Purpose of the exam

The exam is designed to evaluate the knowledge, diagnostic reasoning, and clinical judgment skills expected of the certified rheumatologist in the broad domain of the discipline. The ability to make appropriate diagnostic and management decisions that have important consequences for patients will be assessed. The exam may require recognition of common as well as rare clinical problems for which patients may consult a certified rheumatologist.

Exam content

Exam content is determined by a pre-established blueprint, or table of specifications. The blueprint is developed by ABIM and is reviewed annually and updated as needed for currency. Trainees, training program directors, and certified practitioners in the discipline are surveyed periodically to provide feedback and inform the blueprinting process.

The primary medical content categories of the blueprint are shown below, with the percentage assigned to each for a typical exam:

<table>
<thead>
<tr>
<th>Medical Content Category</th>
<th>% of Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic and Clinical Sciences</td>
<td>7%</td>
</tr>
<tr>
<td>Crystal-induced Arthropathies</td>
<td>5%</td>
</tr>
<tr>
<td>Infections and Related Arthritis</td>
<td>6%</td>
</tr>
<tr>
<td>Metabolic Bone Disease</td>
<td>5.5%</td>
</tr>
<tr>
<td>Osteoarthritis and Related Disorders</td>
<td>5%</td>
</tr>
<tr>
<td>Rheumatoid Arthritis</td>
<td>13%</td>
</tr>
<tr>
<td>Spondyloarthritis</td>
<td>6.5%</td>
</tr>
<tr>
<td>Other Rheumatic and Connective Tissue Disorders (ORCT)</td>
<td>16.5%</td>
</tr>
<tr>
<td>Lupus Erythematosus</td>
<td>9%</td>
</tr>
<tr>
<td>Nonarticular and Regional Musculoskeletal Disorders</td>
<td>7%</td>
</tr>
<tr>
<td>Nonrheumatic Systemic Disorders</td>
<td>9%</td>
</tr>
<tr>
<td>Vasculitides</td>
<td>8.5%</td>
</tr>
<tr>
<td>Miscellaneous Topics</td>
<td>2%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
Exam questions in the content areas above may also address clinical topics in geriatrics, pediatrics, pharmacology and topics in general internal medicine that are important to the practice of rheumatology.

*ABIM is committed to working toward health equity and believes that board-certified physicians should have an understanding of health care disparities. Therefore, health equity content that is clinically important to each discipline will be included in assessments, and the use of gender, race, and ethnicity identifiers will be re-evaluated.*

**Exam format**

The exam is composed of up to 240 single-best-answer multiple-choice questions, of which approximately 40 are new questions that do not count in the examinee’s score. Most questions describe patient scenarios and ask about the work done (that is, tasks performed) by physicians in the course of practice:

- Making a diagnosis
- Ordering and interpreting results of tests
- Recommending treatment or other patient care
- Assessing risk, determining prognosis, and applying principles from epidemiologic studies
- Understanding the underlying pathophysiology of disease and basic science knowledge applicable to patient care

Clinical information presented may include patient photographs, radiographs, micrographs, DXA scans, electrocardiograms, angiograms, and other media to illustrate relevant patient findings. [Learn more information on how exams are developed.](http://www.abim.org/certification/exam-information/rheumatology/exam-tutorial)

A tutorial including examples of ABIM exam question format can be found at [http://www.abim.org/certification/exam-information/rheumatology/exam-tutorial](http://www.abim.org/certification/exam-information/rheumatology/exam-tutorial).

The blueprint can be expanded for additional detail as shown below. Each of the medical content categories is listed there, and below each major category are the content subsections and specific topics that may appear in the exam. **Please note:** actual exam content may vary.
Anatomy, biology, and structure of musculoskeletal tissues
- Joints and ligaments, intervertebral discs, synovium, and cartilage
- Connective tissue cells, matrix components, and macromolecules
- Bone
- Muscles, tendons, and bursae
- Blood vessels
- Nerves

Immunology
- Anatomy and cellular elements of the immune system
  - Lymphoid organs: gross and microscopic anatomy and function
  - Organization of immune system: innate and adaptive responses
  - Specific cell types: ontogeny, structure, phenotype, function, and activation markers and cell membrane receptors

- Immune and inflammatory mechanisms
  - Antigens: types, structure, processing, presentation, and elimination
  - Components and regulation of innate immune system
  - Major histocompatibility complex: structure, function, and nomenclature
  - B-cell receptors and immunoglobulins: structure, function, antigen binding, signaling, genetic basis, and effector function
  - T-cell receptors: structure, function, antigen binding, signaling, and genetic basis
  - Receptor-ligand interactions, adhesion molecules, complement receptors, Fc receptors, and signal transduction
  - Complement and kinin systems: structure, function, and regulation
  - Acute-phase reactants and enzymatic defenses

- Cellular interactions, immune regulation, and immunomodulation
  - Activating and inhibitory immune receptors
  - Cellular activation, suppression, and regulation of each cell type
  - Origin, structure, effect, site of action, metabolism, and regulation of cytokines, chemokines, and other inflammatory mediators
  - Mechanisms of immune tolerance
Immune responses
- IgE-mediated: acute- and late-phase reactions
- Immunoglobulin-mediated: opsonization, complement fixation, and antibody-dependent cellular cytotoxicity
- Immune complex-mediated: physiochemical properties and clearance of immune complexes
- Cell-mediated: cells and effector mechanisms in cellular cytotoxicity and granuloma formation
- Mucosal immunity: interactions between gut and bronchus-associated lymphoid tissue and secretory IgA
- Natural killer cells, lymphokine-activated killer cells, and graft-versus-host reaction

Autoantibodies

Tissue destruction and repair
- Cellular and molecular mediators
- Proteases and collagenases

Research principles in basic and clinical investigation

Design of experimental protocols, clinical trials, and outcomes research
- Controls, validity, reliability, and responsiveness
- Outcome assessment techniques: scales, questionnaires, performance-based and capacity-based measurements, health status, disease activity, and functional assessment
- Other design of experimental protocols, clinical trials, and outcomes research

Principles of epidemiology and health services research
- Prevalence and incidence
- Measurement of disease frequency
- Application of epidemiologic data
- Data analysis, biostatistics, meta-analysis, and medical informatics
- Principles of quality assessment and improvement

Ethical and legal issues
- Bioethics of basic research and clinical trials
- Patient rights and confidentiality

Laboratory and research techniques
- Serologic: enzyme-linked immunosorbent assay (ELISA), radioimmunoassay (RIA), radial immunodiffusion (RID),
nephelometry, immunoblots, protein electrophoresis, and circulating immune complex assays
Cellular: lymphocyte proliferation, flow cytometry
Histochemistry and immunofluorescence of biopsied tissues
Molecular: Northern, Southern, and Western blotting, polymerase chain reaction, genetic mapping techniques, gene sequencing, and gene expression analysis
Monoclonal antibody production
Transgenic and gene knockout animals
Principles of genetic and proteomic analysis: genetic epidemiology, gene transcription, and protein expression analysis

Clinical analysis

Synovial fluid analysis
Appropriate use and interpretation of serologic, chemical, biochemical, and microbiologic laboratory tests
Diagnostic imaging techniques
Plain radiographs: in the assessment of normal and diseased joints, bones, and periarticular structures and prosthetic joints
Computed tomography, magnetic resonance imaging, radionuclide scanning, bone densitometry, and arteriography: principles of imaging of joints, bones, and periarticular structures and tissues
Ultrasonography: principles of imaging of joints and periarticular structures and tissues
Electromyograms and nerve conduction studies: indications for and interpretation of results
Biopsy and pathology: diagnostic interpretation of pathologic specimens of specific tissues

Pharmacology: dosing, pharmacokinetics, metabolism, mechanisms of action, adverse effects, and drug interactions

Nonsteroidal anti-inflammatory drugs
Glucocorticoids: topical, intra-articular, and systemic
Systemic antirheumatic drugs
Conventional synthetic disease-modifying antirheumatic drugs (DMARDs)
Targeted synthetic DMARDs
Biologics
Urate-lowering therapy
Agents for bone health
Opioid and nonopioid analgesics
Colchicine
Plasma exchange
Vaccines
Intravenous immunoglobulin (IVIG)
Vasodilator medications
Anti-fibrotic agents
Agents to prevent opportunistic infections

### Crystal-induced Arthropathies 5% of Exam

<table>
<thead>
<tr>
<th>Arthropathy</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gout</td>
<td>2.5%</td>
</tr>
<tr>
<td>Primary gout</td>
<td></td>
</tr>
<tr>
<td>Asymptomatic hyperuricemia</td>
<td></td>
</tr>
<tr>
<td>Acute gout</td>
<td></td>
</tr>
<tr>
<td>Intercritical periods</td>
<td></td>
</tr>
<tr>
<td>Tophaceous gout</td>
<td></td>
</tr>
<tr>
<td>Conditions associated with gout</td>
<td></td>
</tr>
<tr>
<td>Lead intoxication</td>
<td></td>
</tr>
<tr>
<td>Secondary gout</td>
<td></td>
</tr>
<tr>
<td>Calcium pyrophosphate dihydrate deposition (CPPD)</td>
<td>&lt;2%</td>
</tr>
<tr>
<td>Familial</td>
<td></td>
</tr>
<tr>
<td>Secondary to primary metabolic disorders</td>
<td></td>
</tr>
<tr>
<td>Idiopathic CPPD</td>
<td></td>
</tr>
<tr>
<td>Basic calcium phosphate crystal deposition</td>
<td>&lt;2%</td>
</tr>
</tbody>
</table>

### Infections and Related Arthritides 6% of Exam

<table>
<thead>
<tr>
<th>Infections</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infections</td>
<td>5%</td>
</tr>
<tr>
<td>Bacterial (nongonococcal and gonococcal)</td>
<td></td>
</tr>
<tr>
<td>Native joint</td>
<td></td>
</tr>
<tr>
<td>Prosthetic joint</td>
<td></td>
</tr>
<tr>
<td>Spine</td>
<td></td>
</tr>
</tbody>
</table>
Bone
Soft tissue
Mycobacterial
Spirochetal (syphilis, Lyme disease)
Viral (human immunodeficiency virus [HIV], hepatitis B virus, hepatitis C virus, parvovirus, chikungunya virus, and others)
Fungal
Parasitic
Whipple’s disease
Related arthritides <2%
  Acute rheumatic fever and poststreptococcal arthritis
  Arthritis associated with bacterial endocarditis
  Postimmunization arthritis

Metabolic Bone Disease 5.5% of Exam

  Low bone mass <2%
  Osteoporosis 2.5%
    Primary
      Postmenopausal
      Male
    Secondary
      Other causes of bone loss <2%
      Paget’s disease of bone <2%
      Bone disease related to renal disease <2%
      Osteomalacia <2%

Osteoarthritis and Related Disorders 5% of Exam

  Osteoarthritis 3%
  Diffuse idiopathic skeletal hyperostosis (DISH) <2%
  Hypertrophic osteoarthropathy <2%
  Malignant and nonmalignant tumors of bones, tendons, and joints <2%
    Benign tumors
    Malignant tumors
  Osteonecrosis <2%
### Rheumatoid Arthritis

<table>
<thead>
<tr>
<th>Condition</th>
<th>Frequency of Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Seropositive rheumatoid arthritis</strong></td>
<td>8%</td>
</tr>
<tr>
<td>Early disease</td>
<td></td>
</tr>
<tr>
<td>Established disease</td>
<td></td>
</tr>
<tr>
<td>Feltys syndrome</td>
<td></td>
</tr>
<tr>
<td><strong>Seronegative inflammatory polyarthritis</strong></td>
<td>&lt;2%</td>
</tr>
<tr>
<td><strong>Complications of established disease</strong></td>
<td>4%</td>
</tr>
<tr>
<td>Extra-articular manifestations</td>
<td></td>
</tr>
<tr>
<td>Cardiovascular disease: atherosclerotic cardiovascular disease and congestive heart failure</td>
<td></td>
</tr>
<tr>
<td>Malignancy</td>
<td></td>
</tr>
<tr>
<td>Vasculitis</td>
<td></td>
</tr>
</tbody>
</table>

### Spondyloarthritis

<table>
<thead>
<tr>
<th>Condition</th>
<th>Frequency of Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Axial spondyloarthritis</strong></td>
<td>2%</td>
</tr>
<tr>
<td>Ankylosing spondylitis</td>
<td>&lt;2%</td>
</tr>
<tr>
<td>Skeletal manifestations</td>
<td></td>
</tr>
<tr>
<td>Extra-articular manifestations</td>
<td></td>
</tr>
<tr>
<td>Nonradiographic axial spondyloarthritis</td>
<td>&lt;2%</td>
</tr>
<tr>
<td>Skeletal manifestations</td>
<td></td>
</tr>
<tr>
<td>Extra-articular manifestations</td>
<td></td>
</tr>
<tr>
<td><strong>Reactive arthritis</strong></td>
<td>&lt;2%</td>
</tr>
<tr>
<td>Skeletal manifestations</td>
<td></td>
</tr>
<tr>
<td>Extra-articular manifestations</td>
<td></td>
</tr>
<tr>
<td><strong>Arthritis associated with inflammatory bowel disease (IBD)</strong></td>
<td>&lt;2%</td>
</tr>
<tr>
<td>Skeletal manifestations</td>
<td></td>
</tr>
<tr>
<td>Extra-articular manifestations</td>
<td></td>
</tr>
<tr>
<td><strong>Psoriatic arthritis</strong></td>
<td>2%</td>
</tr>
<tr>
<td>Skeletal manifestations</td>
<td></td>
</tr>
<tr>
<td>Extra-articular manifestations</td>
<td></td>
</tr>
<tr>
<td><strong>Arthritis associated with other skin diseases</strong></td>
<td>&lt;2%</td>
</tr>
<tr>
<td>SAPHO syndrome (synovitis, acne, pustulosis, hyperostosis, and osteitis)</td>
<td></td>
</tr>
<tr>
<td><strong>Peripheral spondyloarthritis</strong></td>
<td>&lt;2%</td>
</tr>
<tr>
<td>Skeletal manifestations</td>
<td></td>
</tr>
<tr>
<td>Extra-articular manifestations</td>
<td></td>
</tr>
<tr>
<td>Other Rheumatic and Connective Tissue Disorders (ORCT)</td>
<td>16.5% of Exam</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td><strong>Raynaud's phenomenon</strong></td>
<td>&lt;2%</td>
</tr>
<tr>
<td>Primary</td>
<td></td>
</tr>
<tr>
<td>Secondary</td>
<td></td>
</tr>
<tr>
<td><strong>Primarily fibrosing rheumatic diseases</strong></td>
<td>3%</td>
</tr>
<tr>
<td>Systemic sclerosis</td>
<td></td>
</tr>
<tr>
<td>Skin</td>
<td></td>
</tr>
<tr>
<td>Gastrointestinal</td>
<td></td>
</tr>
<tr>
<td>Cardiac</td>
<td></td>
</tr>
<tr>
<td>Pulmonary</td>
<td></td>
</tr>
<tr>
<td>Renal</td>
<td></td>
</tr>
<tr>
<td>Scleroderma mimics</td>
<td></td>
</tr>
<tr>
<td>Eosinophilic fasciitis</td>
<td></td>
</tr>
<tr>
<td>Retroperitoneal fibrosis (Ormond disease)</td>
<td></td>
</tr>
<tr>
<td><strong>Myopathies</strong></td>
<td>3%</td>
</tr>
<tr>
<td>Idiopathic inflammatory myopathies</td>
<td></td>
</tr>
<tr>
<td>Metabolic myopathies</td>
<td></td>
</tr>
<tr>
<td>Medication-associated</td>
<td></td>
</tr>
<tr>
<td>Critical illness-associated</td>
<td></td>
</tr>
<tr>
<td><strong>Sjögren’s syndrome</strong></td>
<td>&lt;2%</td>
</tr>
<tr>
<td><strong>Primary antiphospholipid antibody syndrome</strong></td>
<td>&lt;2%</td>
</tr>
<tr>
<td><strong>Skin-associated rheumatic diseases</strong></td>
<td>&lt;2%</td>
</tr>
<tr>
<td>Erythema nodosum</td>
<td></td>
</tr>
<tr>
<td>Other forms of panniculitis</td>
<td></td>
</tr>
<tr>
<td>Multicentric reticulohistiocytosis</td>
<td></td>
</tr>
<tr>
<td><strong>Fever-associated rheumatic disorders</strong></td>
<td>&lt;2%</td>
</tr>
<tr>
<td>Autoinflammatory disorders</td>
<td></td>
</tr>
<tr>
<td>Adult-onset Still’s disease (AOSD)</td>
<td></td>
</tr>
<tr>
<td>Hemophagocytic lymphohistiocytosis and macrophage</td>
<td></td>
</tr>
<tr>
<td>activation syndrome (HLH/MAS)</td>
<td></td>
</tr>
<tr>
<td><strong>Joint-associated rheumatic diseases</strong></td>
<td>&lt;2%</td>
</tr>
<tr>
<td>Polymyalgia rheumatica (PMR)</td>
<td></td>
</tr>
<tr>
<td>Remitting seronegative symmetric synovitis</td>
<td></td>
</tr>
<tr>
<td>with pitting edema (RS3PE)</td>
<td></td>
</tr>
<tr>
<td>Palindromic rheumatism</td>
<td></td>
</tr>
<tr>
<td><strong>Miscellaneous rheumatic disorders</strong></td>
<td>2%</td>
</tr>
<tr>
<td>Autoimmune hearing loss</td>
<td></td>
</tr>
</tbody>
</table>
Autoimmune eye disease
IgG4-related disease
Relapsing polychondritis
Overlap syndromes
Undifferentiated connective tissue disease
Mixed connective tissue disease
Autoimmune encephalitis

**Pediatric disorders**

Juvenile idiopathic arthritis (JIA)
  Childhood disease
  Complications in adulthood
Kawasaki disease (KD)
Juvenile dermatomyositis (JDM)
Juvenile localized scleroderma (JLS)
Pediatric joint disorders seen in adulthood
  Developmental dysplasia of the hip (DDH)
  Slipped capital femoral epiphysis (SCFE)
  Legg-Calvé-Perthes disease

**Lupus Erythematosus**

**Drug-induced**

**<2%**

**Cutaneous**

**<2%**

Isolated
In systemic disease

**Systemic**

**7.5%**

Renal
  Immune-mediated glomerular and tubular disease
  Antiphospholipid antibody syndrome and microangiopathies
  Renal insufficiency and hypertension
  Urologic complications

Neurologic
  Central nervous system: inflammatory, vaso-occlusive, microangiopathies, and others
  Spinal cord
  Peripheral nerves
  Neuromyelitis optica
  Affective disorders
Pulmonary
  Pneumonitis
  Thromboembolism
  Pulmonary hypertension
Cardiovascular
  Myocardial disease
  Valvular disease
  Accelerated atherosclerosis
Serositis
  Pleuritis
  Pericarditis
  Peritonitis
Hematologic
  Autoimmune cytopenias
  Hemolytic uremic syndrome (HUS) and thrombotic thrombocytopenic purpura (TTP)
  Autoimmune clotting factor deficiencies (overlap with antiphospholipid antibody syndrome)
Musculoskeletal
  Joints, tendons, and ligaments
  Muscle disease
Lupus in pregnancy
Neonatal lupus
Vasculitis
Antiphospholipid antibody syndrome (APS)
  Clinical features excluding pregnancy
  Pregnancy
  Catastrophic APS

<table>
<thead>
<tr>
<th>Nonarticular and Regional Musculoskeletal Disorders</th>
<th>7% of Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Diffuse pain syndromes</strong></td>
<td>&lt;2%</td>
</tr>
<tr>
<td>Fibromyalgia</td>
<td></td>
</tr>
</tbody>
</table>
| Complex regional pain syndrome
  (reflex sympathetic dystrophy)                     |            |
| Medication-induced diffuse pain                    |            |
Regional musculoskeletal disorders  
Axial syndromes  
Back pain  
Neck pain  
Thoracic outlet syndrome  
Shoulder disorders  
Joint  
Soft tissue  
Elbow disorders  
Joint  
Soft tissue  
Wrist and hand disorders  
Joint  
Soft tissue  
Hip disorders  
Joint  
Soft tissue  
Knee disorders  
Joint  
Soft tissue  
Ankle and foot disorders  
Joint  
Soft tissue  
Leg disorders  

Neuropathies  
Axial disorders  
Peripheral disorders  
Entrapment neuropathies  
Mononeuritis multiplex  
Polyneuropathy  
Small fiber neuropathy

Nonrheumatic Systemic Disorders  
Hereditary, congenital, and inborn errors of metabolism associated with rheumatic syndromes  
Disorders of connective tissue  
Marfan syndrome
Osteogenesis imperfecta
Ehlers-Danlos syndromes including hypermobility
Mucopolysaccharidoses
Osteochondrodysplasias
  Multiple epiphyseal dysplasia
  Spondyloepiphyseal dysplasia
Inborn errors of metabolism affecting connective tissue
  Homocystinuria
  Ochronosis
Storage disorders

**Immunodeficiencies**<2%
  Immunoglobulin A (IgA) deficiency
  Complement component deficiencies
  Common variable immunodeficiency

**Metabolic-associated rheumatic disorders** 2.5%
  Diabetes mellitus
  Acromegaly
  Thyroid disease
  Cushing’s disease
  Parathyroid disease
  Renal failure and dialysis

**Hematologic and oncologic malignancy-associated rheumatic disorders** 3%
  Amyloidosis
    Primary
    Secondary
    Hereditary
  Lymphoma
  Myelodysplastic syndromes
  Leukemia
  Solid tumors
  Plasma cell dyscrasias
  Hemoglobinopathies
    Sickle cell
  Hemophilias
Arthritic and rheumatic disorders  
- Hemochromatosis
- Myositis ossificans progressiva
- Wilson disease
- Sarcoidosis
- Scurvy
- Pancreatic disease
- Primary biliary cholangitis
- Cystic fibrosis
- Graft-versus-host disease
- Celiac disease
- Drug-associated
- Environmental agent-associated

Neurologic  
- Amyotrophic lateral sclerosis (ALS)
- Neuropathic arthropathy

Vasculitides  
8.5% of Exam

Large-vessel vasculitis  
- Takayasu’s arteritis
- Giant cell arteritis

Medium-vessel vasculitis  
- Polyarteritis nodosa

Small-vessel vasculitis  
- Antineutrophil cytoplasmic antibody (ANCA)-associated vasculitis
  - Granulomatosis with polyangiitis (Wegener’s)
  - Microscopic polyangiitis
  - Eosinophilic granulomatosis with polyangiitis (Churg-Strauss)
- Immune complex small-vessel vasculitis
  - Anti-glomerular basement membrane disease
  - Cryoglobulinemic vasculitis
  - IgA vasculitis (Henoch-Schönlein purpura)
  - Hypocomplementemic urticarial vasculitis (anti-C1q vasculitis)
Variable-vessel vasculitis <2%
  Behçet’s disease
  Cogan’s syndrome

Single-organ vasculitis <2%
  Cutaneous leukocytoclastic angiitis
  Cutaneous arteritis
  Primary central nervous system angiitis
  Isolated aortitis

Vasculitis associated with probable etiology <2%
  Hepatitis C virus-associated cryoglobulinemic vasculitis
  Hepatitis B virus-associated vasculitis
  Syphilis-associated aortitis
  Drug-induced vasculitis
    Drug-induced ANCA-associated vasculitis
    Drug-induced immune complex vasculitis
    Other drug-induced vasculitis
  Cancer-associated vasculitis

Vasculitis mimickers <2%
  Buerger’s disease (thromboangiitis obliterans)
  Cholesterol emboli
  Fibromuscular dysplasia
  Segmented arterial mediolysis
  Warfarin necrosis
  Reversible cerebral vasoconstriction syndrome
  Moyamoya disease
  Atrial myxoma
  Endocarditis
  Calciphylaxis
  Amyloid angiopathy

Miscellaneous Topics 2% of Exam

Arthrocentesis and injections <2%
  Anatomy
  Precautions
  Potential sequelae
General clinical care

Rehabilitation in rheumatic diseases
  Exercise
  Therapeutic modalities
  Thermal modalities
  Adaptive equipment and assistive devices
  Footwear and orthotics
  Functional status and disability determination

Pain management
  Physiology of pain
  Opioid contract

Psychosocial aspects of rheumatic diseases
  Psychological and emotional factors including sexuality
  Economic and vocational issues

Perioperative management of rheumatic diseases

Nutrition

Complementary and alternative practices

Treatment adherence

Barriers

Health literacy

Professionalism and ethical behavior

Medicolegal issues
  Compliance with Health Insurance Portability and Accountability Act of 1996 (HIPAA)
  Ethical dilemmas

Professionalism

Communication
  Interpersonal communication skills
  Use of medical interpreters

July 2023