1. GENERAL REMARKS

1.1 Description of the discipline

Rheumatology is a specialty of medicine concerned with the diagnosis and management of diseases and of painful and functional disorders of the musculo-skeletal apparatus, that is, of the locomotor and connective tissue systems as well as of the adjoining soft tissues. It includes inflammatory diseases of the musculo-skeletal system, of the connective tissue and of the vessels; degenerative diseases of the joints and spine; metabolic disorders which manifest in the locomotor apparatus; soft tissue disorders and diseases of the internal organs and of the nervous system, insofar as these relate to the above-mentioned diseases (as listed in: “Classification of Diseases of the Locomotor Apparatus”, Compendia Rheumatologica Volume 4, EULAR Publishers, Basel, 1979).

Therefore, Rheumatology includes interdisciplinary knowledge in particular of internal medicine, orthopaedics, neurology and neurosurgery, physical medicine and rehabilitation etc.

The Rheumatologist should be familiar with the aetiology, pathogenesis and epidemiology of the diseases pertaining to this specialist field. Their activities should focus on the one hand on diagnostic procedures, utilising or having access to clinical, laboratory, imaging and various special techniques (ECG, sonography, arthroscopy, endoscopy, electromyography, etc.) and on therapy and management, which in addition to pharmacological methods also include local injection techniques, physical therapy, orthopaedic measures, occupational therapy, ergonomics and psychosocial care.

The Rheumatologist should also be familiar with the prognosis, prophylaxis and socio-economic importance of the rheumatic diseases and also have experience in the indications for surgery of the locomotor apparatus.

1.2 Goals of the post-graduate training

Post-graduate training leading to recognition as a specialist in Rheumatology should furnish the candidate with knowledge and skills which enable him to be competent in the entire field of Rheumatology, which might include the following activities.

- running a specialist practice
- acting in a consultative capacity
- directing a programme of physical therapy with rehabilitation for the rheumatic diseases (in and outpatient) in a clinic, a hospital or in connection with a private practice
- actively participating in the prevention of rheumatic diseases and providing patient education.
2. SYLLABUS

2.1 GENERAL KNOWLEDGE, SKILLS AND ATTITUDES

1 Basic Knowledge
This will require knowledge of anatomy, biochemistry, physiology, biomechanics, pathophysiology of pain, and cellular and molecular biology and genetics relevant to the rheumatic diseases.

2 Knowledge of the Rheumatic Diseases
This will require a thorough theoretical knowledge of the rheumatic diseases (listed in the training record - APPENDIX A). It will include knowledge of the epidemiology, aetiology, pathogenesis, pathology, clinical features, natural history and management of these diseases.

3 Clinical contact with the patient
This will require the trainee to be able to take a history and perform a clinical examination of a patient with a musculoskeletal disorder to include special details and methods outlined in the training record.

4 Assessment of multi-system disease
This will require knowledge of the particular clinical features and function of target organs: eg kidneys, eyes, lungs, etc.

5 Selection and interpretation of appropriate laboratory tests
This will require knowledge of the haematological, immunological, biochemical and histopathological changes that accompany bone and rheumatic diseases.

6 Knowledge of the place of imaging techniques in the investigation of the rheumatic diseases
This will require knowledge of the indications for and interpretation of imaging techniques such as conventional Xrays, CT scans, MRI scans and radio-isotope techniques in the investigation of the rheumatic diseases.

7 Knowledge of the place of measurement techniques using imaging (bone densitometry and ultrasonography) in the investigation of the rheumatic diseases
This will require knowledge of the indications for and interpretation of measurement techniques such as bone densitometry and ultrasonography in the investigation of the rheumatic diseases.

8 Understand the role of neurophysiology in the investigation of the rheumatic diseases
(See training record for details)

9 Demonstrate experience of rheumatic disorders throughout the age spectrum
(See training record)

10 Rheumatology and patient emergencies
Gain experience with the rheumatological emergencies and emergencies for the patient (see list in training record).

11 Understand the indications, actions and monitoring of drugs used in the rheumatic diseases
This will require knowledge of non-steroidal anti-inflammatory drugs, disease modifying drugs, cytotoxic immunosuppressive drugs, biologic agents, steroids, analgesics, psychotropic, gastroprotective drugs and drugs used in the treatment of osteoporosis (for details see training record).
12 **Understand the role of the professions allied to medicine in the management of rheumatic disorders**
This will require an understanding of the methods used by occupational, physiotherapists and clinical nurse specialists in the management of patients with the rheumatic diseases. It will also include knowledge of the community, social and psychological consequences of these diseases and the management of immobility (driving, wheelchairs, orthotics and special seating). An understanding of balneotherapy and its therapeutic possibilities in centres where appropriate. (For details see training record.)

13 **Understand the role of manipulative and mobilisation techniques as practised by physicians**
It is envisaged that this knowledge should be gained by attending specific medically approved courses or clinics devoted to the subject prospectively approved by the appropriate national authority.

14 **Understand the role of allied medical specialties (such as Orthopaedics, Anaesthetics and Rehabilitation)**
Understand through attending clinics in other disciplines the role of allied medical specialities such as orthopaedics, anaesthetics and rehabilitation.

15 **Appreciate the role of patient education and staff management in rheumatic disorders**
This will require knowledge of the wide field of patient education required in the rheumatic diseases and the concept of the team approach to patient management.

16 **Understand the socioeconomic and legal aspects of rheumatic disorders**
This will require direct contact with the medical social worker and other groups involved in working with the disabled. The ability to write legal reports will also be required.

17 **Demonstrate knowledge of non-conventional medicine in rheumatic disorders**
The trainee should be aware of non-conventional therapies and treatments available to patients with rheumatic disorders.

18 **Develop research experience**
This will include training in the analysis of data and an understanding of the principles and practice of clinical research, literature research and review. Eventually the trainee should be able to promote and supervise research and the completion of a successful research project.

19 **Teaching experience**
Demonstrate the ability to teach medical and paramedical staff by experience and attending specific courses.
2.2 SKILLS OF SPECIALITY

1 **Aspirate and inject synovial joints and analyse synovial fluids**
The trainee will be required to demonstrate competence at aspirating and injecting joints using the appropriate techniques.

The trainee will also be expected to recognise the macroscopic appearance of non-inflammatory, inflammatory, haemorrhagic and septic synovial fluid and be able to detect crystals by polarising light microscopy (for details see training record).

2 **Perform a needle biopsy of synovium**
The trainee will be expected to demonstrate competence at performing a needle biopsy of synovium.

3 **Perform soft tissue injections**
The trainee will be expected to demonstrate competence at injecting tennis/golfers elbow, carpal tunnel, tenosynovitis/flexor tendon nodules, bursitis, tendinitis and plantar fasciitis.

4 **Acquire counselling and communication skills**
It is expected that this will be ongoing acquisition throughout specialist training, perhaps involving video demonstration courses. It should culminate in the ability to counsel patients, relatives and health professionals in the many varied situations in clinical rheumatology.

5 **Acquire management skills in running a Rheumatology Unit**
It is envisaged that knowledge of management skills will be obtained through attendance at specific courses for which the trainee should be given sufficient time and financial support.

6 **Recognise the value of Audit Methodology and Specific Outcome Measures**
The trainee will be expected to attend and have experience at local/regional clinical audit meetings and national specialty meetings and acquire knowledge and skills of specific outcome measures relevant to rheumatic disorders.

2.3 OPTIONAL SKILLS OF SPECIALITY

1 **Demonstrate ability to perform biopsy such as of**
   1. skin 4. muscle
   2. bone 5. subcutaneous fat
   3. minor salivary gland 6. other (state in Training Record)

The trainee will be required to demonstrate competence at performing one or more of the above biopsies as detailed in the training record.

2 **Demonstrate ability to perform and interpret bone densitometry**
The trainee will be required to demonstrate competence at performing and interpreting bone densitometry.

3 **Demonstrate ability to perform and interpret ultrasonographic examination for imaging the musculoskeletal system**
The trainee will be required to demonstrate competence at performing and interpreting ultrasonographic examination for imaging the musculoskeletal system

4 **Demonstrate ability to perform and interpret electromyographic studies**
The trainee will be required to demonstrate competence at performing and interpreting electromyographic studies.

5 Demonstrate ability to perform arthroscopy
The trainee will be required to demonstrate competence at diagnostic and therapeutic arthroscopy.

6 Demonstrate ability to perform closed non-surgical synovectomy
The trainee will be required to demonstrate competence at performing radio-isotope, chemical and other techniques of closed non-surgical synovectomy.

7 Demonstrate ability to perform epidural and regional nerve blocks
The trainee will be required to demonstrate competence at performing epidural and regional nerve blocks.

8 Demonstrate ability to perform manipulation and mobilisation techniques
The trainee will be required to demonstrate competence at performing manipulation and mobilisation techniques.

9 Demonstrate ability to perform and interpret capillaroscopy
The trainee will be required to demonstrate competence at performing and interpreting capillaroscopy.

10 Demonstrate ability to perform intervertebral disc aspiration, injection or nucleolysis
The trainee will be required to demonstrate competence at performing intervertebral disc aspiration, injection or nucleolysis.

Details of the necessary items to be included under each of the above headings is to be found in the Training Record.

ENTRY REQUIREMENTS AND DURATION

Applicants for the specialty in Rheumatology should have completed a minimum of two years training in internal medicine.

The selection procedure should be transparent and application should be open to all persons who have completed basic medical training.

The selection in the specialty in Rheumatology could be by examinations or interview or both.