A. INTRODUCTION

Rheumatology deals with inflammatory disorders like rheumatoid arthritis, spondyloarthritis and crystal arthritis, immunological conditions like systemic lupus erythematosus (SLE) and vasculitides, mechanical disorders like soft tissue rheumatism, back pain, osteoarthritis, as well as metabolic disorders like osteoporosis. It is hoped that by developing a programme for specialty training, the gap between patient need and specialist care can be narrowed.

1. Objective

To train rheumatologists who are competent to manage all forms of rheumatic diseases and their associated complications.

2. Entry requirements

i. Malaysian citizen
ii. Post graduate qualification: MRCP (UK or Ireland), M Med (Int Med) or any other equivalent degree recognized by the Malaysian government, after gazetttement
iii. Good references with good ability to deal with patients and staff
iv. Full Registration with the Malaysian Medical Council
v. No negative reports and free from any disciplinary action
vi. Pass the entry interview by the Rheumatology Training Committee or its equivalent

3. Duration of the Training Programme

Three years

i. Two years at a local accredited training centre and 1 year abroad.
   If he/she does not complete the full year abroad, he/she should complete the training as follows:
   a. If the trainee is from a core centre, he/she can complete the training at the same centre.
   b. If the trainee is from a non-core centre, he/she should complete the training at a core centre.

   OR

ii. Three years at local accredited centres with rotation to at least 2 centres.
   a. If rotating from a core centre, at least 6 months should be spent at a second centre.
b. If rotating from a non-core centre, 1 year should be spent at a second centre, which should be a core centre.

4. Content of the Training Programme

It is expected that completion of the curriculum will result in demonstrable competence at consultant level in the areas as detailed in Appendix A. The content of the training programme will be reviewed as and when the need arises.

a. Training posts

The trainee will be attached to a qualified trainer in an accredited training centre for the duration of his/her training. The trainee is expected to spend at least 60% of his/her time in rheumatology training and the rest of the time in general internal medicine.

b. Facilities and resources of a training centre in rheumatology

1. Recognised expertise in rheumatology.
3. Easy access to other related disciplines, namely, physiotherapy, occupational therapy, nephrology, orthopaedics, hand and microsurgery, neurology, haematology and dermatology as rheumatic diseases may have multi-system involvement.
4. Laboratory support for specialised immunology investigations.
5. Adequate imaging services providing diagnostic and, if possible, interventional imaging services.

c. Others

1. A well-equipped library.
2. Sufficient seminar and conference facilities.
3. Adequate access to computers and internet facilities.
4. Polarisised light microscope, musculoskeletal ultrasound and DXA facilities, if available.

d. Programme faculty

A trainer must have at least 2 years post-credentialing experience with recognized expertise in the management of rheumatic diseases. It is expected that the trainer should spend at least 60% of his/her time in rheumatology.
e. Responsibility of trainer

1. Trainer to trainee ratio: 1:2.
2. Ensure that the contents of the training programme are successfully completed by the trainee.
3. Supervise relevant aspects of the training programme.
4. To provide 3 monthly and overall assessment and evaluation reports on the performance of the trainee at the end of the training period.
5. Work closely with other consultants in the training programme to ensure smooth running of the programme as the trainee may do attachments in other hospitals.

f. Training centres

1. Hospital Selayang **
2. Hospital Tuanku Ja’afar, Seremban **
3. Hospital Putrajaya **
4. Hospital Penang **
5. Hospital Raja Permaisuri Bainun Ipoh
6. Hospital Umum Sarawak
7. Hospital Sultanah Nur Zahirah, Kuala Terengganu
8. Hospital Raja Perempuan Zainab II, Kota Bahru
9. Hospital Melaka
10. Queen Elizabeth Hospital, Kota Kinabalu
11. Hospital Tengku Ampuan Afzan, Kuantan

h. Assessment

It is expected that the trainers and training facilities be subjected to periodic reviews by a body consisting of members from the faculty, MSR, the Ministry of Health and the College of Physicians who comprise the elements of representation of the credentialing committee for rheumatology.
B. CURRICULUM FOR SUB-SPECIALTY TRAINING IN RHEUMATOLOGY

It is expected that completion of the curriculum will result in demonstrable competence at consultant level in the following areas:

1. GENERAL KNOWLEDGE

a. Clinical contact with the patients (inpatient and outpatient)

The trainee is required to be able to take a history and perform a clinical examination of patients with musculoskeletal disorder(s). This should include managing patients in the wards, clinics, day care centres and attending to referral cases. The trainee should develop confidence and competence in forming management plans for patients under his/her care.

b. Assessment of multi system diseases

The trainee is required to recognise the multi-system involvement in rheumatic diseases. This includes the understanding of haematological abnormalities, acute phase response and biochemical changes that accompany them. Knowledge of the immunological basis underlying the investigations of the autoimmune diseases is essential.

c. Selection of appropriate laboratory and radiological tests

The trainee is required to acquire good knowledge of ordering appropriate investigations in the diagnosis and assessment (initial and long-term) of rheumatic diseases. The trainee must be trained and have adequate knowledge to read and interpret musculoskeletal imaging such as x-rays, ultrasound, CT, MRI and DXA.

d. Understand the role of neurophysiology in the investigation of rheumatic diseases

This will require knowledge on the role of nerve conduction studies, electromyography, electroencephalography and other relevant tests in the investigation of neuropathies and myopathies.
e. Knowledge of rheumatic diseases

This will require a comprehensive theoretical knowledge of the rheumatic diseases (Appendix A). This includes the latest knowledge of the epidemiology, aetiology, pathogenesis, pathology, clinical features and management of these diseases.

f. Rheumatology clinical meetings

The trainee is expected to attend and actively participate in at least 75% of the combined monthly rheumatology meetings.

g. Demonstrate experience of the rheumatic diseases through the age spectrum

The spread of rheumatic patients is wide, from paediatric to geriatric age groups. It is envisaged that this experience could be obtained over three years by contact with appropriate patients or by attendance at specific courses.

h. Rheumatological emergencies

The trainee is expected to gain experience in the management of rheumatological emergencies (see Appendix B).

i. Understand the pharmacology of drugs used in rheumatic diseases

This will require knowledge of all drugs used in the treatment of rheumatic diseases and osteoporosis. This includes a comprehensive understanding of the adverse effects of medications, their effects on patients, interactions with other medications as well as their effects during pregnancy and to the foetus.

j. Understand the role of the allied health professionals in the management of rheumatic diseases

This will require an understanding of the methods used by occupational therapists and physiotherapists in rehabilitation of patients with rheumatic diseases. It will include knowledge of the community and social consequences of these diseases and the management of mobility (driving, wheelchairs, orthotics, and special seating). The concept of disability and handicap as well as the impact of the disease on the patient and the community must be understood.
k. Appreciate the role of patient education and staff management in rheumatic diseases

This will require knowledge of the role of patient education and the concept of a team approach to patient management.

l. Understand the social and legal aspects of the rheumatic diseases

This will require direct contact with medical social workers/officers and other groups involved in working with disabled people.

m. Information technology

The trainee should be able to access information via the internet and to keep abreast of the latest research in order to practice evidence-based medicine.

2. SPECIAL SKILLS

a. Joint injection skills

The trainee is required to demonstrate competence at aspirating and injecting the MCP, PIP, wrist, elbow, shoulder, acromioclavicular, knee, subtalar and ankle joints. The trainee will be expected to recognize the macroscopic appearance of non-inflammatory, inflammatory, haemorrhagic and septic synovial fluid.

b. Perform soft tissue injections

The trainee will be required to demonstrate competence at injecting tennis/golfer’s elbow, carpal tunnels, tenosynovitis, flexor tendon nodules, bursitis, tendinitis and plantar fasciitis.

c. Crystal identification

The trainee should be able to analyze synovial fluid to identify crystals by polarized light microscope.
d. Develop counseling and communication skills

Special emphasis will have to be given to this important area. Patients with rheumatic diseases are often afflicted with this illness when they are relatively young and they are often incurable. It is expected that this will be an ongoing acquisition throughout higher medical training. It should culminate in the ability to counsel patients, relatives and staff in the many varied situations in clinical rheumatology.

e. Appreciate the value of audit methodology/specific outcome measures

The trainee is expected to attend local/regional audit meetings and acquire knowledge of specific outcome measures relevant to rheumatic diseases.

f. Teaching experience

The trainee should be able to demonstrate the ability to teach medical and paramedical staff and conduct specific courses if necessary.

g. Develop research experience

This will include training in data analysis and an understanding of the principles and practice of clinical research. The trainee should complete at least 1 research project. The trainee should present his/her research in the form of an abstract at a rheumatology meeting and publish at least 1 clinical paper in a medical journal by the completion of training.

h. Musculoskeletal ultrasound (MSUS)

The trainee should understand the basics of MSUS in the identification of joint effusion, synovitis and erosions.

3. LOGBOOK

In the determination of the trainee’s competence and experience, a logbook will be kept and endorsed/checked by the designated trainer at regular intervals. The logbook will be a basis for assessment at the end of each year and at the end of the period of sub-specialty training.
4. POST-GRADUATE RHEUMATOLOGY COURSE

As part of his/her training, the trainee is expected to complete one postgraduate rheumatology course and present a certificate of satisfactory completion of the course at his/her Exit Viva. This is compulsory for all trainees beginning his/her training on and after 1st August 2011. Suggested courses are the EULAR Online Course on Rheumatic Diseases or ACR Advanced Rheumatology Course. This list may change from time to time. Any trainee wishing to do another course is advised to seek approval from the Rheumatology Sub-Specialty Credentialing Committee before starting the course. The MRCP(UK) Specialty Certificate in Rheumatology is also accepted instead of the above courses.

5. EXIT VIVA

A trainee will be eligible to sit for the Exit Viva following:
   a. Completion of at least 3 years training (excluding prolonged leave e.g. maternity leave/MC).
   b. A satisfactory report from supervisor.
   c. Having attended at least 75% of the combined monthly rheumatology meetings.
   d. Completed the log book.
   e. Completed a recognised postgraduate rheumatology course with certificate.

The trainee will have to pass this viva to complete his/her training, the format of which will be set and conducted by the Rheumatology Sub-Specialty Credentialing Committee.

It is the responsibility of the trainee to apply for the Exit Viva upon completion of his/her training programme. There will be 2 Exit Vivas held per year, in the first and third quarters of the year, for the January and July intake of trainees respectively.
6. APPENDIX A: RHEUMATOLOGICAL CONDITIONS

a. Regional Pain Syndromes and soft tissue rheumatism

Neck pain
Low back pain
Spinal stenosis
Whiplash injury
Pain in the shoulder, elbow, hand, knee, ankle
Shoulder/hand syndrome
Chest wall pain
Myofacial pain
Soft tissue rheumatism problems e.g. plantar fasciitis, bursitis, tennis elbow, trigger finger etc
Fibromyalgia
Hypermobility syndrome
Understanding chronic pain syndromes
Understanding referred pain and related conditions (e.g. sciatica, angina etc)

b. Osteoarthritis (OA) and related conditions

Osteoarthritis of the large joints
Generalized nodal OA
DISH
Neuropathic arthritis
Crystal arthropathy: gout, pseudogout. hydroxyapatite deposition disease
Endocrine-related bone disorders (including cheiroarthropathy) and haemoglobinopathies
Acromegaly
Bone and joint abnormalities in thyroid disease

c. Rheumatoid arthritis (RA)

Early, progressive and late disease
Systemic involvement
Vasculitis
  Chest, eye, neurological, cervical myelopathy
Complications of RA
Septic arthritis
Ruptured Baker’s cyst
Amyloid
Tendon rupture
Secondary OA and joint deformity

d. Juvenile idiopathic arthritis

Clinical features
Management

e. Spondyloarthritis

Ankylosing Spondylitis
Psoriatic arthritis
Enteropathic arthritides
Reactive arthritis
Reiter’s syndrome

f. Autoimmune rheumatic conditions

Systemic Lupus Erythematosus
Antiphospholipid Syndrome
Systemic Sclerosis
Sjogren’s Syndrome
Overlap syndromes
Inflammatory muscle disease
Vasculitides
   Polymyalgia rheumatica and giant cell arteritis
   Microscopic polyangiitis (MPA)
   Polyarteritis nodosa
   Granulomatosis with polyangiitis (GPA)
   Eosinophilic granulomatosis with polyangiitis (EGPA)
   Panniculitis
   Cutaneous vasculitis
   Behcet’s disease
IgA Vasculitis (Henoch-Schonlein purpura), Kawasaki syndrome
Adult onset Still’s disease

g. Metabolic bone diseases

Osteoporosis
Rickets and osteomalacia
Renal bone disease
Regional bone disorders
Algodystrophy
Paget’s disease
HPOA
Osteonecrosis
Perthe’s disease
Tumours of bone
Heritable collagen disorders e.g. Marfan’s, Ehler Danlos
Bone and joint dysplasias

h. Infection and arthritis

Septic bone and joint lesions
Lyme Disease
Mycobacterial, fungal and parasitic arthropathies
Viral arthritis
Acquired immune deficiency syndrome
Rheumatic fever and other strep. related arthritides

i. Miscellaneous disorders

Sarcoidosis
Eosinophilic fasciitis and eosinophilic myalgia syndrome
Familial Mediterranean fever
Relapsing polychondritis
Hypogammaglobinaemia and arthritis
Storage diseases
7. APPENDIX B: RHEUMATOLOGICAL EMERGENCIES

(This list of rheumatological emergencies is not meant to be exhaustive. Trainees are expected to be familiar with the diagnosis and management of the common medical emergencies but the list below details some of the more important emergencies specific to rheumatology)

a. Rheumatological emergencies

1. Systemic vasculitis
2. SLE flare (neuropsychiatric, renal, lung etc)
3. Acute cord compression
4. Septic arthritis
5. Catastrophic Antiphospholipid Syndrome
6. Sepsis in neutropenic/immunocompromised patient
7. Severe digital ischaemia
8. Giant cell arteritis and acute optic artery occlusion
9. Acute interstitial fibrosis and pneumonitis due to drug reaction, sepsis or disease
10. Acute scleroderma crisis
11. Accidental conception in presence of a teratogenic drug (this may not constitute a life threatening emergency but the handling of this difficult situation is important)
12. Major and multi-organ failure in systemic disease including DIVC
Disclaimer
While the Committee makes every effort to ensure that this curriculum is as up to date as possible, the contents can be changed according to need, and trainees are advised to check with their trainer regularly for the latest requirements. In addition, trainees must comply with the rules and regulations of the Ministry of Health, Malaysia, as appropriate.

Members of this standing committee were:

Azmillah Rosman
Chow Sook Khuan
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