### **Rheumatoid Arthritis**

Rheumatoid Arthritis: Statistics, Diagnosis, & Treatment in the U.S. and Worldwide

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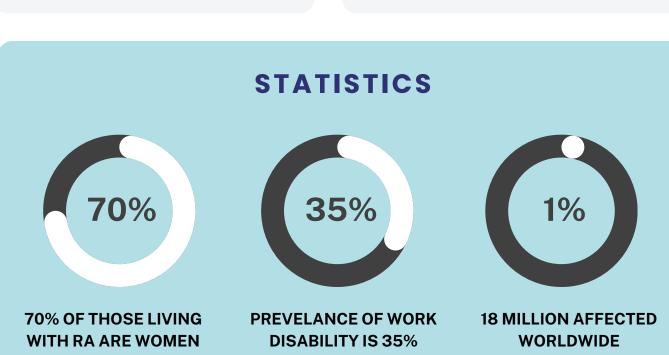
#### **WHAT IS RA?**

Rheumatoid arthritis (RA) is an inflammatory autoimmune polyarthritis primarily affecting joints such as hands and wrists, but it can also affect the lungs, heart, and other body tissue.



## DIAGNOSTIC SYMPTOMS

- Other inflammatory symptoms could include unintentional weight loss, fatigue, myalgia
- Joint symptoms typically located in; small joints (hands/feet) particularly Metacarpophalangeal and Proximal Interphalangeal joints
- Morning stiffness
- Synovitis and tenosynovitis, are more subtle with disease onset



#### COMPLICATIONS

- Pain
- Mobility Issues
- Difficulty completing ADLs
- Work-related disability
- Heart disease
- Obesity
- Diabetes

# TOTAL ANNUAL U.S. HEALTHCARE COSTS RELATED TO RAIS 13.9 BILLION



#### **RISK FACTORS**



Chronic Stress is a risk factor for autoimmune disease



Inequalities and lower economic status associated with higher risk.



More prevalent in Black and Hispanic persons



Obesity, Smoking and Aging



More prevalent in women

#### **PATIENT RESOURCES**

- American College of Rheumatology
- Rheumatoid Arthritis Overview for patients

Arthritis Foundation: Resources for patients

#### TREATMENT GUIDELINES



RA is not curable, but treatable with the use of guidelines combined with unique individual needs

Early diagnosis and symptom treatment help reduce the risk of disability and slow disease progression

To view the most recent RA treatment guidelines click here

#### **COMMON RA MEDICATIONS**

- NSAIDS Lower end of cost spectrum.
   Helps to reduce pain. Moderate side effect profile. Examples include meloxicam and ibuprofen.
- Steroids Lower end of cost spectrum. Reduces inflammation quickly. Contraindicated in some patients due to comorbidities. Side effect profile can be a concern.
- Disease Modifying Antirheumatic Drugs (DMARDs) – Moderate to higher end of cost spectrum. Higher side effect profile. Immunosuppressive. Common DMARDs include methotrexate, hydroxychloroquine, and sulfasalazine.
- Newer DMARDs have some cross-over with biologics and include certolizumab pegol, tocilizumab, and Janus kinase inhibitor.
- Biologics Moderate to higher end of cost spectrum. Lower side effect profile. Biologics are classed according to action into 4 main categories: TNF inhibitors, B-cell inhibitors, IL inhibitors, and selective costimulation modulators.

#### **COMMON DIAGNOSTIC FINDINGS**

- Elevated erythrocyte sedimentation rate (ESR)
- Elevated C-reactive protein (CRP)
- Positive rheumatoid factor (80% of RA patients will be positive) Can often be at detectible levels before physical joint symptoms
- Positive cyclic citrullinated peptides (CCP) (50 to 70% of RA patients will be positive for these autoantibodies)
- Radiographic plain film changes may show joint space narrowing, bone erosions, and osteopenia late signs
- Ultrasound may detect synovitis, and synovial hypertrophy, and is more sensitive in detecting bone erosions
- MRI can be used to detect synovitis, synovial hypertrophy, bone marrow edema, and bone erosions



#### **CLINICIAN RESOURCES**

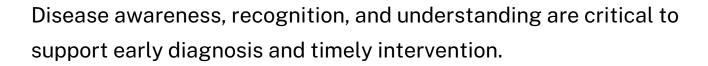
- General RA educator resources
- RA StatPearls by NIH
- DMARD StatPearls by NIH
- <u>Biologic therapies for Rheumatoid Arthritis, an overview</u>
   <u>for clinicians</u>
- Other General resources for clinicians
- The 2010 RA diagnostic decision tree is helpful in clinical testing decisions

# DIFFERENTING RA FROM OTHER CONDITIONS

#### **DIFFERENTIAL DIAGNOSIS**

RA can often be mistaken for other conditions, which can lead to mis- or delayed diagnosis. These diagnoses often lead to mis- or delayed diagnosis.

- Lyme's disease
- Post viral arthritis
- Psoriatic Arthritis
- Infectious joint disease
- Lupus
- Scleroderma
- Gout



#### REFERENCES

- American College of Rheumatology (2021). Rheumatoid Arthritis Guidelines
- American Family Physician. (2022). Management of Rheumatoid Arthritis: <u>Update from ACR Am Fam Physician. 2022;106(3):340-342.</u>
- CDC (October, 2023) Arthritis Related Statistics
- CDC (April, 2022) Rheumatoid Arthritis
- WHO (2024) Rheumatoid Arthritis
- Xu & Wu (2021). Prevalence Trend and Disparities in Rheumatoid Arthritis among US Adults, 2005–2018. <u>J Clin Med.</u> 2021 Aug; 10(15): 3289. Published online 2021 Jul 26. doi: 10.3390/jcm10153289