

C02 Rheumatoid Arthritis

Build a diagnosis concept set for *Rheumatoid Arthritis (RA)*—*adult, systemic form* that captures prevalent, established disease with high clinical validity. Include RA diagnoses and RA-linked extra-articular manifestations. This concept set will support an observational study that aims to answer the following research question:

Amongst patients who are diagnosed with **[Rheumatoid Arthritis]**, what are the patient's characteristics from their medical history (including demographics, comorbidities, HCRU, and total costs).

The concept set will be used in the phenotype of patients with *Rheumatoid Arthritis (RA)* as the *target cohort in this research question*.

Clinical case definition: A chronic, systemic autoimmune and inflammatory disease primarily characterized by persistent synovitis of diarthrodial joints, often symmetrical. The disease trajectory involves inflammation of the synovial membrane, leading to potential cartilage destruction, bone erosions, and joint deformity. Systemic features include the production of autoantibodies (Rheumatoid Factor (RF) and anti-citrullinated peptide antibodies (ACPA)).

Diagnostic Criteria: Diagnosis is based on established clinical criteria (e.g., ACR/EULAR 2010 criteria), which consider the pattern of joint involvement, serology (RF/ACPA), acute phase reactants (ESR/CRP), and duration of symptoms. In RWD, we rely on the clinician's recorded diagnosis based on these criteria.

Presentation and Course: Presentation typically involves insidious onset of pain, stiffness (especially morning stiffness), and swelling in multiple joints (polyarthritis), commonly affecting the small joints of the hands and feet. The course is typically chronic and progressive without adequate treatment, characterized by flares and potential remission.

Differential Diagnoses: (Conditions to be distinguished and not considered inclusive)

- Psoriatic Arthritis (PsA)
- Ankylosing Spondylitis (AS) and other spondyloarthropathies
- Systemic Lupus Erythematosus (SLE)
- Gout and Pseudogout (Crystal arthropathies)
- Polymyalgia Rheumatica (PMR)
- Osteoarthritis (OA)
- Juvenile Idiopathic Arthritis (JIA)
- viral arthritis (e.g., from Parvovirus B19, Hepatitis C)
- undifferentiated inflammatory arthritis

Common Treatments/Management: Conventional synthetic DMARDs (e.g., Methotrexate), biologic DMARDs (e.g., TNF inhibitors), targeted synthetic DMARDs (e.g., JAK inhibitors), systemic glucocorticoids.

Clinical Scope and Granularity

- **Disease entity:** Chronic, systemic autoimmune inflammatory polyarthritis characterized by persistent, often symmetrical synovitis of diarthrodial joints with risk of cartilage loss, bone erosions, and deformity; commonly presents with insidious polyarticular pain, swelling, and morning stiffness; may include autoantibodies (RF/ACPA) and flares/remission over a chronic course.
- **Temporality:** Prevalent/established RA. “History of RA” is in scope only when it reflects an ongoing established diagnosis, not a resolved remote event.
- **Severity & acuity:** Include all severities (mild to severe) and states (active disease or remission).
- **Manifestations:** Extra-articular disease that is explicitly linked to RA (e.g., rheumatoid lung disease, rheumatoid vasculitis, Felty’s syndrome) is RA.
- **Etiology:** Autoimmune inflammatory arthritis; irrespective of seropositivity. non-inflammatory arthropathies are not in scope.
- **Population: Adults;** pediatric entities (JIA, juvenile RA, Still’s disease) are out of scope.

Related, differential conditions or comorbidities that are not sufficient for inclusion

- Psoriatic arthritis; ankylosing spondylitis and other spondyloarthropathies; reactive and enteropathic arthritis.
- Systemic lupus erythematosus; systemic sclerosis; Sjögren’s; dermatomyositis/polymyositis; undifferentiated/mixed connective tissue disease.
- Gout; calcium pyrophosphate disease (pseudogout/CPPD).
- Polymyalgia rheumatica.
- Osteoarthritis.
- Any other arthralgia or unspecified arthritis.

Synonyms

- Rheumatoid arthritis
- Rheumatoid polyarthritis
- Seropositive rheumatoid arthritis
- Seronegative rheumatoid arthritis
- Felty’s syndrome (RA with splenomegaly and neutropenia)