

# NATIONAL RHEUMATOLOGY CURRICULUM for Core Medicine Trainees

*Post-Graduate Education Focus Group  
Canadian Rheumatology Association*  
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# **NATIONAL RHEUMATOLOGY CURRICULUM**

## **II. GENERAL OBJECTIVES:**

In the context of a high frequency of rheumatic diseases in the community, and the recognition that these problems are not currently managed well by non-rheumatologists, we have recommended that the following objectives be achieved by the core medicine resident by the end of the internal medicine training program.

1. Recognize and have familiarity with management of common rheumatic diseases, with the goal of early diagnosis to minimize morbidity and mortality.
2. Enhance expertise in history taking and physical examination relevant to the clinical problems of monoarthritis, polyarthritis, systemic rheumatic diseases and regional/generalized pain problems.
3. Learn the appropriate use and interpretation of tests in clinical immunology and diagnostic imaging to facilitate diagnosis of rheumatic diseases.
4. Develop a systematic approach to the initial/emergency therapy of patients having rheumatic disease. This includes developing an appreciation of when referral to a rheumatologist would optimize patient management.

## **III. CORE CONTENT:**

- A. Specific knowledge elements
  1. Basic Science
  2. Clinical Diagnoses
  3. Clinical Investigations
  4. Therapeutics
- B. Clinical Competencies and skills
  1. History and physical diagnosis
  2. Technical skills
  3. Clinical investigations
  4. Therapeutic skills

## Detail of Core Content:

### A. Specific knowledge elements

#### 1. Basic Science

1.1 Basic understanding of pathogenesis and relevant immune mechanisms for  
rheumatoid arthritis, osteoarthritis, systemic lupus erythematosus, spondylitis, vasculitis, myositis, crystal arthropathies.

#### 2. Clinical Diagnoses

##### 2.1 General:

General categories of classification of rheumatic diseases  
Functional status and disease activity indicators

##### 2.2 Specific:

###### Undifferentiated problems:

Monoarthritis } Understand the distinction between inflammatory  
Polyarthritis } and non-inflammatory  
Back Pain }

Multisystem disease

Regional msk pain (eg. hip, shoulder, knee)

Generalized pain ("Pain all over")

Other:

Raynaud's

Vasculitic skin rash—purpura

Fever of unknown origin

Muscle weakness

###### Specific clinical diagnoses

Rheumatoid arthritis

Osteoarthritis—primary, secondary

Systemic lupus erythematosus

Scleroderma

Spondyloarthropathies

Myositis, myopathy

Polymyalgia rheumatica

Giant Cell arteritis

Crystal arthritis – gout, CPPD

Infectious arthritis

Fibromyalgia

Osteoporosis  
Anti-phospholipid antibody syndrome

Rheumatologic emergencies

Scleroderma renal crisis  
Septic arthritis  
Giant cell arteritis  
Pulmonary/renal syndrome  
Rapidly progressive renal failure in SLE  
Neurologic compromise in patient with Rheumatoid arthritis

Extra-articular features of rheumatic diseases

Ocular  
Naso-oro-pharyngeal  
Dermatologic  
Vascular  
Gastrointestinal  
Lymphoid  
Cardiorespiratory  
Neurologic

MSK Manifestations of Medical Disease

Diabetes  
Thyroid Disease

4. Clinical Investigations

4.1 Use and interpretation of the following tests in clinical immunology:  
ANA, RF, ESR, CRP, complements, ENA, dsDNA, ANCA (p and c),  
CK, Aldolase

4.2 Method of testing and interpretation of synovial fluid analysis

4.3 Use of radiologic investigations  
-List radiologic features common to inflammatory or  
degenerative disease

4.4 Appropriate use of EMG, muscle biopsy, skin biopsy

## 5. Therapeutics

### 5.1 Nonpharmacologic therapy

Patient education, weight reduction, exercise and rest, PT/OT, splinting, orthotics, multi-disciplinary team approach, social support

### 5.2 Therapeutic agents

ASA/NSAIDs/Coxibs, Steroids (po/iv/intra-articular), DMARDs, immunosuppressive drugs, biologic agents, colchicine and uric acid lowering agents

Major side effects of these agents and appropriate monitoring  
Impact of above agents upon reproductive health (fertility, pregnancy, lactation)

### 5.3 Therapeutic techniques

Role of joint aspiration and therapeutic injection in management of acute and chronic inflammatory arthropathies.

### 5.4 Surgical Interventions

Role of referrals for joint replacement

## B. Clinical Competency and Skill requirements

### 1. History and Physical diagnosis

1.1 Demonstrate use of key history and physical examination findings in assessment of a patient for rheumatic disease

1.2 Demonstrate the following skills in physical examination:

Screening examination for musculoskeletal disease

Assessment of active joints

Assessment of damaged joints/deformity

Examination of patient with polyarthritis

Examination of individual peripheral joints

Examination of spine for mechanical or inflammatory disease

Detection of extra-articular findings (nodules, tophi, skin lesions,

etc.)

1.3 Demonstrate ability to synthesize data collected. Demonstrate cognitive and

process skills in generating an appropriate differential diagnosis for an individual patient.

## 2. Technical Skills

Demonstrate competency in, and understanding of the following technical skills:

2.1 Aspiration of knee and injection of knee and shoulder

2.2 Synovial analysis: interpretation of synovial fluid tests done in the laboratory

2.3 Approach to interpretation of musculoskeletal radiographs and recognition of

abnormalities associated with specific diseases on classic, clearly abnormal Xrays:

Periarticular osteoporosis

Abnormal alignment/soft tissue swelling/effusions

Periarticular/cutaneous calcification

Rheumatoid erosions

Enthesitis, periarticular hyperostosis

Joint space narrowing

## 3. Clinical Investigations

3.1 Select appropriate investigations from the following categories in a cost- effective, ethical and rational manner:

Clinical immunology

Radiologic investigations

Synovial analysis

## 4. Therapeutic Skills

4.1 Describe an initial therapeutic approach to:

Rheumatoid arthritis

Seronegative arthropathies

Crystal induced arthritis

Systemic Lupus Erythematosus

Inflammatory myositis

Polymyalgia rheumatica

Giant Cell arteritis

Vasculitis with internal organ involvement

Management of musculoskeletal pain