

APPENDIX A

GOALS & OBJECTIVES

CORE MEDICINE RHEUMATOLOGY

GOAL #1

On completion of a one to two month rotation on the rheumatology service, a PGY1-3 resident will develop the ability to order and understand interpretation of appropriate investigations including serology, synovial fluid analysis, and radiographs as they specifically apply to rheumatology.

By the end of a one to two month rotation in rheumatology, all PGY1-3 residents will be able to:

1. Differentiate normal synovial fluid from non-inflammatory, inflammatory, crystalline, and infectious fluid.
2. Identify common blood work abnormalities which reveal an inflammatory picture versus those which are normal.
3. Describe, in writing, the definition of a rheumatoid factor and its importance in rheumatoid arthritis and non-rheumatologic diseases.
4. Describe, in writing, the significance of anti-nuclear antibody testing in patients with connective tissue disorders and non-rheumatologic disorders.
5. Describe, in writing, more specific serologic testing for connective tissue disorders such as anti-dsDNA, anti-ENA, anti-phospholipid antibodies, anti-neutrophil cytoplasmic antibodies (ANCA), and complement.

GOAL #2

On completion of a one to two month rotation on the rheumatology service, a PGY1-3 resident will develop the ability to construct an appropriate differential diagnosis and plan of patient enquiry, examination, limited investigation and assessment for a patient presenting with polyarticular, monoarticular, and periarticular pain.

By the end of a one to two month rotation in rheumatology, all PGY1-3 residents will be able to:

6. Provide a definition and a differential diagnosis of acute and chronic causes of monarthritis, oligoarthritis, and polyarthritis.
7. Distinguish, on a rheumatology homunculus, patterns of inflammatory versus degenerative arthritis.

8. Describe, in writing, appropriate investigations for patients presenting with acute and chronic monoarthritis, oligoarthritis, and polyarthritis.
9. Perform an organized, comprehensive MSK screening examination (“Patient Partners” have been arranged for your rotation in rheumatology to demonstrate this examination).
10. Demonstrate the appropriate technique and location for the fibromyalgia tender points.
11. Demonstrate the appropriate technique for detecting swelling/synovitis in an MCP or PIP joint, wrist, elbow, shoulder, hip, knee, ankle, and MTPs.

GOAL #3

On completion of a one to two month rotation on the rheumatology service, a PGY1-3 resident will develop the ability to construct an appropriate differential diagnosis and plan of patient enquiry, examination, limited investigation and assessment for a patient presenting with back pain.

By the end of a one to two month rotation in rheumatology, all PGY1-3 residents will be able to:

12. Describe, in writing, typical symptoms of a patient presenting with mechanical back pain.
13. Describe the common causes of mechanical lower back pain including disc protrusion, herniation, sequestration, spondylolysis, and spondylolysis.
14. List the red flags of more sinister conditions in a patient presenting with back pain.
15. List the reasons to obtain imaging in a patient presenting with mechanical back pain.
16. Describe, in writing, a general approach to the treatment of mechanical back pain.
17. Demonstrate those components of the MSK examination appropriate for the identification of lumbar disc disease with nerve root involvement (radiculopathy) or sciatica.

Goal #4

On completion of a one to two month rotation on the rheumatology service, a PGY1-3 resident will develop the ability to construct an appropriate differential diagnosis and plan of patient enquiry, examination, limited investigation and assessment for a patient presenting with generalized pain and stiffness.

By the end of a one to two month rotation in rheumatology, all PGY1-3 residents will be able to:

18. List eight historical features which help to distinguish inflammatory, degenerative, and chronic pain conditions.
19. Provide, in writing, features found on physical examination which help to distinguish inflammatory, degenerative, and chronic pain conditions.

20. Describe seven laboratory and three other investigations which may help to distinguish inflammatory, degenerative, and chronic pain conditions.

GOAL #5

On completion of a one to two month rotation on the rheumatology service, a PGY1-3 resident will possess the knowledge, skills, and attitude to diagnose, initially manage and to know when to immediately refer a patient (to urgent subspecialty care if necessary) with temporal arteritis.

By the end of a one to two month rotation in rheumatology, all PGY1-3 residents will be able to:

21. Describe the commonly sought historical features typical of a patient presenting with temporal arteritis.
22. Describe an appropriately focused physical examination looking for the features temporal arteritis.
23. Describe appropriate laboratory investigations for a presenting with temporal arteritis.
24. Describe the appropriate initial management of a patient presenting with temporal arteritis.

GOAL #6

On completion of a one to two month rotation on the rheumatology service, a PGY1-3 resident will possess the knowledge, skills, and attitude to take a relevant history, to identify and characterize inflammatory back disorders such as ankylosing spondylitis.

By the end of a one to two month rotation in rheumatology, all PGY1-3 residents will be able to:

25. Describe, in writing, typical symptoms of a patient presenting with inflammatory back pain.
26. Describe the focused physical examination techniques utilized when assessing the “inflammatory back”.
27. Describe, in writing, appropriate investigations for the patient presenting with inflammatory sounding back pain.
28. Describe, in writing, a general approach to treating inflammatory back pain.

GOAL #7

On completion of a one to two month rotation on the rheumatology service, a PGY1-3 resident will specify the symptoms, signs and predisposing factors; to outline the assessment and appropriate investigations; to propose a differential diagnosis and; to outline the principles of management of a patient with osteoarthritis.

By the end of a one to two month rotation in rheumatology, all PGY1-3 residents will be able to:

29. Define osteoarthritis and describe the difference between primary and secondary osteoarthritis.
30. Discuss the relevant epidemiologic features of osteoarthritis.
31. Describe the typical onset and progression of primary osteoarthritis.
32. List the key risk factors for the development of primary osteoarthritis and describe risk factors for the development of secondary osteoarthritis.
33. Using a homunculus, identify the commonly affected joints in primary osteoarthritis.
34. Identify the five cardinal radiographic features of osteoarthritis.
35. Describe non-pharmacologic treatment modalities for osteoarthritis.
36. Describe pharmacologic treatment modalities for osteoarthritis.
37. Describe the common surgical options for osteoarthritis.

GOAL #8

On completion of a one to two month rotation on the rheumatology service, a PGY1-3 resident will specify the symptoms, signs and predisposing factors; to outline the assessment and appropriate investigations; to propose a differential diagnosis and; to outline the principles of management of a patient with rheumatoid arthritis.

By the end of a one to two month rotation in rheumatology, all PGY1-3 residents will be able to:

38. Define rheumatoid arthritis.
39. Describe the underlying pathologic changes in a joint affected with rheumatoid arthritis.
40. Discuss the relevant epidemiologic features of rheumatoid arthritis.
41. Describe the typical onset and progression of rheumatoid arthritis.
42. List the key risk factors for the development of rheumatoid arthritis.
43. Using a homunculus, identify the commonly affected joints in rheumatoid arthritis.
44. Identify the four cardinal radiographic features of rheumatoid arthritis.
45. Describe non-pharmacologic treatment modalities for rheumatoid arthritis.
46. Describe pharmacologic treatment modalities for rheumatoid arthritis.

GOAL #9

On completion of a one to two month rotation on the rheumatology service, a PGY1-3 resident will specify the symptoms, signs and predisposing factors; to outline the assessment and appropriate investigations; to propose a differential diagnosis and; to outline the principles of management of a patient with psoriatic arthritis.

By the end of a one to two month rotation in rheumatology, all PGY1-3 residents will be able to:

47. Define psoriatic arthritis and list the five common presentations of psoriatic arthritis.
48. Discuss the relevant epidemiologic features of psoriatic arthritis.
49. Describe the typical onset and progression of psoriatic arthritis.
50. List the key risk factors for the development of psoriatic arthritis.
51. Using a homunculus, identify the commonly affected joints in psoriatic arthritis.
52. Identify and describe the commonly affected sites for enthesitis with psoriatic arthritis.
53. Identify the four cardinal radiographic features of psoriatic arthritis.
54. Describe non-pharmacologic treatment modalities for psoriatic arthritis.
55. Describe pharmacologic treatment modalities for psoriatic arthritis.

GOAL #10

On completion of a one to two month rotation on the rheumatology service, a PGY1-3 resident will specify the symptoms, signs and predisposing factors; to outline the assessment and appropriate investigations; to propose a differential diagnosis and; to outline the principles of management of a patient with hyperuricemia & gout.

By the end of a one to two month rotation in rheumatology, all PGY1-3 residents will be able to:

56. Define acute gout and chronic tophaceous gout.
57. Describe the underlying pathophysiology of the development of gout including the metabolism of uric acid and the commonest cause of gout.
58. Describe the synovial fluid findings in gout.
59. Discuss the relevant epidemiologic features of gout.
60. Describe the typical onset and natural progression of gout.
61. List the key risk factors for the development of gout.

62. Identify the cardinal radiographic features of acute gout versus chronic tophaceous gout.
63. Describe non-pharmacologic treatment modalities for gout.
64. Describe pharmacologic treatment modalities for acute gout and chronic tophaceous gout.

GOAL #11

On completion of a one to two month rotation on the rheumatology service, a PGY1-3 resident will specify the symptoms, signs and predisposing factors; to outline the assessment and appropriate investigations; to propose a differential diagnosis and; to outline the principles of management of a patient with calcium pyrophosphate deposition (CPPD).

By the end of a one to two month rotation in rheumatology, all PGY1-3 residents will be able to:

65. Describe the five clinical presentations of calcium pyrophosphate arthropathy.
66. Discuss the relevant epidemiologic features of CPPD.
67. List the key risk factors for the development of CPPD.
68. Describe non-pharmacologic treatment modalities for CPPD.
69. Describe pharmacologic treatment modalities for CPPD.

GOAL #12

On completion of a one to two month rotation on the rheumatology service, a PGY1-3 resident will specify the symptoms, signs and predisposing factors; to outline the assessment and appropriate investigations; to propose a differential diagnosis and; to outline the principles of management of a patient with polymyalgia rheumatica (PMR).

By the end of a one to two month rotation in rheumatology, all PGY1-3 residents will be able to:

70. Define polymyalgia rheumatica.
71. Describe the underlying pathophysiology of polymyalgia rheumatica.
72. Discuss the relevant epidemiologic features PMR.
73. Describe the typical onset and natural progression PMR.
74. List the key risk factors for the development of PMR.
75. Identify the cardinal laboratory features of PMR.
76. Describe non-pharmacologic treatment modalities for PMR.
77. Describe pharmacologic treatment modalities for PMR.

78. Discuss the prognosis of PMR.

GOAL #13

On completion of a one to two month rotation on the rheumatology service, a PGY1-3 resident will specify the symptoms, signs and predisposing factors; to outline the assessment and appropriate investigations; to propose a differential diagnosis and; to outline the principles of management of a patient with an acute viral inflammatory arthritis

By the end of a one to two month rotation in rheumatology, all PGY1-3 residents will be able to:

79. List the common viruses implicated in acute viral inflammatory arthritis and describe the commonly employed serologic investigations for them.
80. Describe the typical onset and natural progression acute viral inflammatory arthritis.
81. Identify the cardinal laboratory features of acute viral inflammatory arthritis and bloodwork for screening out other diseases.
82. Describe non-pharmacologic treatment modalities for acute viral inflammatory arthritis.
83. Describe pharmacologic treatment modalities for acute viral inflammatory arthritis.
84. Discuss the prognosis of acute viral inflammatory arthritis.

GOAL #14

On completion of a one to two month rotation on the rheumatology service, a PGY1-3 resident will have the ability to: be familiar with the major indications, adverse effects, drug interactions and contra-indications of drugs commonly used in the management of musculoskeletal conditions.. This includes analgesics, non-steroidal anti-inflammatory drugs, antidepressants in pain management, corticosteroids, hypouricaemic drugs, disease modifying and cytotoxic drugs, therapy for osteoporosis, acute and chronic pain management therapy and disease-modifying therapy.

By the end of a one to two month rotation in rheumatology, all PGY1-3 residents will be able to:

85. Discuss the pharmacology of NSAIDs and how they work in relation to the inflammatory cascade.
86. Discuss the potential side-effects of NSAIDs and their safe clinical use including use in pregnancy & lactation.
87. Discuss the pharmacology of corticosteroids and how they work in relation to the inflammatory cascade.
88. Discuss the potential side-effects of corticosteroids and their safe clinical use including use in pregnancy & lactation.

89. Discuss the pharmacology of traditional DMARDs and their use in inflammatory arthritis.
90. Discuss the potential side-effects of commonly prescribed traditional DMARDs and their safe clinical use including use in pregnancy & lactation.
91. Discuss the pharmacology of biologic DMARDs and their use in inflammatory arthritis.
92. Discuss the potential side-effects of commonly prescribed biologic DMARDs and their safe clinical use including use in pregnancy & lactation.

GOAL #15

On completion of a one to two month rotation on the rheumatology service, a PGY1-3 resident will be able to demonstrate appropriate components of the musculoskeletal physical examination.

By the end of a one to two month rotation in rheumatology, all PGY1-3 residents will be able to demonstrate those components of the MSK examination appropriate for the identification of:

93. Hand & Wrist Disorders
 - a. IP and MCP capsular distension
 - b. Carpal Tunnel Syndrome (median nerve compression)
 - c. deQuervain's tenosynovitis
 - d. Flexor tendon nodules
94. Elbow Disorders
 - a. Medial and lateral elbow epicondylitis
 - b. Elbow joint capsular distension
 - c. Olecranon bursitis
 - d. Rheumatoid nodules
95. Shoulder Disorders
 - a. Frozen shoulder
 - b. Supraspinatus tendonitis
 - c. Subacromial bursitis
 - d. Rotator cuff tear
 - e. Glenohumeral arthritis

- 96. Hip Disorders
 - a. Hip joint osteoarthritis
 - b. Trochanteric bursitis
 - c. Meralgia paresthetica

- 97. Knee Disorders
 - a. Large and small knee effusions
 - b. Patellofemoral dysfunction
 - c. Loss of integrity of ACL/PCL/medial and lateral collateral ligaments
 - d. Bursitis (prepatellar, infrapatellar, anserine, popliteal)

- 98. Ankle & Foot Disorders
 - a. Achilles tendonitis
 - b. Plantar fasciitis
 - c. Posterior tibial tenosynovitis
 - d. MTP inflammation
 - e. Ankle Inflammation