APPROACH TO INFLAMMATORY ARTHRITIS

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OUTLINES

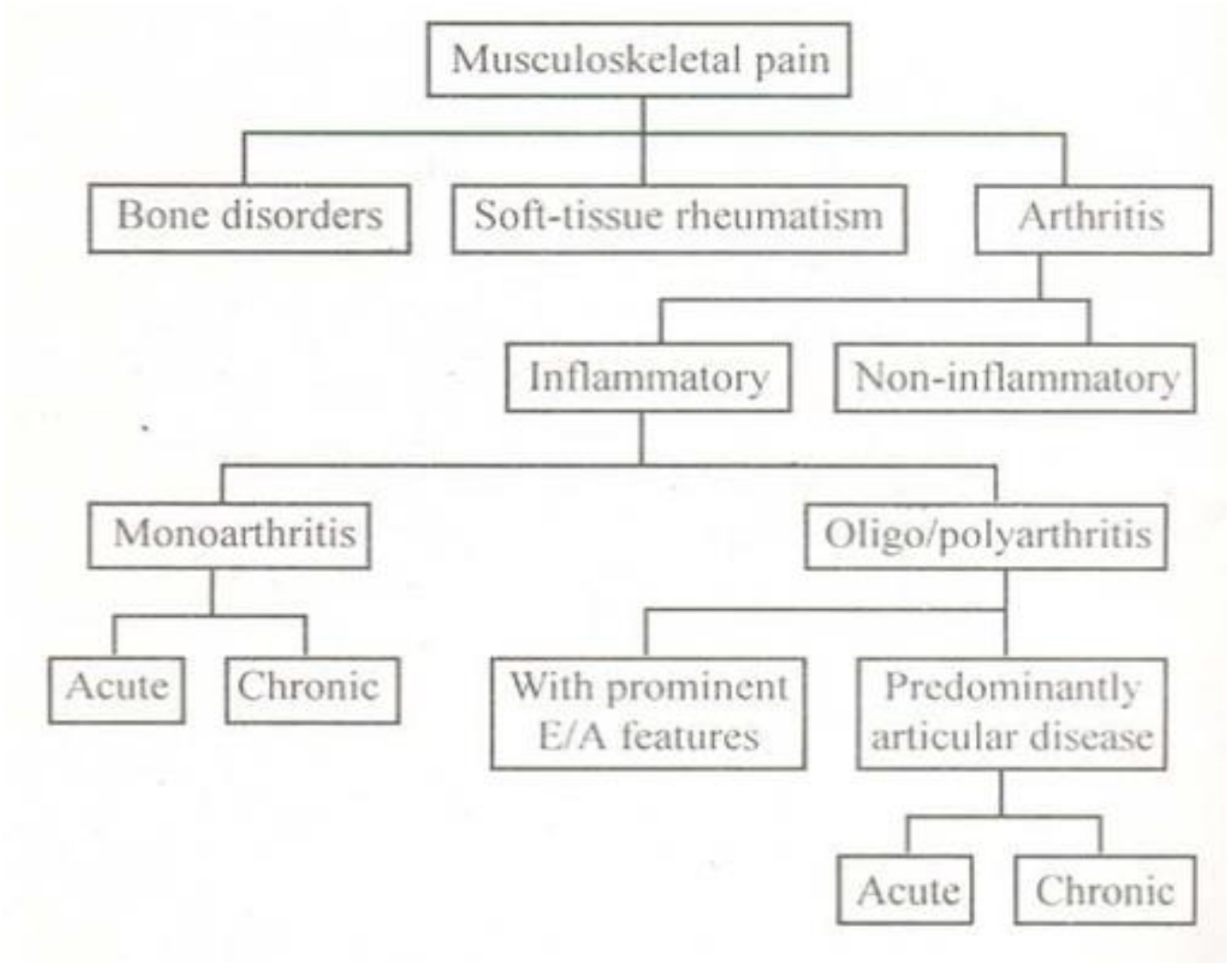
- 1. inflammatory arthritis
- 2. approach to patients with joint pain
- 3. Rheumatoid arthritis
- 4. Spondylarthritis
- 5. Psoriatic arthritis
- 6. Reactive arthritis
- 7. minimal care in inflammatory arthritis

1.INFLAMMATORY ARTHRITIS

- Inflammatory arthritis is joint inflammation caused by an overactive immune system.
- Early diagnosis of inflammatory arthritis is an important factor in determining long-term patient outcomes.

2. Approach to patients with joint pain

Patient with Musculoskeletal Pain



JK Science.vol. 4 No.1, January-March 2002

- Careful history provides 80% of the diagnostic information.
- Physical examination adds another 15%.
- Imaging and laboratory together contribute only 5%.

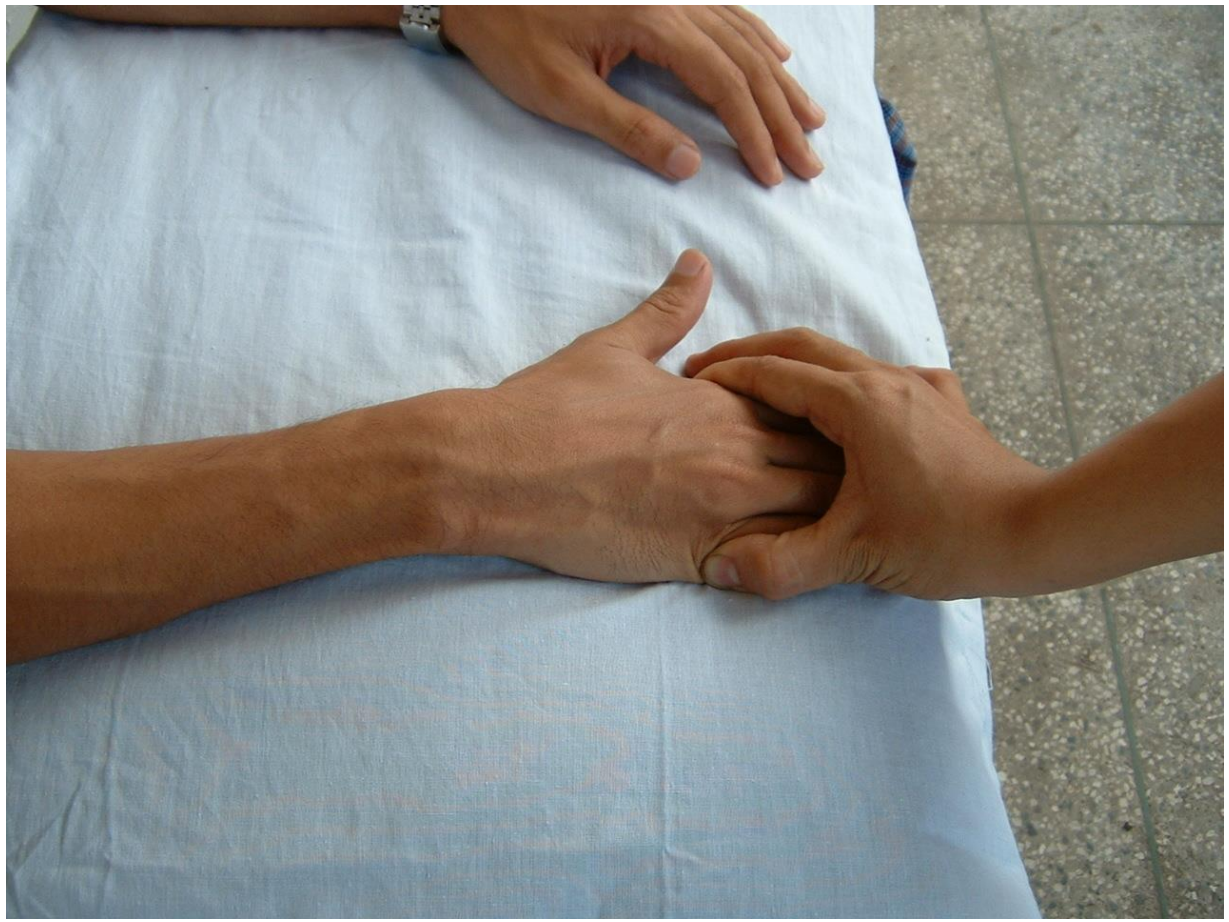
JK Science.vol. 4 No.1, January-March 2002

Is Inflammatory arthritis ?

- Inflammatory arthritis is characterized by : Some or all of
- (1).4 cardinal signs of inflammation (swelling, warmth, pain, erythema)
- (2).Prolonged early morning stiffness (usually about 60 minutes or more)
- (3). Improvement of symptoms on gentle use of joints
- (4). Spontaneously fluctuating course
- (5). Constitutional symptoms (fatigability, loss of appetite, loss of weight, low-grade fever or night sweat)
- (6). Presence of inflammatory markers: High ESR, CRP and platelets, Reversed A/G ratio, Low haemoglobin ,WBC may be high

JK Science.vol. 4 No.1, January-March 2002

Squeeze test positive in inflammation



Causes of monoarthritis

Common

- Gout
- Pseudogout
- Trauma
- Haemarthrosis
- Spondyloarthritis
- Psoriatic arthritis
- Reactive arthritis
- Enteropathic arthritis

Less common

- Rheumatoid arthritis
- Juvenile idiopathic arthritis
- Pigmented villonodular synovitis
- Foreign body reaction
- Tuberculosis
- Leukaemia*
- Gonococcal infection
- Osteomyelitis*

*In children, both leukaemia and osteomyelitis may present with monoarthritis.

This refers to pain and swelling affecting a single joint.

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Common causes of polyarthritis

Cause	Characteristics
Rheumatoid arthritis	Symmetrical, small and large joints, upper and lower limbs
Viral arthritis	Symmetrical, small joints; may be associated with rash and prodromal illness; self-limiting
Osteoarthritis	Symmetrical, targets PIP, DIP and first CMC joints in hands, knees, hips, back and neck; associated with Heberden's and Bouchard's nodes
Psoriatic arthritis	Tends to be asymmetrical, affecting PIP and DIP joints in the hands but large joints may also be affected; often associated with nail pitting/onycholysis, dactylitis and enthesitis
Axial spondyloarthritis and enteropathic arthritis	Tends to affect mid-size and large joints and entheses, lower more than upper limbs; history of inflammatory back pain
Systemic lupus erythematosus	Symmetrical, typically affecting small joints; clinical evidence of synovitis unusual
Juvenile idiopathic arthritis	Various patterns including: polyarticular, oligoarticular and systemic but also enthesitis-predominant
Chronic gout	Affects distal more than proximal joints; history of acute attacks
Chronic sarcoidosis	Small and large joints, often involves ankles
Poncet's disease	A reactive arthritis often affecting large joints associated with tuberculosis
Calcium pyrophosphate arthritis	Chronic polyarthritis with involvement of wrists, ankles, knees and oligoarticular small hand joints

pain and swelling affecting five or more joints or joint groups.

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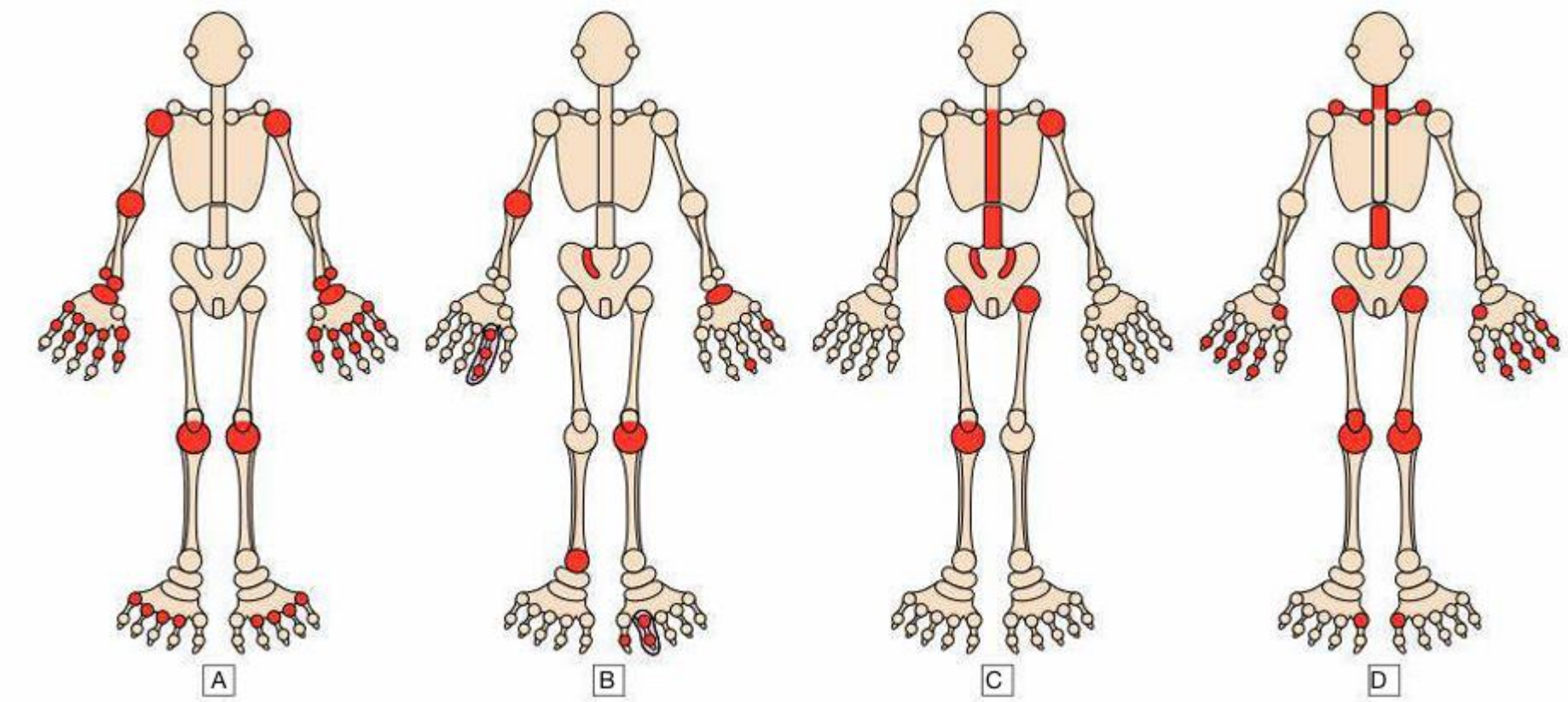
Patterns of joint involvement in different forms of polyarthritis



A. Rheumatoid Arthritis
B. PsA
C. AS
D. OA

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26.12 Extra-articular features of inflammatory arthritis

Clinical feature	Disease association
Skin, nails and mucous membranes	
Psoriasis, nail pitting and dystrophy	Psoriatic arthritis
Raynaud's phenomenon	Systemic sclerosis, antiphospholipid syndrome, SLE
Photosensitivity	SLE
Livedo reticularis	SLE, antiphospholipid syndrome
Splinter haemorrhages, nail-fold infarcts, purpuric lesions	Vasculitis
Urticaria and erythemas	SLE, adult-onset Still's disease, systemic JIA, rheumatic fever
Oral ulcers	SLE, reactive arthritis, Behçet's disease
Nodules	RA (mainly extensor surfaces), gout (tophi; eccentric, white deposits within), rheumatic fever
Xerostomia, dry skin, various rashes	Primary Sjögren syndrome
Eyes	
Uveitis	SpA, sarcoid, JIA, Behçet's disease
Conjunctivitis	Reactive arthritis
Episcleritis, scleritis	RA, vasculitis
Heart, lungs	
Pleuro-pericarditis	SLE, RA, rheumatic fever
Aortic valve/root disease	HLA-B27-related SpA
Interstitial lung disease	RA, SLE, primary Sjögren syndrome
Abdominal organs	
Hepatosplenomegaly	RA, SLE
Haematuria, proteinuria	SLE, vasculitis, systemic sclerosis
Urethritis	Reactive arthritis and SpA (sterile)
Fever, lymphadenopathy	Infection, systemic JIA, rheumatic fever

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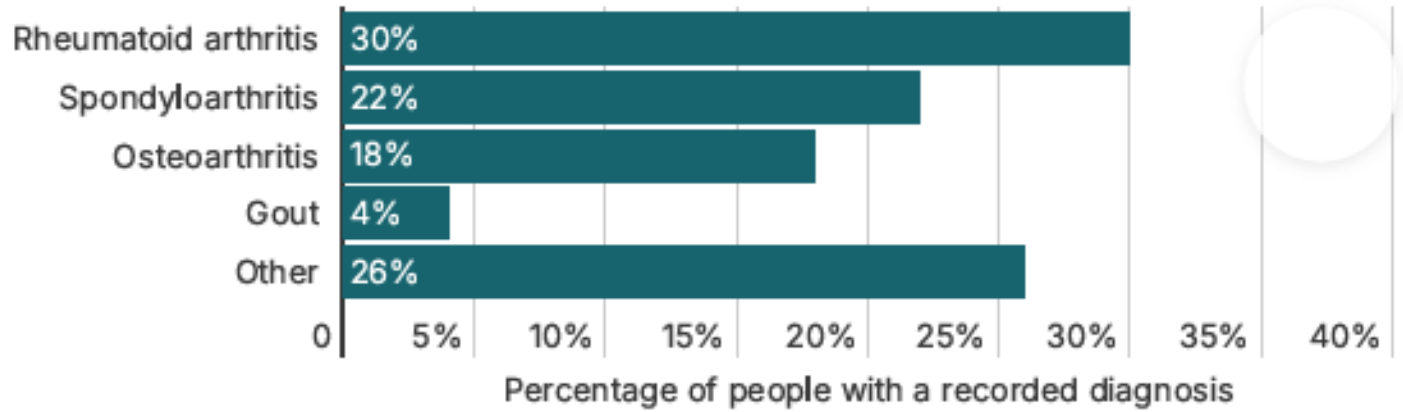
Diagnoses of people referred into rheumatology with suspected inflammatory arthritis



www.versusarthritis.org/about-arthritis/date-and-statistcs/the-state-of-musculoskeletal-health)2021

3.Rheumatoid Arthritis

1.Introduction: What is RA?

- Rheumatoid arthritis is a progressive, systemic and autoimmune inflammatory disorder characterized by symmetrical synovitis, joint erosions and multisystem extra-articular manifestations.

Global, regional, and national burden of rheumatoid arthritis, 1990–2020, and projections to 2050: a systematic analysis of the Global Burden of Disease Study 2021

- In 2020, an estimated **17·6 million** (95% uncertainty interval 15·8–20·3) people had rheumatoid arthritis worldwide.
- The age-standardised global prevalence rate was 208·8 cases (186·8–241·1) per 100 000 population, representing a 14·1% (12·7–15·4) increase since 1990.
- Prevalence was higher in females (age-standardised female-to male prevalence ratio 2·45.
- We forecast that **31·7 million** (25·8–39·0) individuals will be living with rheumatoid arthritis worldwide by **2050**.

Lancet Rheumatol 2023; 5: e594–610

Introduction: What is the impact on economy?

- Direct costs (hospitalisations, treatments, diagnostics)

  is estimated to be €14 billion per year in Europe [10]

- Indirect costs (productivity losses and informal care) are estimated

  at €17 billion per year in Europe[10]

- Within ten years of the start of the condition, at least half

  of people with RA are unable to work[10]

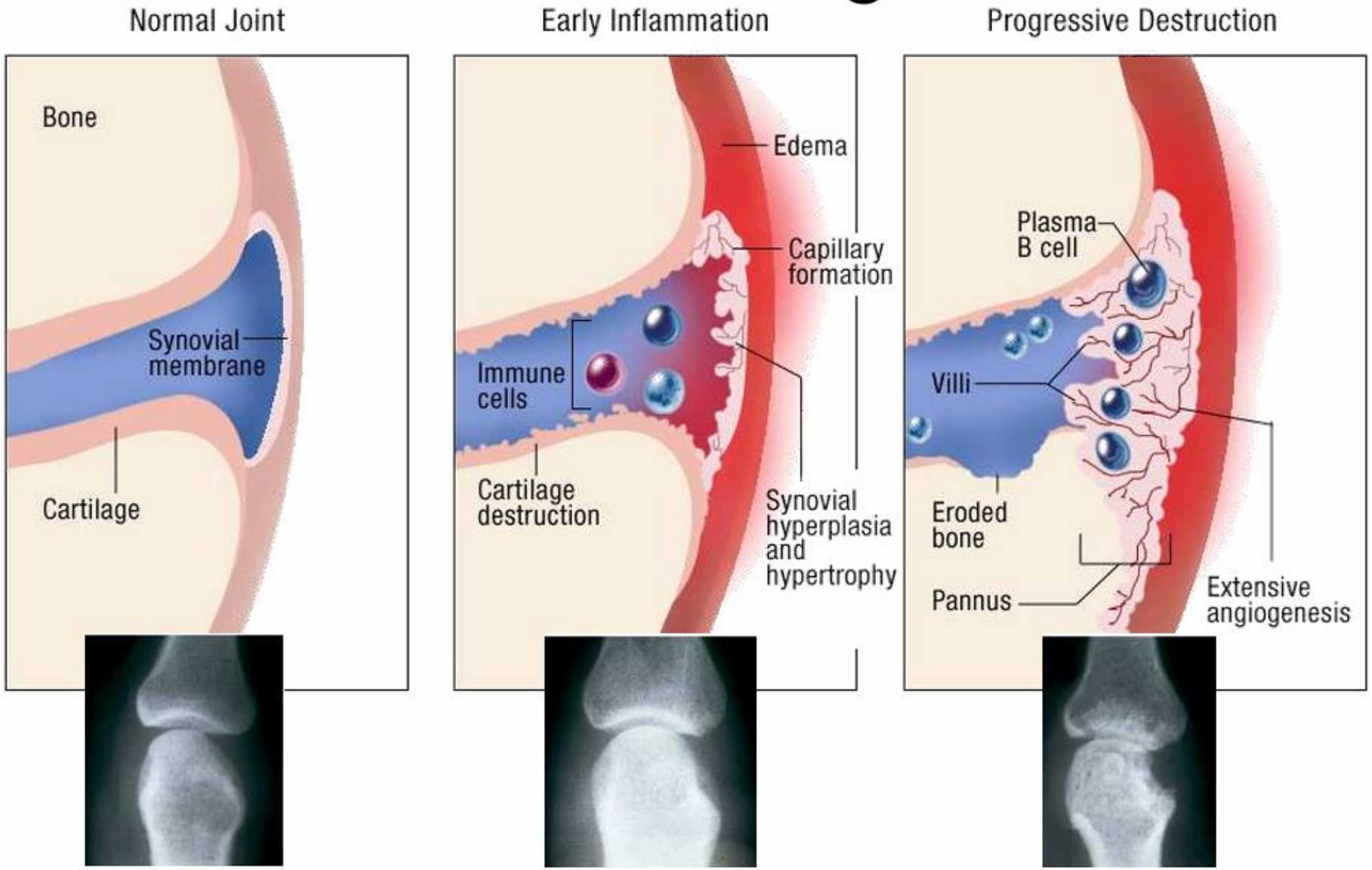
10. Lundkvist J, Kasta¨ng F, Kobelt G. The burden of rheumatoid arthritis and access to treatment:health burden and costs. Eur J Health Econ (2008) 8 (Suppl 2):S49–S60

Introduction: What is the Impact on the Individual?

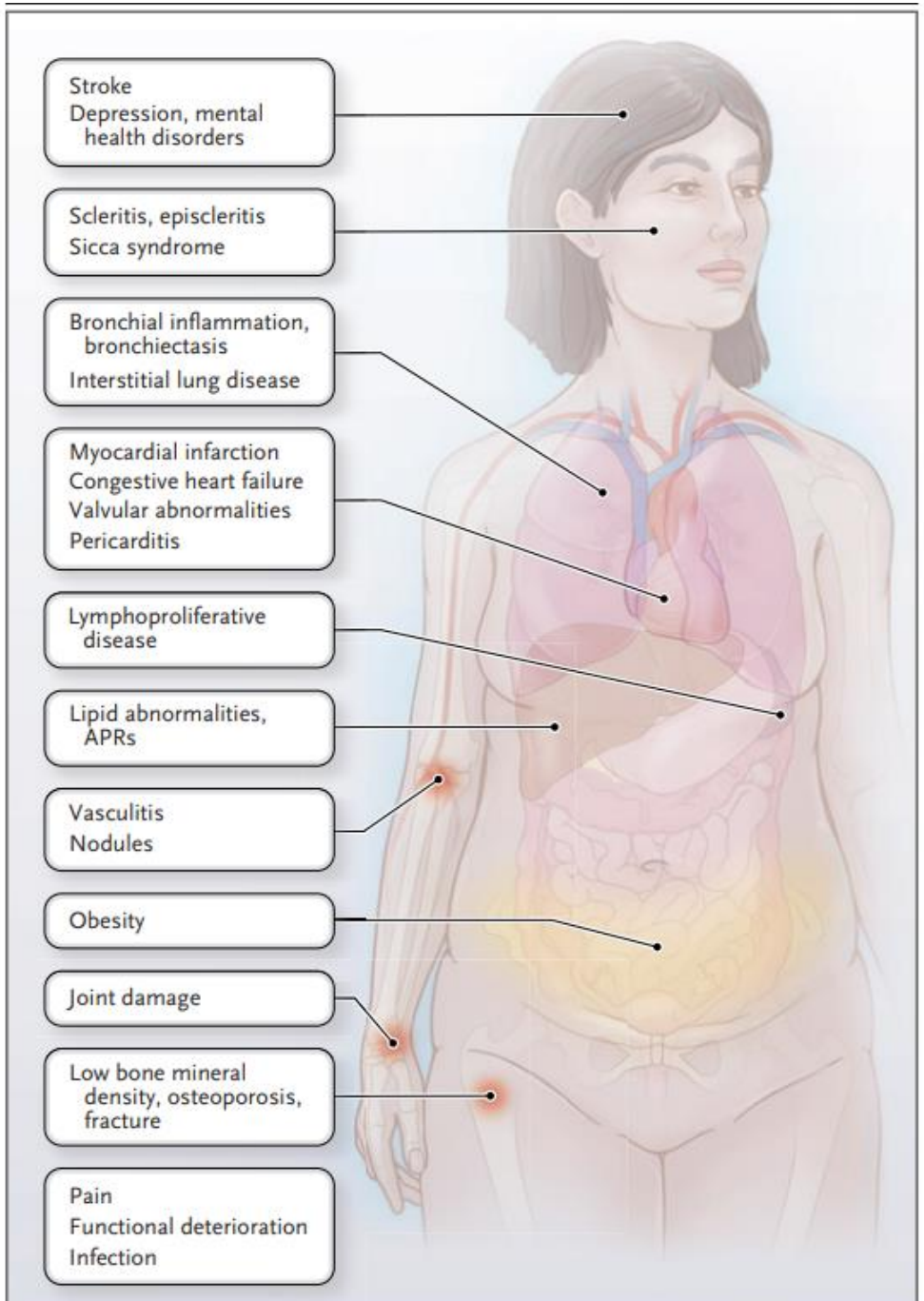
- People often live with RA for 30 years or more [11]
- The disease not only affects people with RA but those who are close to them including family, friends, colleagues and neighbours
- Some people with RA feel they are unable to care for their family and plan for the future [12]
- RA has one of the worst quality of life scores within chronic diseases, similar to that of multiple sclerosis [13]

11. Jo¨nsson B. Patient access to rheumatoid arthritis treatments European Journal of Health Economics (2008) 8 (Suppl 2):S35–S38
12. Survey of Rheumatoid Arthritis Patients. A report for the Arthritis Foundation
13. Lundkvist J, Kasta¨ng F, Kobelt G. The burden of rheumatoid arthritis and access to treatment:health burden and costs. Eur J Health Econ (2008) 8 (Suppl 2):S49–S60

RA Disease Progression



Choy EHS, Panayi GS. *N Engl J Med.* 2001;344(12):907–916.



Complications of RA and Coexisting Conditions

n engl j med 388;6 nejm.org February 9, 2023

Targets for biologic therapies in inflammatory rheumatic diseases

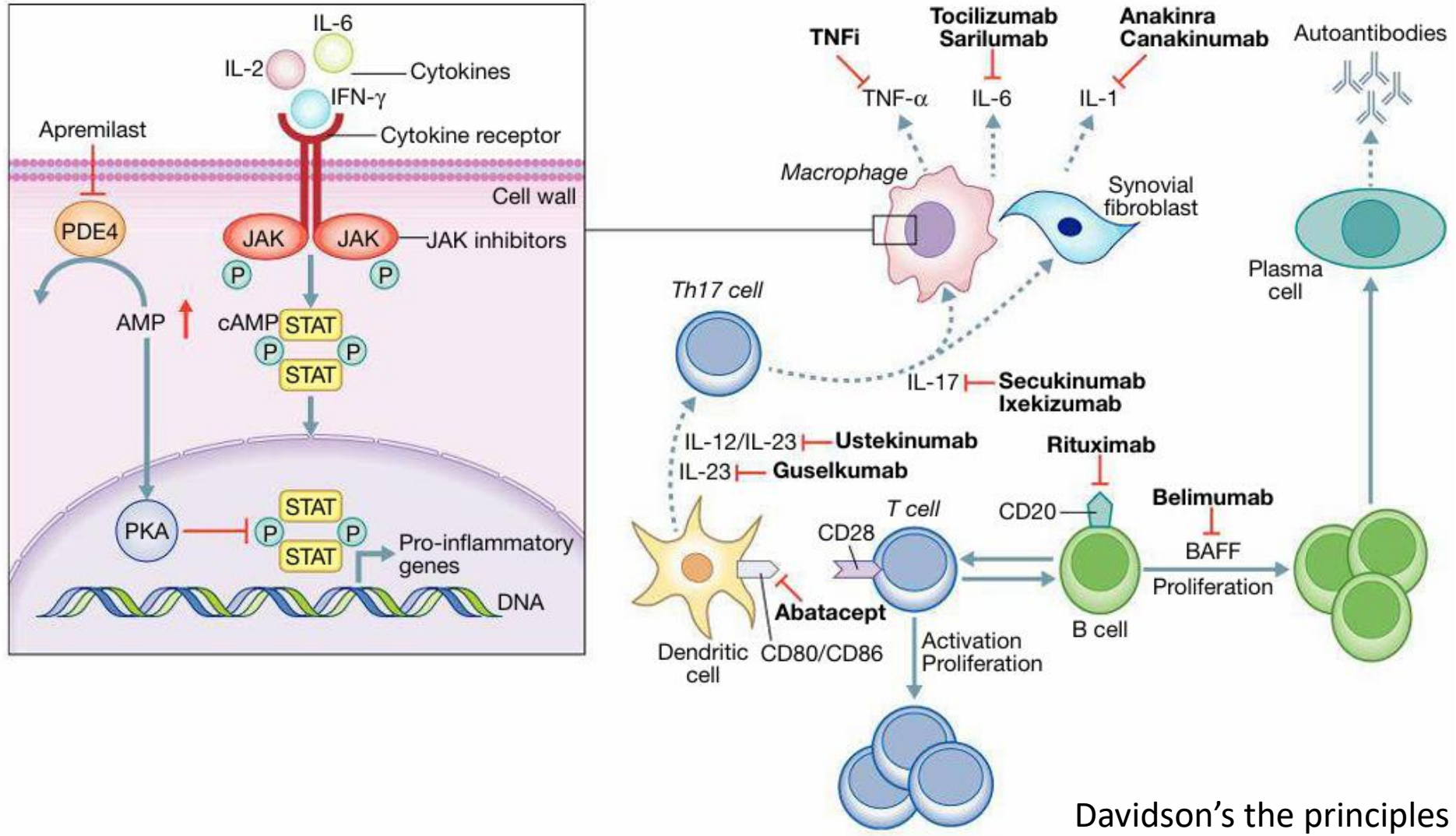


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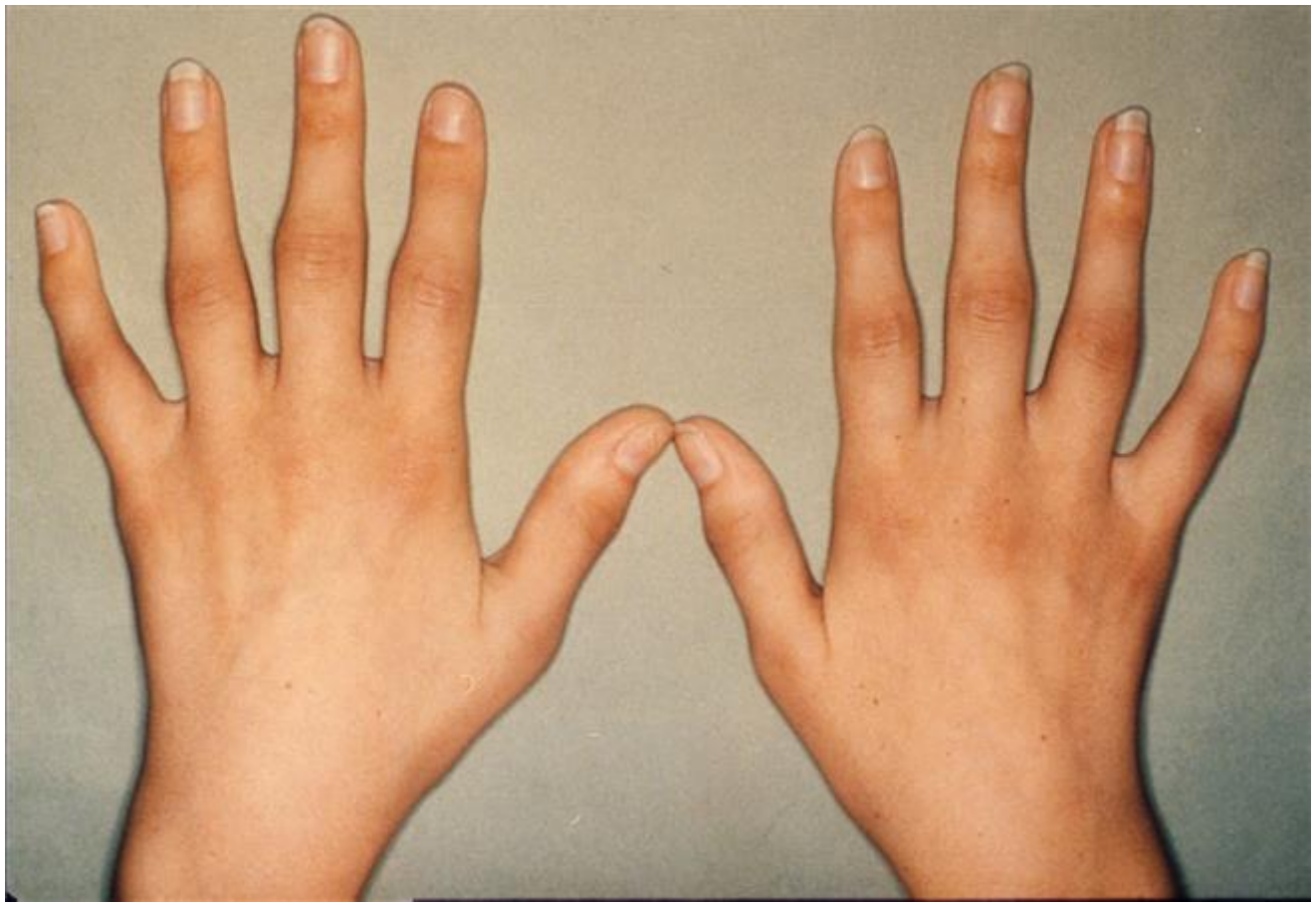
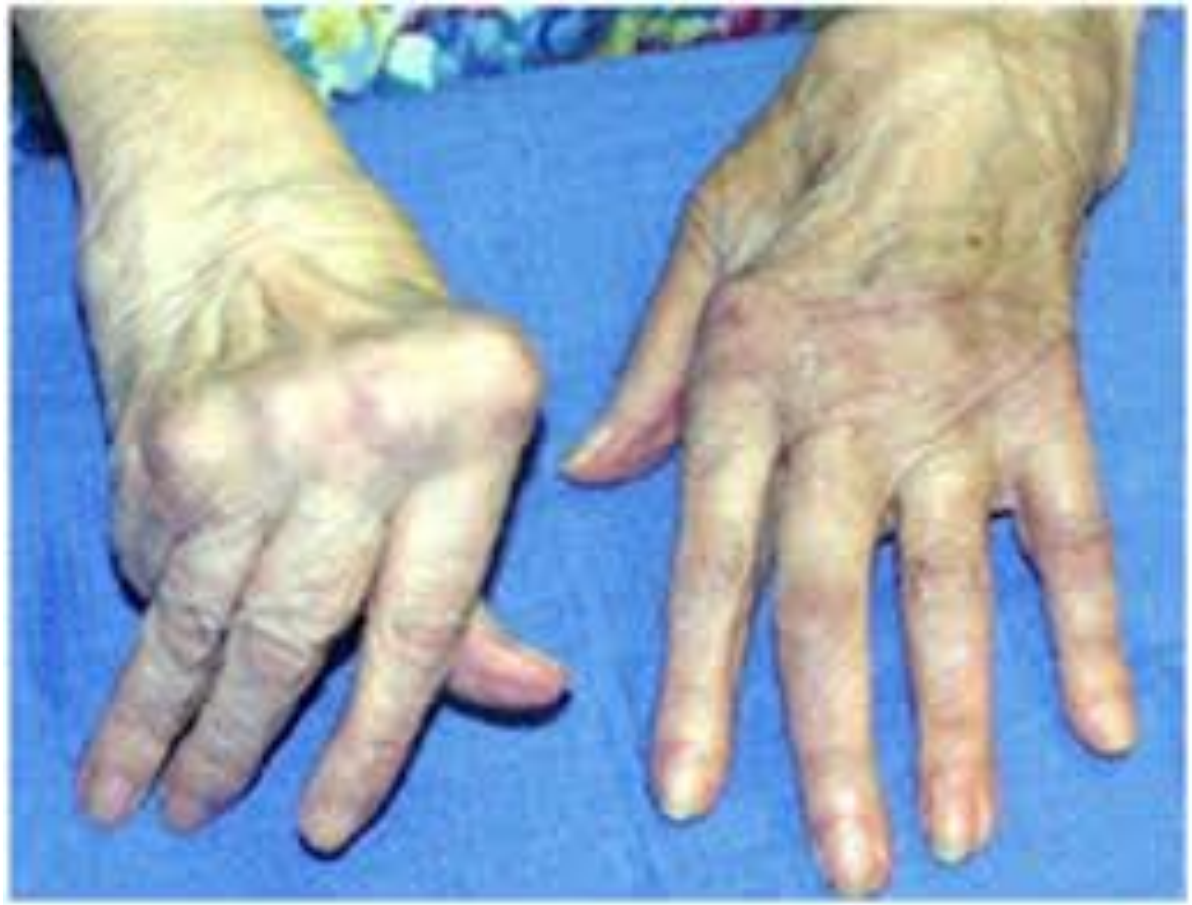
Table . Diagnosis according to ACR/EULAR (2010) RA criteria

Symptom	Score
A Joint involvement (0-5)	
1 medium-large joint	0
2-10 medium-large joint	1
1-3 small joints (with or without involvement of large joint)	2
4-10 small joints (with or without involvement of large joint)	3
>10 joints (at least one small joint)	5
B Serology (0-3)	
Negative RF and negative ACPA	0
Low positive RF or low positive ACPA	2
High positive RF or high positive ACPA	3
C Acute phase reactants	
Normal CRP and normal ESR	0
Abnormal CRP or abnormal ESR	1
D Duration of symptoms	
< 6 week	0
>= 6 week	1

A **score of >6/10** is needed to diagnose definite RA. NB: In some patients with chronic deformed RA in the state of remission at first visit, not fulfil the above criteria, ACR criteria for RA (1987) may be useful to make the diagnosis.





Clinical Assessment in RA

- Disease Activity Score (DAS) (Inflammation)
- X’ray changes (Structural damage)
- Quality of life (MQoL for Myanmar people)
- Comorbidities

Severity Assessment

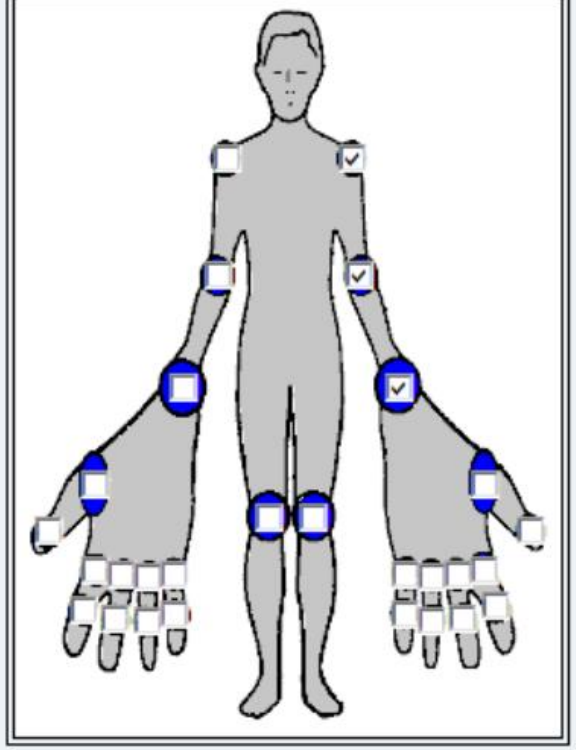
- Disease Activity-Modified Disease Activity Score (DAS 28)

$$\text{DAS 28ESR} = 0.56 \times \sqrt{(\text{TJC28})} + 0.28 \times \sqrt{(\text{SJC28})} + 0.7 \times \text{Log nat (ESR)} + 0.014 \times \text{GH}$$

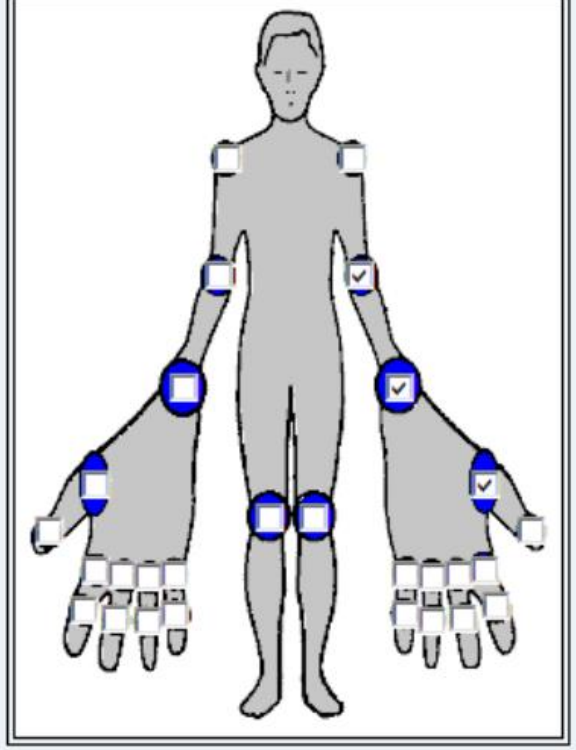
- TJC = tender joint count;
- SJC = Swollen joint count,
- ESR= Erythrocyte sedimentation rate,
- GH = Global Health
- < 2.6 = Remission
- 2.6 - 3.2 = Low Disease Activity
- 3.2 - 5.1 = Moderate Activity
- > 5.1 = High Activity

Patient Name:	Oliver Hardy	**DOB:**	01/04/1970
Unit Number:	H65-432-1	**Sex:**	M
Date recorded:	05/04/2013		
	ESR 11.0 CRP 9.0	**Das28 Result ESR**	**4.17** High
Patient disease activity: *(visual acuity scale, VAS, 0-100mm)*	74 (0 - not active 100 - extremely active)	**Das28 Result CRP**	**4.28** High

Swollen Joints: 3



Tender Joints: 3



Preferred calculation ESR

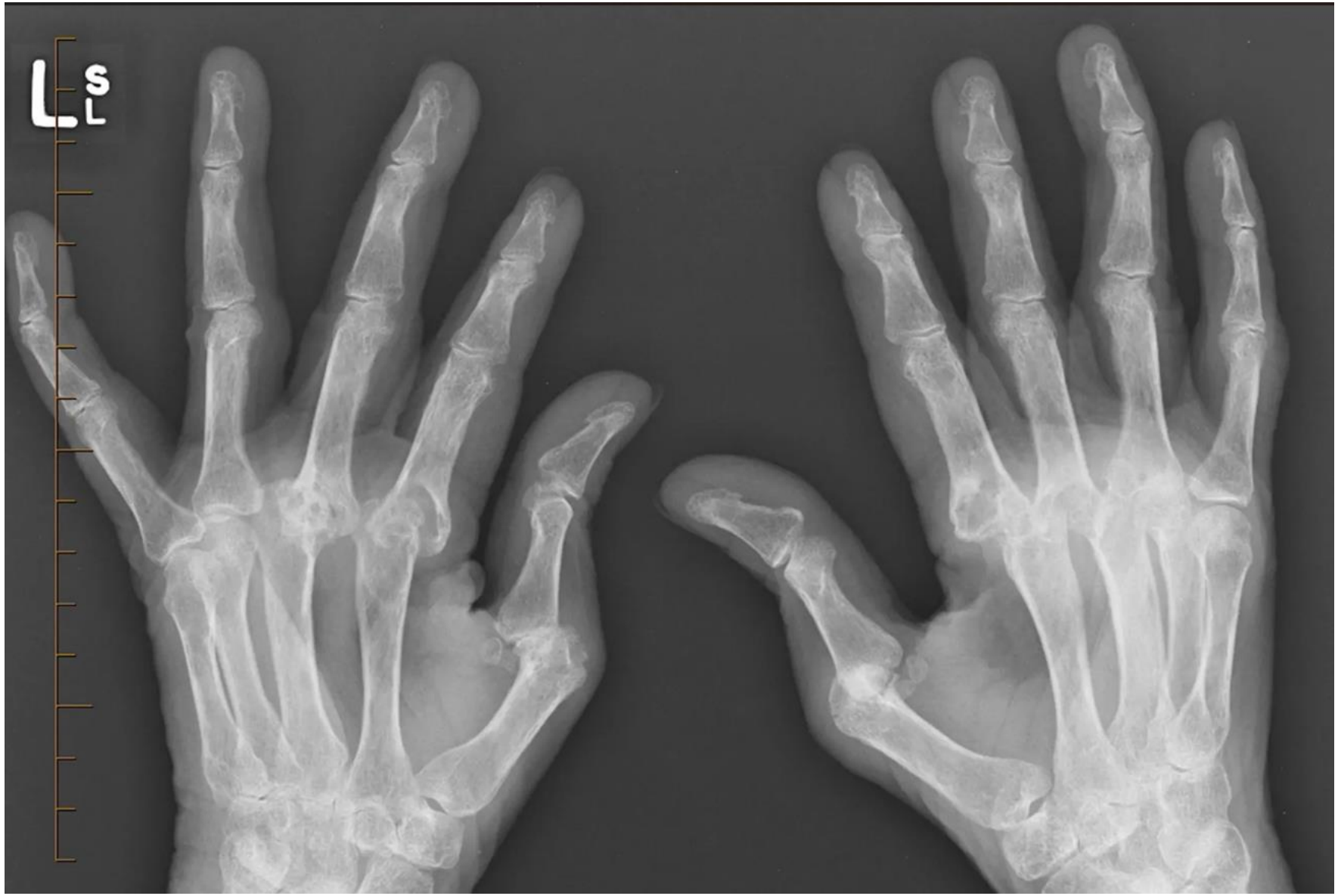
FORMULAE:

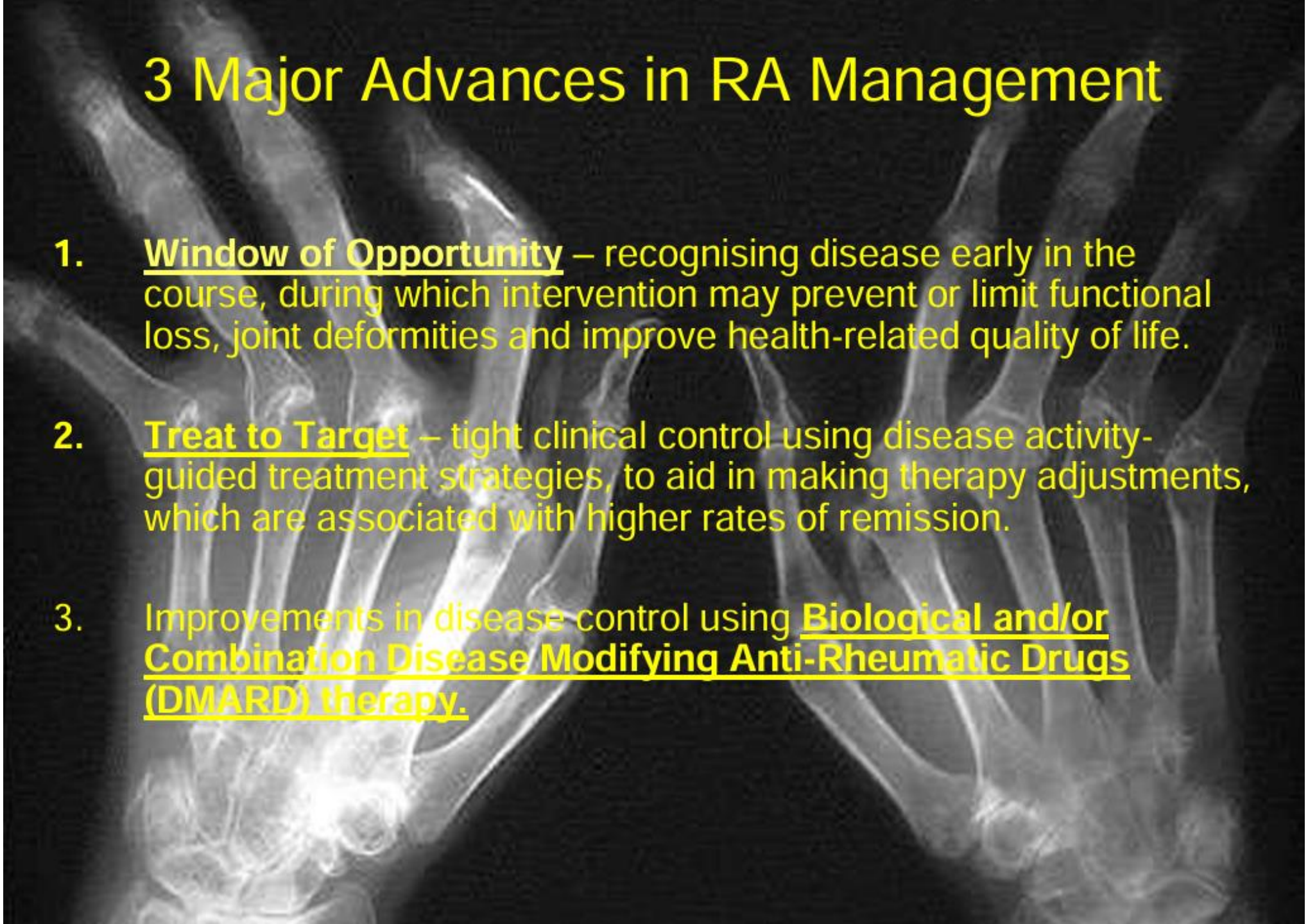
DAS28-ESR *(4)* = 0.56*sqrt(TJC28) + 0.28*sqrt(SJC28) + 0.70*Ln(ESR) + 0.014*VAS

DAS28-CRP *(4)* = 0.56*sqrt(TJC28) + 0.28*sqrt(SJC28) + 0.36*ln(CRP+1) + 0.014*VAS + 0.96

Improvement criteria (EULAR improvement criteria)

Value achieved	Change in DAS or DAS28 from base line			
DAS28	DAS	>1.2	>0.6 and ≤ 1.2	≤0.6
≤ 3.2	≤ 2.4 (**2.6)	Good		
>3.2 and ≤5.1	>2.4 and ≤		Moderate	
>5.1	>3.7			Non





3 Major Advances in RA Management

1. **Window of Opportunity** – recognising disease early in the course, during which intervention may prevent or limit functional loss, joint deformities and improve health-related quality of life.

2. **Treat to Target** – tight clinical control using disease activity-guided treatment strategies, to aid in making therapy adjustments, which are associated with higher rates of remission.

3. Improvements in disease control using **Biological and/or Combination Disease Modifying Anti-Rheumatic Drugs (DMARD) therapy.**

Management of inflammatory arthritis

- All forms of inflammatory arthritis have similar management strategies coordinated through a multidisciplinary team.
- Pharmacological treatments are prescribed to relieve painful symptoms and to slow or stop disease progression, thereby limiting future impairment.
- Treatment teams should provide ongoing support by promoting self-management though education, coordinating regular reviews, and ensuring access to urgent advice.

DMARD nomenclature

➢Synthetic DMARDs

- csDMARDs- methotrexate, leflunomide, sulfasalazine, hydroxychloroquine
- Targeted synthetic tsDMARDs- baricitinib, tofacitinib, upadacitinib

Biological DMARDs

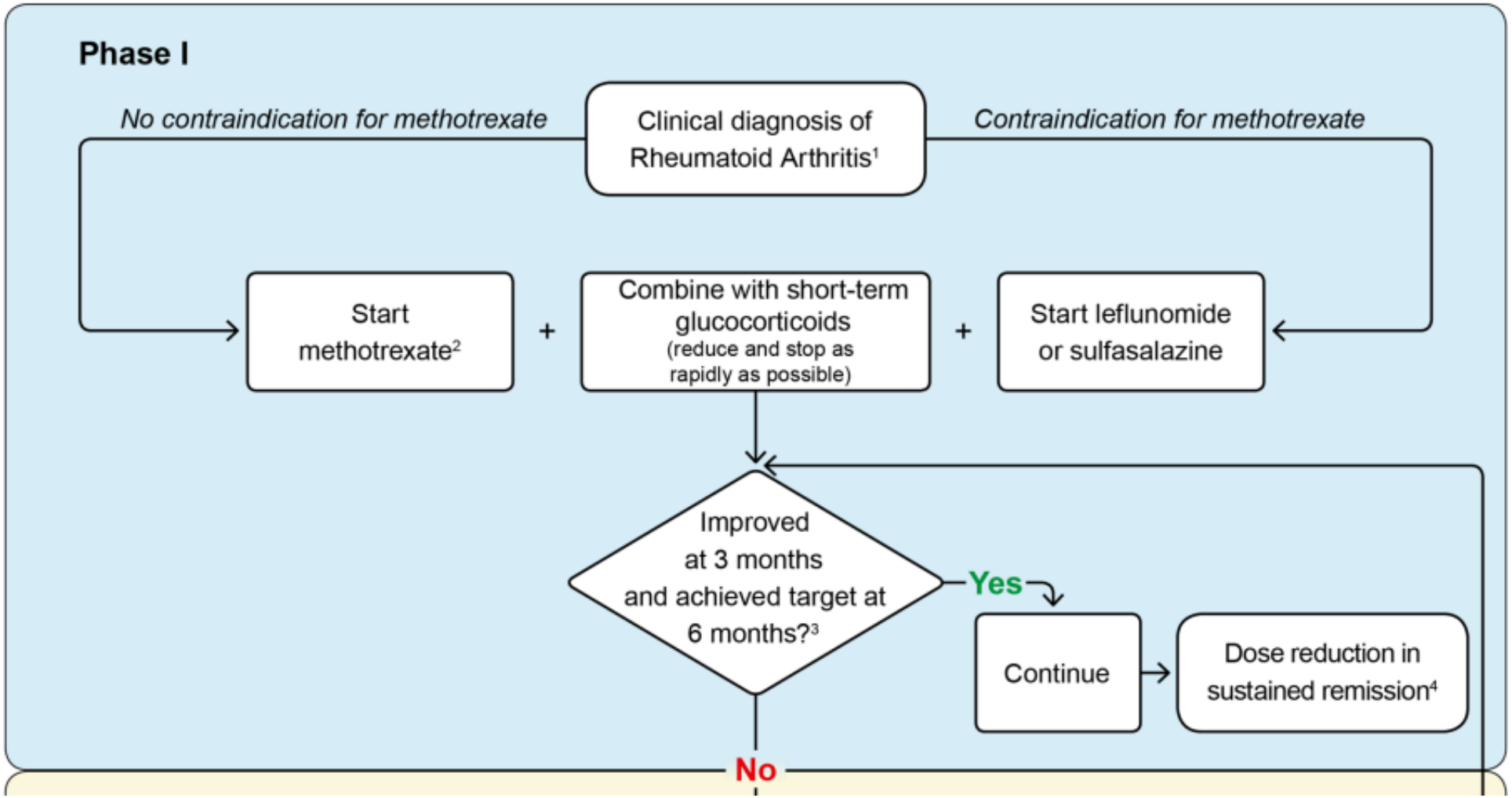
➢Biological DMARDs –

- ➢ TNFi: adalimumab, etanercept, certolizumab, golimumab, infliximab;
- ➢IL- 6Ri: sarilumab, tocilizumab;
- ➢Costimulation-i: abatacept;
- ➢anti-B cell (CD20): rituximab

Recommendation

EULAR recommendations for the management of rheumatoid arthritis with synthetic and biological disease-modifying antirheumatic drugs: 2022 update

Smolen JS, et al. Ann Rheum Dis 2023;82:3–18.



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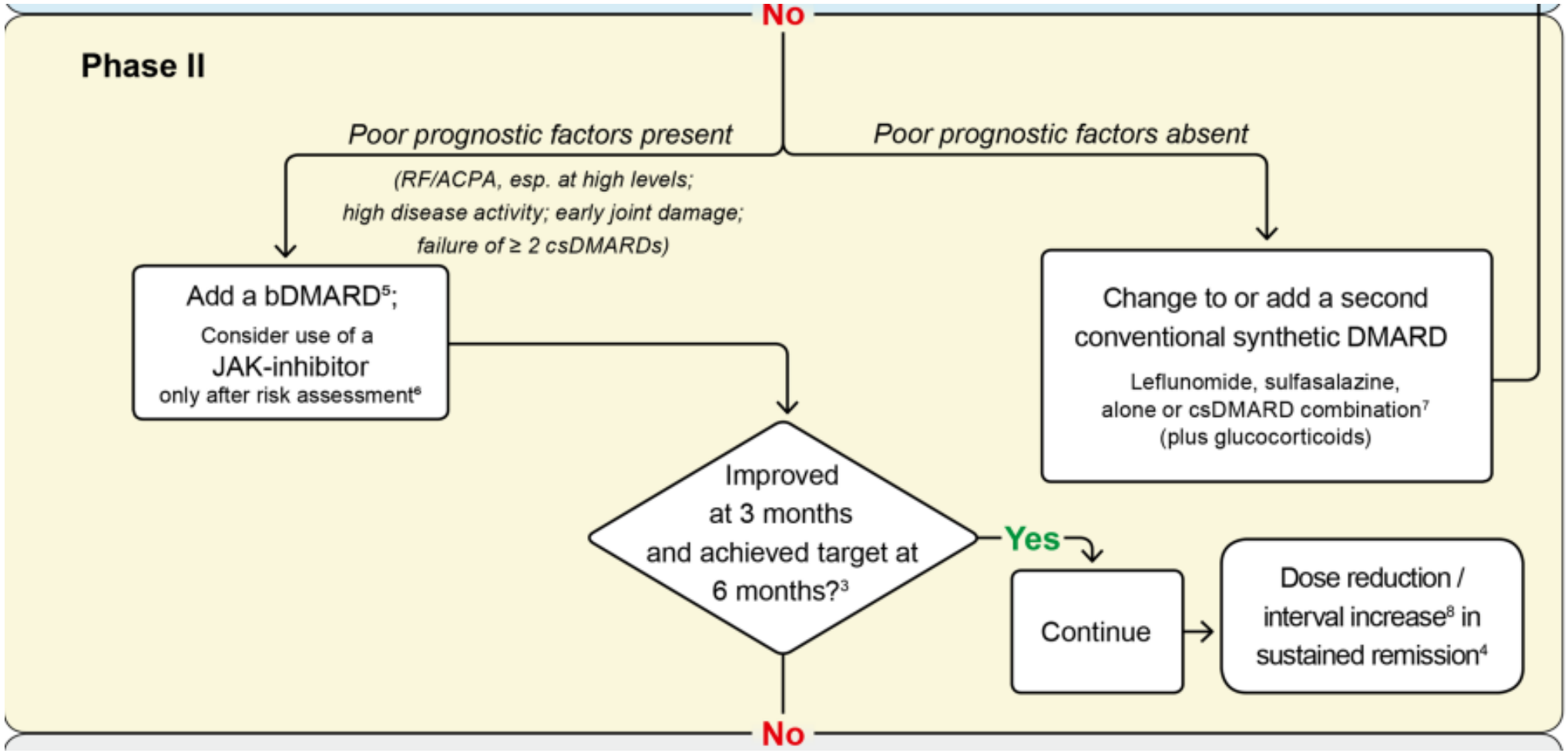

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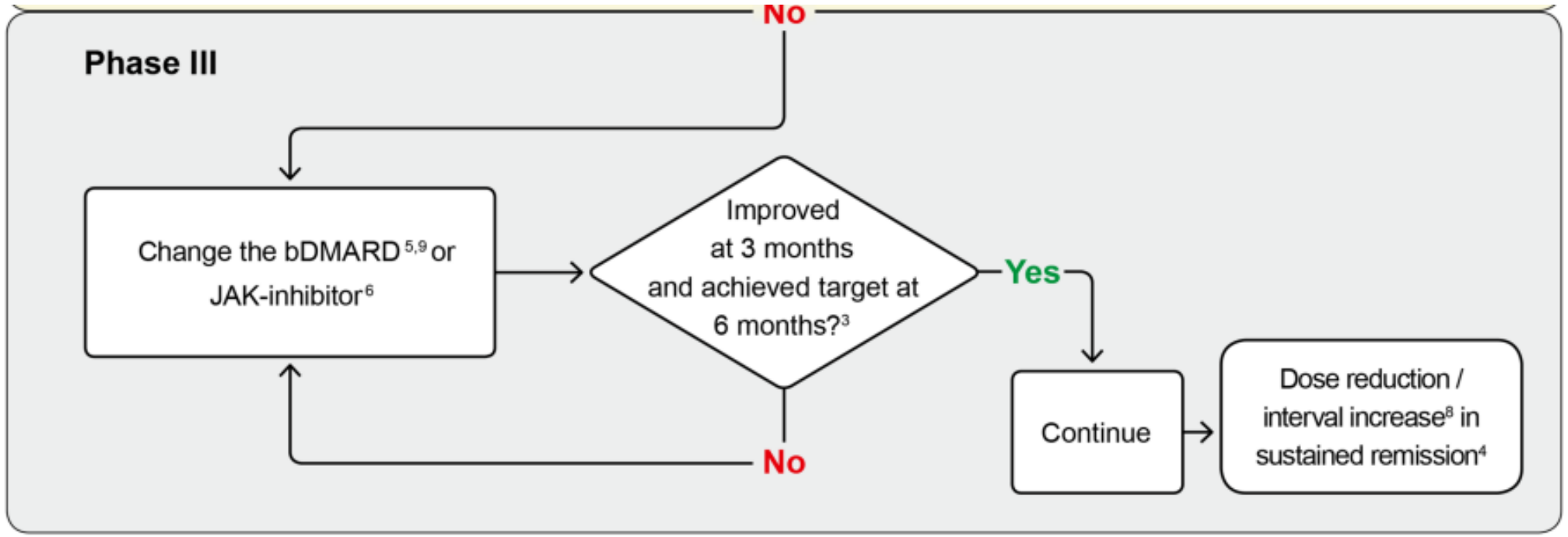
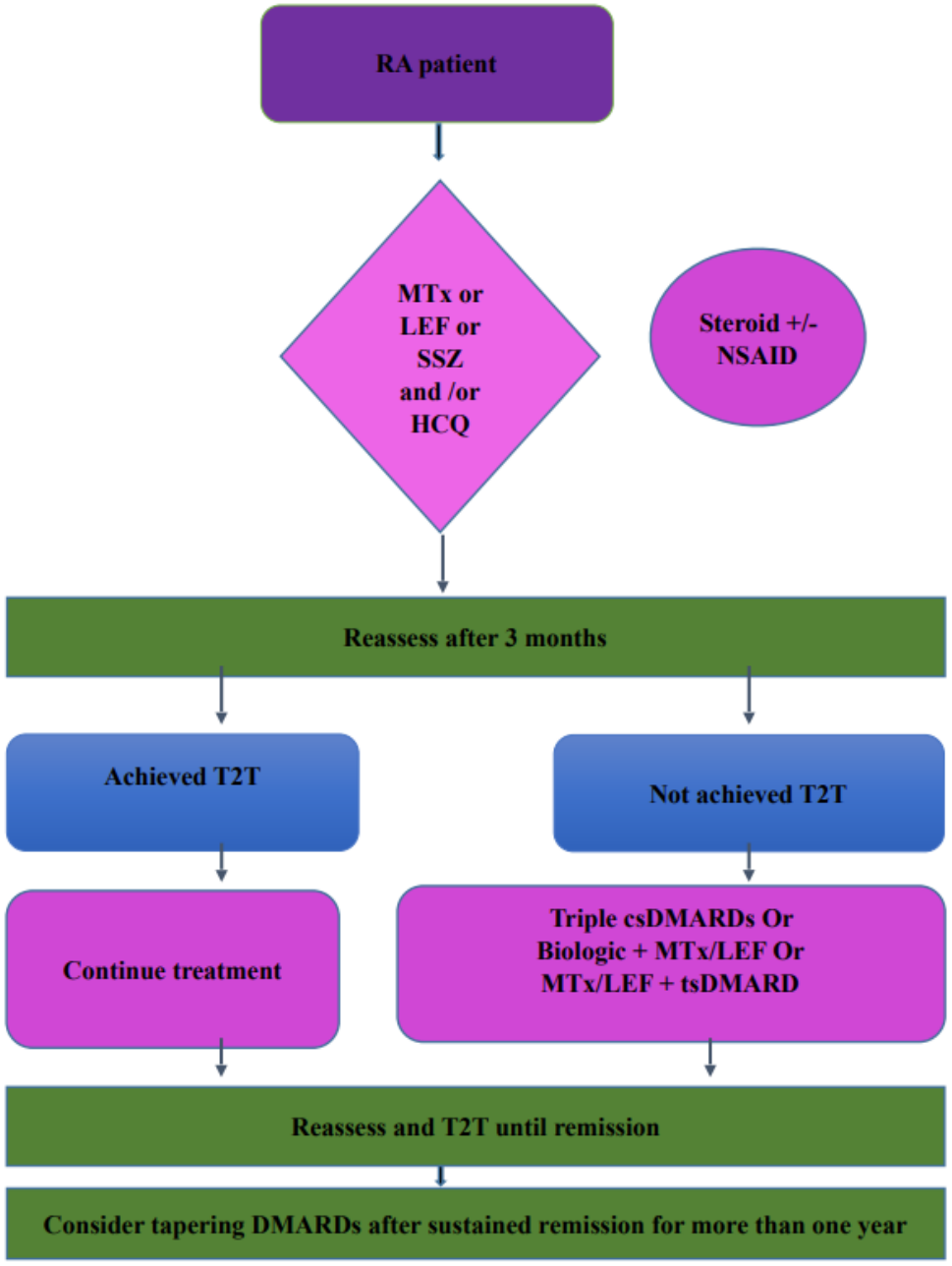


Smolen JS, et al. Ann Rheum Dis 2023;82:3–18

Algorithm 2. Management of RA



Myanmar Rheumatology Society Management of Rheumatoid arthritis

Update on 1st October 2020

Early Inflammatory Arthritis (EIA)

Clinicians

Services & Referral

Rheumatology - For Clinicians

Early Inflammatory Arthritis (EIA)

Giant Cell Arteritis Rapid Access Clinic

Rheumatology Drug Monitoring

Key Referral Telephone & Fax Numbers

Consultant Directory

NHS eReferrals

GP Newsletter

We are developing our EIA service in line with NICE and BSR guidelines and around our patients' needs.

All referrals are triaged by the consultants and we aim to see suspected early inflammatory arthritis cases within 3 weeks from receipt of referral. Referrals should be submitted with a completed proforma.

Please refer patients with suspected persistent joint inflammation of 4 weeks or more AND any one of the following:

1. Swelling of 3 or more joints
2. Swelling of the small joints of hands or feet
3. Positive MCPJ or MTPJ "Squeeze test" (i.e. pain produced by squeezing across the metacarpophalangeal/etatarsophalangeal joints)
4. Early morning joint stiffness (EMS) >30mins

Please note the diagnosis of Early Inflammatory Arthritis is not excluded by normal inflammatory markers and / or a negative rheumatoid factor and/or normal Xrays.

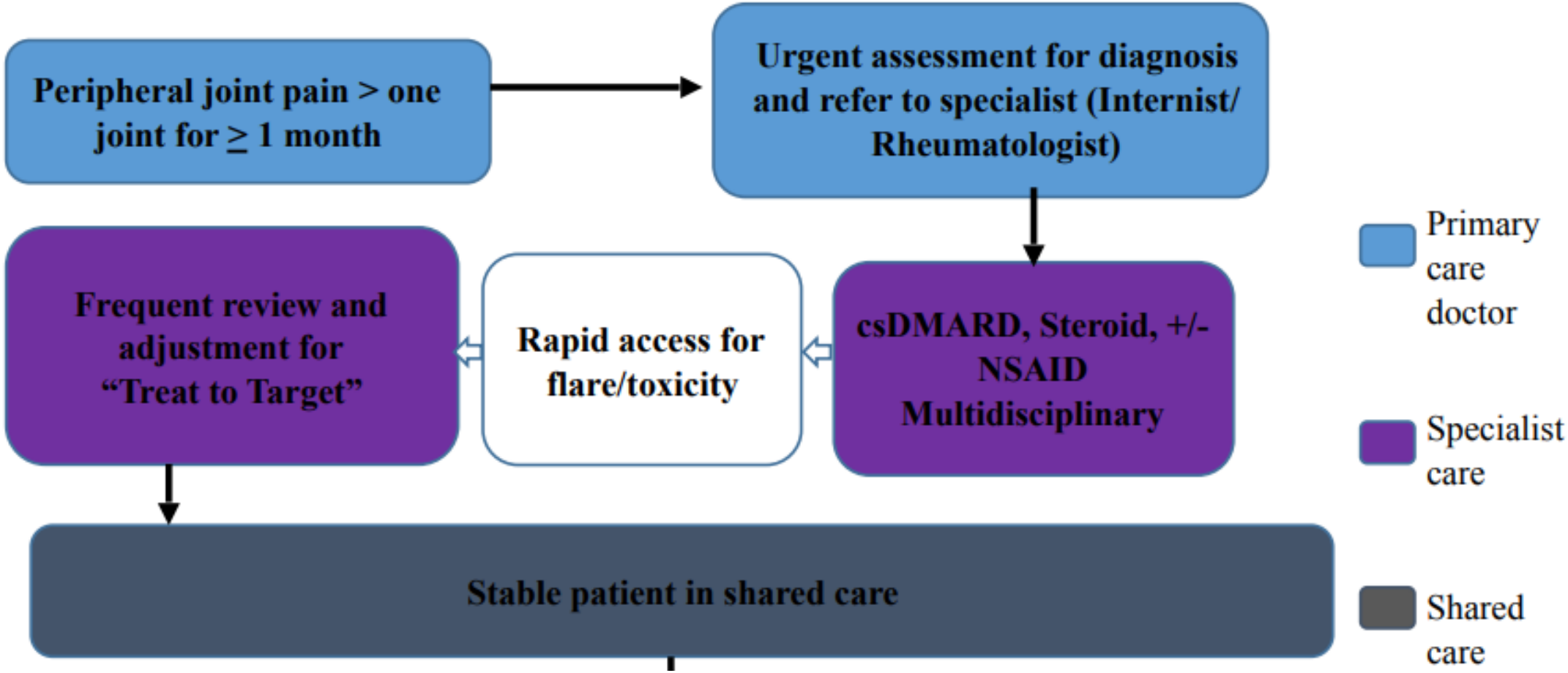
We aim to make a diagnosis and start disease-modifying drugs within 6 weeks from time of referral or discharge patients back if not EIA.

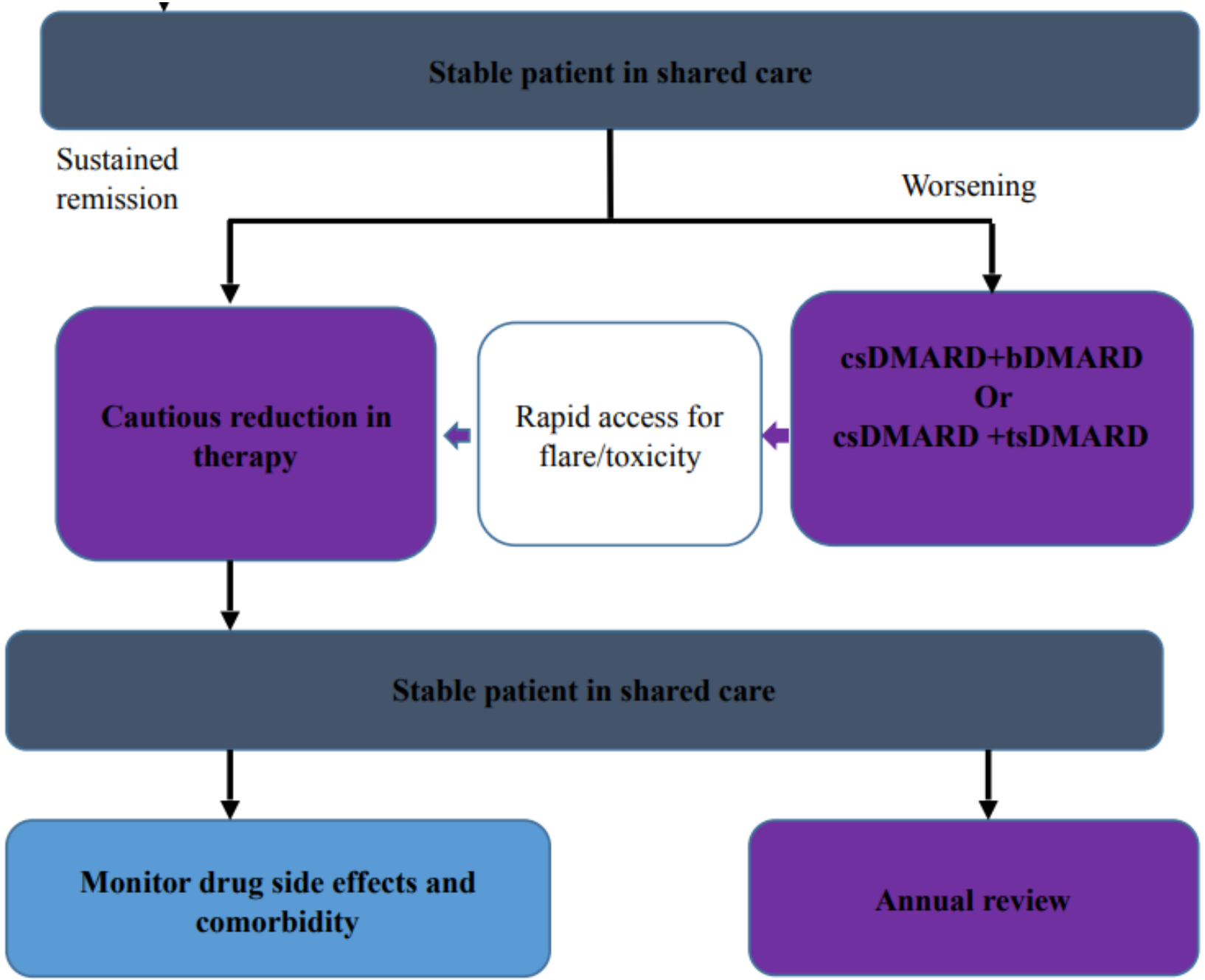
People diagnosed with EIA have regular clinical reviews by the multidisciplinary team for education, self-management, monitoring of disease activity, therapeutic benefit and treatment safety.

Referrals will only be accepted with a completed **Referral pathway to the Early Inflammatory Arthritis Service (EIA Service) - 3 week wait** attached to the eReferral.

Myanmar Rheumatology Society
Management of Rheumatoid arthritis
Update on 1st October 2020

Algorithm 1. Shared care System in Management of RA patient





Myanmar Rheumatology Society Management of Rheumatoid arthritis Update on 1st October 2020

Shared Care Agreement Form

This form is used to agree shared care between the specialist, patient and GP.

Specialist and patient agreement

By signing below we accept:

- the HMMC shared care principles (ENHCCG ; HVCCG) and
- the requirements and responsibilities defined in this drug specific shared care protocol

Specialist name:	**Patient name or addressograph label:**
Designation:	
Provider Trust:	
Direct telephone number:	
Email: **Email (for use by GP to respond to request to share care):**	
Date:	**Specialist Signature:**

Date:	**Patient Signature:**

GP response to shared care

Please return to specialist within two weeks of receipt of request to share care.

This form is to be completed by the GP who is requested to share care.

I agree to accept shared care for this patient as set out in this shared care protocol and HMMC shared care principles (ENHCCG ; HVCCG) ☐

I do not accept shared care for this patient ☐

My reason(s) for not prescribing are given below:

_____

_____

Please note that GP agreement is voluntary, with the right to decline to share care if for any reason you do not feel confident in accepting clinical responsibility. Refusal should not be for financial reasons.

GP name:	**Practice address /stamp:**
Direct telephone number:	
Email:	
Date:	**GP Signature:**

Please return a copy of the completed form to the requesting specialist within two weeks of receipt of request to share care (preferably by email).

1. Specialist to retain copy in patient's hospital records.
2. Copy to be given to patient.
3. GP to retain copy in patient's notes.

4.Spondyloarthritis

- The spondyloarthritis comprise a group of related inflammatory dis eases that show overlap in their clinical features and have a shared immunogenetic association with HLA-B27 .
- The spectrum of spondyloarthritis (SpA) includes:

1) axial spondyloarthritis (axSpA) comprising: non-radiographic SpA (nr-axSpA), radiographic axSpA (ankylosing spondylitis [AS])
2) reactive SpA
3) psoriatic arthritis
4) arthritis with inflammatory bowel disease (enteropathic SpA)

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Features common to all spondyloarthritides

- Asymmetrical inflammatory oligoarthritis (lower > upper limb)
- History of inflammatory back pain
- Sacroiliitis
- Osteitis (bone marrow oedema on MRI)
- Enthesitis (Achilles' tendonitis, plantar fasciitis)
- Dactylitis
- Family history common
- HLA-B27 association
- Psoriasis (of skin and/or nails)
- Uveitis
- Sterile urethritis and/or prostatitis
- Inflammatory bowel disease
- Aortic root lesions (aortic incompetence, conduction defects)

(HLA = human leucocyte antigen; MRI = magnetic resonance imaging)

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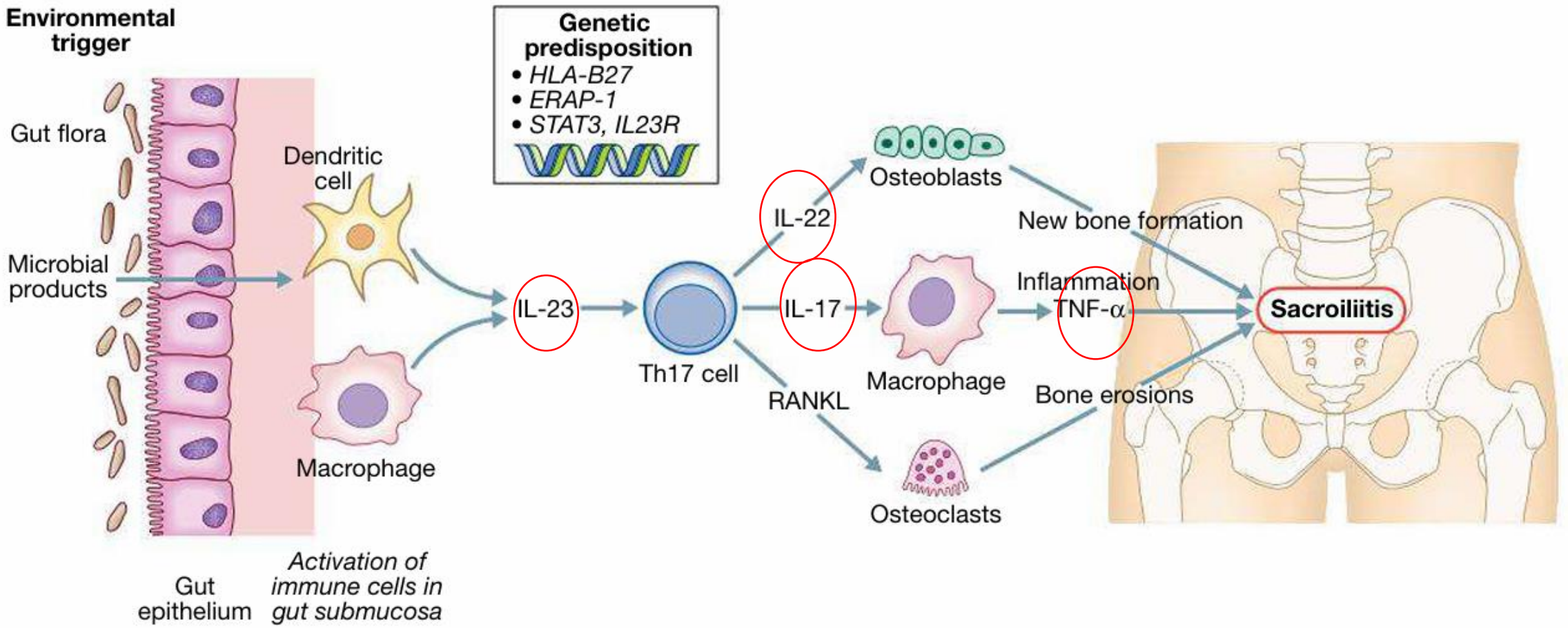
Pathophysiology of axial spondyloarthropathy



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Classification criteria for axial spondyloarthritis (ASAS)

In patients with > 3 months' back pain and age at onset < 45 years, either A or B is present:

A: Sacroiliitis on imaging* plus ≥ 1 SpA feature

SpA features are:

- Inflammatory back pain
- Arthritis
- Enthesitis (heel)
- Uveitis
- Dactylitis
- Psoriasis

B: HLA-B27 plus ≥ 2 SpA features

- Crohn's/colitis
- Good response to NSAIDs
- SpA family history
- HLA-B27
- Elevated CRP

*'Sacroiliitis on imaging' here is defined as *either* active (acute) inflammation on MRI highly suggestive of sacroiliitis associated with SpA, *or* definite radiographic sacroiliitis according to the modified New York criteria.

(ASAS = Assessment of Spondylitis International Society; CRP = C-reactive protein; HLA = human leucocyte antigen; MRI = magnetic resonance imaging; NSAID = non-steroidal anti-inflammatory drug)

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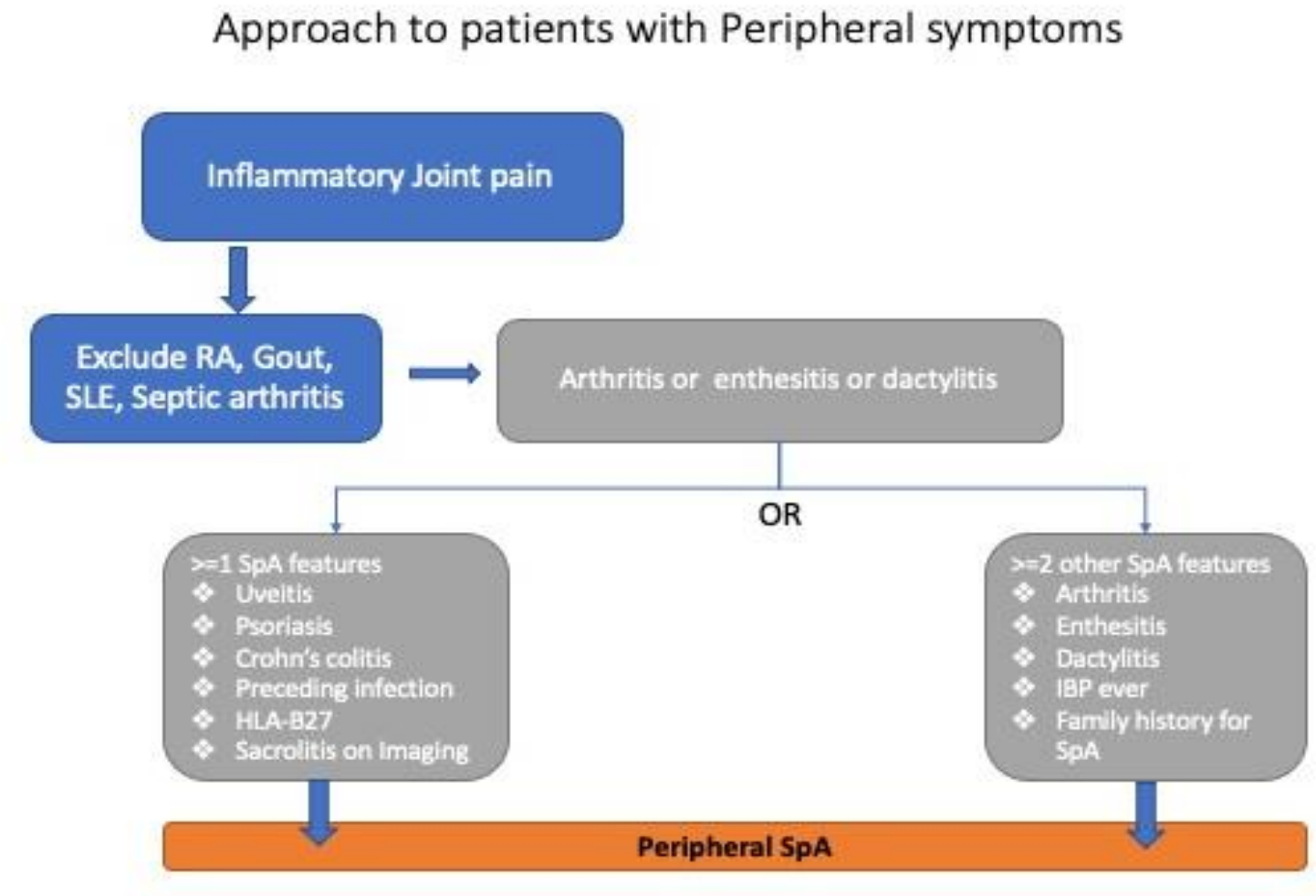
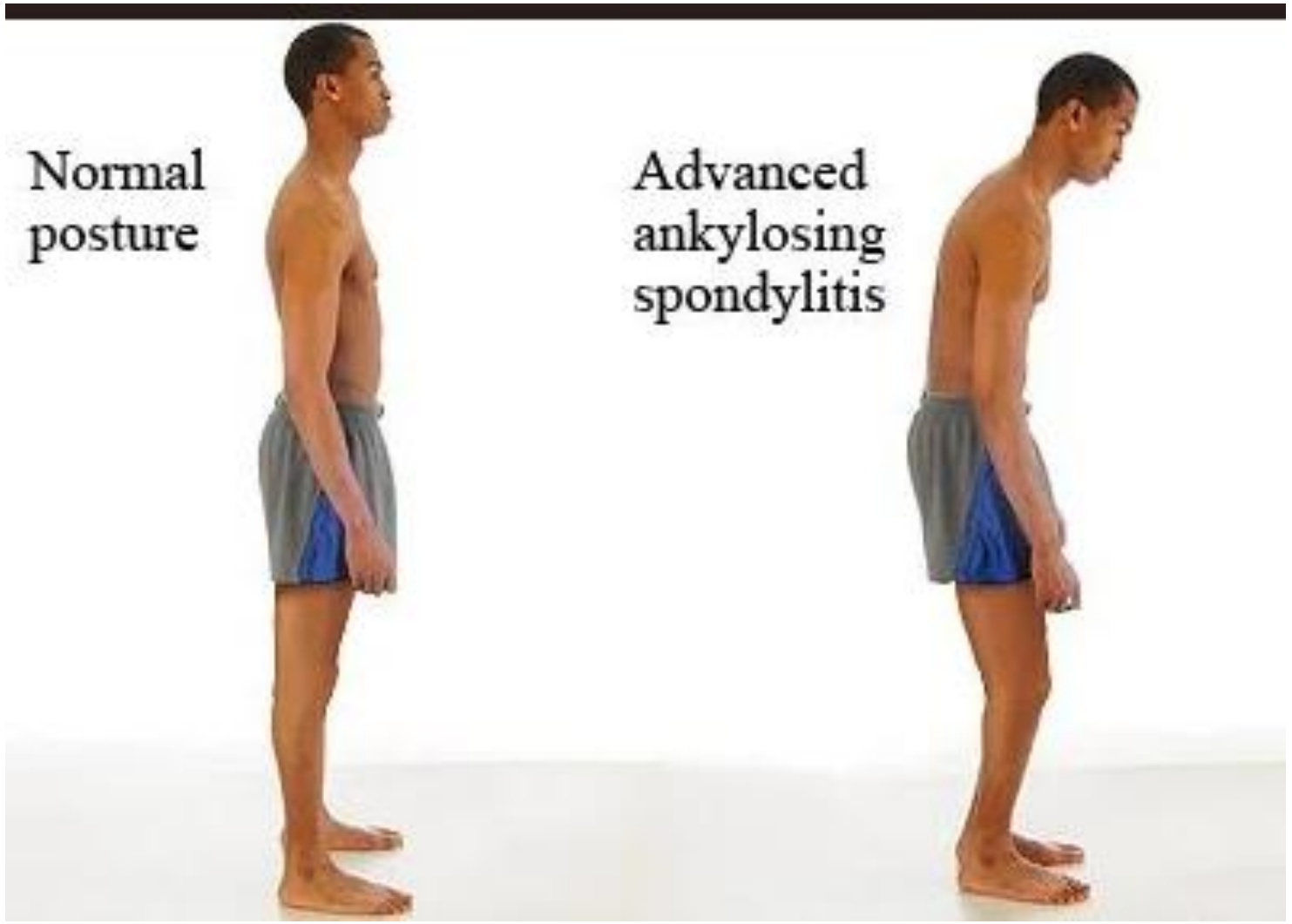
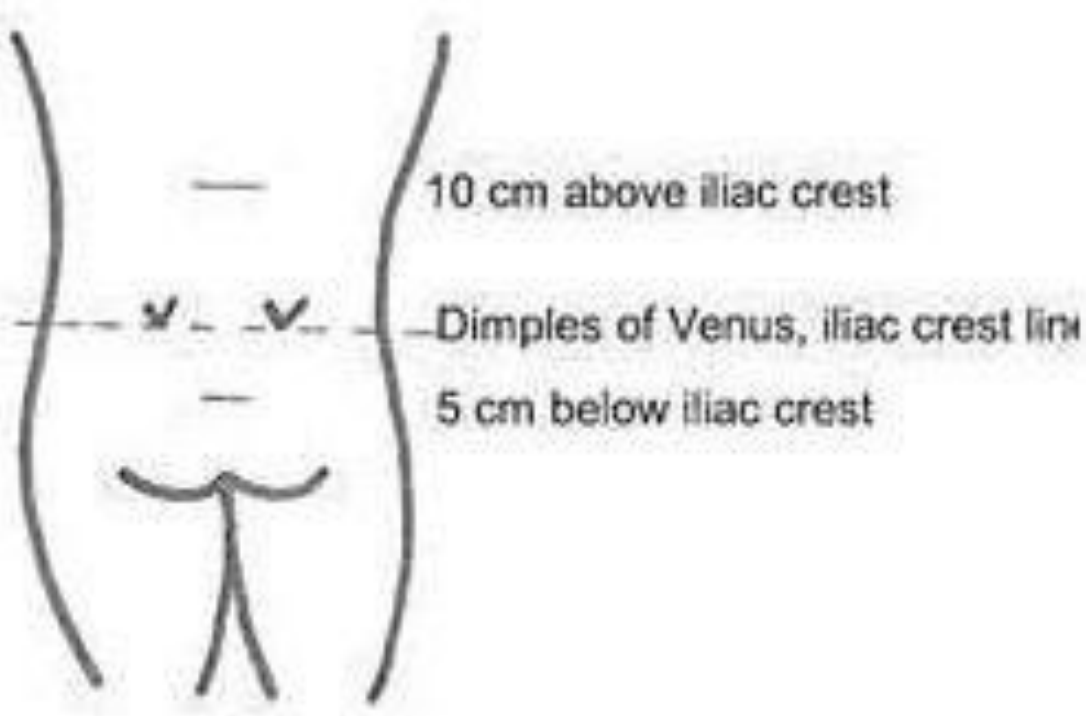
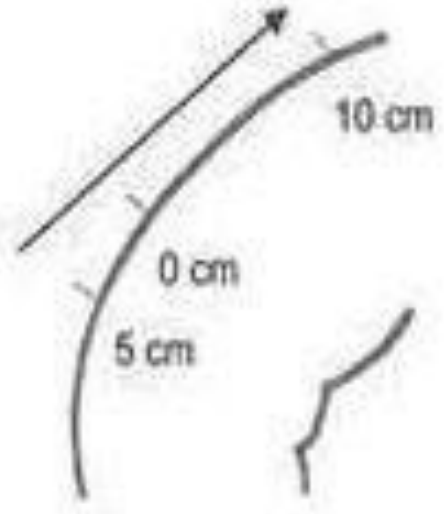
Spondyloarthropathy Myanmar National Guideline 2022

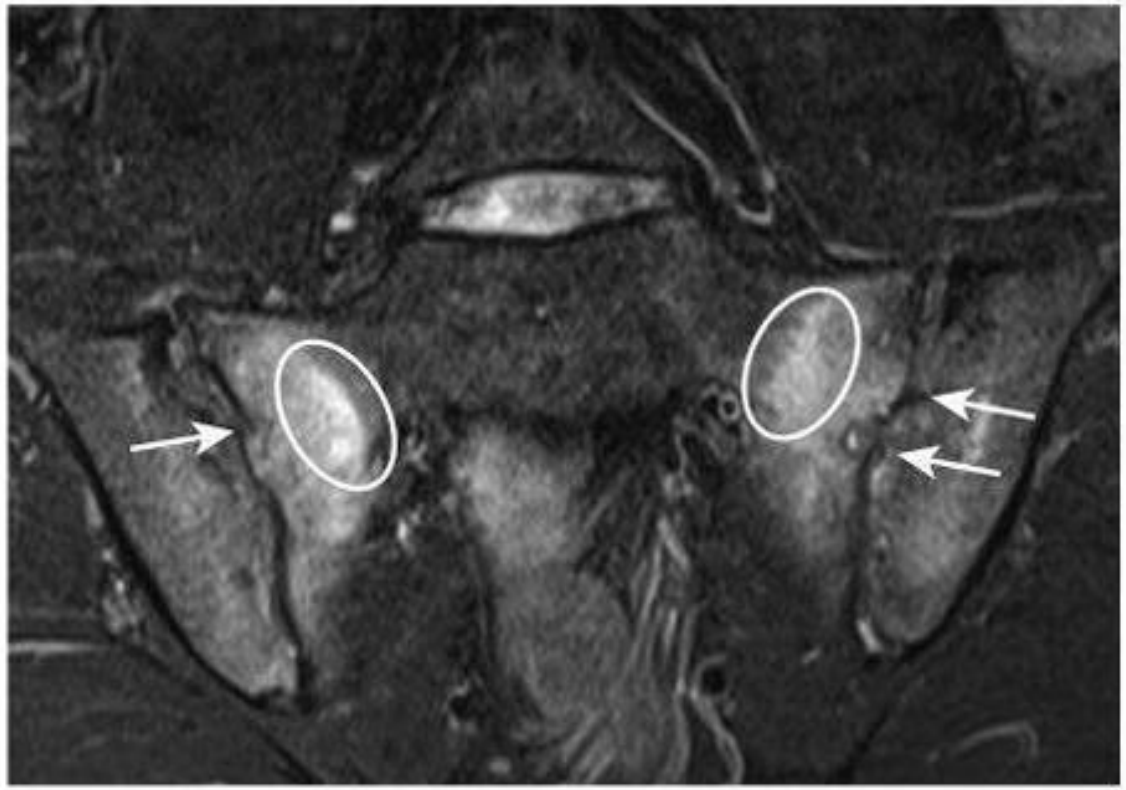



Normal posture
Advanced ankylosing spondylitis

Modified Schober's test







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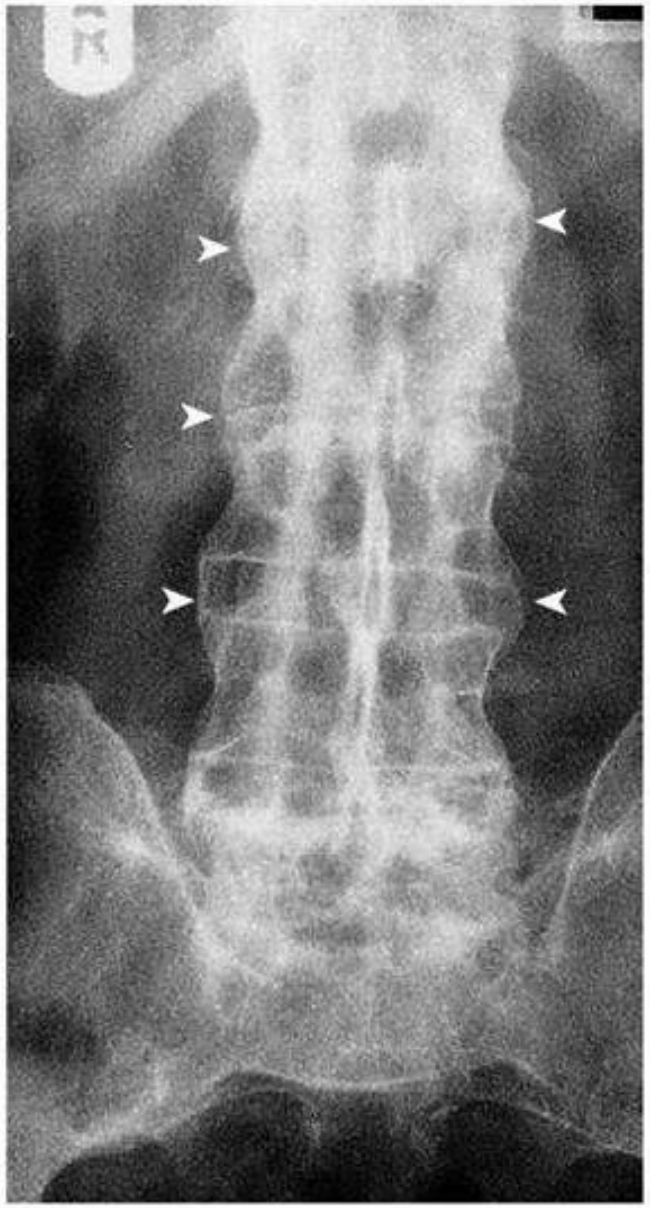
Magnetic resonance imaging appearances in sacroiliitis. Coronal MRI short T1 inversion recovery (STIR) sequence showing bilateral sacroiliitis in axial spondyloarthritis. Bone marrow oedema (circles) is present around both sacroiliac joints, which show irregularities due to erosions (arrows).



‘Bamboo’ spine of advanced ankylosing spondylitis

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Assessment in confirmed SpA

1. Function : BASFI
2. Pain : NRS/VAS (last week/spine/at night due to AS) NRS/VAS-last week-spine-due to AS
3. Spinal mobility:

- Chest expansion
- Modified Schober
- Occiput to wall
- Cervical rotation
- Lateral spinal flexion or BASMI

1. Patient global : NRS/VAS (global disease activity last week)
2. Stiffness : NRS/VAS (duration of morning stiffness/spine/last week)
3. Fatigue : Fatigue question BASDAI

- For activity and guide to start or taper DMARDs, ASDAS is needed to calculated with the formula described below.
  - **ASDASCRP**: 0.1216total back pain+0.1106patient global+0.0736 peripheral pain/swelling+0.0586duration of morning stiffness+ 0.5796Ln(CRP+1).
    ASDASESR: 0.1136patient global+ +0.0866periph- eral pain/swelling+0.0696duration of morning stiffness+0.0796 total back pain.
- ASDASCRP is preferred, but the ASDASESR can be used in case CRP data are not available. CRP in mg/litre; all patient assessments on a 10 cm scale.

ASDAS-CRP or ASDAS-ESR

A CRP value <2mg/l (0.2 mg/dl) is not allowed. If CRP is below the limit of detection or is <2 mg/l (<0.2 mg/dl), the fixed value of 2 mg/l (0.2 mg/dl) will be entered.

ASDAS improvement criteria
>=1.1 == clinically important improvement
>=2 == major improvement

5.Psoriatic arthritis

he CASPAR criteria for psoriatic arthritis

Inflammatory articular disease (joint, spine or enthesis) with ≥ 3 points from the following (1 point each unless stated):

- Current psoriasis (scores 2 points)
- History of psoriasis in first- or second-degree relative
- Psoriatic nail dystrophy
- Negative IgM rheumatoid factor[1]
- Current dactylitis
- History of dactylitis
- Juxta-articular new bone[2]

[1]Established by any method except latex. [2]Ill-defined ossification near joint margins (excluding osteophytes) on X-rays of hands or feet.
(CASPAR = ClASsification for Psoriatic ARthritis)

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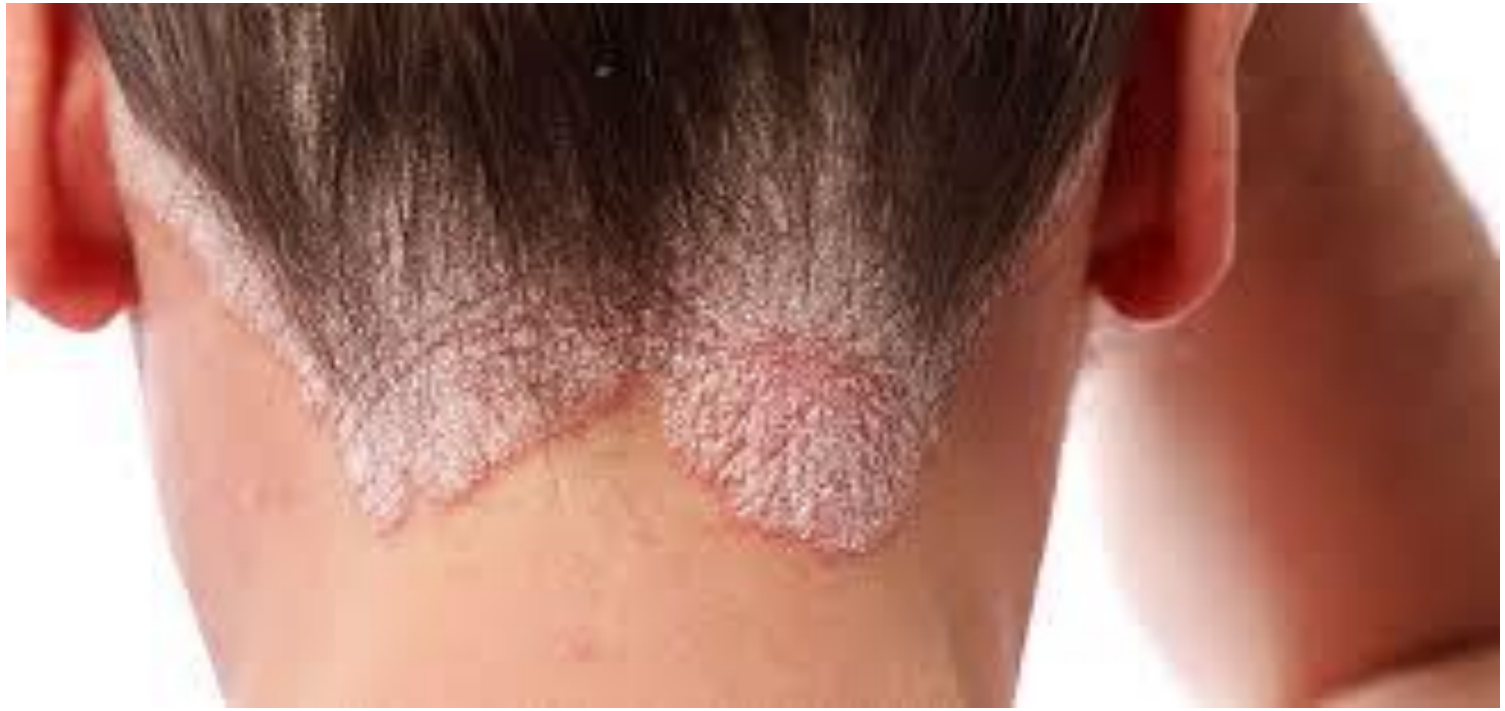

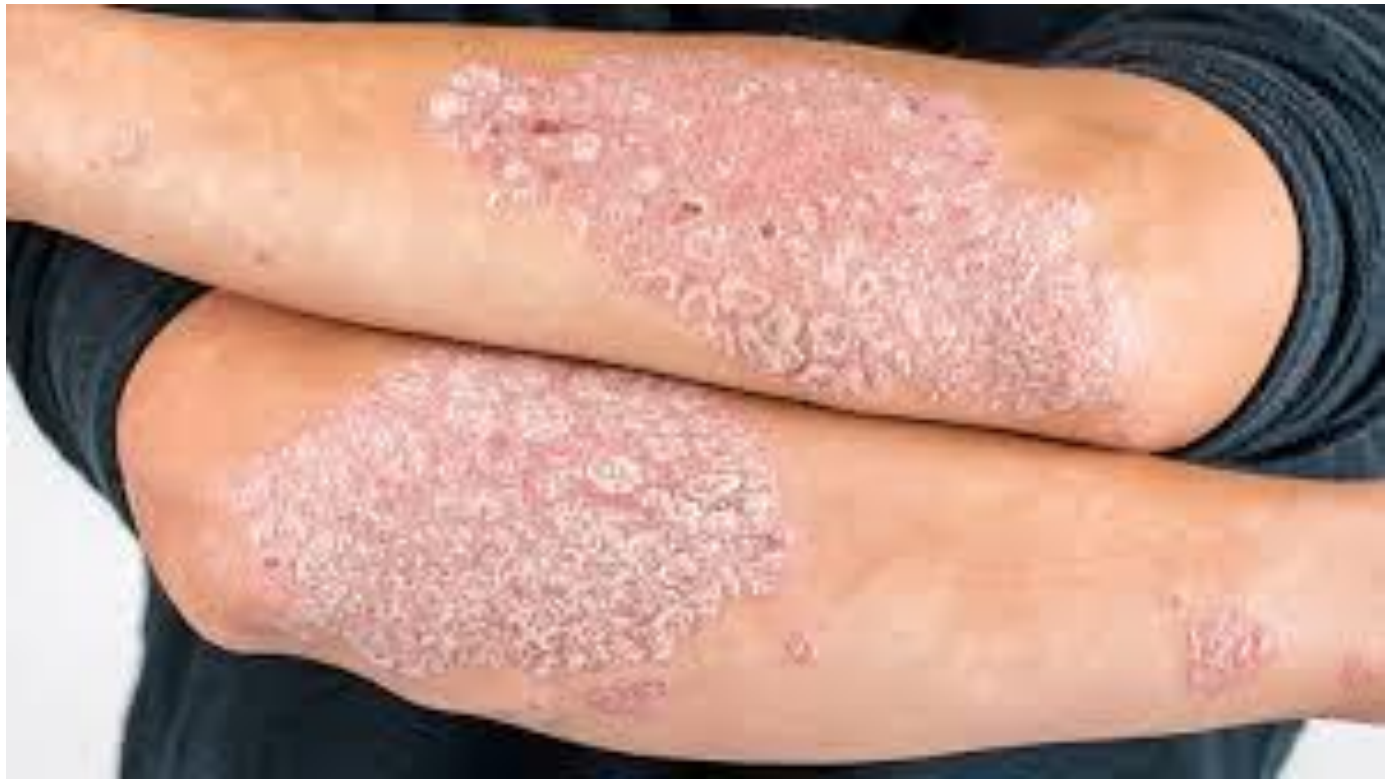

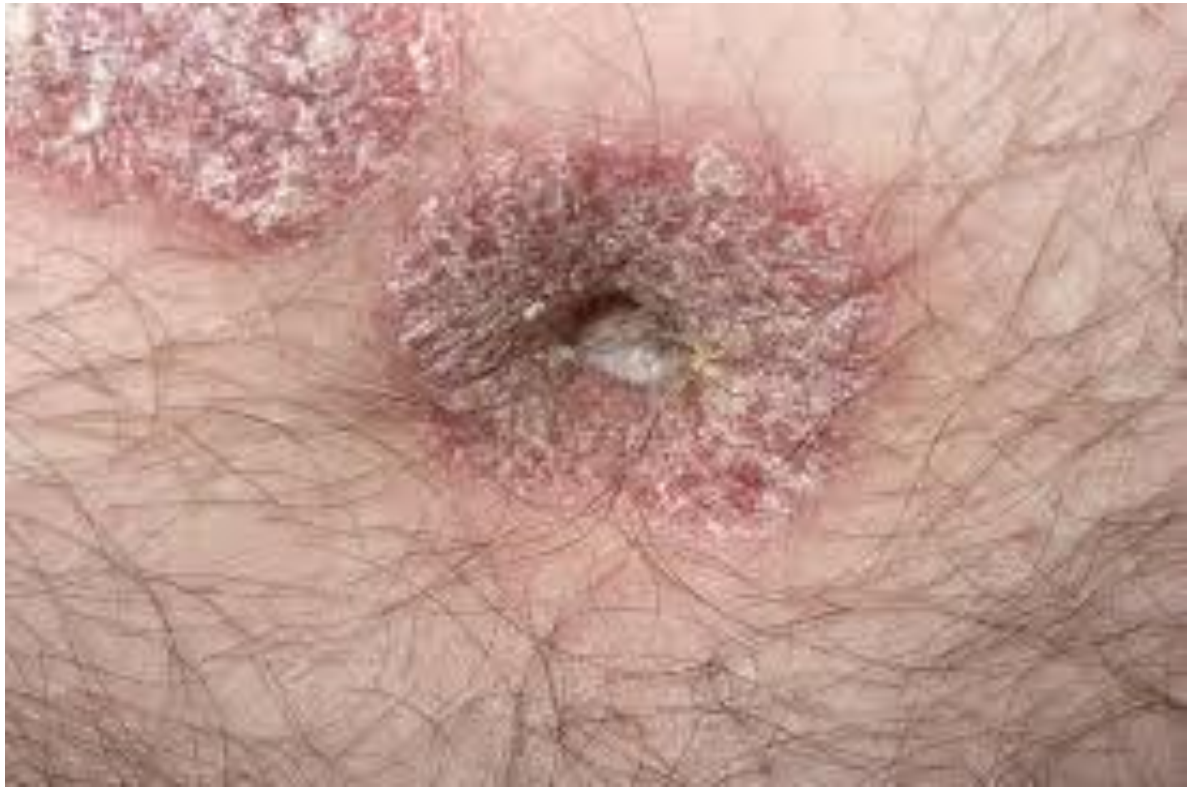

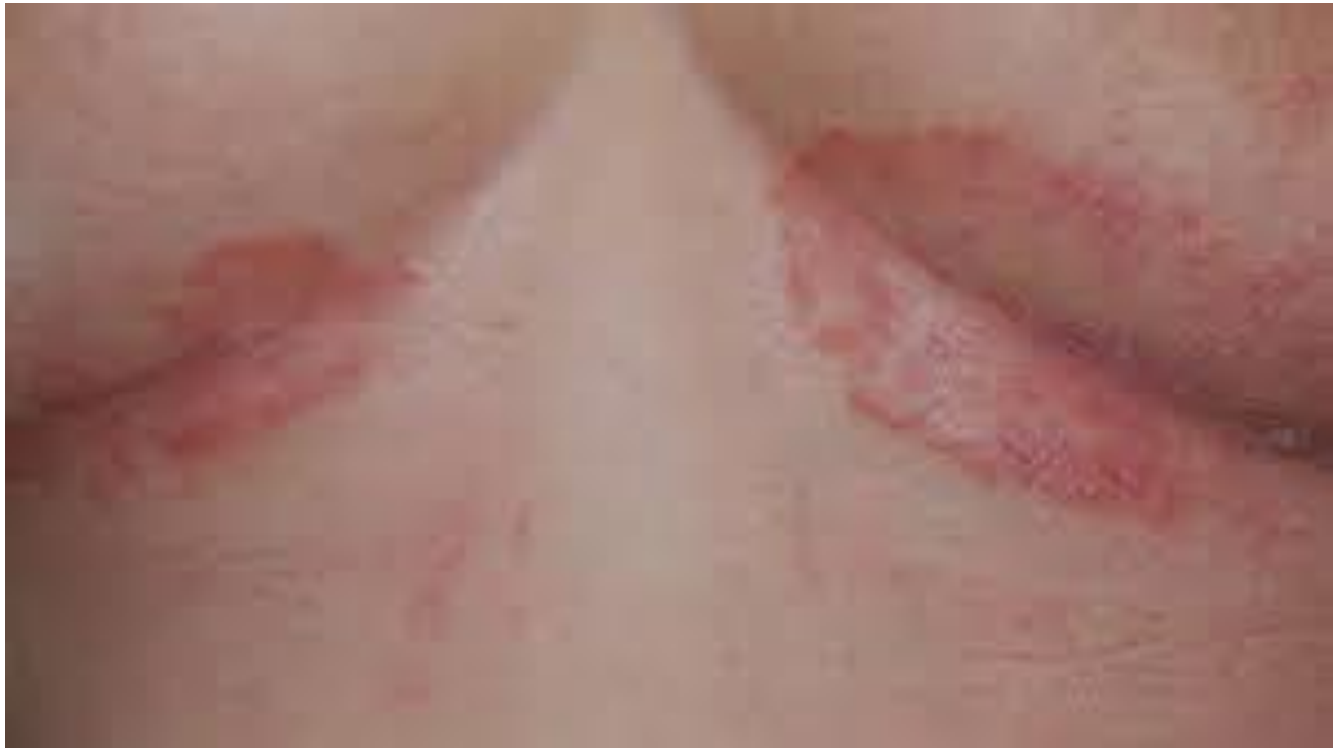

6.Reactive arthritis

- Reactive (spondylo)arthritis (ReA) is a ‘reaction’ to a number of bacterial triggers with clinical features in keeping with all SpA conditions.
- known triggers are Chlamydia, Campylobacter, Salmonella, Shigella and Yersinia.
- Notably, non-SpA-related reactive arthritis can occur following infection with many viruses, Mycoplasma, Borrelia, streptococci and mycobacteria, including M. leprae, which causes leprosy (Hansen’s disease)

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Reactive arthritis cont

- Sexually acquired reactive arthritis (SARA) is predominantly a disease of young men, with a male preponderance of 15:1.
- This may reflect a difficulty in diagnosing the condition in young women, in whom Chlamydia infection is often asymptomatic and hard to detect in practical terms.
- The syndrome of chlamydial urethritis, conjunctivitis and reactive arthritis was formerly known as Reiter's disease.
- With enteric triggering infections (enteropathic ReA), HLA-B27 may predict the reactive arthritis and its severity, though the condition occurs in HLA-B27-negative people.

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Reactive arthritis cont

Many extra-articular features

- circinate balanitis,
- keratoderma blennorrhagica,
- pustular psoriasis
- nail dystrophy with subungual hyperkeratosis
- mouth ulcers
- conjunctivitis
- uveitis

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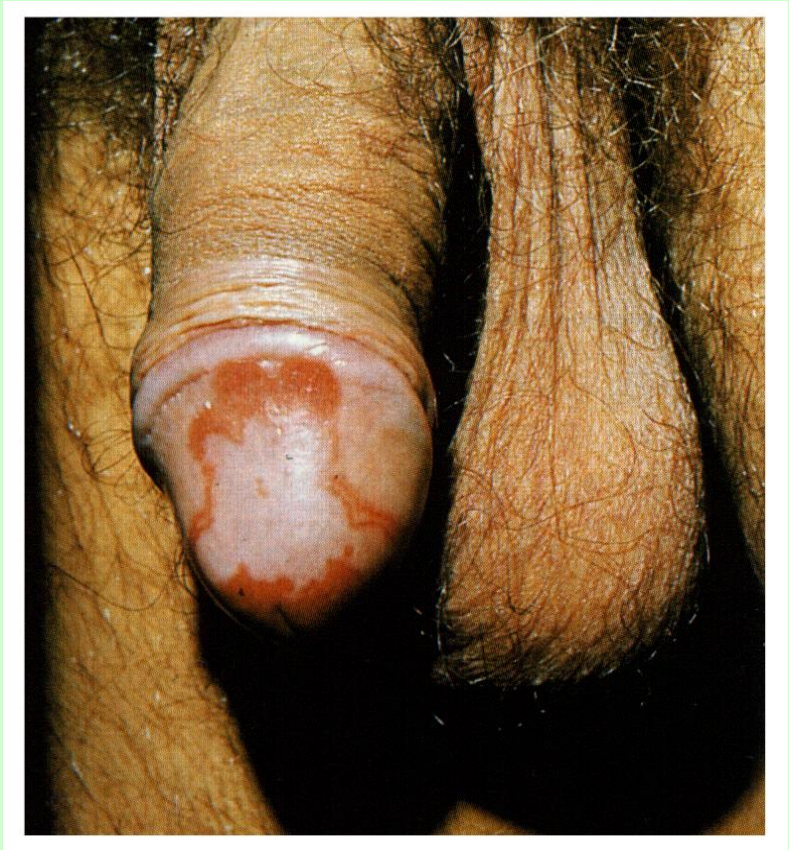
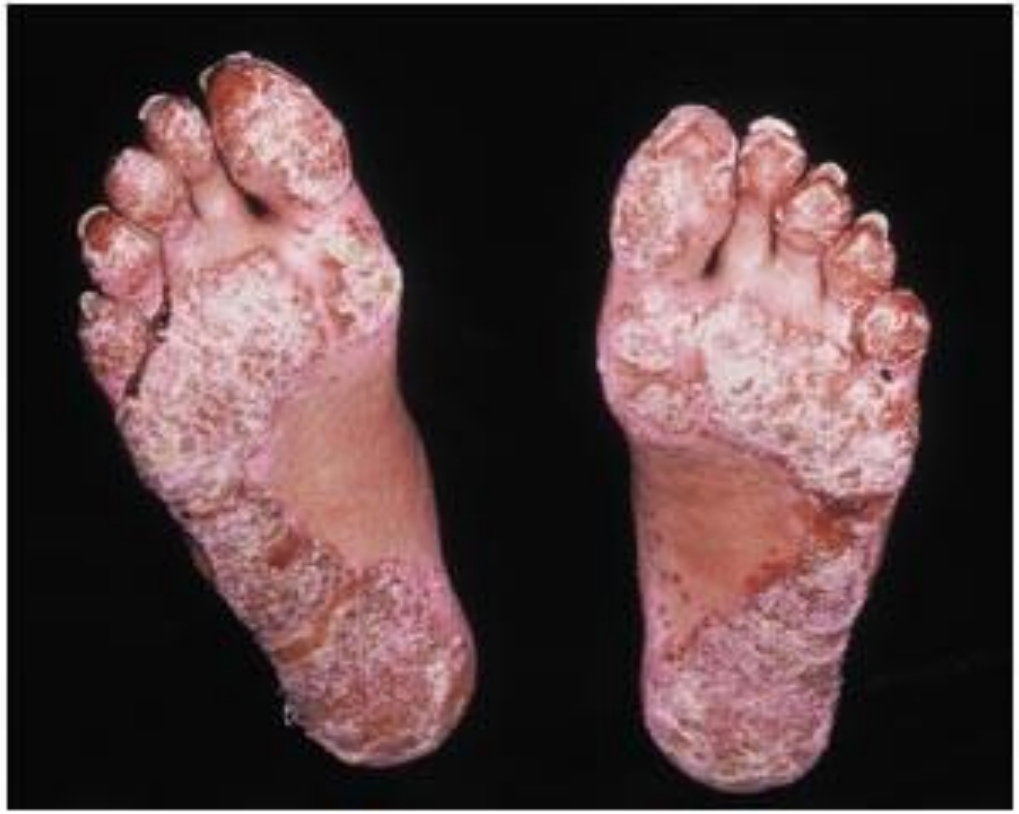


- Circinate balanitis in a man with reactive arthritis.

keratoderma blennorrhagica



pustular psoriasis

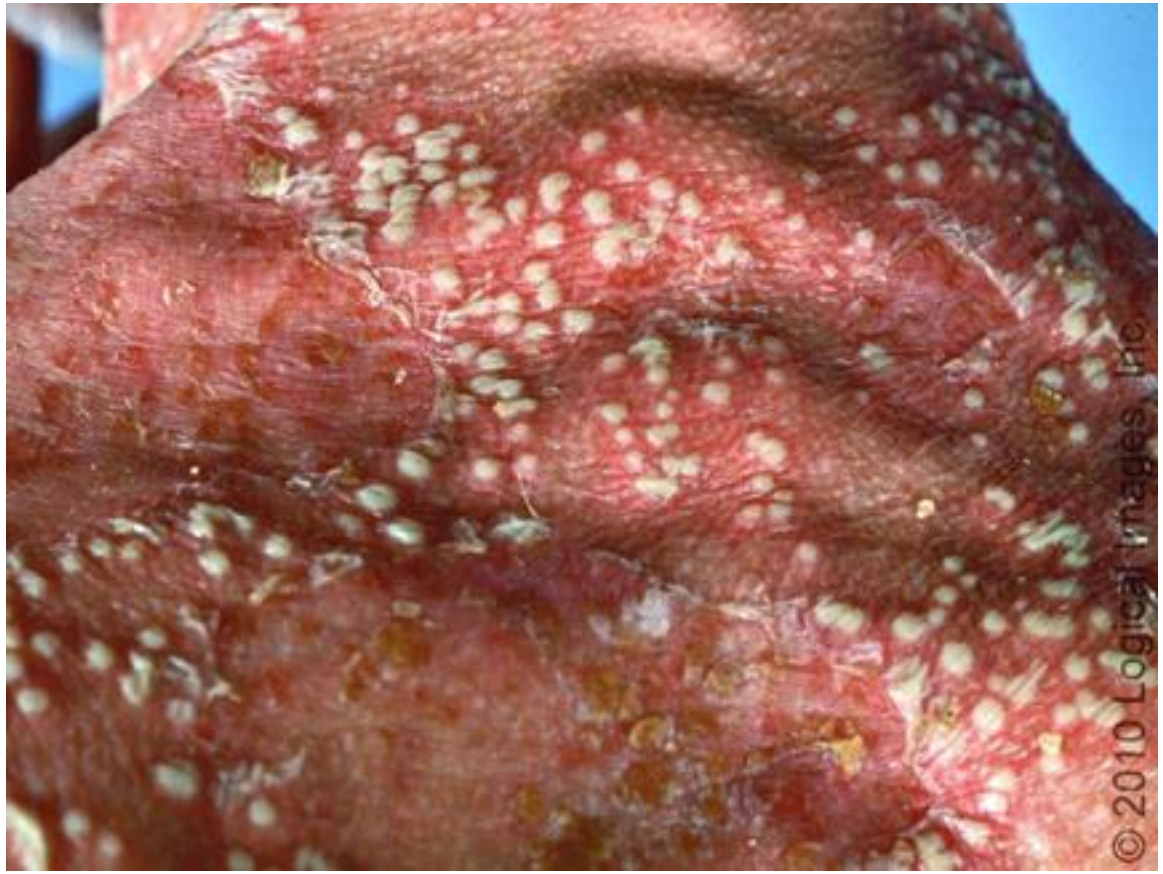
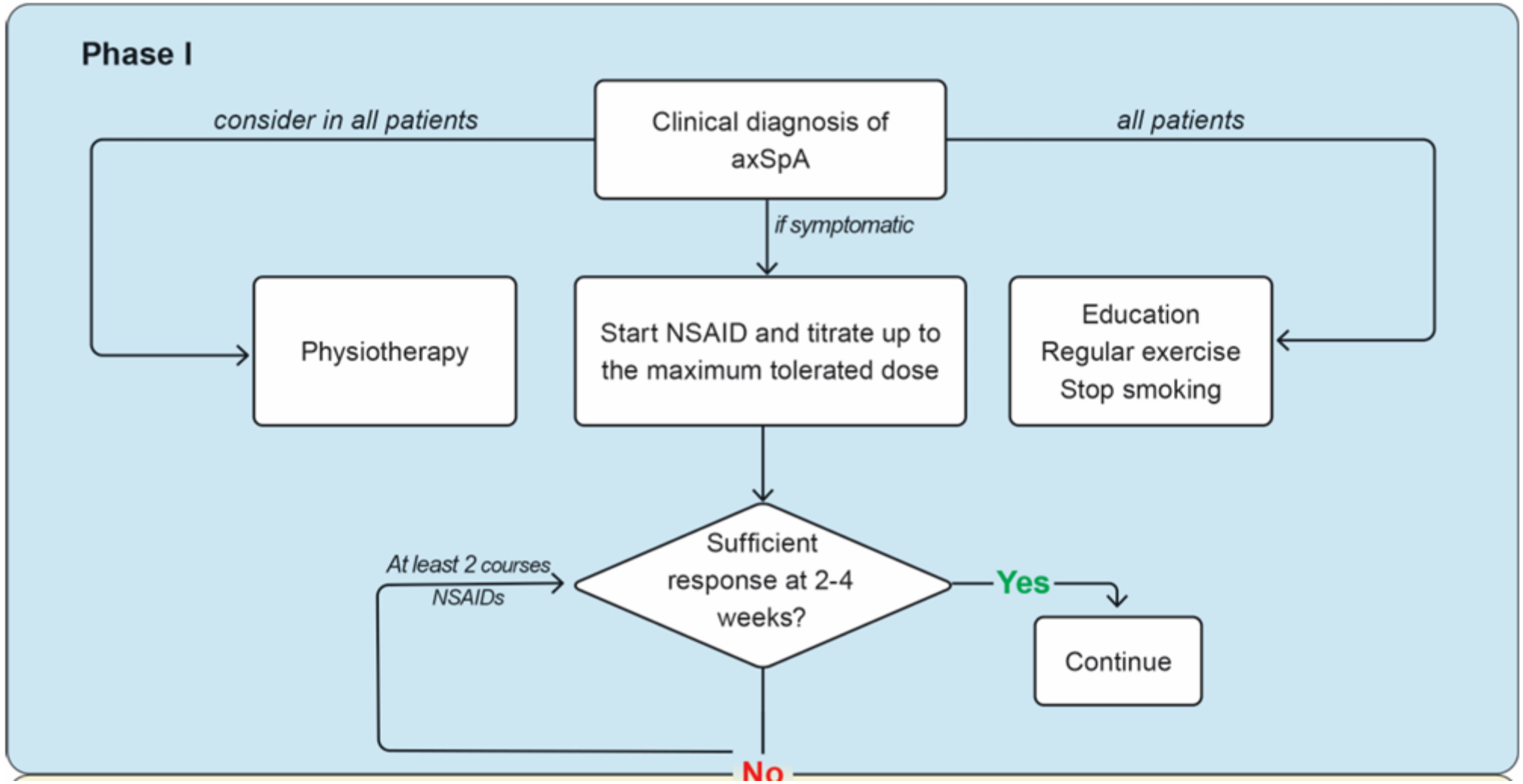


Figure 3. Nail psoriasis with subungual hyperkeratosis, onycholysis, pitting and dystrophy.

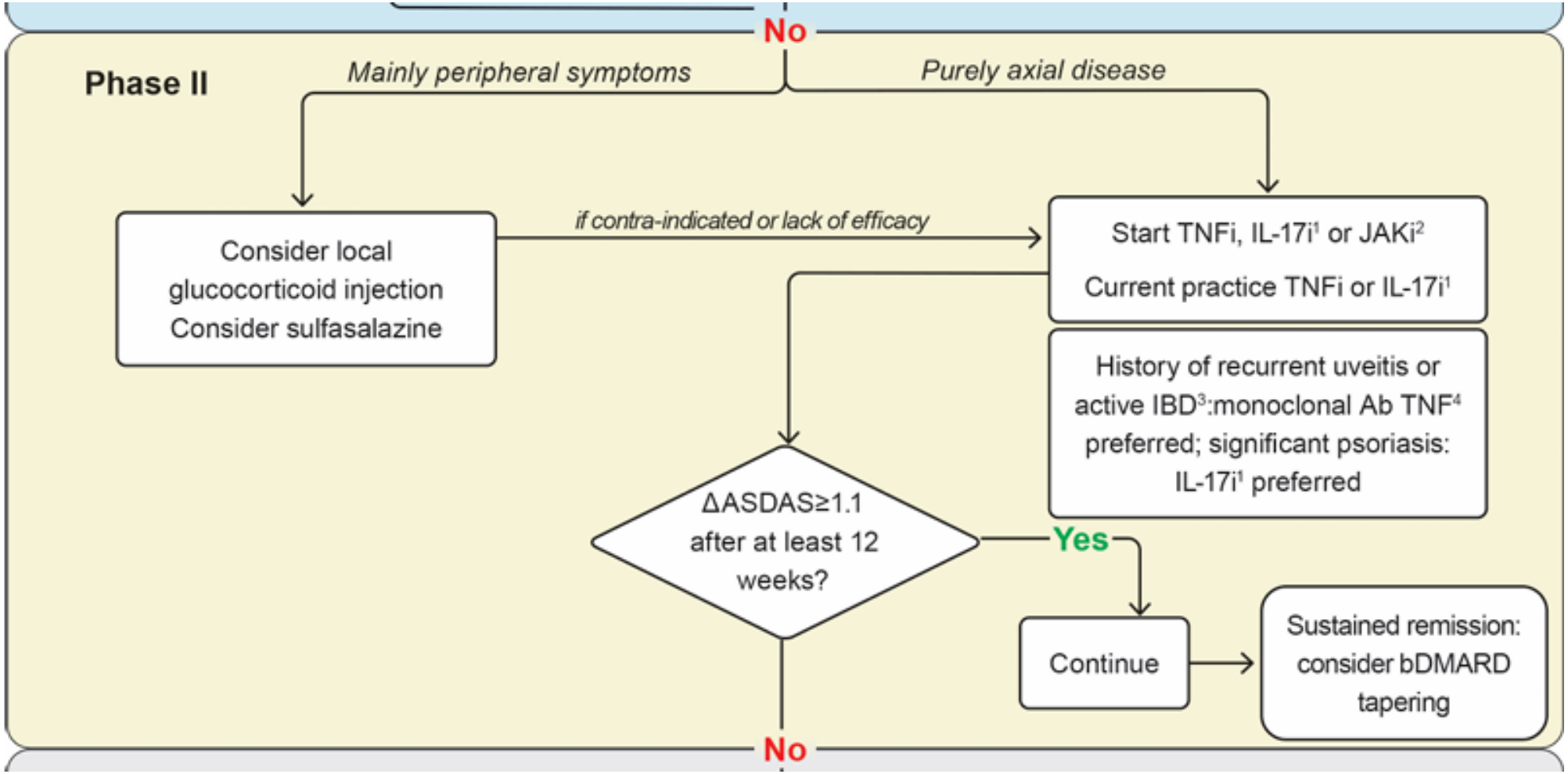
Management of Spondyloarthritis

Algorithm based on the ASAS- EULAR recommendations for the management of axial spondyloarthritis (axSpA) 2022 update



Ramiro S, et al. Ann Rheum Dis 2023;82:19–34

Algorithm based on the ASAS- EULAR recommendations for the management of axial spondyloarthritis (axSpA) 2022 update



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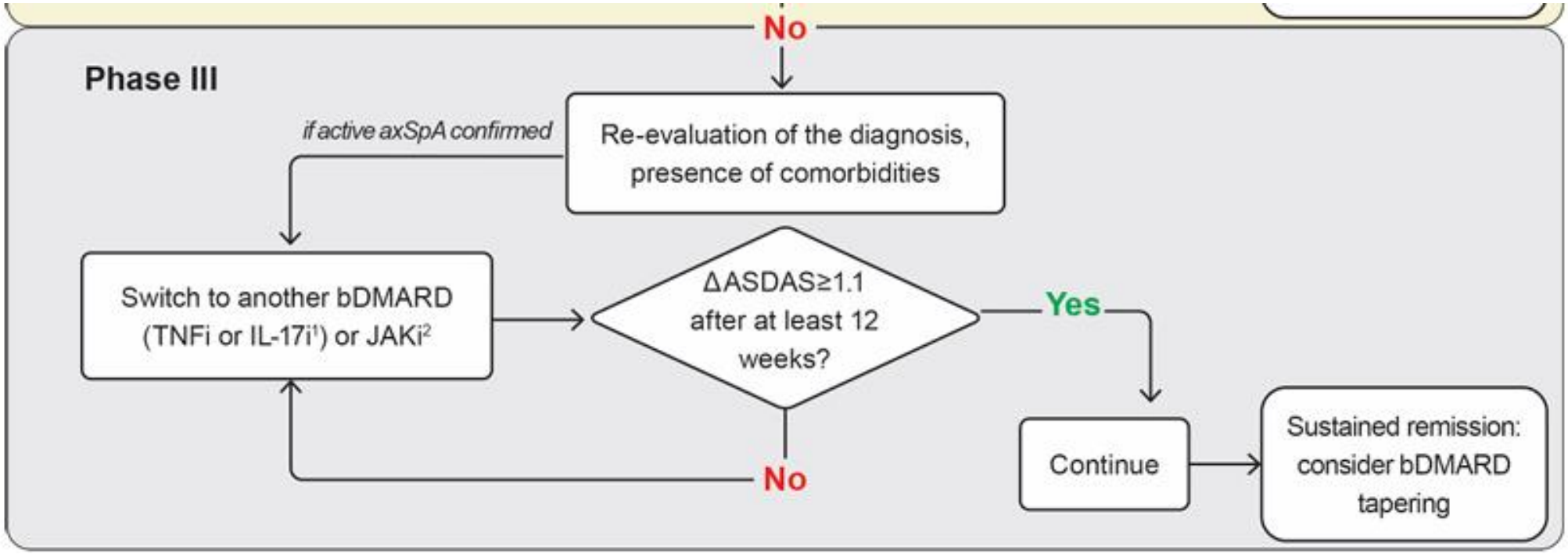
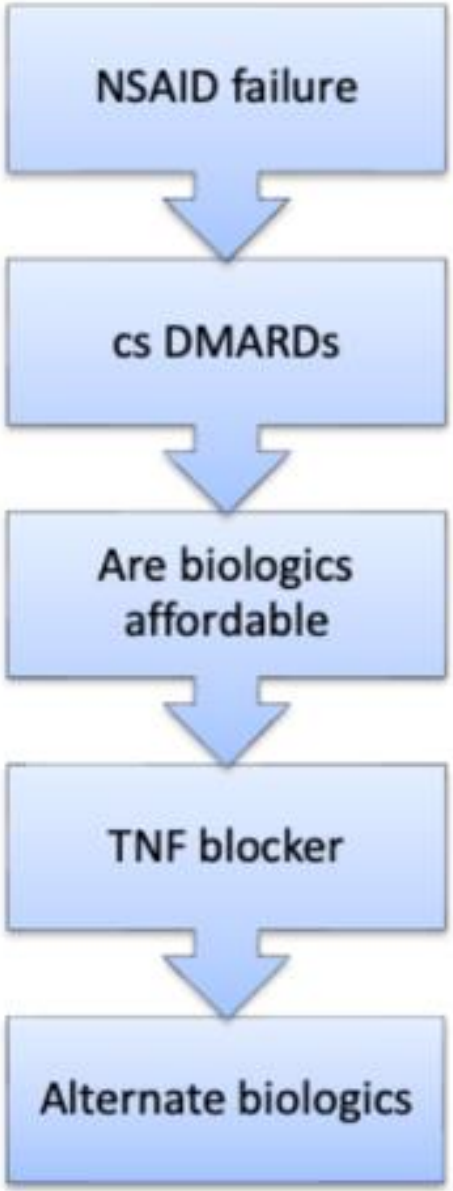


Ramiro S, et al. Ann Rheum Dis 2023;82:19–34

Spondyloarthropathy
Myanmar National Guideline 2022

Indications for csDMARDs



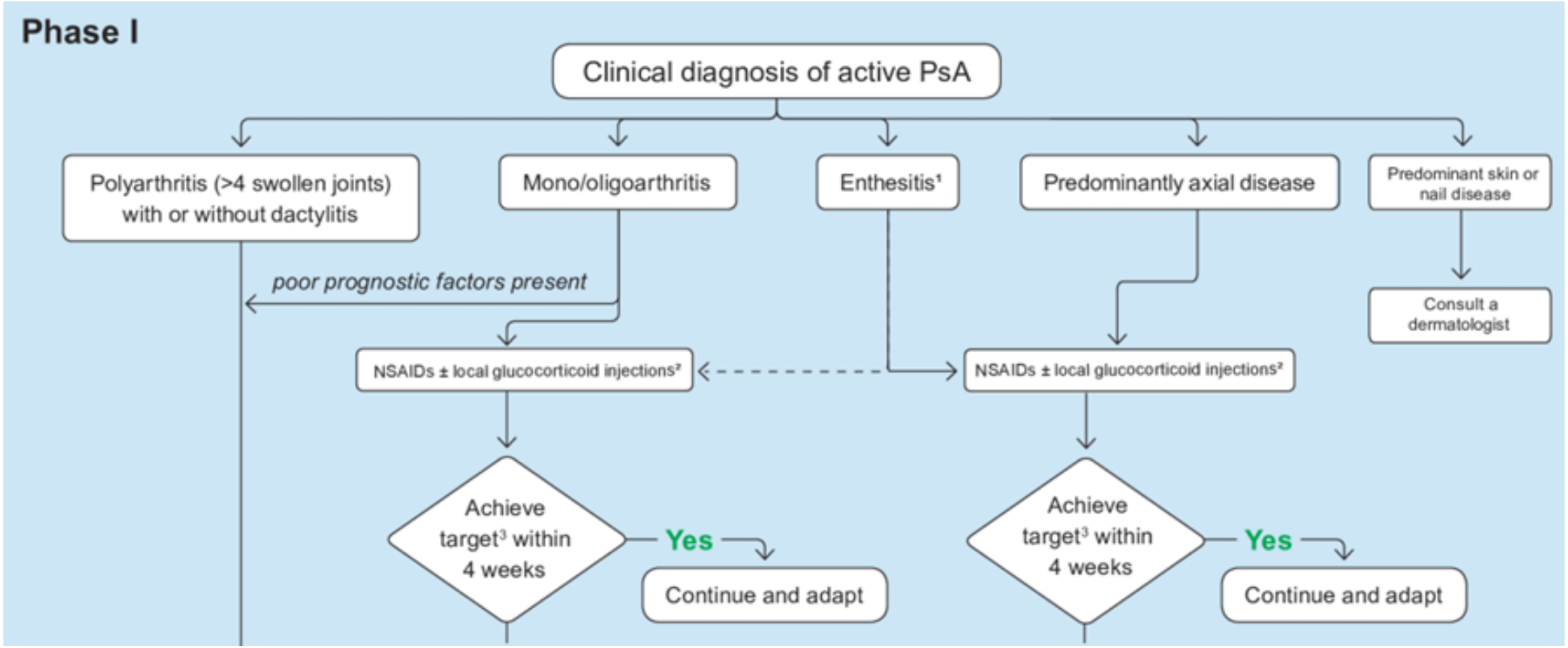
Sulfasalazine is effective in axial AS esp. in younger patients (< 25 years), disease duration < 4 years at the time of initiation of treatment and high disease activity (BASDAI > 7, CRP > 50 mg/L).

Methotrexate should be used in ax Spa with Peripheral involvement

Leflunomide should not be used in ax SpA

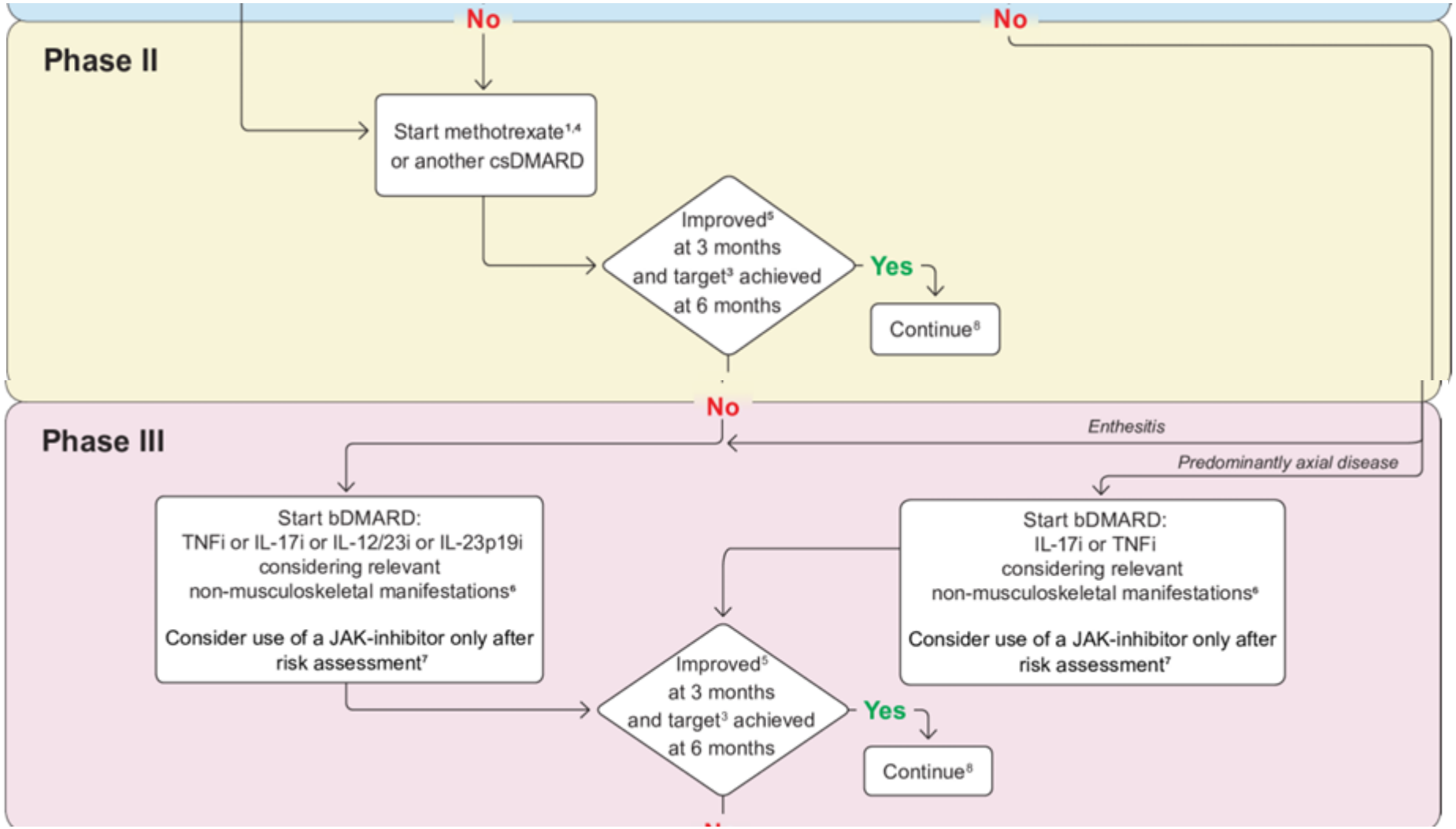
Combination of Sulphasalazine and Methotrexate should be considered in Ax-SpA with peripheral involvement

2023 EULAR recommendations algorithm for the management of Psoriatic arthritis



Gossec L, et al. Ann Rheum Dis 2024;83:706–719.

2023 EULAR recommendations algorithm for the management of Psoriatic arthritis



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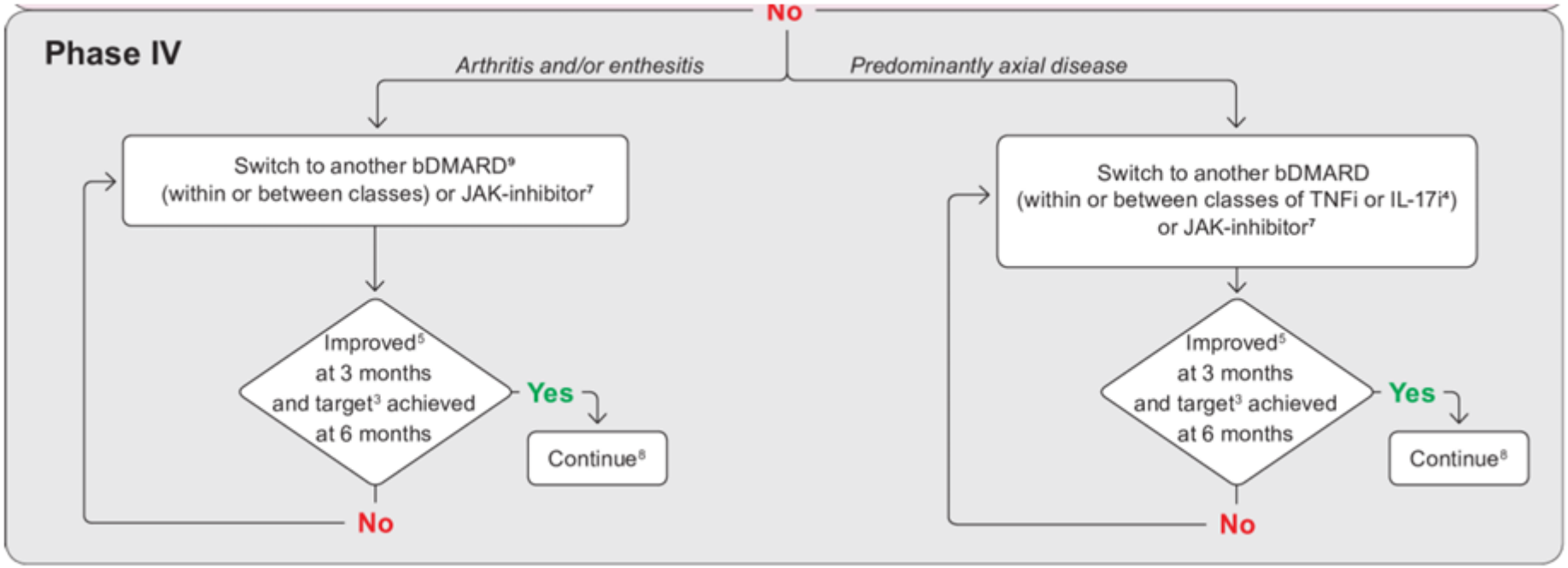
2023 EULAR recommendations algorithm for the management of Psoriatic arthritis



Gossec L, et al. Ann Rheum Dis 2024;83:706–719.

Management of Enteropathic (spondylo)arthritis

- NSAIDs are best avoided, since they can exacerbate IBD.
- judicious use of glucocorticoids
- SSZ and MTX may be considered.
- Anti-TNF-α therapy is effective in entero-pathic arthritis, but etanercept should be avoided as it has no efficacy in IBD.
- Anti-IL-17A therapy should be avoided as it can trigger flares of IBD.
- Tofacitinib, while not specifically licensed for entero-pathic arthritis, is efficacious in ulcerative colitis and might be a further treatment option.

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7.Minimal Care in Inflammatory Arthritis

1. Management of Arthritis: Treat-to-Target (NSAID, Steroid, DMARD) and physiotherpy
2. Management of Eye, lung, Extra-musculoskeletal manifestions
3. Management of Complications: GI, Osteoporosis
4. Prevention CVD & Infections: CVD risk stratification, Immunization
5. Social & family planning, Lactation: counselling with partner

Vaccination and infection screening

- depending on Individual risk of infections and severity of infections
- Vaccination for SpA
- **HBV**: double dose of HBV i.e, 2 vials at 0,1,2 or 0,1,6 regime. Booster dose in those already vaccinated
- Flu vaccine yearly
- Pneumococcal vaccine every 5 years if available
- Avoid live vaccines
- have low threshold for infection screening especially Koch's lung which can re-activate or re-infected or co-existing in patients with chronic lung disease such as ILD.

Family planning

- Oligospermia in male patients on SSZ
- Every patients of reproductive age should be counselled for family planning and pregnancy before starting treatment
- Their partners also need to be counselled.
- **Recommend against pregnancy while the disease is active**

*****Refer to OGs before planned pregnancy and during pregnancy for proper AN care.**

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THANK YOU SO MUCH FOR ATTENDING