

SUB- SPECIALTY TRAINING PROGRAMME RESPIRATORY MEDICINE

1. OBJECTIVES

To produce physicians who have a detailed knowledge in respiratory medicine, both theory and practice, and who have the competence and experience in the diagnosis and management of a wide variety of respiratory diseases seen locally. These specialists should also be able to participate in the training of other doctors.

Entry Criteria :

- i. A recognised basic medical degree and registered with the Malaysian Medical Council.
- ii. Holds a recognised postgraduate qualification in Internal Medicine, that is MRCP, FRACP or M.Medicine(Internal Medicine) from UM, UKM or USM or an equivalent postgraduate qualification.
- iii. Have at least 18 months experience in Internal Medicine post MRCP or 6 months experience after M.Med (Internal Medicine).

2. DURATION OF TRAINING PROGRAMME

The training shall be for a minimum of 3 years in accredited centre(s) in Malaysia. Part of the training may be in approved centres overseas.

3. PROGRAMME

The trainee will be under the direct supervision of an accredited consultant who will be responsible for monitoring and evaluating the training.

3.1. Components of the training:

- a. out-patient clinic posting
- b. in-patient care
- c. intensive care exposure - at least for 3 months
- d. flexible bronchoscopic procedures
- e. other specialised respiratory procedures
e.g. instituting CPAP treatment and non-invasive ventilation
- f. lectures, tutorials, seminars and clinical meetings
- g. research
- h. teaching
- i. tuberculosis control
- j. pulmonary rehabilitation

3.2. **Topics to be covered should include :**

- a. anatomy and physiology of the respiratory system
- b. pathology including histopathology , chemical pathology, bacteriology, virology and immunology in relation to respiratory diseases.
- c. all common and uncommon respiratory diseases including breathing disorders such as alveolar hypoventilation, sleep disordered breathing, acute and chronic respiratory failure.
- d. epidemiology of common respiratory problems such as bronchial asthma, chronic obstructive pulmonary disease, tuberculosis, HIV infection, pneumonia and lung cancer.
- e. lung function tests which include arterial blood gases, spirometry and full lung function testing with a sound knowledge of their interpretation.
- f. pharmacology and toxicology of drugs commonly used for respiratory diseases
- g. the National Tuberculosis Control programme
 - at least 1 month posting in a Ministry of Health hospital / recognised centre with the objective of understanding the National TB Control Programme, exposure to management of multidrug-resistant TB and laboratory work for tuberculosis.

3.3. **Log -Book**

The candidate should maintain a log of all procedures performed under supervision as required in the log book enclosed.

3.4. **Overseas Training**

Overseas training is encouraged but not compulsory. Training should preferably be for specialised areas not available in the country such as pre- and post- lung transplantation care, rigid bronchoscopy, endobronchial laser therapy, endobronchial stenting and other invasive pulmonary vascular procedures.

3.5. **Research**

The trainee should carry out at least one clinical research project of a sufficient standard for publication in a peer-reviewed journal and / or presentation at a scientific meeting.

4. TRAINING CENTRES

Accredited training centres should have:

- a. out-patient and in-patient facilities for patients with respiratory illnesses.
- b. ready access to diagnostic facilities which include flexible bronchoscopy, basic radiology, ultrasonography, CT scanning and full polysomnography.
- c. ready access to laboratory facilities which include arterial blood gas measurement, medical microbiology, histopathology, cytopathology and full lung function testing.
- d. ready access to cardiothoracic surgical facilities
- e. a well equipped library for referencing
- f. facilities for intensive care management

5. TRAINERS

5.1. Criteria for trainers

- a. possess a recognised postgraduate qualification
- b. have been gazetted as a respiratory physician or recognised as such by peers
- c. have at least 3 years working experience as a respiratory physician.

5.2. Trainer: Trainee ratio

A trainer can only undertake to supervise 2 trainees at any one time.

6. EXIT ASSESSMENT

There will be an assessment at the end of the 3-year training period which shall consist of:

6.1. A viva voce

Components include:

- a. acute respiratory emergencies
- b. respiratory procedures
- c. controversial issues in management of respiratory diseases
- d. interpretation of data /slides/chest radiographs/CT scan images

6.2. **Documentary review of:**

- a. the training log book
- b. copy(ies) of journal publication(s) and/or abstract of presentation(s) of research project
- c. confidential report(s) by the trainer(s)

The assessment team shall consist of 3 examiners one of whom shall be the chief examiner.

The assessment committee may recommend an extension of training for a period not less than 6 months if the trainee has not performed satisfactorily in any of the components. The repeat exit assessment shall examine the component(s) that the trainee has failed to perform satisfactorily in the earlier exit assessment. The number of exit assessment shall be limited to 2.

The trainee, on completion of the training programme, should be able to function independently as consultant in respiratory medicine. The trainee should continuously update his knowledge and practice of respiratory medicine on his own and through participation in CME programmes.

7. SPECIALISED PROCEDURES

Specialised procedures such as laser bronchoscopy, endobronchial stenting, pleuroscopy (or medical thoracoscopy) can only be performed by a credentialed respiratory physician. Training must be undertaken in recognised centres and certification of competency must be in writing.

RESPIRATORY MEDICINE TRAINING REQUIREMENTS

1. Procedures

NO	PROCEDURES	MINIMAL TRAINING for COMPETENCY
1.	Flexible Bronchoscopy (FB)	Observe - 10 cases Perform under supervision –25 cases Perform competently by own self – 50 cases Perform on patients intubated for mechanical ventilation – 5 cases Perform bronchial washing – 30 cases Perform bronchial brushing – 20 cases Perform endobronchial biopsy – 20 cases Perform bronchoalveolar lavage – 20 cases Perform transbronchial lung biopsy – 5 cases Perform transbronchial needle aspiration (TBNA) – 5 cases [optional, highly desirable)
2.	Thoracocentesis	Diagnostic - Perform under supervision – 5 cases - Perform competently by own self- 20 cases Therapeutic - perform under supervision – 5 cases - perform competently by own self- 10 cases
3.	(a) - Closed Pleural biopsy (b) - Pleuroscopy (c) - Pleural ultrasonography (highly desirable)	Perform under supervision – 5 cases Perform competently by own self – 10 cases
4.	Chest Tube Insertion	Perform under supervision – 5 cases Perform competently by own self – 10 cases
5.	Medical Pleurodesis	Perform under supervision – 2 cases Perform competently by own self – 5 cases
6.	Spirometry	Perform under supervision – 10 cases Perform competently and interpret correctly – 50 cases
7.	Full Lung Function Test	Observe – 10 cases Interpret correctly – 50 cases
8	Radiological Interpretation	Involved in chest radiograph interpretation and CT thorax interpretation
9.	Tuberculin Skin Testing	Able to interpret

10.	Full Polysomnography	Set up under supervision – 5 cases Interpret under supervision – 10 cases
11.	CPAP Therapy for Sleep Disordered Breathing	Observe – 5 cases Initiate under supervision – 5 cases
12.	Non-Invasive Ventilation	Observe – 3 cases Institute under supervision – 3 cases
13.	Percutaneous Lung Biopsy	Observe – 5 cases

2. Continuing Professional Development

- 2.1. teaching activities - list of teaching involvements
- 2.2. conference attendance – list of conferences/ seminars attended with venues and dates
- 2.3. paper presentations – list of presentations including title, date and venue

3. Publications

List of publications

RESPIRATORY MEDICINE TRAINING EXIT ASSESSMENT

1. Respiratory Exit Examination

- A. Training log book and supervisor evaluation reports
 - B. Clinical Viva
 - a) Format : Viva
 - b) Duration : 2 hours
 - c) Number of Examiners : 3
 - d) Components:
 - i) Problem Orientated Subject Areas – 2 questions (30 minutes)
 - ii) Clinical Area 1 – 2 questions (30 minutes)
 - iii) Clinical Area 2 – 2 questions (30 minutes)
 - iv) Procedures and others (ethical, humanistic qualities, resource management) – 2 questions (30 minutes)
- A maximum of 10 marks for each question. The maximum total mark is 80. The Board of Examiners should discuss and provide written comments on significant discrepancies between marks awarded by different examiners (i.e., ≥ 3 marks for each section or subsection)
 - Criteria for passing - ≥ 10 marks for each of the 4 component

2. Curriculum

A. Problem Oriented Subject Areas (Case Scenario)

1. Breathlessness
2. Cough
3. Haemoptysis
4. Pleuritic chest pain
5. Respiratory failure
6. Abnormal CXR

B. Clinical Area 1

1. Asthma
2. COPD

3. Pulmonary infections
4. Tuberculosis and atypical mycobacterial disease
6. Bronchiectasis and other airway diseases
7. Thoracic tumours
8. Diffuse parenchymal lung disease
8. Pleural diseases
9. Pulmonary imaging techniques
10. Intensive care and high dependency care
11. Smoking cessation
12. Respiratory anatomy, physiology, pathology, microbiology and pharmacology

C. Clinical Area 2

1. Pulmonary disease in immunocompromised host (including HIV infection)
2. Sleep-related breathing disorders
3. Pulmonary vascular disorders
4. Allergic and eosinophilic lung diseases
5. Pulmonary manifestations of systemic diseases
6. Occupational and environmental lung disease
7. Diseases of the chest wall, respiratory muscles and diaphragm
8. Mediastinal diseases
9. Lung transplantation
10. Pulmonary exercise testing
11. Pulmonary rehabilitation
12. Palliative care
13. Home care (hospital at home and early discharge schemes)

D. Procedures

1. Pulmonary function testing
2. Bronchoscopy
3. Chest tube insertion and medical pleurodesis
4. Closed pleural biopsy
5. Polysomnography
6. CPAP therapy and non-invasive ventilation
7. Skin testing (for allergy and TB infection)

3. Evaluation

Marking scheme:

- | | |
|----|-------------|
| 10 | Outstanding |
| 9 | Excellent |
| 8 | Very Good |
| 7 | Good |
| 6 | Fairly Good |

- 5 Definite pass
- 4 Borderline failure
- 3 Definite failure
- 2 Bad failure
- 1 Very bad failure
- 0 Exceptionally bad failure



Ministry of Health
Malaysia

NATIONAL SPECIALIST REGISTER



Academy of Medicine
of Malaysia

SUBSPECIALTY TRAINING IN RESPIRATORY MEDICINE

LOG-BOOK

Candidate's name :

Period of Training :

Supervisor's name :

LOG BOOK FOR SUBSPECIALTY TRAINING – RESPIRATORY MEDICINE

Overall comments : (Grade 1 to 10)

Grading Scale :	Very poor 1 – 2	Poor 3 – 4	Satisfactory 5	Fair 6 - 7	Good 8 - 9	Excellent 10
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1. Maturity and appropriate approach in confronting clinical problems
2. Judgement and skills in implementing treatment
3. Promptness and effectiveness in treating emergency patients
4. Competence and appropriateness in providing continuing care
5. Effectiveness of doctor-patient relationship, relationship with colleagues
6. Involvement and interest in CME activities
7. Leadership qualities
8. Administrative experience/knowledge
9. QA activities
10. Involvement in relevant professional bodies
11. Research activities
12. Attitude in relation to work ethics

LIST OF PROCEDURES TO BE PERFORMED

- 1. Flexible bronchoscopy**
- 2. Thoracocentesis**
- 3. Closed pleural biopsy**
- 4. Chest tube insertion**
- 5. Medical pleurodesis**
- 6. Spirometry**
- 7. Full lung function test**
- 8. Radiological interpretation**
- 9. Tuberculin skin test**
- 10. Full polysomnography**
- 11. CPAP therapy for sleep disordered breathing**
- 12. Non-invasive ventilation**
- 13. Percutaneous lung biopsy**

