

A hand is shown with a heatmap overlay, where red and yellow colors indicate areas of inflammation or pain, primarily concentrated in the joints. The hand is viewed through a magnifying glass, which is centered over the affected areas. The background is a dark blue gradient.

# RHEUMATOID ARTHRITIS

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# LEARNING OBJECTIVES

1

Discuss the clinical presentation of Rheumatoid arthritis

2

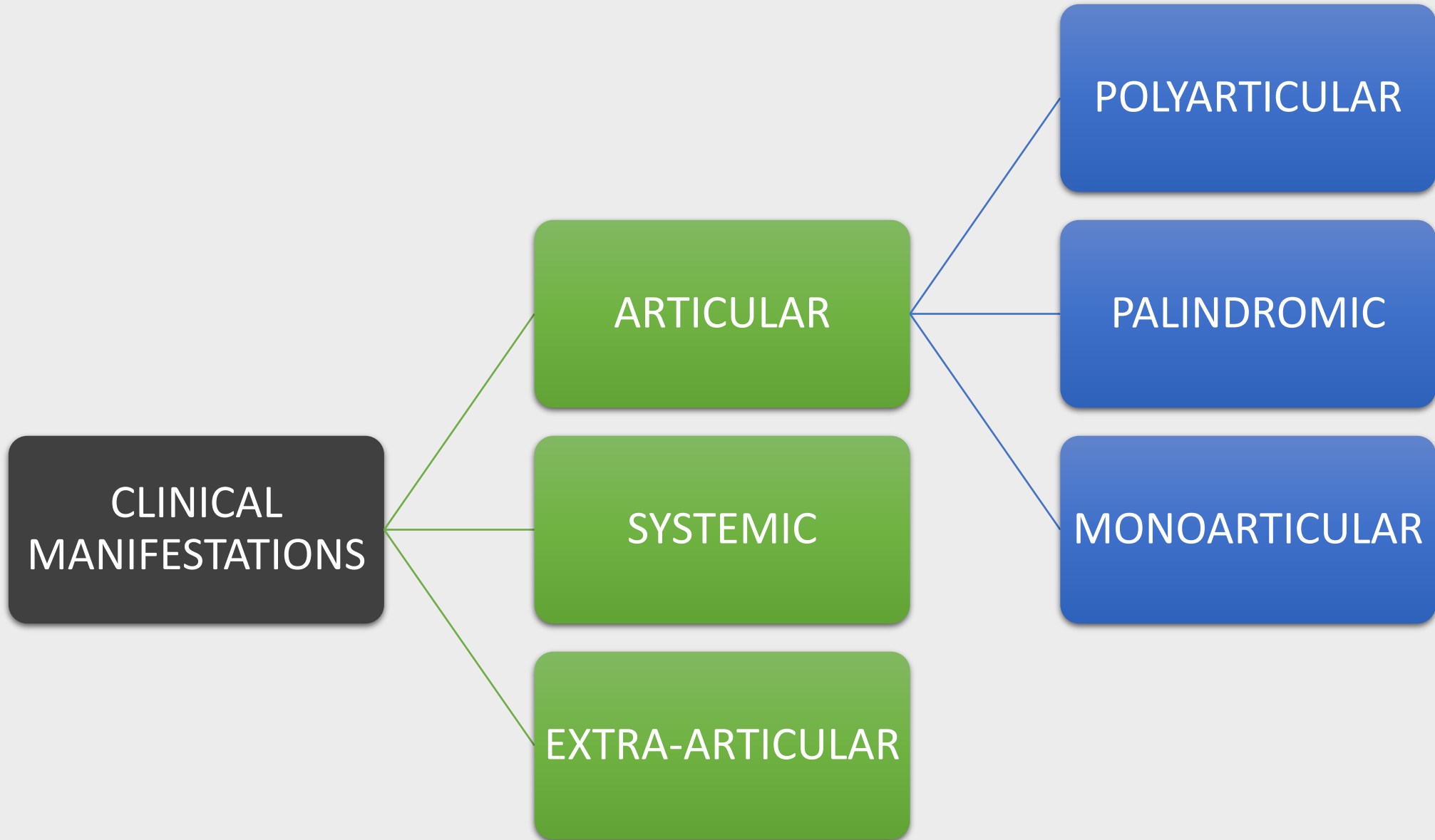
Name the differential diagnosis of Rheumatoid arthritis

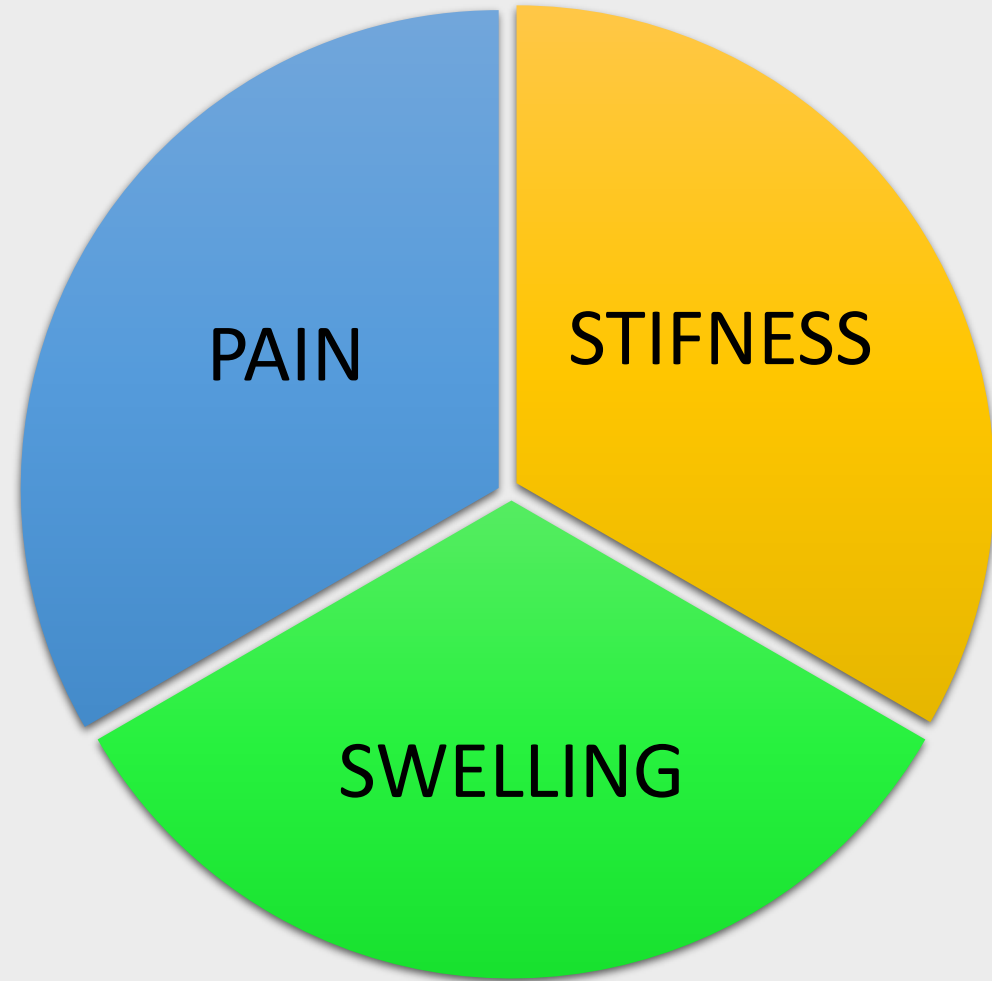
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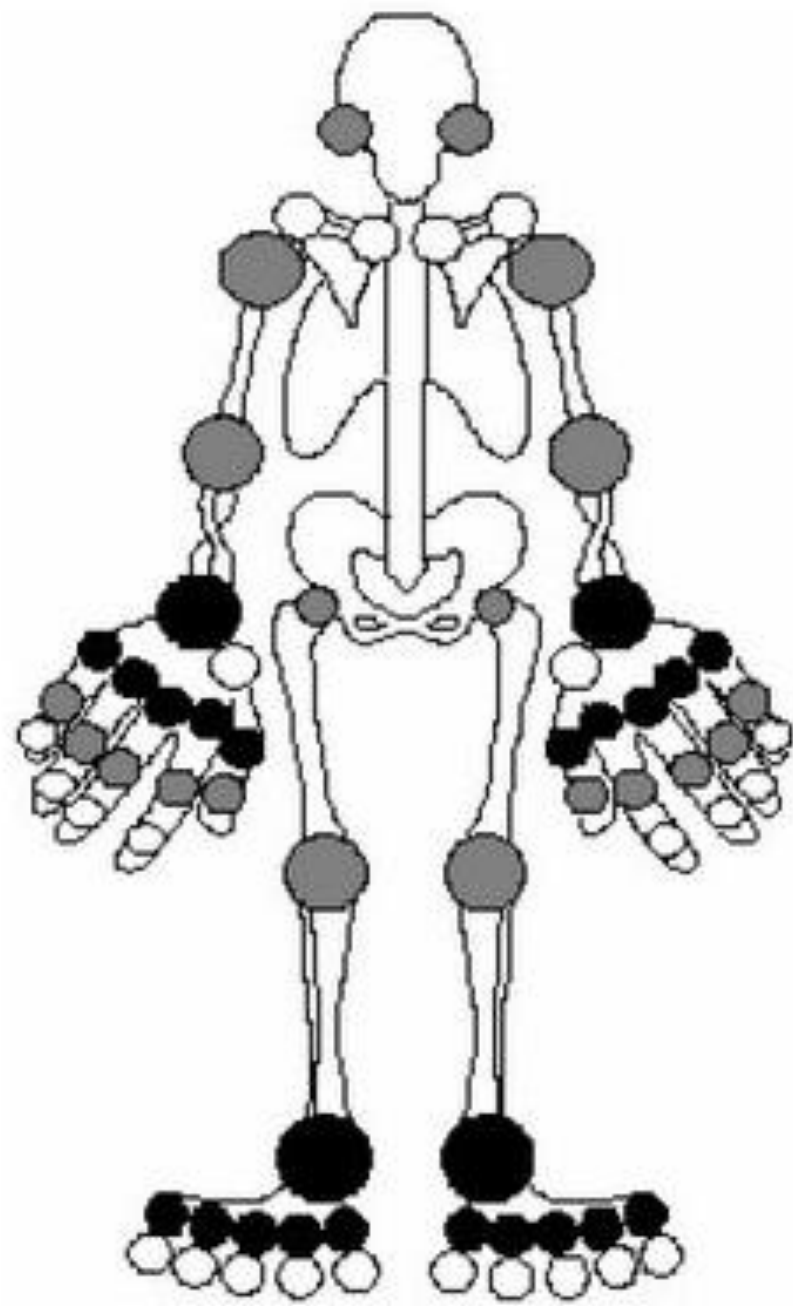
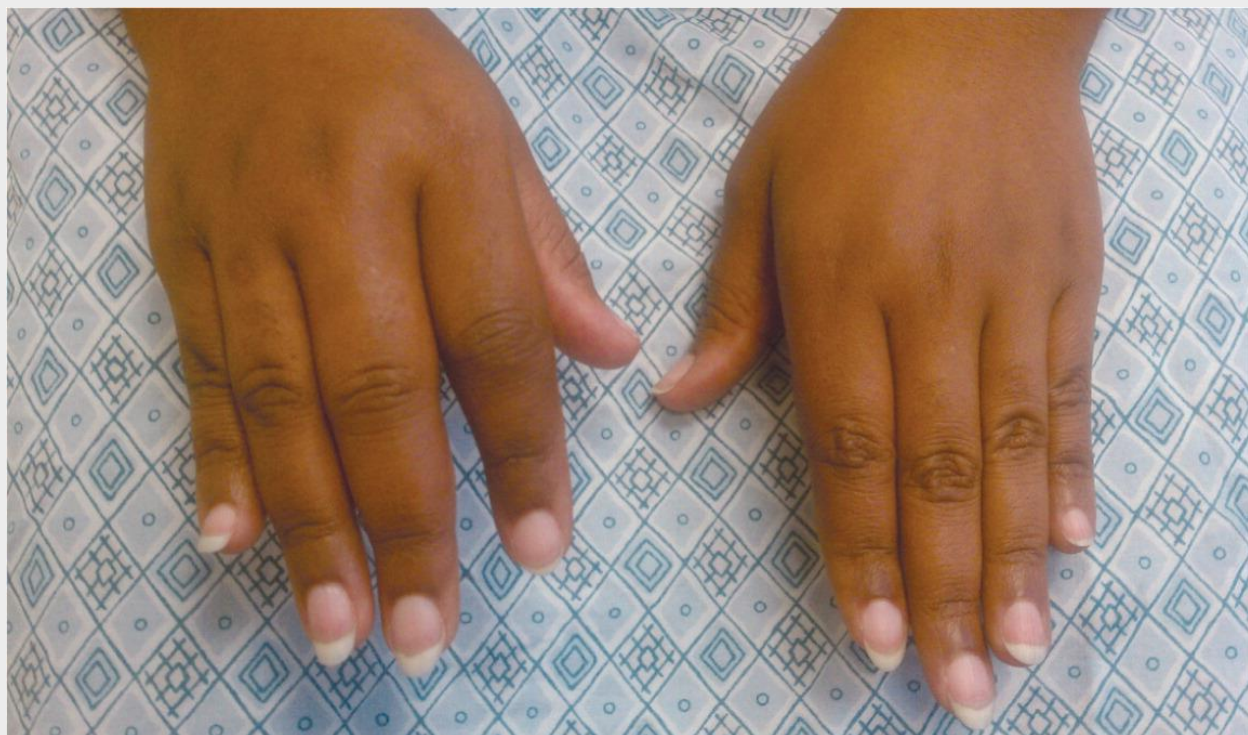
Discuss the diagnostic criteria of Rheumatoid arthritis

4

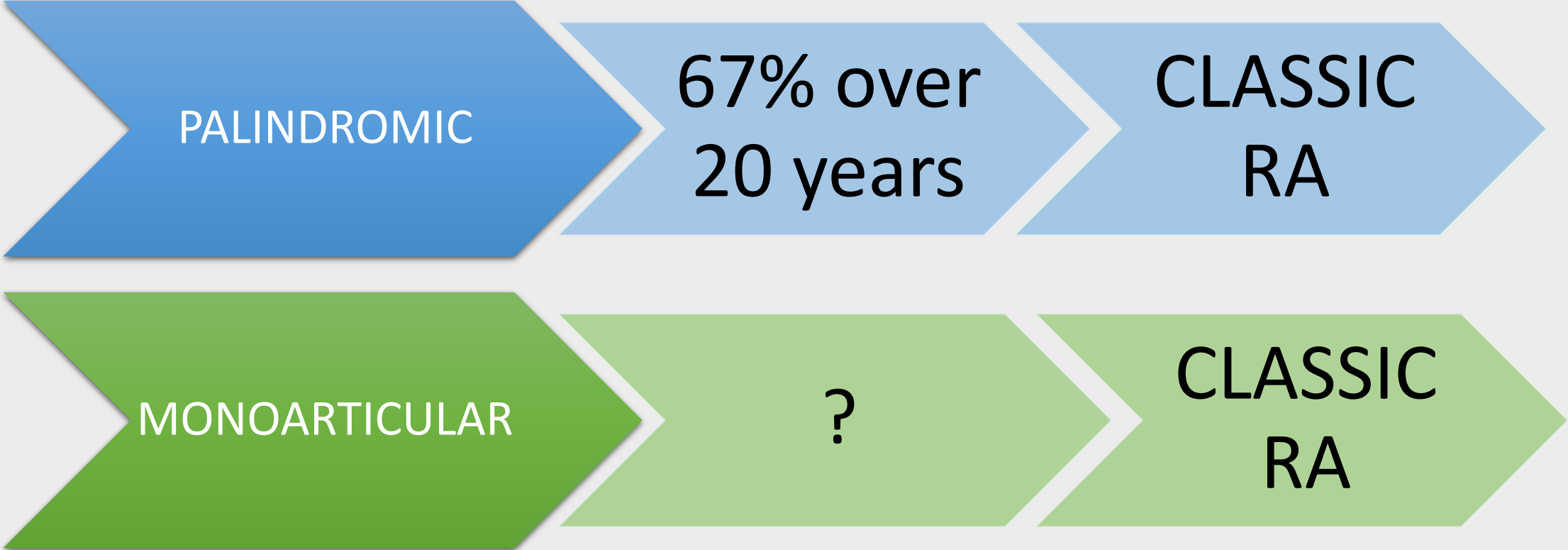
Describe general management plan of Rheumatoid arthritis











PALINDROMIC

67% over  
20 years

CLASSIC  
RA

MONOARTICULAR

?

CLASSIC  
RA





# SYSTEMIC SYMPTOMS

40%

May precede

Fatigue

Widespread aches / myalgias

Depression

Weight loss

# EXTRA-ARTICULAR MANIFESTATIONS

40%  
Severe disease  
RF +

## Osteopenia

## Muscle weakness

- Disuse atrophy, Drugs, Myositis

## Skin disease

- Nodules, skin ulcers,

## Eye disease

- Sjogren's syndrome, Scleritis, Episcleritis, Drugs

## Lung disease

- Pleuritis and pleural effusion, Interstitial fibrosis, pulmonary nodules

# EXTRA-ARTICULAR MANIFESTATIONS

40%  
Severe disease  
RF +

## Cardiac disease

- Pericarditis, Myocarditis, Coronary artery disease, Heart failure

## Vascular disease

- Vasculitis, peripheral vascular disease, venous thromboembolism

## Kidney disease

- Drugs, Amyloidosis, Glomerulonephritis

## Neurologic & Psychiatric disease

- Carpal tunnel syndrome, myelopathy / radiculopathy, Neuropathy, Depression

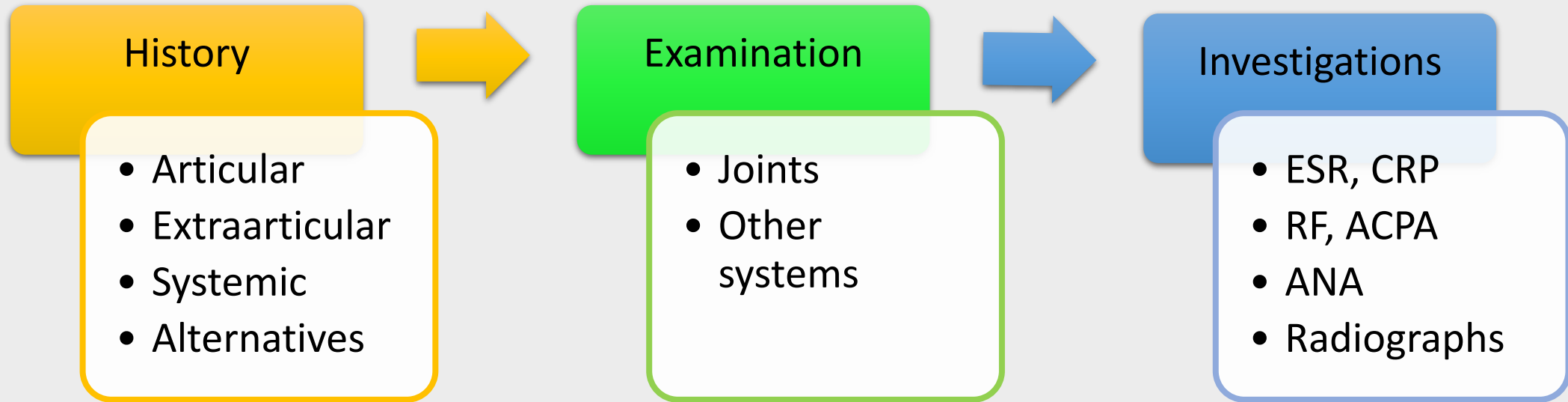


# LABORATORY INVESTIGATIONS

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- Acute phase reactants: ESR, CRP
- Synovial fluid analysis
- Hematologic
- Autoantibodies: Rheumatoid factor, Anti-CPA

# DIAGNOSIS



**2010**

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- **ACR/EULAR criteria**

**1987**

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- **ACR Criteria**

# DIAGNOSIS

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Inflammatory arthritis involving three or more joints

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Elevated levels CRP or ESR

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Positive RF and/or ACPA

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Diseases with similar clinical features have been excluded

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The duration of symptoms is more than six weeks

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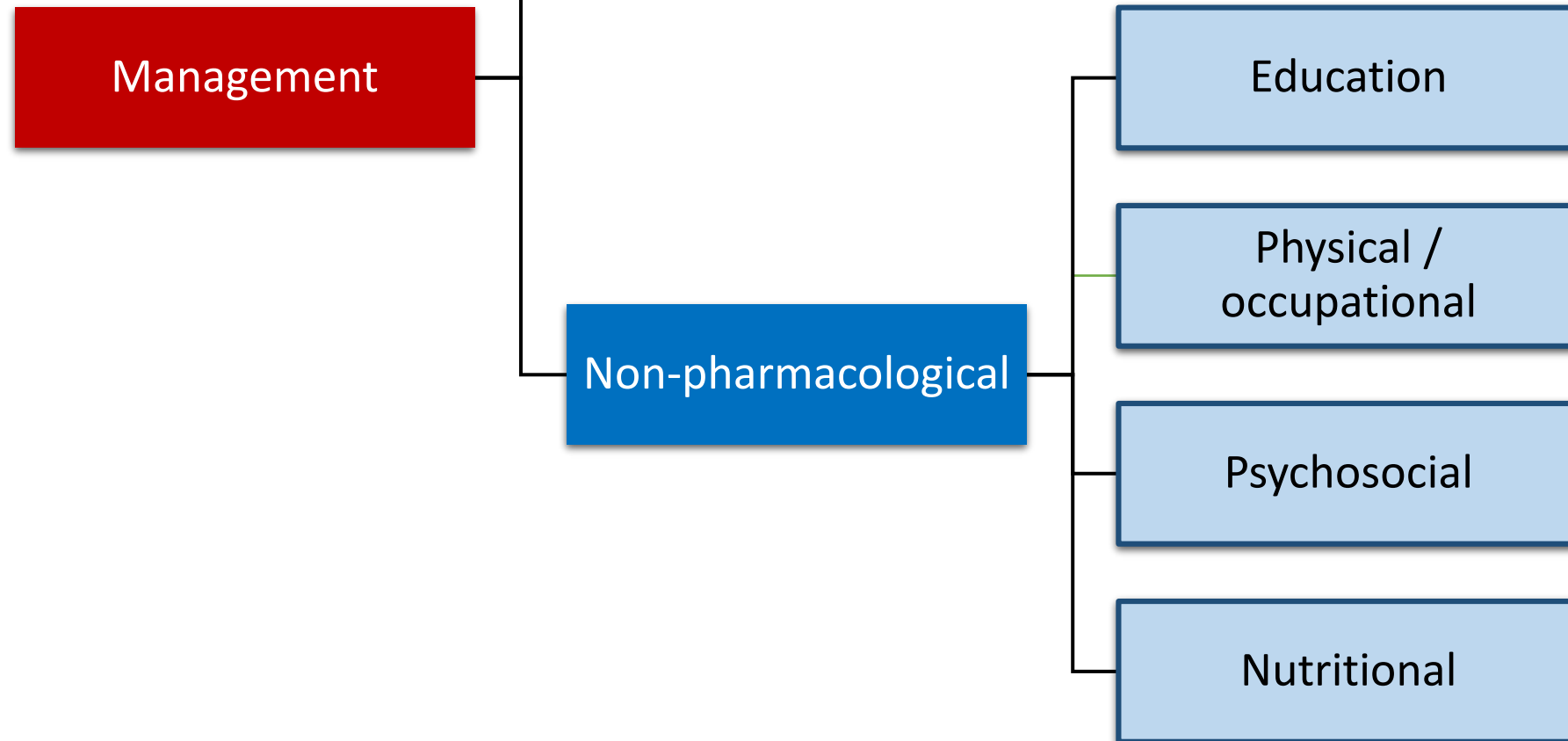
# DIFFERENTIAL DIAGNOSIS

- Viral polyarthrititis
  - SLE
  - Sjogren syndrome
  - Dermatomyositis
  - Osteoarthritis
  - Carpal tunnel syndrome
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- Seronegative arthritides (Reactive, Psoriatic, IBD)
  - Gout & Pseudogout
  - Infectious arthritis (e.g. Lyme, others)
  - Chronic sarcoid arthropathy



- Control of synovitis
- Prevention of joint injury
  
- Early diagnosis
- Early DMARDs
- Liaison with expert
- Anti-inflammatory adjunct
- Tight control





Pharmacological

Disease modifying  
DMARDs

Traditional  
Conventional

Biologics

Targeted  
JAK inhibitors

Symptomatic

NSAIDs

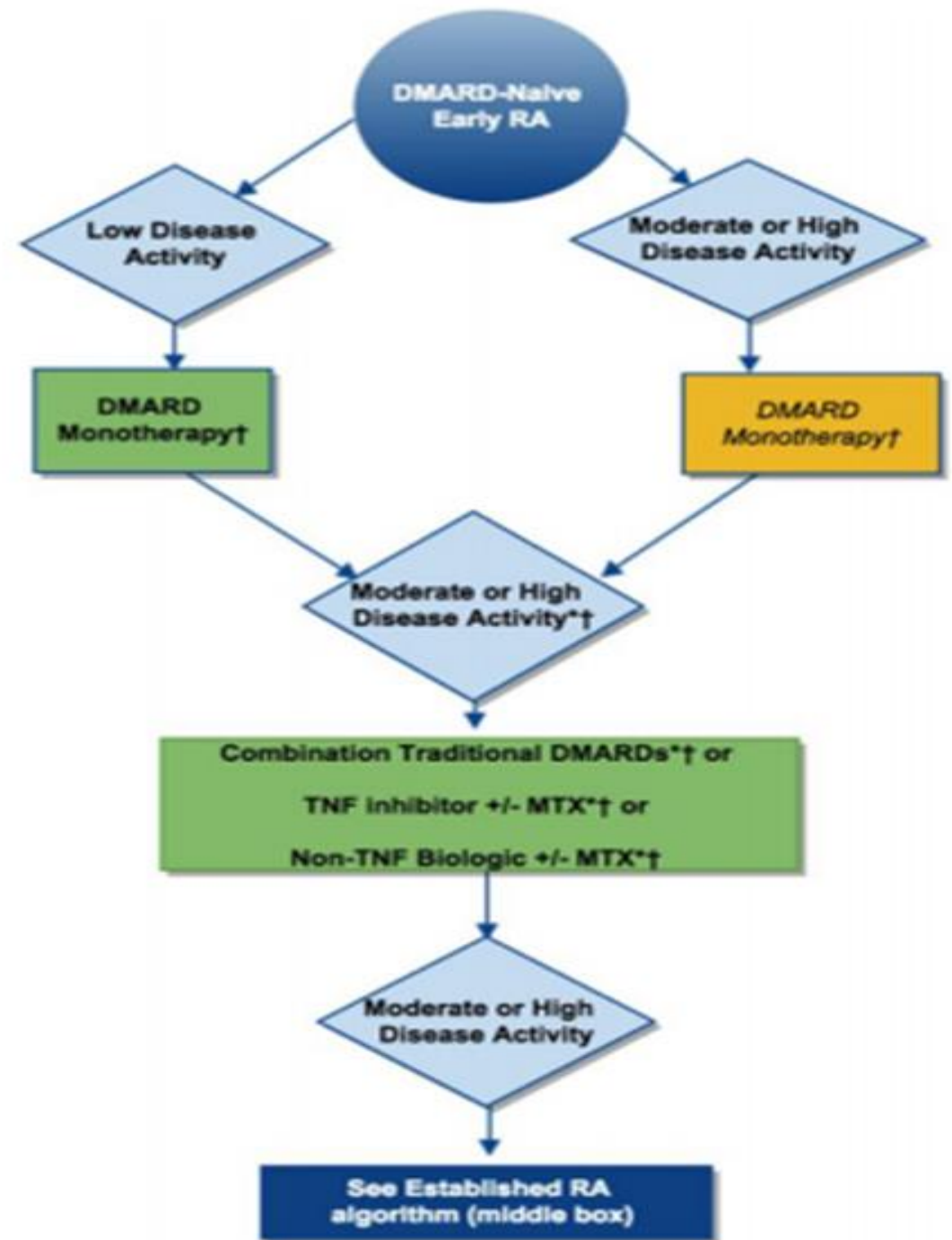
Steroids

<b>csDMARDs</b>	<b>boDMARDs</b>	<b>tsDMARDs</b>
Methotrexate (MTX)	TNF Inhibitors	JAK Inhibitors
Hydroxychloroquine (HCQ)	<ul style="list-style-type: none"> <li>• Etanercept</li> </ul>	<ul style="list-style-type: none"> <li>• Tofacitinib</li> </ul>
Sulfasalazine (SSZ)	<ul style="list-style-type: none"> <li>• Adalimumab</li> </ul>	<ul style="list-style-type: none"> <li>• Baricitinib</li> </ul>
Leflunomide (LEF)	<ul style="list-style-type: none"> <li>• Certolizumab</li> </ul>	
	<ul style="list-style-type: none"> <li>• Golimumab</li> </ul>	
	<ul style="list-style-type: none"> <li>• Infliximab</li> </ul>	
	Abatacept	.
	Rituximab	
	IL-6 Receptor Inhibitors	
	<ul style="list-style-type: none"> <li>• Tocilizumab</li> </ul>	
	<ul style="list-style-type: none"> <li>• Sarilumab</li> </ul>	

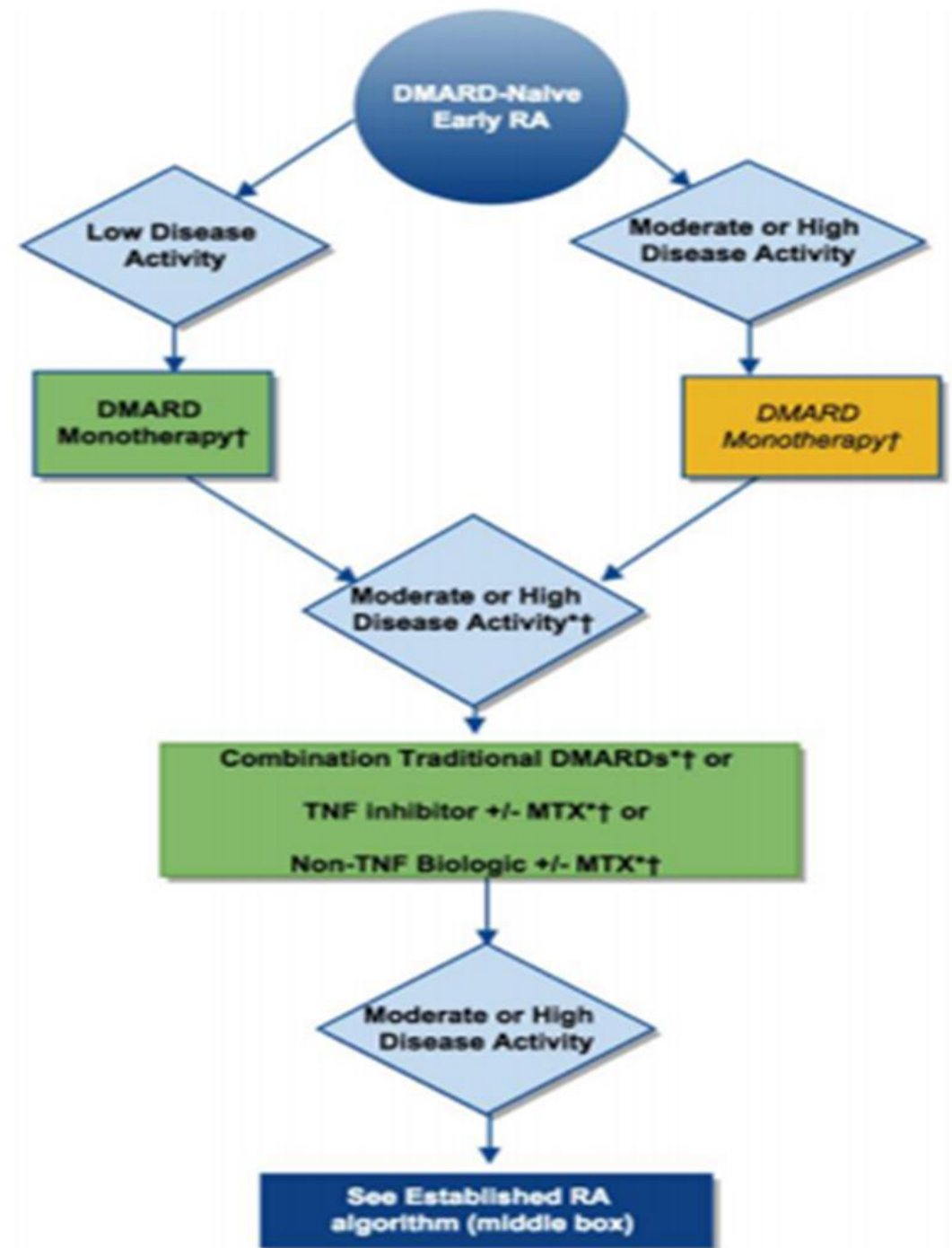
- **Disease severity**
  - Remission, low, moderate, high
- **Pretreatment evaluation**
  - General testing for all patients
  - Hepatitis virus screening
  - Ophthalmologic screening
  - Testing for latent tuberculosis
- **Choice of therapy**
  - Different factors



- Initiate therapy with a DMARD
- MTX as the initial DMARD
- In patients unable or unwilling to take MTX at the initiation of DMARD therapy, use monotherapy with leflunomide, sulfasalazine, hydroxychloroquine, or a tumor necrosis factor (TNF) inhibitor



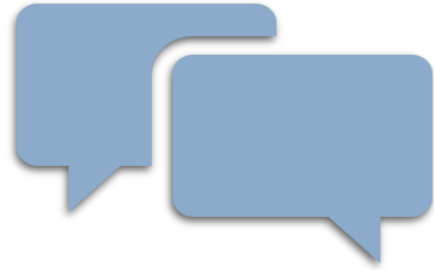
- NSAIDs and/or glucocorticoids (systemic and/or intraarticular) for initial symptomatic control of inflammation while awaiting the response to DMARD therapy.
- NSAIDs / Steroids never as sole agents
- In patients not achieving remission or low disease activity with appropriate doses of MTX monotherapy after **three to six months**, preferred approach is to initiate combination therapy.



# MONITORING

- Disease activity
- Disease complications
- Adverse drug effects





**Comments**



**Queries**