"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

Prospectus for

The Postgraduate Course

conducted by

The Board of Study in Paediatrics

for

Board Certification in Paediatric Pulmonology

(To be effective from the year2014)

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1. Nomenclature

1.1 *Name of the Degree Programme*
Subspecialty training in Paediatric Pulmonology.

1.2 *Full Title*
Board Certified Specialist in Paediatric Pulmonology.

1.3 *Abbreviated Title*
MD (Paed)BC in Pulmonology

1.4 *University*
University of Colombo, Sri Lanka

1.5 *Faculties and Institutes*
Postgraduate Institute of Medicine

1.6 *Departments*
Board of Study in Paediatrics

2. Background/Introduction

It has been estimated that around 50 to 60 per cent of the workload of a paediatric unit in Sri Lanka involves respiratory diseases. In developing nations around one in five deaths in the under-five year category are due to respiratory illnesses. It has been a universally agreed upon contention that the under-five year mortality is a reasonable index of respiratory care in a country.

While the major portion of these respiratory diseases could be handled adequately by general paediatricians, there are those that require the expertise of a highly trained sub-specialist in paediatric pulmonology. Such a person will be able to use his or her training, experience and the infrastructure facilities available in a highly specialised unit to cater to the needs of those more complicated respiratory problems.

3. Eligibility for entry into training Programme

Applicants should have passed the MD Paediatric Examination.
The candidates should not be already Board Certified in any medical field or have already applied to be enrolled in the training programme in any other subspecialty.

4. Selection process

Training opportunities are offered according to the availability of training slots/units, trainers and as recommended by the Board of Study. Availability of training slots will depend on the Ministry of Health/University requirements. Allocation will be done strictly according to the merit order.

5. Number to be selected for training

The number of candidates will be decided by the Ministry of Health each year. Refer General Paediatric prospectus for selection criteria for subspecialties.

6. Guidance through the Training Programme

Once the selection is made, the candidate would come under the general purview of the Special Committee of the BOS Paediatrics that deals with Paediatric Pulmonology.

Each candidate would be allocated to a mentor appointed by the BOS. He/she would guide the trainee throughout the training programme.

7. Outcomes& Learning objectives

7.1 Outcome

The Aim of the programme is to produce fulltime specialists in Paediatric Pulmonology.

The Paediatric Pulmonologist is expected to provide a specialty service to those children who need expert care in the management of their respiratory problems. The range of the functions of the said specialist would also include cooperating with and assisting other paediatric sub-specialists and general paediatricians. The services of the Paediatric Pulmonologist may be required not only for the severely ill patients and those with esoteric diseases but also for complex cases of what are generally thought to be relatively mild respiratory problems.

7.2 Learning objectives

The trainee eligible for Board Certification in Paediatric Pulmonology should have:

7.2.1 acquired a sound knowledge in the basic sciences related to pulmonology and the changes during the different phases of life.

7.2.2 acquired an extensive knowledge of the patho-physiological processes of the diseases of the respiratory system.

7.2.3 developed skills in the diagnosis and management of pathological states presenting in paediatric respiratory practice.

7.2.4 developed correct attitudes for good clinical practice.

7.2.5 developed the skills required for the organization of paediatric respiratory services and evaluate its outcome.

7.2.6 developed the skills required to conduct audits and scientific research, with a view to contributing to the scientific knowledge in this field and participating in the task of improving the paediatricpulmonology services in the community.

7.2.7 developed the skills required to be a medical teacher / resource person in order to impart medical education to medical personnel and the public.

7.2.8 developed the ability to critically appraise research publications and practice evidence based medicine

7.2.9 developed the ability to maintain the highest standards of professionalism, moral and ethical conduct

7.2.10 cultivated the commitment to engage in continuing professional development.

8. Content areas and Curriculum

Details of the curriculum and the content areas are given in the ***annex I***

9. Structure of the Training Programme

9.1 Duration of training

Total duration of training is 4 years

Two years of local training

Two years training in an overseas centre of excellence.

9.2 Clinical Training Programme (Local Training)

9.2.1 overview

The selected trainee would be appointed as a Senior Registrar for a period of 2 years to a Paediatric Respiratory unit approved by BOS in Paediatrics. At present the trainee would be allocated to a medical unit at the Lady Ridgeway Hospital until Paediatric Respiratory units are established.

From this substantive appointment, the trainee would be sent to other approved training units for the other components of local training. Some of these outreach appointments are full time while others are part time. The trainee is expected to participate in all activities of the unit, particularly in those that are directly related to paediatric pulmonology.

9.2.2 Learning Activities and Training units for Local Training

The local training units and the training programme are listed below:-

Training component	**Duration**
Respiratory Physiology at a Faculty of Medicine	*Two weeks
Radiology related to Paediatric Respiratory disease at LRH	Two months
Paediatric Intensive Care Unit	Three months
Neonatal Intensive Care Unit	Three months
Colombo Chest Clinic or a Peripheral Chest Clinic under the direct supervision of an adult Chest Physician	*Two months
Thoracic and Medical Units in Welisara Chest Hospital/ any other specialized centre in the country.	Two months

Allergy and Immunology	*One month
Respiratory Physical Care	*Two weeks
Cardio-thoracic ICU & HDU	Two months
ENT Unit/s	Two months
Paediatric Respiratory Unit (A Paediatric Medical Unit at LRH at present until Paediatric Respiratory Units are established)	Six months

* Half-day programmes

9.3 Clinical Training Programme (Overseas Training)

The overseas component of training should be with hands-on experience in a centre/s of excellence. The selected training centre/s has to be approved by the BOS in Paediatrics.

It is expected that the trainee would be able to gain valuable experience in all aspects of respiratory care in such a centre. This will include the use of sophisticated facilities for diagnosis and follow-up of patients with respiratory problems including ambulatory care.

Such exposure and training would enable them to deal adequately with the many types of childhood respiratory problems that he or she is likely to encounter in Sri Lanka.

9.4 Research Project

Successful performance and presentation of a second research project, directly relevant to paediatric pulmonology is a **mandatory requirement** to be eligible for the PBCA, in addition to the research project that may have been carried out during the general paediatric training.

The candidate should be directly involved in and be personally responsible for every component of the research project. If any component has not had the candidate's input the project will be disqualified.

The study proposal must be ***assessed and approved by the BOS before embarking on the proposed study***.

The project, once completed, should be submitted as a completed research report along with a soft copy **and** evidence of publication or oral/poster presentation to be assessed and approved by the BOS.

The publication should be a first author publication in a journal and the oral/poster presentation should be first author in a scientific meeting, local or overseas, approved by the BOS.

The trainee has to provide documentary proof of oral/poster presentation and publication of the research project to the BOS. The documentation includes signed letters from the Scientific Congress and/or the journal concerned.

Please refer to the General Paediatrics Prospectus for the following

1. Format for submission of the research proposal
2. Format for submission of the research report
3. Assessment & marking scheme of project proposal by reviewer
4. Scientific meetings for presentation and journals for publication of research

10. Learning Activities and Learner Support System

Text book and journal oriented theory knowledge, theory and practical knowledge of special equipment, patient oriented discussions, tutorials, small group discussions, cyber learning etc.

11. Trainers and Training Units

Teaching will be done by Trainers approved by the BOSP and resources such as wards, clinics, intensive care units, special care baby units, operating theatres, skills laboratories, information technology facilities, libraries and any other resources deemed necessary by the BOSP will be used as learning methods and tools. Regular case discussions, Journal Clubs and audit meetings need to be held.

The current panel of Board Approved Trainers who are Board Certified Consultants with MD or those with foreign qualifications and are eligible for Privileges of Board Certification with employment in theMinistry of Health or the Universities would carry out the training locally. Foreign training would be carried out by recognised Consultants in Centres of Excellence.

12 Monitoring of progress

12.1 Progress Reports

Each completed section of the training programme should be followed by the submission of a Progress Report by the Supervisor / Trainer. These reports should be received by the PGIM within one month of completing the relevant section of training.

The onus of ensuring that these reports are sent in time to the PGIM is entirely on the trainee. He or she should liaise with the trainers and make sure that the reports are received by the PGIM in time. This includes local as well as foreign training.

Refer Annex II for progress reports

12.2 In Service Training Assessment (ISTA) during local training

The trainee is expected complete following assessments during this period.

1. Multisource Feedback (MSF)-2
2. Directly Observed Practical Skills (DOPS)-11
3. Case based Discussions (CBD)-12 minutes per CBD -14
4. Mini Clinical Evaluation (MCE) - 4
5. Discharge Summaries & Letters (DSL) - 2
6. Evaluation of Teaching Skills- (ETS)- 2
7. Communication Skills (CS)- 2

Refer Annex III for ISTA assessment forms

Training component	In Service Assessment
Paediatric Intensive Care Unit	DOPS (2), CBD (2) CS (1)
Neonatal Intensive Care Unit	DOPS (2), CBD (2)
Colombo Chest Clinic or a Peripheral Chest Clinic under the direct supervision of an adult Chest Physician	DOPS (4) CBD (4) MCE (2)
Thoracic and Medical Units in Welisara Chest Hospital/ any other specialized centre in the country.	
Allergy and Immunology	CBD (1)
Cardio-thoracic ICU & HDU	DOPS (2)
Paediatric ENT Unit at LRH	DOPS (1)
Paediatric Respiratory Unit (Paediatric medical unit at LRH at present until Paediatric Respiratory Units are established)	CBD (5), MSF (2), ETS (2) DSL (2) CS (1)MCE (2)

12.3 Authentication of learning activities

The trainee should provide proof of completion of all learning activities of the training programme. (**Refer Annex IV)**

13 Eligibility for Pre – Board Certification Assessment (PBCA)

The following criteria have to be fulfilled to be eligible to appear for the PBCA.

1. Satisfactory completion of all components of training

2. Successful completion, presentation and publication of the Research Project/s

14 Format of Pre Board Certification Assessment (PBCA)

Assessment tool- Portfolio

The PBCA should be based on assessment of portfolio maintained by the trainee during the period of post MD training. Content of the portfolio should encompass all of learning outcomes mentioned below and contains evidence of achievement of these outcomes by the trainee.

1. Subject expertise
2. Teaching
3. Research and Audit
4. Ethics and medico legal issues
5. Information technology
6. Lifelong learning
7. Reflective practice

Refer annex V for details

Portfolio Assessment

When the trainee is eligible for PBCA three (3) copies of the completed portfolio should be submitted to the examination branch of PGIM. The PBCA should take the form of a final, summative assessment of the trainee's portfolio, carried out by two independent examiners from the relevant subspecialty, appointed by BOS and approved by the Senate of the University of Colombo.

The portfolio will be marked by the examiners using the rating scale***(Refer annex V).***The candidate will have to secure a minimum of 5 or more for all seven (7) components mentioned above at each examiner's assessment.

The trainee will be called for a *Viva voce* examination during which he/she will be questioned on the portfolio. A third examiner will be nominated by the BOS from outside the discipline to improve objectivity**.** (For Portfolio Assessment Report - **Refer annex V)**

PBCA failed candidate

- A trainee who fails on the Portfolio assessment will be advised in writing by the panel on exactly how the portfolio could be improved. In such a case, the necessary corrections and amendments have to be made by the trainee and the portfolio submitted to the PGIM within 3-6 months to be assessed by same panel of examiners and a viva voce based on the resubmitted portfolio. A trainee, who still fails, would undergo a third portfolio evaluation and viva voce by a different panel of examiners appointed by the BOS within two months.
- If the trainee is successful at the second assessment and viva voce, the date of Board Certification will be backdated as done routinely. **If unsuccessful even at the second evaluation, the date of Board certification will be the date of passing the subsequent PBCA following further training for a minimum period of 6 months in a unit selected by the BOS.**

15.Board Certification

A trainee who has successfully completed the PBCA is eligible for Board Certification as a specialist in Paediatric Pulmonology on the recommendation of the BOS in Paediatrics.

The trainee is required to do a power point presentation of 10- 15 minutes, to the BOS which should be based on local and overseas training received, together with a component indicating the future mission and vision of the trainee.

16.Recommended reading

1. **Respiratory Physiology – The Essentials (John B.West)**
2. Pulmonary Pathophysiology - The Essentials (John B.West)
3. **Paediatric Pulmonology – American Academy of Paediatrics**
4. **Pediatric Respiratory Medicine – Taussig, Landau – (Mosby-Elsevier publication)**
5. Pediatric Chest Imaging – J. Lucaya, J.L. Strife – (Springer publication)
6. European Respiratory Monograph – Number 47 – Paediatric Lung Function
7. European Respiratory Monograph – Number 37 – Respiratory Diseases in Infants and Children
8. European Respiratory Monograph – Number 58 – Tuberculosis
9. European Respiratory Monograph- Number 56 – Asthma in Children

Journals -

1. Paediatric Respiratory Reviews – Elsevier
2. Pediatric Pulmonology – Wiley
3. European Respiratory Journal – ERS Journals Ltd
4. Allergy, Asthma & Clinical Immunology Journal

17 Contributors to Development and Revision of Prospectus

Many members of the Board of Study in Paediatrics have contributed extensively of their time and professional expertise in the design and development of this curriculum document.

The following members, in particular, deserve specific mention for their contribution:

Dr.B.J.C.Perera, Dr. Samantha Waidyanatha, Dr.Lilanthi De Silva, Professor WasanthaKarunasekera, Dr.SandhyaLokuarachchi, Dr. R. Ajanthan, Dr.KalyaniGuruge and Dr. Kala Somasunderam, Dr. P M G Punchihewa, Dr. K P Weerasekara and Dr.GuwaniLiyanage.

The Sub-Committee wishes to express its heartfelt gratitude to The President, Council and Members of the Childhood Respiratory Disease Study Circle of Sri Lanka, for invaluable assistance, in preparing this document.

Annex I

CURRICULUM AND CONTENT AREA

Broad core objectives.

1. *Patient Care.*

   The ultimate aim is to provide comprehensive care and specialised services to children with major respiratory disorders. The trainees are expected to acquire the necessary knowledge and expertise in dealing with the very many respiratory disorders in paediatric practice. The trainees would need to determine the infrastructure facilities required for optimal care to these children and make personal and fervent efforts to acquire them into the specialised respiratory units through the agencies that are responsible for the provision of these amenities.

2. *Medical Knowledge*.

   It is expected that the trainees should acquire extensive and up-to-date knowledge on respiratory disorders during the course of the training programme. Wide reading and critical thinking together with reflective documentation would be essential attributes that should be developed during the programme.

3. *Interpersonal and Communication Skills* It is essential that the trainees develop the indispensable skills in communication and liaison with other colleagues and the staff of the different units of a medical facility with whom they have to have a constant dialogue. It is most likely that the work of the Paediatric Pulmonologists would involve a multi-disciplinary approach in many instances and towards that end, proper communication with all those involved in the care of a child with a respiratory disorder would be crucial to the provision of optimal care.

   The trainees should also acquire the necessary skills and attitudes in maintaining a dialogue with the affected children, their parents and care-givers. Development of empathy and understanding of the problems faced by them would be an essential prerequisite to being a competent and successful paediatric pulmonologist.

4. *Professionalism*

   It is envisaged that the trainees in Paediatric Pulmonology would act and behave in a most professional manner in all dealings with senior and junior colleagues and others involved in the management of children with respiratory disorders. This is particularly relevant in respiratory disorders as one needs to secure the services of several other para-medical categories of staff in the provision of comprehensive care to those with respiratory disorders. These attitudes and skills need to be carefully nurtured during the training programme.

5. *Practice-based and Evidence-based Approach* The trainees are expected to acquire these approaches to the ways in which the myriad of respiratory disorders in children could be handled. Although evidence-based medicine is the cornerstone on which optimal care is based, a practice-based approach may be appropriate in certain circumstances. The skills based on both approaches need to be developed during the training programme.

Curriculum in detail

1. *Core Knowledge*

This is a general overview of the central nuclear areas that need to be covered in the training programme. All aspects of these connotations have to be addressed during the training programme. Some of these could be done in Sri Lanka while some others may need the facilities of a centre of excellence abroad.

- **Respiratory Physiology and Lung Function Testing** with special reference to total body plethysmography, respiratoryspirometry, exercise physiology and Blood Gas Studies. Some of these competencies may need to be gained in a specialised Respiratory Laboratory in a centre of excellence abroad. It has been appreciated by the BOSP that a comprehensive knowledge on the intricacies of respiratory physiology is essential for a proper understanding of the events that would ultimately lead to pathological disturbances of the workings of the respiratory system. The expected knowledge would range from the normal workings of the upper respiratory tract to the ultimate physiological mechanisms that lead to optimal gas exchange in the alveoli. The normal physiological parameters in different measurements listed, as well as their deviations in diseases of the respiratory tract, need to be comprehensively determined to provide a critical assessment of the respiratory functions in different disease states.

  The special differences in Paediatric Respiratory Functions as compared and contrasted with the adult scenarios have to be studied and the essential differences taken note of.

- All aspects of **Acute Respiratory Diseases.**

  This includes all types of infective, inflammatory and obstructive disorders of the respiratory system. Some of these are upper respiratory infections and their complications, para-nasal sinus problems, acute upper respiratory tract obstructive diseases, acute asphyxiation of the newborn and neonatal resuscitation techniques, neonatal airway obstructive disorders including choanal atresia,

acute obstructive sleep disorders, respiratory compromisation in acute sleep disorders, laryngeal disorders, vocal cord disorders, airway infections, acute wheezing disorders, acute asthma, lung parenchyma infections including typical and atypical pneumonias, esoteric infective diseases of the respiratory system, acute pleural infections, acute pleural infections and empyema etc.

- **Chronic Respiratory Disorders**

Pulmonary tuberculosis, non-tuberculous mycobacterial infections, fungal diseases of the lung, parasitic disorders of the lung, congenital lung malformations, chronic lung disease of prematurity, bronchiolitis obliterans, chronic organising pneumonias, chronic asthma, interstitial lung diseases, chronic fibrosing lung diseases, administered oxygen dependent lung disorders, chronic pleural diseases, ventilatory problems with musculo-skeletal disorders etc.

- **Comprehensive imaging of the lung**

All types of imaging such as different types of x-rays, ultrasonic scanning, Computerised Tomography (CT), Magnetic Resonance Imaging (MRI) and highly specialised technologies such as Positron Emission Tomography Scanning (PET Scan) are valuable and essential tools in the diagnosis and treatment of several types of respiratory diseases. Exposure to and competence in interpreting these investigations is an essential requirement for a well trained pulmonologist. While exposures to some of these technologies are available in this country, others are available only in centres of excellence abroad. Some of these latter, more sophisticated investigations, are likely to be made available nationally in the future and as such it is deemed to be a desirable trait for the future Paediatric Pulmonologists to acquire competencies in these facilities.

- Intricacies of **ventilation and other supportive care** in the ICU, NICU care and after care.

Invasive ventilation, high frequency jet ventilation, externally administered ventilation, long intravenous line administered therapeutics, long-term management of neonates with respiratory problems.

Competency in different forms of ventilation is an absolutely essential skill for a paediatric pulmonologist.

- **Immunological aspects** of respiratory disorders including therapeutic technologies.

Immunological basis of some pulmonary disorders, Immune-mediated Types I, II, III, IV varieties of allergic disorders of the respiratory system, vaccines for prevention of infective lung diseases, bacterial immune-stimulants etc.

Allergy testing together with *in-vivo* and *in-vitro* methods for diagnosing and treatment of allergy and airway inflammation.

Immunoglobulin levels and their interpretation in disease, RAST testing, skin patch and prick testing, prophylaxis of allergic disorders, hyposensitisation and desensitisation, immunotherapy etc.

- **Microbiological techniques** for identifying infective aetiologies and skills in their interpretation.

Nasal secretion analysis, induced sputum extraction and analysis, polymerase chain reactions and real-time PCR, thoracic paracentesis, fine-needle aspirations, pleural biopsies, lung puncture studies, lung biopsies and their interpretation etc.

- Respiratory diseases associated with **immune-deficiency states.**

Congenital and acquired immune deficiency states, HIV and the lung, pneumocystis jiroveci infections, opportunistic infections of the lung, co-morbidities of immune compromisation etc.

- **Lung transplantation**

All aspects of the indications, management and after-care of lung transplantation. The technologies involved in securing the organ for transplantation. Availability of infra-structure for lung transplantation. Combined heart and lung transplantations.

- **Ethical, emotional, psycho-social, economic and legal aspects** of respiratory diseases.

All facets of the ancillary connotations of pulmonology, ethics of management modalities, off-label prescribing, use of potentially toxic drugs, cost-effectiveness of treatment modalities, ethical and moral issues in respiratory research in children, statutory and legal implications in respiratory diseases etc., need to be covered.

- **Skills Development**

There are some essential skills that need to be acquired during the training programme. These are as follows :-

- Sampling techniques for infectious material

  Techniques of securing biological samples, handling of infectious material, transporting potentially infectious samples, storage of infectious material etc.
- Rigid bronchoscopy – Assist a minimum of 10 and perform a minimum of 10.

  Competence in the basics of rigid bronchoscopy and the use of ventilating bronchoscopes. Lung Biopsy using the bronchoscope etc.
- Flexible bronchoscopy – Assist a minimum of 10 and perform a minimum of 10.

  Use of flexible bronchoscopes and ability to perform the procedures. Use of ventilating flexible bronchoscopes, lung biopsies with the flexible bronchoscopes etc.
- Sleep studies

  Polysomnography with video recordings and their interpretation.
- Pleural and lung biopsies

  Techniques for obtaining specimens.
- Broncho-alveolar lavage and analysis of the fluid

  Procedural details and analysis of fluid. Interpretation of results.
- Infant lung function testing

  Total body plethysmography, “Milner Jacket” usage in infants, exhaled nitric oxide estimations and their interpretation.
- Aerosol therapy and induced sputum production

  The different types of aerosol delivery devices, use of hypertonic saline for sputum induction.
- Technical aspects of Respiratory care including the use of special equipment

  Use of monitoring devices.
- Management of technology dependent children

  Home oxygen therapy, apnoea alarms, home ventilation, home nebulisation etc.
- Respiratory physical therapy and pulmonary rehabilitation

  Physiotherapy and other physical measures for treatment of pulmonary disorders
- Exercise testing for cardio-pulmonary function

  Formal exercise testing.

- **Academic dexterity in communication**

  All relevant competencies in communicating with parents, relatives and colleagues in the different areas of diagnosis and management of childhood respiratory disorders.

- **Teaching capabilities**

  All aspects of teaching with the ability to tone up or down to the level at which teaching is conducted with reference to the level of knowledge of the audience.

- **Proficiency in research**

  Proven capabilities in research and the ability to lead research teams and guide future research by junior colleagues.

- **Competence in Platform Oral Presentations**

  Training for Platform Oral Presentations with the use of computer based text, images, real-life photography and real-time videos etc.

- **Posters and Publications**

  Ability to design and present posters. Scientific writing for journal publications.

Annex II

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO, SRI LANKA

BOARD OF STUDY IN PAEDIATRICS

MD PAEDIATRIC PULMONOLOGY

PROGRESS REPORT

Important Information

- For each period of training all nominated supervisors are required to either complete an individual report or co-sign a report
- Training will not be certified without the final supervisor's report

TRAINEE'S DETAILS AND TRAINING POSITION

Full name of the trainee :

Report period from : to

Training position :

TRAINER'S DETAILS

Full name of trainer :

Qualifications

Hospital :

E mail :

ASSESSMENT OF THE CURRENT PERIOD OF TRAINING

Please rate the trainee's performance for each topic area by placing a rating of 1-5 (or N/A) in the box next to each topic area

Rating Scale 1 - Falls far short of expected standards
2 - Falls short of expected standards
3 - Consistent with level of training
4 - Better than expected standards
5 - Exceptional performance
N/A Not Applicable for this training period

Medical Knowledge Demonstrates up-to-date knowledge required to manage patients	
Application of Medical Knowledge Shows ability to use the knowledge and other derived evidence based information	
Procedural Skills Demonstrates ability to perform practical/ technical procedures	
Interpersonal/ Communication Skills Demonstrates ability to communicate with patients and their families	
Clinical Judgment Demonstrates ability to integrate cognitive and clinical skills, and consider alternatives in making diagnostic and therapeutic decisions	
Responsibility Accepts responsibility for own actions and understands the limitations of own knowledge and experience	
Punctuality	
Problem Solving Skills Critically assesses information, identifies major issues, makes timely decisions and acts upon them	
Humanistic Qualities Demonstrates integrity and compassion in patient care	
Respect Shows personal commitment to honouring the choices and rights of other persons	
Moral and Ethical Behaviour Exhibits high standards of moral and ethical behavior towards patients and families	
Professional Attitudes and Behaviour Shows honesty at all times in their work, put patient welfare ahead of personal consideration	

Patient Management Shows wisdom in selecting treatment, adopt management to different circumstances	
Psychological Development Demonstrates ability to recognize and/ or respond to psychological aspects of illness	
Medical Care Effectively manages patients through integration of skills resulting in comprehensive high quality care	
Research Methodology Understands scientific methodology; participate in research studies by formulating and testing hypothesis and analyzing the results	
Quality Assurance Demonstrates ability to initiate and evaluate Quality Assurance programmes	
Record Keeping Maintains complete and orderly records and up-to-date progress notes	
Discharge/ Planning Summaries Ensues that all problems are explained prior to discharge from hospital; prepare concise and prompt discharge summaries	
Reports Complete succinct and accurate reports without delay; communicates with referring practitioner for continuing care	
Relationships with Medical Staff Maintains the respect of his/ her colleagues	
Relationships with Health Professionals Demonstrates ability to work well and efficiently in the health care team; values the experience of others	
Relationships with Clerical Staff Relates easily to members of staff; maintains team spirit and encourages cooperation	
Organization Skills Demonstrates ability to plan, coordinate and complete administrative tasks associated with medical care	
Self-Assessment Accepts the limits of own competence and functions within own capabilities; seeks advice and assistance when appropriate; accepts criticism	
Continuing Education Shows a resourceful attitude towards continuing education to enhance quality of care	

Please comment on any **strengths and weaknesses** that the trainee displayed with regard to the above areas

Strengths:-
Weaknesses:-

SUMMARY OF THE TRAINING YEAR

A. **Are you satisfied with the overall performance of the trainee during the period covered by this report?**

If no, are there any specific factors which may have affected this trainee's performance or do you have any reservations about performance?

B. **Did the trainee take any leave during the period covered by this report?**

If yes, please indicate the periods and types of leave and whether prior approval was obtained.

TRAINER'S COMMENTS

---------- ----------

Trainee's signature: Date

---------- ----------

Trainer's Signature Date

Annex III

IN SERVICE TRAINING ASSESSMENT FORMS

POST GRADUATE INSTITUTE OF MEDICINE
UNIVERSITYOF COLOMBO, SRI LANKA
INSERVICE TRAINING ASSESSMENT
MD PAEDIATRICPULMONOLOGY

Case Based Discussion (CBD)

Trainee's name: _

Date of assessment (dd/mm/yyyy): | | | | | | | | |

Training Centre: _

Year of training: | 1 | 2 | 3 | 4 |

Clinical setting: OPD/Clinic ☐ In-patient ☐ Acute Admission ☐ Neonates ☐

Clinical problem: Respiratory ☐ CVS ☐ GI ☐ CNS ☐ Neonates ☐ Development ☐ Emergency ☐

Focus of Clinical Encounter: History ☐ Examination ☐ Diagnosis ☐ Management ☐ Discussion ☐

Other (Please specify): | |

Please insert a brief clinical summary of the case below (e.g. 3 year old with prolonged febrile seizure, developmental delay and acute respiratory distress):

Please grade the below areas using the given scale:

Grading	Unsafe	Below Expectations	Borderline	Meets expectations	Above Expectations	Well above expectations	Unable to comment
	F	E	D	C	B	A	
History							
Clinical Assessment							
Problem identification							
Investigation							
Management							

**Overall performance	Unsafe	Below Expectation	Borderline	Meets Expectation	Above Expectation	Well above Expectation

**** Mandatory : Please grade the overall performance of the trainee on CBD**

Areas of strengths/weaknesses	Suggestions for improvement/further development
Action agreed upon :-	

Assessor's position: Consultant ☐ Senior Registrar ☐

Assessor's signature:---------- Assessor's Name:----------

Trainee's comments:

Trainee's signature: ----------

POST GRADUATE INSTITUTE OF MEDICINE

UNIVERSITYOF COLOMBO, SRI LANKA

IN SERVICE TRAINING ASSESSMENT

MD PAEDIATRICPULMONOLOGY

MINI CLINICAL EVALUATION (MCE)

Trainee's name: _

Date of assessment (dd/mm/yyyy): | | | | | | | | |

Training Center:_ _

Year of training: 1 2 3 4

Clinical setting: OPD/Clinic ☐ In-patient ☐ Acute Admission ☐ Neonates ☐

Clinical problem: Respiratory ☐ CVS ☐ GI ☐ CNS ☐ Neonates ☐ Development ☐ Emergency ☐

Focus of Clinical Encounter: History ☐ Examination ☐ Diagnosis ☐ Management ☐ Discussion ☐

Other (Please specify): _____

Please insert a brief clinical summary of the case below (e.g. 3 year old with prolonged febrile seizure, developmental delay and respiratory distress):-

Please grade the below areas using the given scale:

	Unsafe	**Below Expectations**	**Border-line**	**Meets Expectations**	**Above Expectations**	**Well above Expectations**	**Unable to comment**
	F	E	D	C	B	A	
History Taking							
Communication Skills							
Examination							
Clinical Judgment							
Initial Management							
Professionalism							
Organization/ Efficiency							

****Overall performance**	**Unsafe**	**Below Expectation**	**Borderline**	**Meets Expectation**	**Above Expectation**	**Well above Expectation**

**** Mandatory : Please grade the overall performance of the trainee on MCE**

Areas of strength	Suggestion for development
Action agreed upon :-	

Assessor's position: Consultant ☐ Senior Registrar ☐

Assessor's signature:---------- Assessor's Name:----------

Trainee's comments:

Trainee's signature: ----------

POST GRADUATE INSTITUTE OF MEDICINE

UNIVERSITYOF COLOMBO, SRI LANKA

IN SERVICE TRAINING ASSESSMENT

MD PAEDIATRICPULMONOLOGY

MULTI SOURCE FEEDBACK (MSF)

Trainee's name: _

Date of assessment (dd/mm/yyyy): | | | | | | | | |

Training Center: _

Year of training: 1 2 3 4

Length of working relationship (in months):

You will be expected to provide a feedback on the work performance of the trainee with anonymous feedback of at least 2 members of the hospital staff (seniors, peers, juniors, nurses and other health professionals)

Grading	***Unsafe***	***Below Expectations***	***Borderline***	***Meets expectations***	***Above Expectations***	***Well above expectations***	***Unable to comment***
	F	**E**	**D**	**C**	**B**	**A**	
Ability to diagnose patient problems							
Ability to formulate appropriate management plans							
Ability to manage complex patients							
Awareness of his own limitations							
Responds to							

psychosocial aspects of patients							
Appropriate utilization of resources e.g. ordering investigations							
Ability to coordinate patient care							
Technical skills (appropriate to current practice)							
Ability to apply up-to-date / evidence based medicine							
Ability to manage time effectively / prioritize							
Ability to deal with stress							
Commitment to learning Willingness and effectiveness when teaching/training colleagues							
Communication with carers and/or family							
Ability to recognize and value the contribution of others							
Accessibility / reliability							
Leadership skills							
Punctuality							

****Overall performance**	**Unsafe**	**Below Expectation**	**Borderline**	**Meets Expectation**	**Above Expectation**	**Well above Expectation**

**** Mandatory for the trainer to complete**

Trainer's comments:	Suggestion for development
Action agreed upon	

Assessor's position: Consultant ☐ Senior Registrar ☐

Assessor's signature:---------- Assessor's Name:----------

Trainee's comments:

Trainee's signature: ----------

POST GRADUATE INSTITUTE OF MEDICINE

UNIVERSITYOF COLOMBO, SRI LANKA

IN SERVICE TRAINING ASSESSMENT

MD PAEDIATRIC PULMONOLOGY

DIRECTLY OBSERVED PROCEDURAL SKILLS (DOPS)

Trainee's name: _

Date of assessment (dd/mm/yyyy): | | | |

Training Centre: _

Year of training: 1 | 2 | 3 | 4

Clinical setting: In-patient ☐ ETU/OPD ☐ Neonatal unit ☐ Intensive Care unit ☐

Other (Please specify): |

_____

Please insert a brief summary of the procedure observed

|

Please grade the below areas using the given scale:

	Unsafe	**Below Expectations**	**Borderline**	**Meets Expectations**	**Above Expectations**	**Well above Expectations**	**Unable to comment**
	F	E	D	C	B	A	
Demonstrates understanding of indications relevant anatomy, technique of procedure							
Obtains informed consent							
Demonstrate appropriate preparation pre-procedure							
Appropriate anaesthesia/ sedation							
Technical ability							
Aseptic technique							
Seeks help where appropriate							
Post procedure management							
Communication skills							
Consideration of patient/ professionalism							
Overall ability to perform procedure							

****Overall performance**	**Unsafe**	**Below Expectation**	**Borderline**	**Meets Expectation**	**Above Expectation**	**Well above Expectation**

**** Mandatory for the trainer to complete**

Trainer's comments:	Suggestion for development
Action agreed upon	

Assessor's position: Consultant ☐ Senior Registrar ☐

Assessor's signature:---------- Assessor's Name:----------

Trainee's comments:

Trainee's signature: ----------

POST GRADUATE INSTITUTE OF MEDICINE

UNIVERSITYOF COLOMBO, SRI LANKA

IN SERVICE TRAINING ASSESSMENT

MD PAEDIATRIC PULMONOLOGY

ASSESSMENT OF TEACHING SKILLS

Trainee's name: _

Date of assessment (dd/mm/yyyy): | | | | | | | | |

Training Center: _

Year of training: 1 2 3 4

Clinical setting: In-patient ☐ ETU/OPD ☐ Neonatal unit ☐ Intensive Care unit ☐

Other (Please specify): _____

Please insert a brief summary of the teaching skill assessed

Please grade the below areas using the given scale:

	Unsafe	Below Expectations	Borderline	Meets expectations	Above Expectations	Well above expectations	Unable to comment
	F	**E**	**D**	**C**	**B**	**A**	
Clarity and Organization (all sessions)							
Presents material in a logical sequence							
Summarizes major points of lesson							
Method of communication medium							
Demonstration of physical signs							
Effective communication							
Projects voice clearly, with intonation; easily heard							
Demonstrates and stimulates enthusiasm							
Varied explanations for complex and difficult scenarios							
material, using examples to clarify points							
Defines unfamiliar terms, concepts and principles							
Listens to students' questions and comments							
Interaction with students							
Information up-to-date							
Demonstrates advanced preparation for teaching sessions							

****Overall performance**	**Below Expectation**	**Borderline**	**Meets Expectation**	**Above Expectation**	**Well above Expectation**

**** Mandatory for the trainer to complete**

Areas of strength	Suggestion for development
Action agreed upon	

Assessor's position: Consultant ☐ Senior Registrar ☐

Assessor's signature:---------- Assessor's Name:----------

Trainee's comments:

Trainee's signature: ----------

POST GRADUATE INSTITUTE OF MEDICINE

UNIVERSITYOF COLOMBO, SRI LANKA

IN SERVICE TRAINING ASSESSMENT

MD PAEDIATRICPULMONOLOGY

COMMUNICATION SKILLS

Trainee's name: _

Date of assessment (dd/mm/yyyy):

Training Center: _

Year of training: 1 2 3 4

Clinical setting: In-patient ☐ ETU/OPD ☐ Neonatal unit ☐ Intensive Care unit ☐

Other (Please specify):

Please insert a brief summary of the communication scenario assessed

Please grade the below areas using the given scale:

	Unsafe	**Below Expectations**	**Borderline**	**Meets Expectations**	**Above Expectations**	**Well above Expect**	**Unable to comm**

						ations	**ent**
	F	E	D	C	B	A	
Conduct of Interview							
Introduction, clarifies role							
Rapport							
Empathy and respect							
Appropriate explanation and negotiation							
Clear explanation, no jargon							
Assessment prior knowledge of patient							
Appropriate questioning style							
Explores and responds to							
concerns and feelings							
Summarises and checks understanding							
Offer support and plan the management							
Time for questions							
Accuracy of information given							
Appropriate selection of information							
Accuracy of information							

****Overall performance**	**Below Expectation**	**Borderline**	**Meets Expectation**	**Above Expectation**	**Well above Expectation**

**** Mandatory for the trainer to complete**

Areas of strength	Suggestion for development
Action agreed upon	

Assessor's position: Consultant ☐ Senior Registrar ☐

Assessor's signature:---------- Assessor's Name:----------

Trainee's comments:----------

Trainee's signature: ----------

POST GRADUATE INSTITUTE OF MEDICINE

UNIVERSITYOF COLOMBO, SRI LANKA

IN SERVICE TRAINING ASSESSMENT

MD PAEDIATRIC PULMONOLOGY

Discharge Summaries, Referrals & Letters (DSRL)

Trainee's name: _

Date of assessment (dd/mm/yyyy): | | | | | | | | |

Training Center: _

Year of training: | 1 | 2 | 3 | 4 |

Clinical setting: In-patient ☐ ETU/OPD ☐ Neonatal unit ☐ Intensive Care unit ☐

Other (Please specify): _____

Please insert a brief summary of the scenario assessed

Please grade the below areas using the given scale:

	Unsafe	**Below Expectations**	**Borderline**	**Meets Expectations**	**Above Expectations**	**Well above Expectations**	**Unable to comment**
	F	E	D	C	B	A	

Problem List							
Is there a medical problem list?							
Are any obvious and significant problems omitted?							
Are any irrelevant problems listed?							
History							
Is there a record of the family's current concerns being sought of clarified?							
Is the document history appropriate to the problems and questions?							
Examination							
Is the documented examination appropriate to the problems and questions?							
Overall assessment							
Is the current state of health or progress clearly outlined?							
Are the family's problems or questions addressed?							
Is/are the referring doctor's questions addressed?							
Is a clear plan of investigation or non-investigation recorded?							
Are the reasons for the above plan adequately justified?							
Are all the known treatments, or absence of treatment, recorded clearly?							
Are all the doses clearly stated in formal units?							
Is adequate justification given for any changes to treatment?							
Is there an adequate record of information shared with the family?							
Follow up							
Is it clear whether or not hospital follow-up is planned?							
Is the purpose of follow up adequately justified?							
Clarity							
Is there much unnecessary information?							
Does the structure of the letter flow logically?							
Are there any sentences you do not understand?							

****Overall performance**	**Below Expectation**	**Borderline**	**Meets Expectation**	**Above Expectation**	**Well above Expectation**

**** Mandatory for the trainer to complete**

Areas of strength	Suggestion for development
Agreed action	

Assessor's position: Consultant ☐ Senior Registrar ☐

Assessor's signature:---------- Assessor's Name:----------

Trainee's comments:----------

Trainee's signature: ----------

Annex IV

Training component	**Duration**	**Name & Signature of the Trainer**
Respiratory Physiology at a Faculty of Medicine	*Two weeks	
Radiology related to Paediatric Respiratory disease at LRH	Two months	
Paediatric Intensive Care Unit	Three months	
Neonatal Intensive Care Unit	Three months	
Colombo Chest Clinic or a Peripheral Chest Clinic under the direct supervision of an adult Chest Physician	*Two months	
Thoracic and Medical Units in Welisara Chest Hospital/ any other specialized centre in the country.	Two months	
Allergy and Immunology	*One month	

Respiratory Physical Care	*Two weeks	
Cardio-thoracic ICU & HDU	Two months	
ENT Unit/s	Two months	
Paediatric Respiratory Unit (A Paediatric Medical Unit at LRH at present until Paediatric Respiratory Units are established)	Six months	

Annex V

Portfolio

Content of the portfolio should encompass all of learning outcomes mentioned below and contains evidence of achievement of these outcomes by the trainee.

1. Subject expertise
2. Teaching
3. Research and Audit
4. Ethics and medico legal issues
5. Information technology
6. Lifelong learning
7. Reflective practice

Subjective expertise

- Progress reports from supervisors on a prescribed format
- ISTA forms
- Log of procedures carried out
- This section must include evidence that the trainee has acquired the essential knowledge, skills and competencies

related to the subspecialty

Teaching

- Undergraduates
- Postgraduates
- Ancillary health staff

Research and audit relevant to specialty or subspecialty

- Research papers published
- Abstracts of presentations

Ethics and Medico – legal issues

- Completed Professionalism Observation Forms(from integrated learning component of Professionalism Strand)
- Completed PTR forms

Information technology

- Participation in training programmes /workshops
- Evidence of searching for information and application of findings in practice

Life- long learning

- Participation in conferences and meetings

Reflective practice

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

  focused self-assessment

  reflecting on experience

  reflecting on strengths, weaknesses and areas for development

  design of own strategies that leads to improvement in practice

The trainee is expected to continue updating the portfolio during the local and foreign training.

Prior to the Pre-Board Certification Assessment (PBCA), a panel of two examiners appointed by the BOS will assess the completed portfolio. A satisfactory Portfolio Assessment Report is a mandatory requirement for the PBCA.

***For further details refer General Paediatrics Prospectus*.**

Portfolio Assessment Report

Subjective expertise, teaching, research and Audit, ethics and medico legal issues, information technology and lifelong learning will be assessed according to the rating scale mentioned below.

	Marks/10
Fail	3
Borderline	4
Pass	5

Good pass	6
Excellent pass	7+

Reflective practice will be assessed according to the following rating scale given below.

		Marks/10
Fail	Has not completed Reflective cycle	3
Borderline	Has only described the learning experience	4
Pass	Analysed the reasons for the experience & the reasons for outcome	5
Good Pass	Evaluated how the outcome could have been different if a different course of action was taken	6
Excellent Pass	Provided high quality evidence for implementing changes	7+