rectify any deficiencies by the next stage of training. The principal trainer and one other board-certified Respiratory Physician will conduct the appraisal. The appraisal will comprise of two components:

a. Assessment of observed history taking, examination, interpretation of physical signs and management
b. Assessment of the training portfolio

The structure of the appraisal is given in **Annexure 4.**

9.3.2 The Assessment at the end of first year of training
An assessment will be conducted at the end of 12 months of training with the objectives of evaluating whether the trainee is fit to proceed to the next stage of training and to assess whether the previously identified deficiencies have been rectified. Two board-certified Respiratory Physicians other than the trainee's principal trainer will conduct the assessment. The principal trainer may be an observer. This assessment will be based on the training portfolio.

Pass Mark: The overall assessment will be based on each of the main sections in the portfolio and the performance at the viva voce, which will be assessed as satisfactory or unsatisfactory on an overall basis.
Failed candidate
If the examiners are of the view that the trainee's performance is unsatisfactory, the examiners will provide a written feedback and the trainee should then re-sit the assessment in 3 months. The trainee may however proceed to the second year of the training programme. If unsuccessful at this second assessment the trainee will be referred to the Specialty Board in Respiratory Medicine for further remedial action. Trainees will not be allowed to proceed to overseas training before successful completion of the assessment.

Figure 1 summarizes the appraisals and assessments during the training programme.

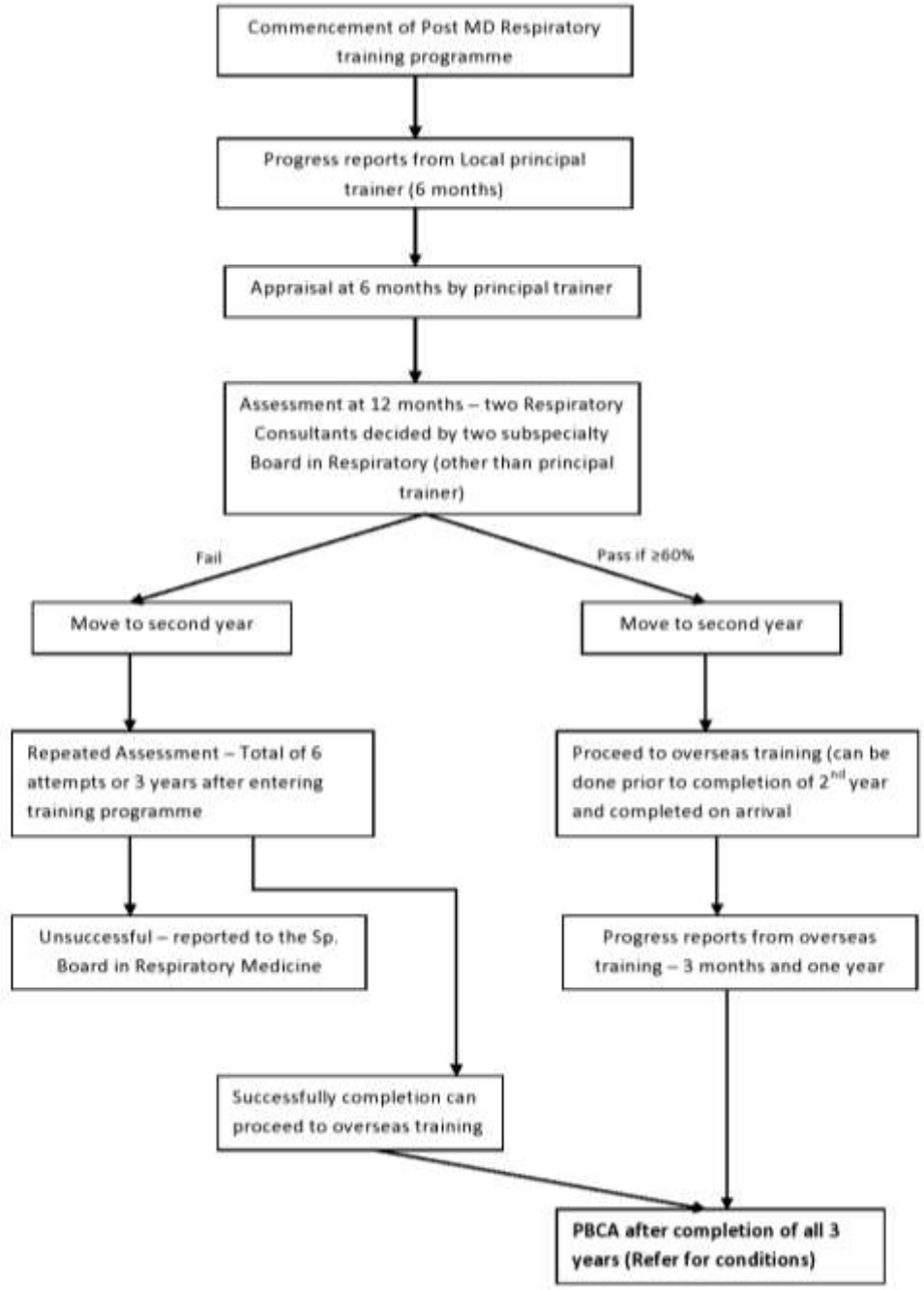

Figure 1 - Summary of Assessments

10. Research Project

Research is vital for the improvement in quality of care in Respiratory medicine, hence it is an essential part of the training programme. It allows the trainee to acquire and develop a wide range of skills including the ability to critically think, review, analyze literature and observe epidemiological and clinical trends.

It will also provide the trainee an opportunity to develop planning, organizational, and managerial skills. The trainee would be made familiar with ethical aspects of research. Successful completion of a Research Project is a mandatory requirement in obtaining Board Certification in Respiratory Medicine. The research project can be completed during local or overseas training.

The research project should be relevant to Respiratory Medicine and should have **prior** approval of the Sub-specialty Board in Respiratory Medicine. Ethical clearance, and in the case of clinical trials, registration with the Clinical Trials Registry must be obtained prior to commencement of the study.

A comprehensive project proposal has to be submitted to the Sub specialty Board in Respiratory Medicine within three months of entering the training programme. Approval by the Specialty Board is necessary prior to the commencement of the study. The draft proposal **(prepared according to Annexure 5)** should be all-inclusive and detailed with all relevant particulars. The Principal Trainer would be the supervisor. (**Generic guidance to supervisors is provided in Annexure 6).** The submitted proposal will be evaluated by a reviewer appointed by the Specialty Board and comments submitted to the Board**. (A generic format for reviewers is shown in Annexure 7).**

The proposal should have a reasonable timeline for completion. If the proposal is unsatisfactory, the reviewer may recommend modification of the proposal or submission of a different proposal. The trainee should commence the study only after obtaining approval of the Specialty Board and ethical clearance.

The trainee must ensure to submit 6 monthly progress reports through the primary supervisor to the Specialty Board. **(A generic format for progress reports is shown in Annexure 8).** Feedback would be provided to the candidate as to whether the project is progressing satisfactorily.

Trainees are encouraged to present or publish such completed projects at national or international scientific meetings or journals.

If the research findings are published as an **original full paper** (not case reports) in a **peer-reviewed journal** (preferably indexed) with the trainee as the first author, no further evaluation is required on the premise that the paper is already peer-reviewed. Either the published article or evidence of the research paper being accepted for publication should be provided to the Specialty Board in Respiratory Medicine. In the event that the trainee fails to get the study published, a comprehensive research report on the completed study should be incorporated into the Portfolio according to the format in **Annexure 9.**

Two examiners appointed by the Specialty Board in Respiratory medicine will assess the completed research report based on the assessment criteria in **Annexure 10** as part of the evaluation of the Portfolio. Acceptance of a publication based on the research project or the research report as satisfactory is a requirement for board certification.
If both assessors consider the project unsatisfactory, they should provide written feedback on the required revisions to the trainee. The trainee shall attend to the suggested corrections and resubmit. If the research report is still unsatisfactory on second evaluation, the trainee may, at the discretion of the BOS, be asked to extend the same research project or undertake a new research project, which will have to go through the same procedure of approval as the initial project. If there is disagreement between the two assessors, with only one assessor's decision being 'unsatisfactory', the project report should be sent to a third assessor for a final decision.

11. Clinical Audit

Audit is an essential component in quality assurance in clinical medicine. **In addition to the Research Project mentioned above** the trainee is required to do a comprehensive clinical audit and formally present it at the hospital (quality control unit of the relevant hospital) where the trainee is working during either the local or overseas training centre.

This clinical audit should assess the current clinical practice in the context of national and international guidelines and have an impact on improving patient care. Documentary evidence of such audit presentation and the final audit report or evidence of publication in a peer reviewed journal must be included in the trainee's Portfolio which will be evaluated as described in **Annexure 10**.

12. Training Portfolio

During this 36 months of training, the trainee has to document evidence of training and maintain a training portfolio **(Annexure 11).** This will enable the Trainee to reflect on the training experience and identify and correct any weaknesses in the competencies expected. This will also enable the trainee to recognize and analyze significant clinical events experienced so that appropriate changes in patient care could be adopted in order to improve the quality of care provided. The Trainer needs to conduct regular assessments and provide feedback. Documentary evidence shall be included in the training portfolio certifying that the

Trainee has satisfactorily acquired the required competencies. The Portfolio shall be used at the Pre Board Certification Assessment (PBCA) to evaluate the trainee's competence to practice independently as a Subspecialist.

13. Pre Board Certification Assessment (PBCA)

13.1 Eligibility criteria to appear for the Pre Board certification Assessment (PBCA)

The trainee shall be eligible to appear for the PBCA after having satisfactorily completed the following:

1. Satisfactory completion of the local training programme.
2. Satisfactory completion of the overseas training programme.
3. Acceptance of progress reports to cover the entire period of training.
4. Submission of the Portfolio.
5. Successful completion of research and audit.
6. Certificate of good standing from the Sri Lanka Medical Council.
7. Satisfactory attendance of 80% - both local and overseas.

13.2 Format of the PBCA

The PBCA will take the form of a final, summative assessment of the trainee's portfolio, carried out by 3 independent examiners appointed by the Specialty Board in Respiratory medicine and approved by the Senate of the University of Colombo. Of the three examiners one shall be from outside the discipline of Respiratory Medicine to improve objectivity.

The PBCA will take place within one month of submission of all relevant documents by the trainee.

The trainee will be called for an oral examination, during which he/she will be questioned on the portfolio. The trainee may be required to start with a presentation of 10–15 minutes, on the post-MD training. The oral examination will be held for a period of 45 minutes.

Pass Mark: The overall assessment will be based on each of the main sections in the portfolio and the performance at the viva voce, which will be assessed as satisfactory or unsatisfactory on an overall basis. It is also mandatory to have an accepted publication of the research project research or a research report based on the research project carried out during the post MD training period and a completed audit report or a publication of audit findings carried out during the post MD training period.
Successful candidates shall be recommended for board certification as a subspecialist in Respiratory Medicine.

Failed candidate
If the examiners are of the view that the trainee's performance is unsatisfactory, and the trainee should not be recommended for Board Certification, the examiners will provide the trainee with written feedback on how the portfolio should be improved in order to reach the required standard. The trainee should then re-submit the portfolio in three months), and face

another oral examination based on the re-submitted portfolio. It the trainee is successful at this second oral examination, the date of Board Certification will be backdated as done routinely. (For the purpose of determination of the effective date of Board Certification the duration of local and overseas training components are added to the date of release of the MD results). If unsuccessful again, the date of Board Certification will be based on the date of passing the subsequent PBCA following further training for a minimum period of six months in a unit selected by the Specialty Board in Respiratory Medicine.

14. Recommended books/journals/web sites

1. Crofton and Douglas's Respiratory Diseases
2. Blue journal
3. CHEST journal
4. Thorax journal
5. The New England Journal of Medicine
6. European Society Website and publications
7. British Thoracic Society Website and publications
8. American Thoracic Society Website and publications

15. Prospectus development committee

This Prospectus was prepared by the following members of the Specialty Board in Respiratory Medicine.

1. Dr Amitha Fernando - Chairperson
2. Dr Ravini De Silva Karunatillake - Secretary
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ANNEXURE 1 - CURRICULUM

LEARNING OBJECTIVES OF TRAINING

General Respiratory Medicine

History taking, physical examination, differential diagnosis, structured plans of management.

Structure and function of the Respiratory System

- Anatomy of the Respiratory system
- Physiology of the Respiratory system.
- Immunology and defense mechanisms of lung.
- Genetics of Respiratory diseases
- Molecular biology of lung

Respiratory Infections

- Epidemiology, Microbiology of respiratory infections.
- Microbiological tests and interpretation of results.
- Upper respiratory tract infections
- Lower respiratory tract infections (Community Acquired Pneumonia, Acute Exacerbations of Chronic Bronchitis , Bronchitis)
- Pleural infections and lung abscess
- Pandemic influenza and preparedness
- Nosocomial Pneumonia (NP), Ventilator Associated Pneumonia (VP) , Health Care Related Pneumonia (HCRP)
- Pneumonia in the immune compromised host.
- Fungal and parasitic infections of the lung.
- Pharmacology (pharmacokinetics and dynamics of anti-microbial agents)
- Role of Vaccines in prevention.
- Infection control in health care / intensive care units.

Tuberculosis

Pulmonary Tuberculosis

- Epidemiology (Global/ National/ Regional), Microbiology (tools in diagnosis, molecular diagnostics, culture, new and emerging diagnostic tools, biological markers) Special situations (Multi / extensively drug resistant tuberculosis, TB-HIV co-infections) host immune responses, risk factors for developing TB, Principals of chemotherapy, managing drug related side effects, chemotherapy in special situations(pregnancy, HIV co-infection, renal impairment, liver disease)
- Managing drug resistant and multi-drug resistant TB, interpreting antibiotic sensitivity testing.
- Mycobacteria other than TB (MOTT) infections.
- Latent tuberculosis
- Familiarization with World Health Organization (WHO) Guidelines.
- National Guidelines on TB Control, Laboratory Manual, Childhood TB Guidelines, TB-HIV Guidelines, Extra-pulmonary TB Guidelines

Skills
Mantoux test, BCG Vaccination.

Airway disease

- Asthma & Allergic Rhinitis
- COPD (Chronic Obstructive Pulmonary Disease)
- Bronchiectasis / Cystic fibrosis
- Bronchitis / Bronchiolitis
- Vocal Cord Dysfunction

Familiarization with National and International Guidelines on Asthma, COPD, Allergic Rhinitis

Occupational and Environmental Lung diseases

- Occupational asthma
- Acute inhalation of Gases Vapors and Dusts
- Hypersensitivity Pneumonitis
- Pneumoconiosis
- Indoor / outdoor air pollution and respiratory disease
- Smoking –related lung disease
- Managing Tobacco-dependence
- High-altitude, diving, radiation induced lung disease

Interstitial Lung Disease (Current Classification, Pathophysiology, Epidemiology, Diagnostic tools, radiological diagnosis, Bronchoscopy/ Broncho-Alveolar Lavage, lung biopsy, treatment Modalities, Managing end-stage lung disease,)

Eosinophilic Lung Diseases

Drug-induced Lung Disease

Pulmonary Vascular Disease (Pulmonary Embolism, Pulmonary vacuities, Pulmonary Hypertension)

Orphan Lung diseases (Pulmonary Alveolar Protienosis, Amyloidosis, Histiocytosis X, lymphangio-leiomyomatosis)

Immunodeficiency disorders and lung

- Pulmonary manifestations of primary and secondary immune-deficiency disorders)
- Immune mediated injury of the lung

Adolescence Lung Diseases

Pleural, Chest Wall and Mediastinal Disease (Pleural effusions, Pneumothorax, Neuro-Muscular disorders, chest wall diseases)

Diagnostic Tests

- Lung Function Testing (spirometry, Lung function, lung volumes, gas transfer, exercise testing)
- Broncho-provocation tests
- Sputum and exhaled breath analysis
- Arterial blood gas assessment

Interventional Pulmonology

- Bronchoscopy
- Medical thoracoscopy
- Endobronchial Ultrasonography and Trans bronchial Needle Aspiration
- Radial Endobronchial Ultrasonography

Skin Testing for allergic lung disease

Pulmonary Function Testing

Knowledge:

- Respiratory physiology.
- Ventilation and mechanics of breathing
- Principals of Spirometry
- Principals of Plethysmography
- Diffusion Kco, DLco
- Alveolar equation
- Ventilation –perfusion relationship
- Control of ventilation
- Respiratory physiology during exercise and altitude
- Cardiopulmonary exercise testing
- Assessment of suitability of air travel
- Assessment of patients for anesthesia and surgery

Skills

- Performance, supervision and interpretation of Spirometry.
- Performance, supervision and interpretation of Plethysmography.
- Interpretation of single breath diffusion capacity.
- Interpretation of pulse oximetry.
- Performance, supervision and interpretation of respiratory muscle function testing.
- Performance, supervision and interpretation of Broncho provocation tests.
- Supervision of pulmonary exercise testing and interpretation of results.

Smoking cessation

Pulmonary rehabilitation and management of chronic Respiratory failure

- Principals of Pulmonary Rehabilitation.
- Principles and practices of setting up, conducting and monitoring a Pulmonary Rehabilitation Programme.
- Domiciliary oxygen therapy

Lung Transplant

Palliative care of a patient with a life limiting respiratory illness

Intensive Care and High Dependency Care Units

Knowledge:

- Indications for ICU/HDU Care
- Definitions and classifications of conditions leading to respiratory intensive and high dependency care.
  - Respiratory Failure.
  - ARDS / Acute Lung Injury.
  - Septic shock.
- Fluid and electrolyte management.
  - Management of Hypovolaemia.
  - Management of electrolyte imbalance
  - Types, characteristics and indications for replacement fluids
- Inotropic and Vasopressor medications
  - Characteristics, Indications, complications, weaning off
- Principals of cardio-pulmonary resuscitation.
  - Basic Life Support / Cardio-pulmonary resuscitation (CPR)
  - Management of the airway.
  - Recognition and management of basic arrhythmias
- Monitoring of critically ill patients
  - Different scoring systems (APACHE scores etc.)
  - Different methods of monitoring oxygenation, CO2 levels, Volume status, Blood pressure. Arterial Blood Gas interpretation
- Chest imaging in the ICU – Chest Radiograph, CT/ HRCT, CTPA, Chest Ultra-sound.
- Oxygen Therapy
  - Indications.
  - Contraindications, cautions and Side effects.
  - Oxygen delivery systems, Venturi devices, high volume masks, Ambu bags, reservoir bags.
- Mechanical Ventilation
- Noninvasive ventilation (C PAP, Bi PAP)
- Invasive ventilation.
  - Definitions and classifications of principals and modes of ventilator support.
  - Monitoring patients.
- Managing complications of Mechanical Ventilation (both invasive and non-invasive)
- Weaning off from mechanical ventilators methods and protocols
- Management of secretions.
- Chest physiotherapy endotracheal suction, Devices to assist secretion elimination, Pharmacological Management of secretions.
- Tracheostomy indications, management.
- Management of hyperglycemia and other metabolic derangements (hepatic, renal failure etc.)

- Infection control.
- Managing nosocomial pneumonia
- Nebulization of the ventilated patient.
- Bronchoscopy and related procedures in the ICU
- Principals in End of Life decisions in the ICU

Skills

- Cardio-pulmonary resuscitation and advanced life support.
- Endo-tracheal intubation and airway management and familiarization with the emergency trolley.
- Selection of ET –tubes and ventilator circuits, closed systems suction devices
- Familiarization of modes of invasive ventilation, setting up, monitoring.
- CPAP and Bi PAP ventilation setting up, monitoring and managing complications
- Performing Arterial blood gas sampling.
- Insertion of Venous lines – Central / peripheral.
- Insertion of Arterial lines.
- Management of Pulmonary artery catheters and interpretation of data (principals, placements, recognition of wave forms)
- Setting up infusions using syringe and infusion pumps.
- Management of Tracheostomy tubes
- Management of complications associated with mechanical ventilation (both invasive and non-invasive)
- Respiratory specimen collection in the intubated patient (ET aspiration, Bronchoscopy, protected brush specimens, broncho-alveolar lavage etc.).
- Familiarization with Oxygen therapy and delivery devices. (Variable and fixed performance masks, delivery circuits, and gas sources.)
- Practical aspects of Nebulization of intubated patients.
- Practical aspects of managing difficult to wean patients, ventilator dependent patient.
- Infection control

Ethics and Communication

Decision to intubate- communicating with care givers and family.
Working with multi-disciplinary teams.
End of life decisions and communicating with family.

<u>Radiology</u>

Knowledge:

- Basic principles of plain chest radiography, CT (Spiral CT, CT contrast, CTPA, HRCT), MRI, PET, PET-CT, nuclear techniques.
- Normal chest radiograph, PA/lateral, apical views.
- Chest Ultrasound US guided aspiration and biopsy
- Radiological thoracic anatomy.
- Indications for particular imaging techniques (CT contrast, mediastinal window settings for central lesions, HRCT – prone films, expiratory protocols).
- CT recognition of mediastinal structures.

- HRCT- secondary pulmonary lobule, recognition and interpretation of patterns of Parenchymal lung diseases and their differential diagnosis.
- Principals of radiation hazards.
- Contra-indications for CT contrast, MRI
- Indications for CT ultrasound guided biopsy.
- Understanding the indications and interpretations of ventilation and perfusion scanning of the lungs.

Skills

- Interpretation of plain chest radiograph PA /lateral and description of radiological abnormalities.
- CT contrast chest assessing the mediastinum
- Use of CT to understand mediastinal structures in performing Bronchoscopic, trans-tracheal needle aspiration.
- CT staging of lung cancer.
- Recognition of pleural pathology.
- HRCT - recognition of patterns of interstitial lung diseases and their differential diagnosis
- CT-PA - interpretation principals
- Radiological surface marking of the chest
- Basic principles of chest ultrasound.

Procedures to observe

- CT guided biopsy
- USS guided biopsy
- Bronchial artery embolization
- Fluoroscopy

<u>Thoracic Surgery</u>

Knowledge:

- Indications for surgical interventions in Thoracic medicine
- Lung cancer staging with use of mediastinoscopy/VATS,
- Assessing fitness for surgery.
- Managing pneumothorax, sub-cutaneous emphysema.
- Indications for IC tube drainage and managing complications.
- Managing pleural empyema role of VATs, surgical decortications
- Principles and practices of pleurodesis.
- Pleural tumors classification and management.
- Managing post-thoracotomy patients in the ICU – Post-CABG patient with chest / pleural complications.
- COPD patient surgical indications, lung volume reduction
- Managing large bullae indication for VAT's bullectomy

Skills

- IC tube placement and management.

- Application of suction to IC tubes principles and practices.
- Pleurodesis.

Observe / assist in following

- VATs procedures
- Rigid bronchoscopy.
- Mediastinoscopy.
- Open lung biopsy.
- Decortications.

Microbiology

Knowledge:

Non-tuberculous infections

- Viral Respiratory tract infections – Specimen collection and transportation, PCR and allied technologies, interpretation of serology, novel diagnostic tools and clinical utility.
- Bacterial Lower Respiratory Tract infections- specimen collection and transport assessing the quality of specimen of sputum, Gram stain, culture for aerobic and anaerobic organisms
- Qualitative and Quantitative culture techniques.
- Understanding MIC, Peak trough levels, principals of pharmacology of anti-microbial chemotherapy.
- Value and interpretation of ABST.
- Role of serological tests in diagnosing respiratory tract infections.
- Urinary antigen detection, phage assay technology.
- International and National Guidelines on management of Lower Respiratory Tract infections
- Respiratory tract infections in immunocompromised, neutropenic patients.
- Microbiology of fungal and parasitic infections in Respiratory diseases
- PJP pneumonia
- Role of Broncho-alveolar lavage (BAL)/ Protected Specimen Brush (PSB)
- Familiarization with infection control methods in different clinical settings.
- Maintenance of clinical safety of equipment
- Role of vaccinations in respiratory tract infections
- Pandemic preparedness in cases of global respiratory disease out breaks and how to investigate local respiratory disease out breaks.

Skills

- Performing AFB staining and reading slide under microscopy.
- Evaluating chest clinic sputum smear staining
- Analyzing laboratory register, quality control methodology and data.
- Inoculation of clinical specimens on to culture media.
- BAL specimens' collection and transport.

Pathology

Knowledge:

- Tumors of lung and pleura
  - Epidemiology
  - Histological and TNM classification of lung tumors
  - Special staining and interpretation of Histopathological reports.
  - Tumor markers of lung cancer
  - Histological patterns of ILD and their clinical implications

- Histology and differential diagnosis of Granulomatous diseases including TB (lung, lymph node etc.)
- Different cell types seen in BAL and their uses in diagnosis

Skills

- How to perform a Percutaneous / Radiological guided FNAC
- How to prepare smears and biopsy specimens
- Sample collecting and transporting FOB samples including BAL

Thoracic oncology

Knowledge:

- Definition, classifications and etiology of thoracic tumors. (Lung cancer, pleural, metastatic, mediastinal and chest wall tumors).
- Epidemiology of thoracic tumors.
- TNM classification
- Para-neoplastic manifestations
- Therapeutic modalities.
- Principles and practices of Chemotherapy.(tumor types and regimes)
- Principles and practices of radiotherapy of thoracic tumors.
- Complications of chemotherapy.
- Complications of radiotherapy.

Skills

- TNM staging of thoracic tumors.
- Managing complications of chemotherapy
- Management of pain
- Palliative care-multidisciplinary approach to palliative care , end of life

ENT (adult)

Knowledge

- Upper Airway Anatomy
- Common Respiratory disorders with upper airway involvement
  Eg: Rhinitis, Acute Epiglottitis, Sinusitis, etc.
- Causes and management of stridor

Skills:

- Tracheostomy
- Direct and indirect Laryngoscopy
- Rigid Bronchoscopy

NPCCTD and NRL

Knowledge

- Structure of NPTCCD and chest clinic
- Functioning of a chest clinic microscopy service, from sputum collection to reporting Familiarization with records and registers, data collection formats indicators in monitoring and evaluation. Organizing DOT (Directly Observed Chemotherapy) activities, communication, social mobilization and advocacy related to TB control activities.
- Familiarization with supervision of Chest Clinic activities, conduction of district TB reviews, liaising with other staff categories.
- Culture Methodology Solid media to liquid media, automated systems.
- Species identification MTB, MOTT
- Drug sensitivity testing
- PCR and allied technologies.
- Novel methods of diagnosis.

Sleep Medicine

Knowledge
Sleep-Related Disorders

Physiology

- Nature of sleep and Cardio-Pulmonary control.
- Effects of sleep on cardio-pulmonary function (circadian rhythm, sleep deprivation)
- Anatomy of the upper airway and chest wall.
- Arousal mechanisms from sleep related to cough, apnea, paroxysmal nocturnal dyspnea and chemo sensitization.
- Pathophysiological consequences of Obstructive Sleep Apnea, Central Sleep Apnea / Cheyne-Stokes respiration, Nocturnal Hypoventilation in COPD, Neuro-muscular disorders / restrictive lung disease.
- Diagnostic methods
- Sleep related history and physical examination (use of tools such as Epworths sleepiness scale and Berlin sleep questionnaire, BMI, assessing upper airway)
- Differential diagnosis and co-morbidities.

Obstructive Sleep Apnea

- Natural history
- Treatment (CPAP, Bi-PAP, Oxygen)
- Surgical management.

Central Sleep Apnea (Cheyne-Stoke respiration and its management)
Other sleep disorders (periodic limb movement, insomnia and sleep hygiene, and narcolepsy)
Sleep issues in other disorders. (COPD, CCF, Obesity, Neuro-muscular disorders, GERD)

Skills

Clinical application of Epworth sleepiness scale and other instruments.
Assessing of patients (air ways, BMI, chest wall)
Screening studies with overnight oximetry.
Polysomnography

- Indications for testing.
- Distribution of sleep stages
- Important elements in polysomnography that influences management
- Recognize sleep /awake (non-REM /REM) stages.
- Recognize apneas, hypopneas (obstructive, central, and mixed).
- Recognize examples of other specific conditions such as periodic leg movements
- Recognize effort related arousals.
- Ancillary tests for sleepiness (sleep latency test , wakefulness test)

Clinical application of CPAP / Bi-PAP
Practice of setting up CPAP, types of masks relative advantages / disadvantages
Monitoring and follow up.

Setting up sleep clinic and related services.

ANNEXURE 2 - PROGRESS REPORT

To be submitted at the relevant intervals given in the prospectus during local and overseas clinical training components.

Name of the trainee: Name of the trainer:

Institution: Period covered:

(Please tick [√] in appropriate cages)

Training modality	***Excellent***	***Good***	***Average***	***Poor***	***Comments***
Clinical skills: - History taking	☐	☐	☐	☐	
Examination	☐	☐	☐	☐	
Clinical decision making	☐	☐	☐	☐	
Use of diagnostic tests	☐	☐	☐	☐	
Procedural / Technical skills	☐	☐	☐	☐	
Doctor-patient relationship	☐	☐	☐	☐	
Communication skills	☐	☐	☐	☐	
Staff relationships	☐	☐	☐	☐	
Professional responsibility	☐	☐	☐	☐	
Participation in research activities	☐	☐	☐	☐	
Participation in Seminars,	☐	☐	☐	☐	
Case presentations/audits etc.	☐	☐	☐	☐	
Punctuality	☐	☐	☐	☐	
Attitudes	☐	☐	☐	☐	
Overall assessment at the end	☐	☐	☐	☐	

General / Specific comments

……

……

Signature of Trainer: - Date:-

Designation:-

ANNEXURE 3 – MULTI SOURCE FEEDBACK SYSTEM OF THE PGIM

MSF FORM

(Rater Assessment 1-20)

PGIM Roll No. **Date of assessment (DD/MM/YY)** **Year training**

PGIM / ____ / ____ - ____ ____ / ____ ____ / ____ ____ ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6

Name of Rater

(You can remain Anonymous)

Please indicate your profession by filling in one of the following circles

○ Consultant ○ Registrars ○ SHO or HO ○ Other Specify ……

○ Allied Health Professional ○ SR ○ Clerical or Secretarial Staff

Please mark one of the circles for each component of the exercise on a scale of 1 (extremely poor) to 9 (extremely good). A score of 1-3 is considered unsatisfactory, 4-6 satisfactory and 7-9 is considered above that expected, for a trainee at the same stage of training and level of experience. Please note that your scoring should reflect the performance of the trainee against that which you would reasonably expect at their stage of training and level of experience. You must justify each score of 1-3 with at least one explanation/example in the comments box, failure to do will invalidate the assessment. Please feel free to add any other relevant opinions about this doctor's strengths and weaknesses.

THE MSF IS NOT AN ASSESSMENT OF KNOWLEDGE OR PRACTICAL SKILLS

1. Attitude to staff: Respects and values contributions of other members of the team			
○ Don't know	○ 1 ○ 2 ○ 3 UNSATISFACTORY	○ 4 ○ 5 ○ 6 SATISFACTORY	○ 7 ○ 8 ○ 9 ABOVE EXPECTED
2. Attitude to patients; Respects the rights, choices, beliefs and confidentiality of patients			
○ Don't know	○ 1 ○ 2 ○ 3 UNSATISFACTORY	○ 4 ○ 5 ○ 6 SATISFACTORY	○ 7 ○ 8 ○ 9 ABOVE EXPECTED
3. Reliability and punctuality			
○ Don't know	○ 1 ○ 2 ○ 3 UNSATISFACTORY	○ 4 ○ 5 ○ 6 SATISFACTORY	○ 7 ○ 8 ○ 9 ABOVE EXPECTED
4. Communication skills: communicates effectively with patients and families			
○ Don't know	○ 1 ○ 2 ○ 3 UNSATISFACTORY	○ 4 ○ 5 ○ 6 SATISFACTORY	○ 7 ○ 8 ○ 9 ABOVE EXPECTED
5. Communication skills: communicates effectively with healthcare professionals			
○ Don't know	○ 1 ○ 2 ○ 3 UNSATISFACTORY	○ 4 ○ 5 ○ 6 SATISFACTORY	○ 7 ○ 8 ○ 9 ABOVE EXPECTED
6. Honesty and Integrity, do you have any concerns?	○ **Yes**	○ **No**	
7. Team player skills: Supportive and accepts appropriate responsibility; Approachable			
○ Don't know	○ 1 ○ 2 ○ 3 UNSATISFACTORY	○ 4 ○ 5 ○ 6 SATISFACTORY	○ 7 ○ 8 ○ 9 ABOVE EXPECTED

8. Leadership skills: Takes responsibility for own actions and actions of the team			
○ Don't know	○ **1** ○ **2** ○ **3**	○ **4** ○ **5** ○ **6**	○ **7** ○ **8** ○ **9**
	UNSATISFACTORY	SATISFACTORY	ABOVE EXPECTED
9. OVERALL PROFESSIONAL COMPETENCE			
○ Don't know	○ **1** ○ **2** ○ **3**	○ **4** ○ **5** ○ **6**	○ **7** ○ **8** ○ **9**
	UNSATISFACTORY	SATISFACTORY	ABOVE EXPECTED

Comments about the trainee (BLOCK CAPITALS PLEASE) – Write in English/ Sinhala/ Tamil

Your (You can remain Anonymous) **Signature:**

Please place form in the attached self-addressed envelope and return to the PGIM (PTMU) named on tl envelope. DO NOT return to the Registrar or Senior Registrar.

We are very grateful for your independent and honest rating our all trainees

ANNEXURE 4 -APPRAISAL FORM

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 first six months of 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 & training 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				
Outpatient Clinics		New patients		
		Old patients		
		Supervised	Yes	No
On-take sessions				
Cardiac arrest team				
Others				
Special Procedural skills acquired				

Presenting cased, 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, breading 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 5 - FORMAT OF DETAILED RESEARCH PROJECT PROPOSAL

Section 1

1. Name of trainee
2. Name(s) of supervisor(s)
3. Training centre

Section 2

1. Project title
2. Background and justification
3. Objectives of study
4. Research plan
    a. Design
    b. Setting
    c. Method
    d. Sample size and sampling techniques
    e. Outcome measures
    f. Statistical analyses and plan of presentation of results
    g. Ethical considerations
    h. Work plan and time lines
5. References
6. Funding for study
7. Signature of trainee

Section 3

Recommendation of supervisor(s)

Signature of Supervisor 1
Date

Signature of Supervisor 2
Date

Section 4

Date of submission to PGIM

Date of approval by BOS

Signature of Secretary BOS

ANNEXURE 6 - INSTRUCTIONS TO RESEARCH PROJECT SUPERVISORS

- The objective of the research project is to prove the trainee's capability to plan, carry out and present his / her own research. The purpose of this training is to ensure maturity, discipline and scholarship in research.

- The supervisor should guide the student in planning and designing, carrying out the research and in presentation of the work.

- The research project must be original and must comprise the trainee's own work.
- It must contribute to existing knowledge relevant to Sri Lanka and afford evidence of originality as shown by independent, critical assessment and / or discovery of new facts in the area under study.

- It should be satisfactory with regard to literary presentation.

- The research project should be certified by the supervisor as suitable for submission.

- General Comments on the contents: The objectives should be clearly stated and should be feasible to achieve within the time frame. Other published work relevant to the problem (both international and local) should be comprehensively and critically evaluated. An appropriate study design and method should be used to achieve the objectives stated. The results should be appropriately analysed, interpreted and presented effectively. The discussion should include comments on the significance of results, how they agree or differ from published work. If they differ, the probable reasons for these differences need to be discussed. Theoretical / practical applications of the results, if any should be given. The conclusions should be valid and be based on the results obtained on the study.

- Ethics: Approval should be obtained by a recognized Ethics Review Committee prior to commencement of the research project.

- If at any time the supervisor is not satisfied with the work progress of the trainee, the trainee should be made aware of the deficiencies and corrective measures suggested. This should be conveyed in writing to the trainee with a copy to the Specialty Board in Neurology. In such instances, a follow-up report should be forwarded within three months or earlier.

ANNEXURE 7 – REVIEWER'S REPORT ON THE RESEARCH PROJECT PROPOSAL

1. **Name of Trainee:**

2. **Training Centre:**

3. **Supervisor:**

---

4. **Reviewer:**

   Name:

   Designation: Address Official:

   Tel//Fax: Email:

---

5. **Title of Project:**

---

6. **Please comment on each of the following headings.**

6.1 Introduction: Rationale (Justification) – problem identified and quantified. Hypothesis and expected outcome, impact and relevance of the study.

Comment: ……

6.2 Literature Review: Adequacy (evidence of a systematic search for related. similar, relevant studies)

Comment: ……

6.3 Objectives: Clearly defined, relevant and stated in measurable terms.

Comment: ……

6.4 Method: Appropriate study design to address the objectives with clear detailed description of subjects, sampling technique and sample size, interventions, data collection and management. The study should be, internally valid and reproducible. Where specific details are available in the literature, reference should be made to the original papers, and comments kept to a minimum. If modifications have been made to the published techniques, these should be described in full. Appropriate statistical tests planned should be mentioned and ethical issues addressed

Comment: ……

6.5 Results: Order of presentation and appropriate presentation of tables, figures, graphs. Appropriate statistical analyses and interpretations

Comment:……

6.6 Discussion: The findings of the study should be discussed taking into consideration findings of relevant studies, within and outside the country. The discussion should not be a repetition of the results only. Limitations should be included.

Comment: ……

6.7 Conclusion and recommendation: Based of the results of the study and to address the objectives

Comment: ……

6.8 Limitations: Any inherent and / or inadvertent biases and how they were dealt with.

Comment: ……

6.9 References: According to the Vancouver system and relevant to the study. Properly documented in the Bibliography and appropriately cited in the text

Comment: ……

6.10 Institution(s) where work would be carried out:

6.11 Ethical considerations/institution from where ethical approval will be /has been obtained:

Comment: ……

6.12 Overall presentation: Overall presentation of the proposal (grammar, spelling, typographical mistakes etc.).

Comment: ……

---

7. Recommendation of reviewer:

Comment: ……

- Is the project report acceptable? Yes / No
- If No, What corrections are required? (Attach a separate sheet of paper if necessary)

Signature: **Date:**

---

8. Recommendation of the Specialty Board in Respiratory Medicine:

Signature of Chairperson/Secretary: **Date:**

ANNEXURE 8 - PROGRESS REPORT ON RESEARCH PROJECT

To be forwarded by the supervisor to the Specialty Board in Respiratory Medicine at least once in SIX months

1. **Name of trainee:**
2. **Training Centre:**
3. **Supervisor:**
4. **Title of project:**
5. **Description of work carried out to date:**

To be filled in by trainee: briefly describe progress in lab / field work and report writing

---

Supervisor's comments

6. **Is the work on schedule**? Yes / No
7. **Progress in writing**: satisfactory / unsatisfactory
8. **Constraints** (if any)
9. **Recommendation of supervisor**:

Signature: Date:

---

10. Recommendation of the Specialty Board in Respiratory:

Signature of Secretary: Date:

ANNEXURE 9 - RESEARCH REPORT FORMAT

General instructions

Please refer PGIM generic guidelines.

Length

The text should *not* exceed4000 words, which equals to approximately 10 pages. With figures, references, etc., the total length is likely to be in the region of 15 - 20 pages.

Submission

The research report should be included in the Portfolio only if the trainee does not succeed in publishing the study in a peer-reviewed journal. If published, only the published article should be included in the Portfolio.

Layout

As presented in research papers in the Ceylon Medical Journal/European Respiratory Journal

ANNEXURE 10 – CRITERIA FOR ASSESSMENT OF RESEARCH REPORT AND AUDIT REPORT

10 a) Research report

The panel of examiners should evaluate and provide comments under each of the following areas and arrive at a judgement.

1. Title
2. Author's name and address
3. Abstract
4. Table of contents
5. List of tables
6. List of figures
7. Introduction
8. Objectives
9. Review of literature
10. Materials and methods
11. Results
12. Discussion (including limitations)
13. Conclusion and recommendations
14. Acknowledgements
15. References
14. The overall presentation

The Research report will be assessed and the judgement should be one of the following

The research report can be accepted without revisions
The research report can be accepted with minor revisions as proposed.
The research report can be accepted with major revisions as proposed.
The research report cannot be accepted

*If the research findings are published as an **original full paper** (not case reports) in a **peer-reviewed journal** (preferably indexed) with the trainee as the first author, no further evaluation is required on the premise that the paper is already peer-reviewed. Either the published article or evidence of the research paper being accepted for publication should be provided to the Specialty Board in Respiratory Medicine*

10.b) Audit Report

The panel of examiners should evaluate and provide comments under each of the following areas and arrive at a judgement.

Audit topic	Choice of topic, importance to clinical care, aims clearly stated. potential for change taken into consideration

Target for performance	Explicit measurable criteria that are evidence bases are stated to asses performance
Methods	Ethical issues discussed and addressed, para-meters of audit specified, sampling and data collection specified
Results and Interventions	Clearly presented appropriate conclusions drawn from results
Change in performance	Barriers to implementation , constrains to implement change identified
Plan for evaluation	Realistic methods of implementation and evaluation of change are discussed
Overall quality of audit	Overall judgment based on above

Audit report will be assessed the judgement should be one of the following

The Audit report can be accepted without revisions
The Audit report can be accepted with minor revisions as proposed.
The Audit report can be accepted with major revisions as proposed.
The Audit report cannot be accepted

*If the audit findings are published in a **peer-reviewed journal** (preferably indexed) with the trainee as the first author, no further evaluation is required on the premise that the paper is already peer-reviewed. Either the published article or evidence of the audit being accepted for publication should be provided to the Specialty Board in Respiratory Medicine*

ANNEXURE 11 – TRAINING PORTFOLIO

The portfolio is a framework containing evidence of achievement of learning outcomes over time. This evidence is supplemented by the portfolio builders' reflections on their learning and can be used to provide feedback to the learner. The portfolio must be built by the trainee and be up to date at all times during the training period including the overseas period. The portfolio will be regularly inspected and signed by the supervising consultant. The portfolio will have to be produced at the assessments.

The fundamental basis of Portfolio maintenance is Reflective Practice, which is an important tool in postgraduate training. Reflective practice consists of:

a. Focused self-assessment
b. Reflecting on experience
c. Reflecting on strengths, weaknesses and areas for development
d. Design of own strategies that leads to improvement in practice

This approach promotes self-directed learning and critical thinking skills.
The objectives of maintaining a Portfolio are;

a. To help the trainee to record his/her training in brief so that the experience acquired can be assessed and deficiencies identified and remedied
b. To help supervisors and assessors to evaluate the overall training and provide guidance in areas where it is needed

The contents of the portfolio should be divided into **7 sections**. The following list sets out the type of evidence that may be relevant to each section.

1. Subject expertise:
    - Monitoring with regular assessments throughout the period of post-MD training eg. Mini - Clinical Evaluation Exercises, Case-Based Discussions, Direct Observation of Practical Skills and Acute care Assessment tool.
    - In the case of sub-specialty rotations this section must include evidence that the trainee has acquired the essential knowledge, skills and competencies related to the sub-specialty, identified by the Specialty Board (eg: Multi source feedback)
    - Progress reports from supervisors (essential, should be according to prescribed format)
    - Supervisor feedback on communication skills

2. Teaching
    - Undergraduate
    - Postgraduate
    - Ancillary health staff
3. Research and Audit relevant to Respiratory
    - Research papers published or accepted for publication
    - Abstracts of presentations
    - Clinical audit

4. Ethics, Professionalism and medico-legal issues
    - Completed Peer Team Review forms during post-MD training
5. Information Technology
    - Participation in training programme / workshops
    - Evidence of searching for information and application of findings in practice
6. Life-long learning
    - Participation in conferences and meetings
    - CPD points
7. Reflective practice
    - Narration of at least one learning event experienced by the trainee, in relation to each of the above outcomes, with reflection on what and how the trainee learned from this experience

It is the responsibility of the trainees, the trainers and the supervisors to ensure that the entries in the Portfolio are *authentic* and made *regularly*. Entries in the Portfolio should be made by the trainee at the time of acquiring the skill and *authenticated (signed)* by the trainer or supervisor.
The trainee is expected to keep the portfolio updated regularly. The trainers and supervisors will use the portfolio to assess the progress of the trainee and to provide a feedback at regular intervals (e.g. every 6 months) during the training period. The trainers and supervisors are expected to assess the level of competencies in different areas of training and provide advice and assistance to the trainees to achieve the expected levels of skills empowerment.
The Specialty Board in Respiratory medicine expects the Trainee and the Trainers to make the best use of the Portfolio in order to achieve the objectives of the training programme. The Trainee should keep the portfolio as a ring binder document, which will allow easy insertions of documents.
The contents of the portfolio should encompass all of the above learning outcomes and contain evidence of achievement of these outcomes by the trainee.

<u>Examples of evidence that should be included in the Training Portfolio</u>

1. Direct Observation of Procedural Skills (DOPS)
2. Mini- Clinical evaluation exercises (mini-CEX)
3. Case based discussions (CBD)
4. Acute Care Assessment Tool (ACAT)
5. Multi-Source feed-back (MSF)
6. Teaching observation (TO)
7. Multi-Source Feedback
8. Continuing Professional Development (CPD) activities
9. Research Report (if applicable) and Audit Report

- **Direct Observation Of Procedural Skills (DOPS)** -This is a tool designed to observe trainee undertaking practical procedures such as Fibro-optic Bronchoscopy, Thoracoscopy,

Pleural Aspiration/Biopsy, Endo-tracheal Intubation, application of CPAP/ Non-Invasive ventilation, Rigid-bronchoscopy etc.

- Time and number: minimum of 10 DOPS with in the period of local training.
  These will be assessed during relevant segments of training.

- **Mini- Clinical evaluation exercises (mini-CEX)** - This tool will evaluate a clinical encounter with a patient where skills such as history taking, eliciting clinical signs, arriving at a differential diagnosis, plan for investigation/ management and communication skills are assessed.

This can be done in any clinical setting by a trainer or assessor. Trainers should make this routine practice and trainees should maintain documentation of such teaching encounter.

Time and number: minimum of 10 mini CEX with in the period of local training.

- **Case based discussions (CBD)** - This includes presentation of a clinical case with history, examination, differential diagnosis, investigations, final diagnosis, plan of management, review of literature and current best clinical practice.

  This also allows a forum of discussion by fellow trainees, other trainers and relevant multi-disciplinary team involved in case based management. Trainees are encouraged to participate in Multi-Disciplinary Meetings for case based discussion.

  Time and number: minimum of 05CBD with in the period of local training.

- **Acute Care Assessment Tool (ACAT)** - All trainees should participate in BOS Medicine approved Advanced Life Support (ALS) courses and obtain certification.

- **Multi-Source feed-back (MSF)** - This allows objective assessment of trainee from other training sources / clinical encounters during specified special appointments.

- **Teaching observation (TO)** - Teaching other under-graduate, post-graduate trainees, para-clinical and nursing staff and patient education will be routinely assessed in relevant clinical settings.

- **Multi-Source Feedback system of the PGIM** -A common document would be provided by the PGIM to all trainees at the start of training. This document needs to be completed as per the PGIM requirements/instructions.

- **Continuing Professional Development (CPD) activities**: minimum of 20 CPD points.
  CPD points will be allocated as follows:
  - Participation in the Academic Sessions of the Sri Lanka College of Pulmonologists (SLCP) or any Respiratory congress: 3 points each.
  - Participation in the Academic Sessions of the Sri Lanka Medical Association (SLMA) or the Ceylon College of Physicians (CCP): 2 point each.
  - Oral or poster presentation related to Respiratory medicine at SLCP, CCP,

SLMA, PGIM or any other Respiratory congress: 6 points each.

- Participation in SLCP lecture, SLCP clinical forum including Regional Clinical Meetings or workshops relevant to Respiratory: 3 point each.
- Presentation at Young Physician forum, 4 points each.

Points will be allocated in only one activity in each category, i.e., a trainee presenting at a session can only claim points for presentation and not participation in that session. Documentary evidence such as a certificate or a letter is required in order to claim points.

When the trainee is eligible for Pre-Board Certification Assessment (PBCA), 3 copies of the completed portfolio should be submitted to the PGIM Examinations Branch. This will be assessed by a panel of two examiners appointed by the Specialty Board in Respiratory medicine.

To provide evidence of exposure to the areas described above the trainee should incorporate documentary proof in the training portfolio. The formats given below are examples only. The trainee is expected to be innovative and creative and develop entries in training portfolio to emphasize the experience gained during the post MD training programme in Respiratory Medicine.

Photograph

DETAILS OF TRAINEE

Last name :

Forenames :

Address :

Telephone : e-mail :

Gender : Single/Married:

Date of Birth:

Date and place of graduation (eg MBBS):

SLMC Registration No: Date of Registration:

Date of passing the MD Qualifying Examination:

Date of commencing post MD training in Respiratory:

Name of main trainer in General Respiratory Medicine:

Evaluation forms

- **Direct Observation of Procedural Skills (DOPS)**
  This is a tool designed to observe trainee undertaking practical procedures such as Fibro-optic Bronchoscopy, Pleural Aspiration/Biopsy, Endo-tracheal Intubation, application of CPAP/ Non-Invasive ventilation, Thoracoscopy, Rigid-bronchoscopy etc.

An appropriate response should be marked by the trainer for each of these skills in the relevant cages only.

Check List for Trainers C= competent, NI= Needs Improvement, P= poor this must be stated against relevant cage.

A comment on over-all competence needs to be stated.

Skill	**Spirometry**	**Lung function testing**	**Nebulization**	**Oxygen delivery devices ICU / home**	**Application of CPAP Non-invasive ventilation**	**Endo-tracheal intubation**
Indication for procedure						
Informed consent						
Perusal of relevant clinical information						
Technical ability						
Clinical judgment						
Awareness of complications						
Interpretation of findings / monitoring para-meters						
Documentation of findings						
Drawing up further plan of management						
Maintenance of equipment						
Safety of staff						

Comments: ……
Signature of trainer: ……

Skill	Pleural Aspiration	Pleural Biopsy	Intercostal tube insertion	Fibro-optic Bronchoscopy	Medical Thoracosopy	Thoracic Ultrasound Endo-Bronchial Ultrasound scanning and Biopsy
Indication for procedure						
Informed consent						
Perusal of relevant clinical information inclusive of imaging						
Appropriate analgesia/ premedication /safe sedation						
Technical ability						
Professionalism patient /staff safety considerations						
Clinical judgment						
Awareness of complications						
Interpretation of findings						
Collection and transport of specimens						
Documentation						
Drawing up further plan of management						
Discussion of findings with patient / breaking “bad news” where appropriate						
Maintenance of equipment						

Number performed under supervision: ……

Number performed independent: ……

Comments: ……..

Signature of trainer: ……..

Skill	**Polysomnography**	**Allergy Testing**	**Broncho -provocation testing**	**VAT's Thoracoscopy**	**Rigid Bronchoscopy**	
Indication for procedure						
Informed consent						
Perusal of relevant clinical information inclusive of imaging						
Appropriate analgesia/ premedication /safe sedation						
Technical ability						
Professionalism patient /staff safety considerations						
Clinical judgment						
Awareness of complications						
Interpretation of findings						
Collection and transport of specimens						
Documentation						
Drawing up further plan of management						
Discussion of findings with patient / breaking "bad news" where appropriate						
Maintenance of equipment						

Comments: …….

Signature of trainer: …….

Procedures such as VATS (Video Assisted Thoracoscopy) and Rigid Bronchoscopy needs observation only.

- **Mini-Clinical evaluation exercise (mini-CEX)**

  This tool will evaluate a clinical encounter with a patient where skills such as history taking, eliciting clinical signs, arriving at a differential diagnosis, plan for investigation/ management and communicating these with patient is assessed.

  This can be done in any clinical setting by a trainer or assessor. Trainers should make this routine practice and trainees should maintain documentation of such teaching encounter.

  Time and number: minimum of 10 mini CEX with in the period of local training

Mini-Clinical evaluation exercise (mini-CEX)

Case No. ……. **Date: …….**

Evaluators Check list

Skill	Unsatisfactory	Satisfactory	Above expected
History taking/ medical interviewing			
Physical examination			
Interpretation of signs and symptoms			
Working/ differential diagnosis			
Plan of investigations			
Communicating information/ working plan with patient			
Overall strategies of management			
Organizing follow up care			
Signature of trainer			

Overall competence

……

……

Comments

……

……

……

Suggestions for development

……

……

- -

Signature of Assessor **Signature of Trainee**

- **Case Based Discussions (CBD)**
  - 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 approach, 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 Case-based Discussion rating from 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.

Case Based Discussions (CBD)

Case No. ……. **Date: ……..**

Evaluators Check List

Skill	Unsatisfactory	Satisfactory	Above Expected
Case presentation			
Working differential diagnosis			
Critical analysis of investigations			
Multi-disciplinary approach to diagnosis			
Approach to diagnosis			
Overall strategies of management			
Discussion of best practice guidelines			
Presentation of literature reviews			
Communicating information with patient			
Organizing follow up care			
Prognosis of disease process and communicating care with patient family			
Organizing care at home / in community			

Overall competence

……

……..

Comments

……

……

Suggestions for development

……

……

- -

Signature of Assessor **Signature of Trainee**

CLINICAL TRAINING PROGRAMMEME IN SHORT ROTATIONS

Specialty	Period	Trainer	Signature of trainer
General Respiratory (Trainer II)			
Radiology			
ICU			
Thoracic Oncology			
Thoracic Surgery			
Pathology			
Microbiology			
ENT (adult)			
Structure of NPTCCD and Chest Clinic			
Sleep Medicine			

Trainers report from special appointments

(Please comment on appropriate column depending on specialty)

NAME OF TRAINEE: **SPECIALTY:**

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:				

Signature of the Supervisor: Date

Teaching Observation

Presentations at clinical meetings / journal clubs
Teaching other under-graduate, post-graduate trainees, para-clinical and nursing staff and patient education will be routinely assessed in relevant clinical settings.
Time and number: minimum of 20 teaching observation with in the period of local training

Date	Topic / case	Forum	Signature of Supervisor

Attendance of recognized CME activities outside Unit of Training

Date	Professional organization conducting programme	Topic	Signature of Supervisor

Leave Record

Leave taken: **YEAR 1**

Date	Type of leave	Approved or Not	Signature of Trainer

Leave Record

Leave taken: **YEAR 2**

Date	Type of leave	Approved or Not	Signature of Trainer

Leave Record

Leave taken: **YEAR 3**

Date	Type of leave	Approved or Not	Signature of Trainer

Leave Record

Leave taken: **YEAR 4**

Date	Type of leave	Approved or Not	Signature of Trainer

The formats given above are examples only. The trainee is expected to be innovative and creative and develop entries in training portfolio to emphasise the experience gained during the post MD training programme in Respiratory Medicine.