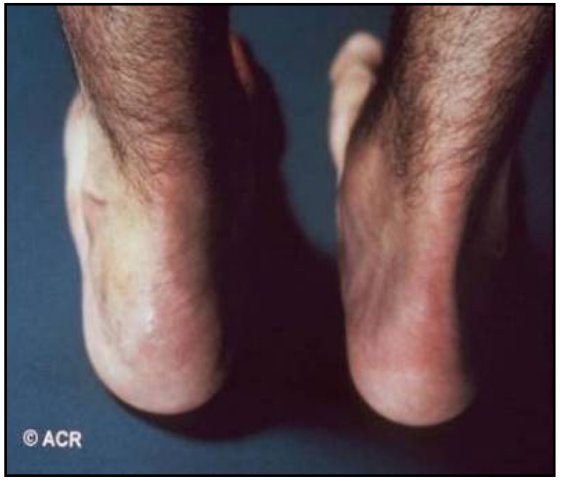
UOC di Reumatologia

Università e AOU di Cagliari

Alberto Cauli

Guidelines in Psoriatic Arthritis: relevance to clinical practice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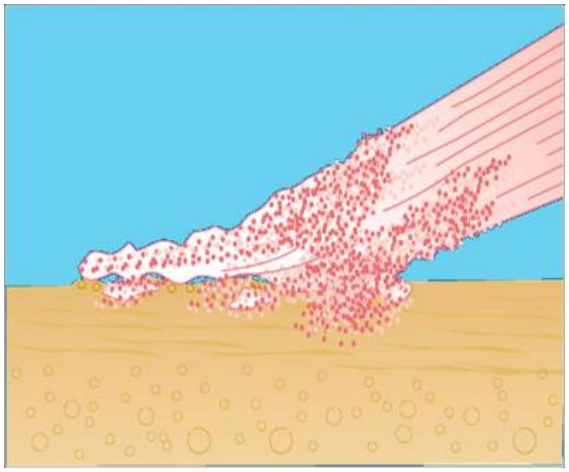


esaote MyLab
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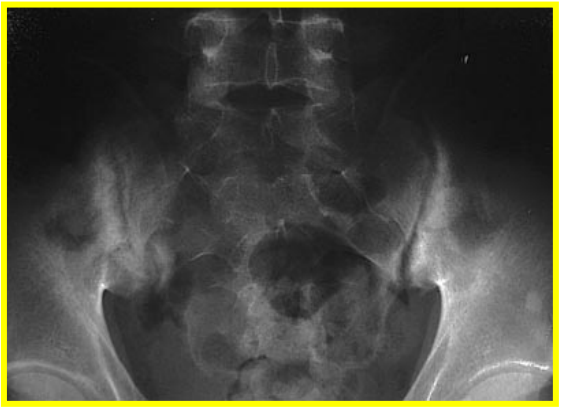
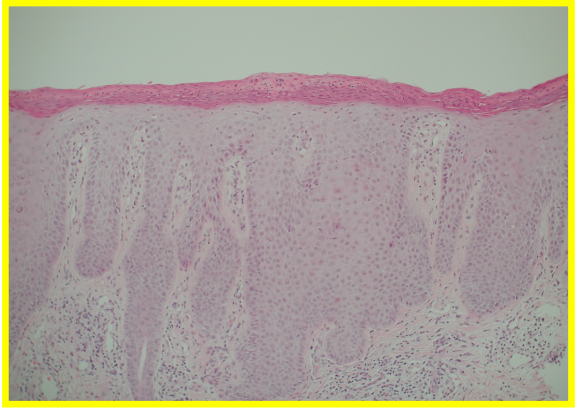
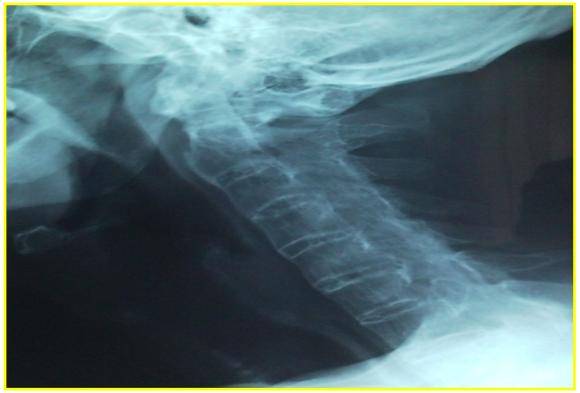
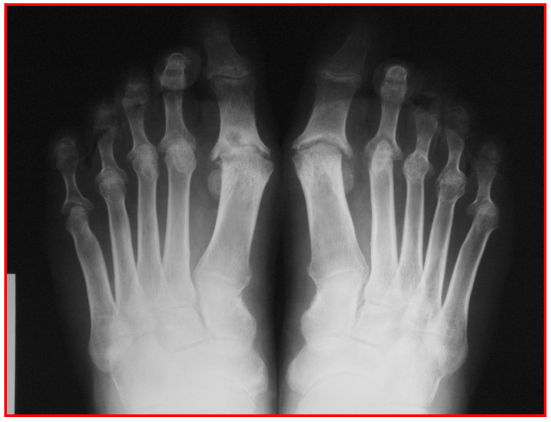
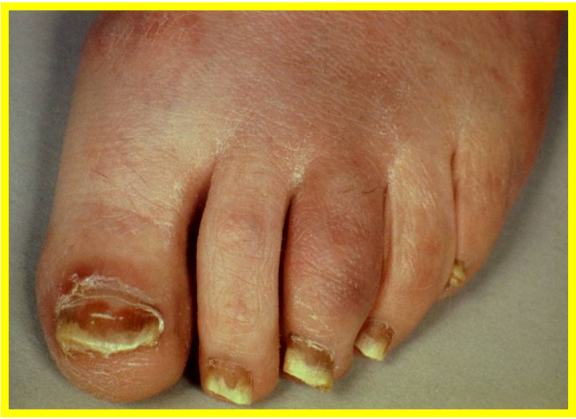
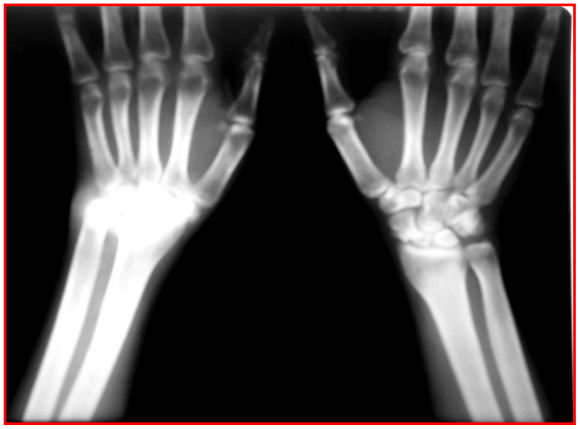










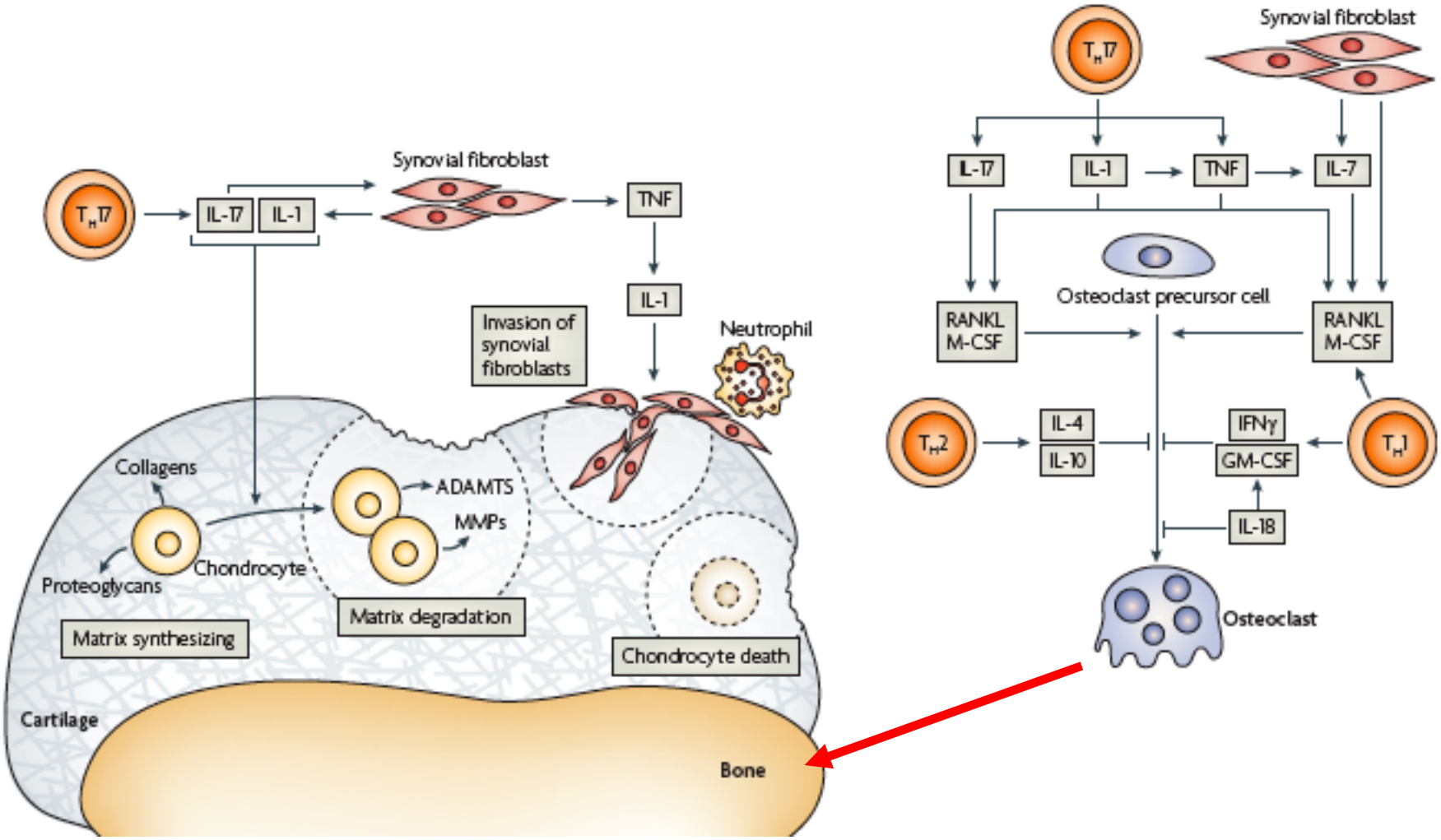


AIMS of TREATMENT

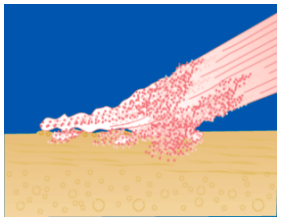
What P&P want from drugs, procedures or any therapeutic interventions

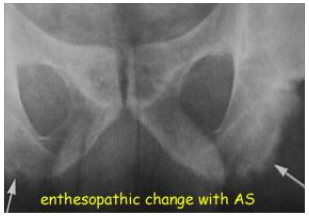
- To control signs and symptoms of disease
- To preserve function and quality of life
- Whithout any side effect (nausea, infections, fertility and so on …)
- Possibly «to cure» the disease and feeling back to normal health (as antibiotics in infections)
- Last but not least they should be affordable to patient pokets (or to NHS/insurances), in other words they must be available to pts.

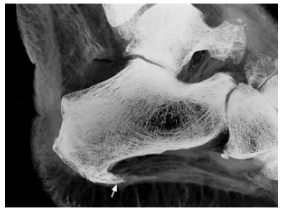
T Cells Influence in Cartilage Degradation, Osteoclast Activation and Bone Destruction



McInnes I et al, Nat Rev Immunol 2007

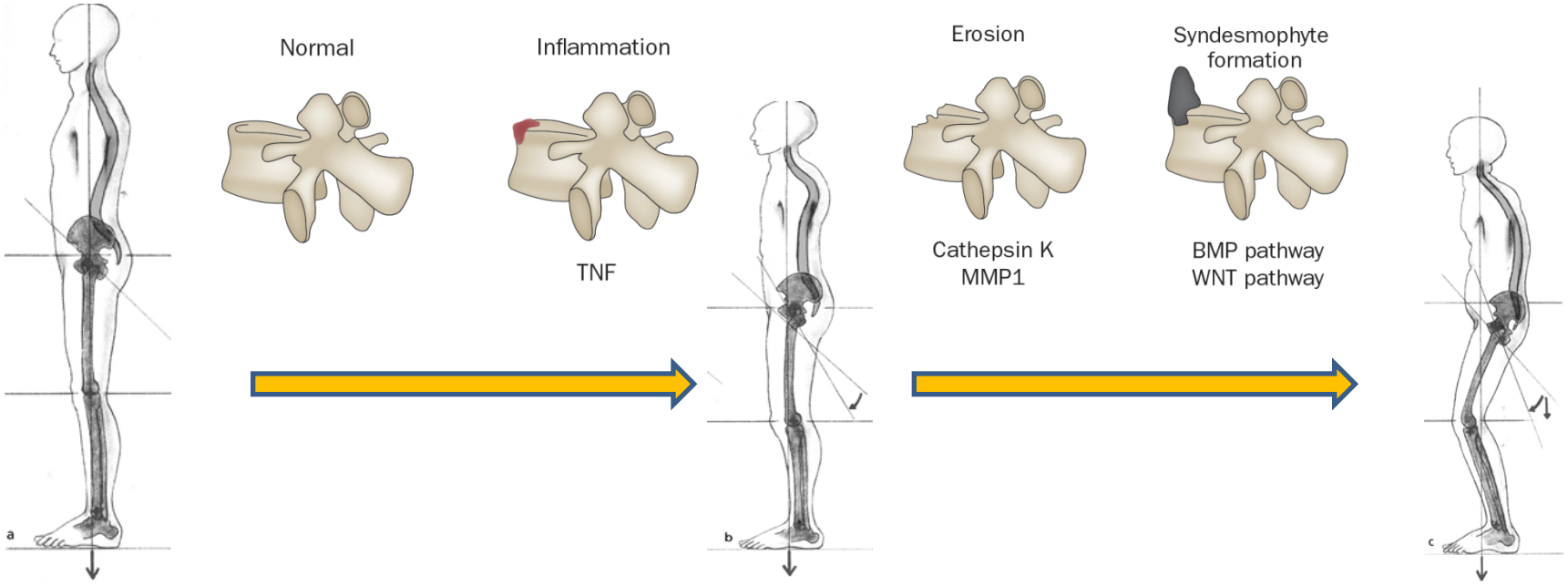






OSTEOCLAST/OSTEOBLAST

- *Inflammation and bone edema, erosions*
- *New bone formation leading to ankylosis*



THERAPEUTIC TOOLS

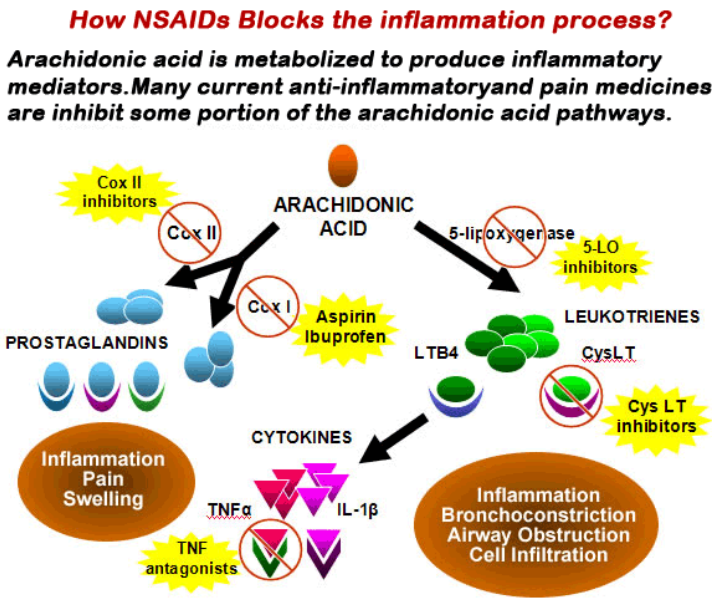
- NSAIDs
- Corticosteroids
- Topicals
- Phototherapy
- DMARDs
- Biologicals
- New DMARDs
- Others (i.e. Life style, Physiotherapy, Surgery)

No specific trial for PsA but ….

Nonsteroidal Antiinflammatory Drugs Reduce Radiographic Progression in Patients With Ankylosing Spondylitis

A Randomized Clinical Trial

Astrid Wanders,[1] Désirée van der Heijde,[1] Robert Landewé,[1] Jéhan-Michel Béhier,[2] Andrei Calin,[3] Ignazio Olivieri,[4] Henning Zeidler,[5] and Maxime Dougados[6]



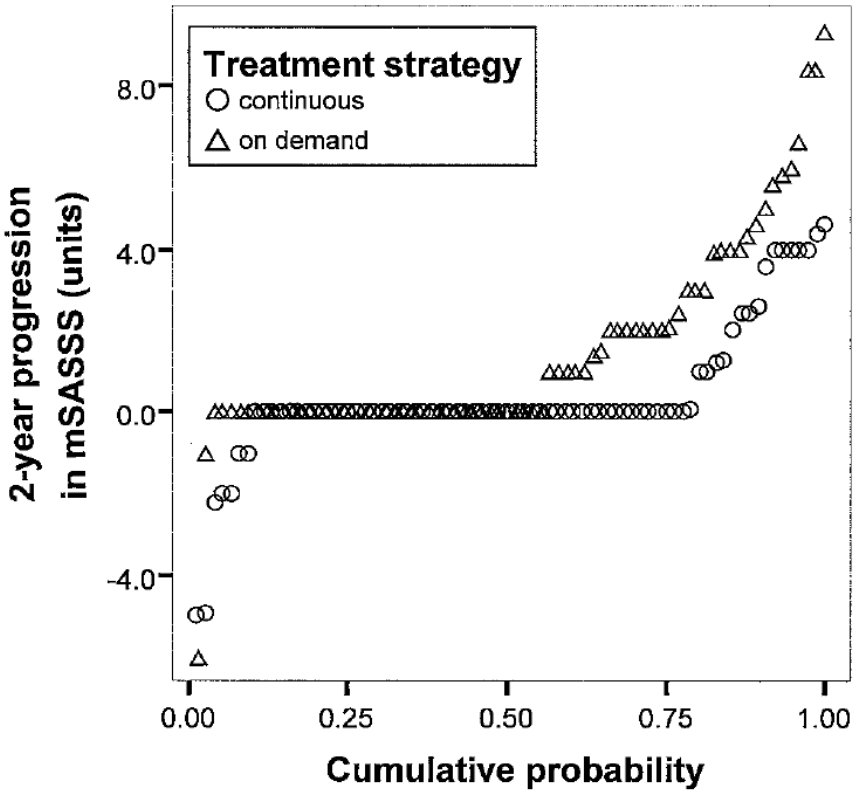
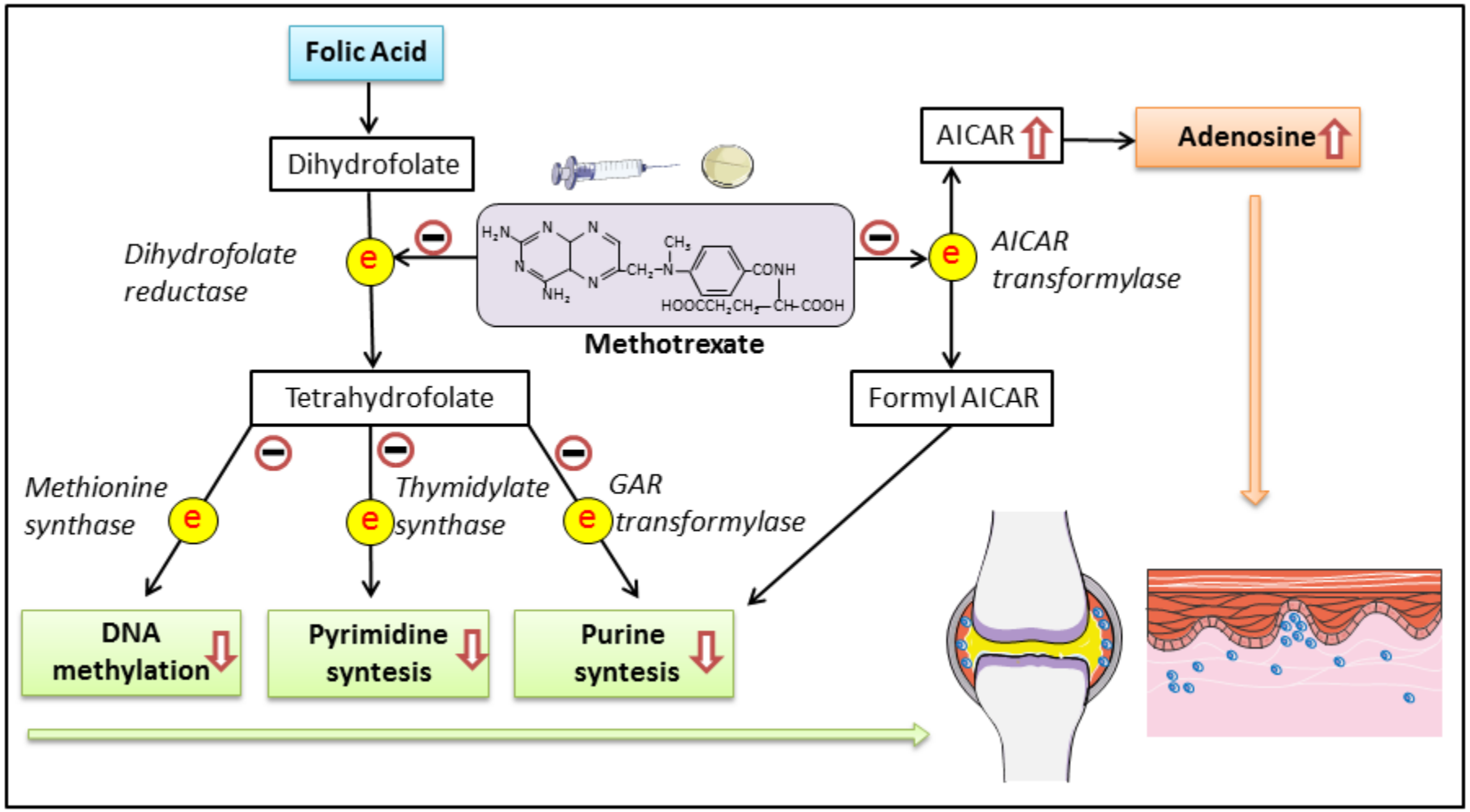


Figure 2. Probability plot of modified Stoke Ankylosing Spondylitis Spine Score (mSASSS) progression over 24 months.


Folic Acid
Dihydrofolate
Dihydrofolate reductase
Methotrexate
AICAR
Adenosine
AICAR transformylase
Tetrahydrofolate
Formyl AICAR
Methionine synthase
Thymidylate synthase
GAR transformylase
DNA methylation
Pyrimidine syntesis
Purine syntesis

Cauli et al.

RHEUMATOLOGY

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Advance Access publication 17 February 2012

Original article

A randomized placebo-controlled trial of methotrexate in psoriatic arthritis

Gabrielle H. Kingsley[1,2], Anna Kowalczyk[1], Helen Taylor[1], Fowzia Ibrahim[1], Jonathan C. Packham[3], Neil J. McHugh[4], Diarmuid M. Mulherin[5], George D. Kitas[6], Kuntal Chakravarty[7], Brian D. M. Tom[8], Aidan G. O'Keeffe[8], Peter J. Maddison[9] and David L. Scott[1,10]

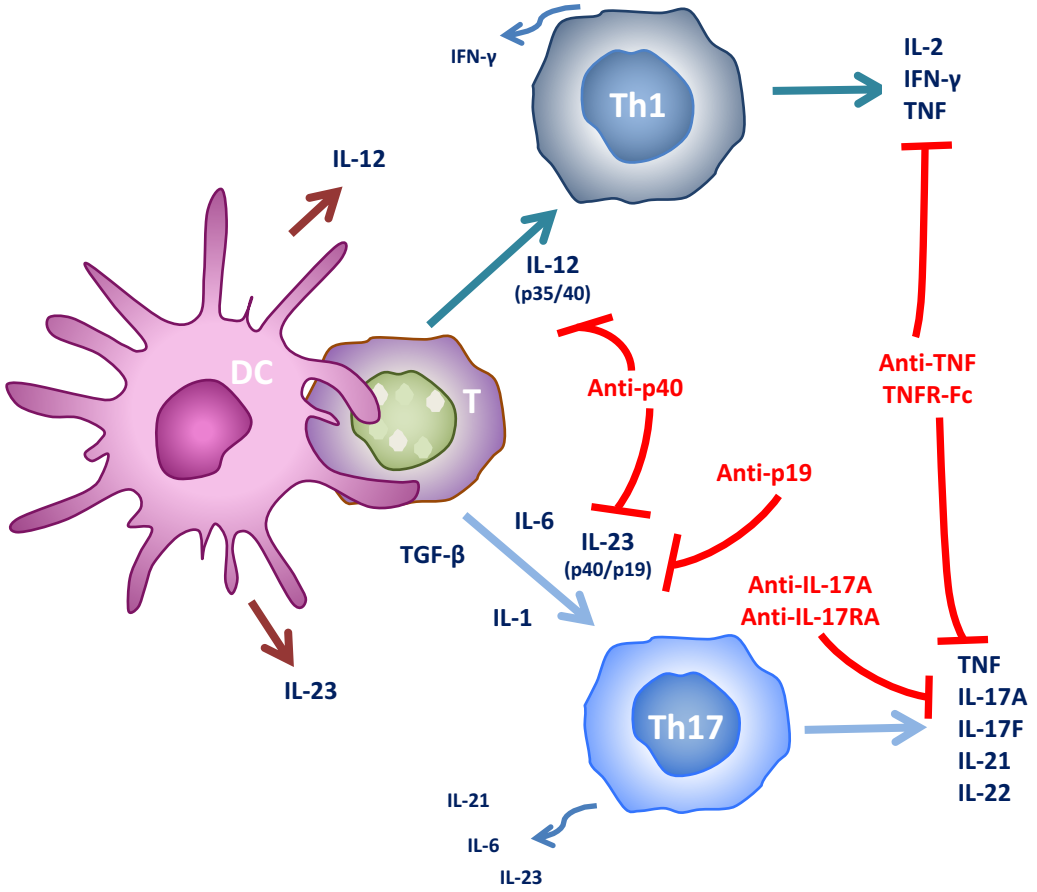
Rheumatology key messages

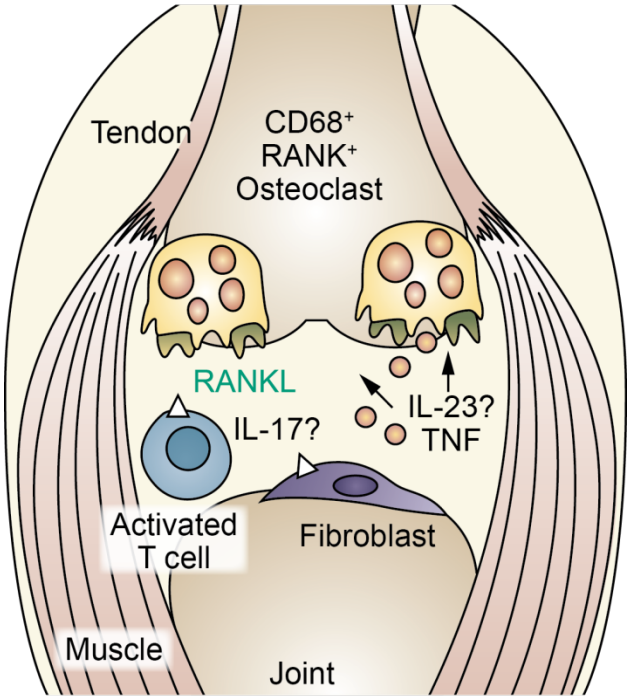
- Low-dose oral MTX does not improve synovitis in active PsA.
- MTX has borderline symptom-modifying properties.
- There is insufficient evidence to support the use of MTX as a standard treatment for PsA.

	MTX ($n = 109$)				Placebo ($n = 112$)				Linear regression	
Measures	Initial	3 months	6 months	Change 0–6	Initial	3 months	6 months	Change 0–6	Adjusted[a], β-coefficient (95% CI)	*P*-value
Tender joint count	11.9 (9.8, 14.0)	7.9 (6.1, 9.6)	7.7 (5.7, 9.7)	4.2 (2.1, 6.3)	13.6 (11.6, 15.7)	9.9 (7.8, 11.9)	10.0 (7.5, 12.5)	3.7 (1.2, 6.4)	−1.1 (−3.8, 1.5)	0.41
Swollen joint count	8.7 (7.2, 10.1)	5.7 (4.3, 7.1)	4.6 (3.1, 6.0)	4.1 (2.3, 5.9)	8.0 (6.5, 9.5)	5.4 (4.3, 6.6)	5.2 (3.8, 6.6)	2.8 (1.1, 4.5)	−0.9 (−2.7, 1.2)	0.48
ESR	20.9 (16.7, 25.0)	17.8 (13.0, 22.6)	14.7 (11.3, 18.1)	6.2 (2.5, 9.9)	19.3 (15.1, 23.2)	18.3 (14.0, 22.5)	15.6 (11.8, 19.4)	3.6 (−0.6, 7.7)	−0.9 (−5.0, 3.7)	0.71
CRP	11.5 (9.4, 13.5)	9.6 (7.6, 11.6)	9.4 (6.9, 12.0)	2.0 (−0.7, 4.7)	15.2 (11.6, 18.9)	11.9 (9.4, 14.4)	11.7 (8.4, 14.9)	3.6 (−0.3, 7.4)	−0.6 (−4.2, 2.9)	0.73
Pain	40.5 (36.2, 44.8)	33.6 (28.2, 39.1)	28.8 (23.2, 34.4)	11.7 (5.9, 17.5)	46.4 (41.8, 50.9)	37.7 (31.8, 43.6)	38.3 (31.8, 44.8)	8.1 (1.3, 14.9)	−7.0 (−15.3, 1.2)	0.09
HAQ	0.9 (0.8, 1.1)	0.7 (0.6, 0.8)	0.7 (0.6, 0.9)	0.2 (0.1, 0.4)	1.2 (1.02, 1.28)	1.0 (0.9, 1.2)	1.0 (0.9, 1.2)	0.1 (0.0, 0.3)	−0.1 (−0.3, 0.02)	0.10
Patient global assessment	49.8 (45.1, 54.4)	36.6 (31.3, 41.8)	31.8 (25.9, 37.7)	18.0 (12.0, 24.0)	49.7 (45.1, 54.4)	41.5 (35.8, 47.1)	42.2 (36.4, 48.0)	7.5 (0.9, 14.1)	−9.2 (−17.0, −1.4)	0.02
Assessor's global assessment	41.1 (37.7, 44.5)	30.4 (25.9, 34.8)	23.3 (19.9, 26.6)	17.9 (13.9, 21.8)	43.7 (40.2, 47.2)	33.7 (29.3, 40.0)	33.0 (28.5, 37.5)	10.7 (5.9, 15.4)	−8.0 (−13.6, −2.4)	0.01

Mean disease activity measures (95% CIs) are shown initially and at 3 and 6 months together with changes >6 months. [a]Differences between treatments are shown as assessed by linear regression analyses adjusted for age, gender, disease duration and individual baseline score.

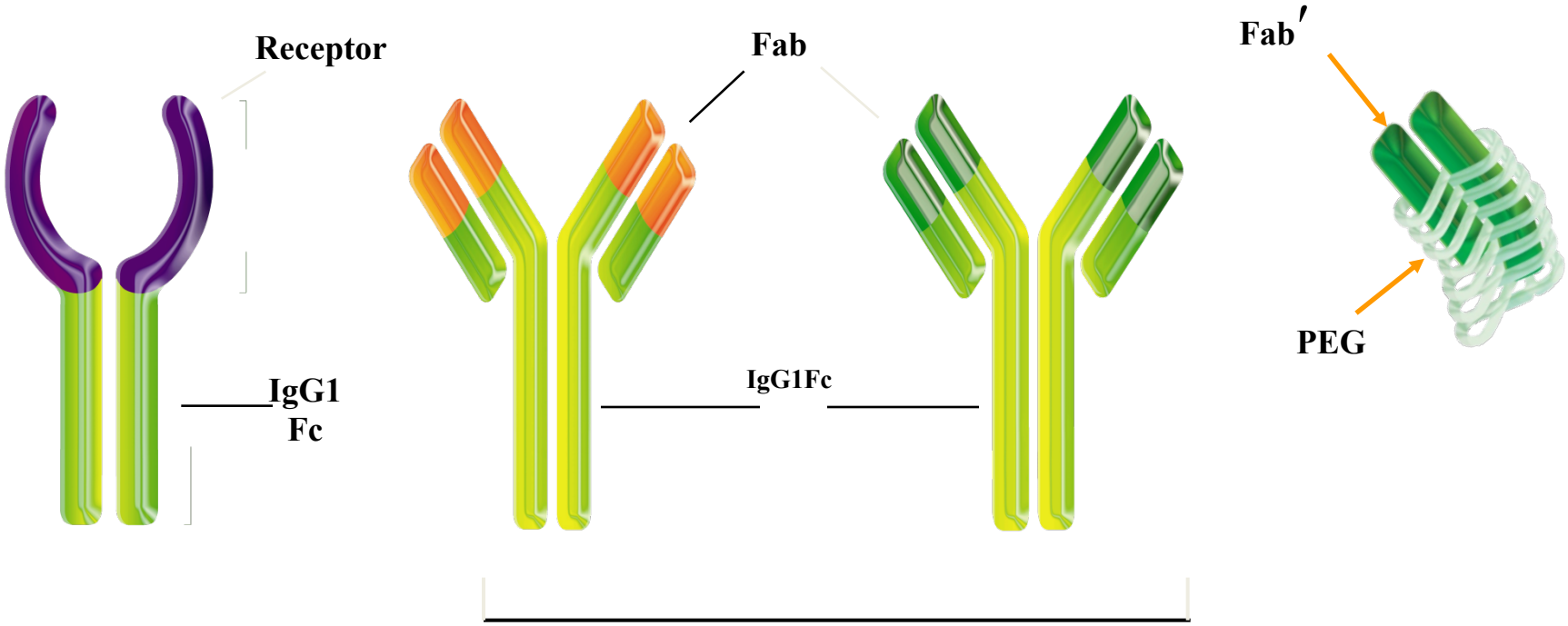
Extracellular signalling pathways in chronic inflammatory immune processes: possible new targets for PsA therapy





TNF-α inhibitors

Etanercept | **Infliximab** | **Adalimumab** **Golimumab** | **Certolizumab pegol**



Recombinant receptor/Fc fusion protein

Monoclonal antibody

PEGylated Fab’ 40 kDa PEG

Modified from: Weir et al. *Therapy*. 2006;3:535-545

ImmunoTargets and Therapy

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REVIEW

Current perspective on the role of the interleukin-23/interleukin-17 axis in inflammation and disease (chronic arthritis and psoriasis)

This article was published in the following Dove Press journal:
ImmunoTargets and Therapy
1 October 2015
Number of times this article has been viewed

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Matteo Piga
Alberto Floris
Alessandro Mathieu

Rheumatology Unit, Department of Medical Sciences, Policlinico of the University of Cagliari, Monserrato, Cagliari, Italy

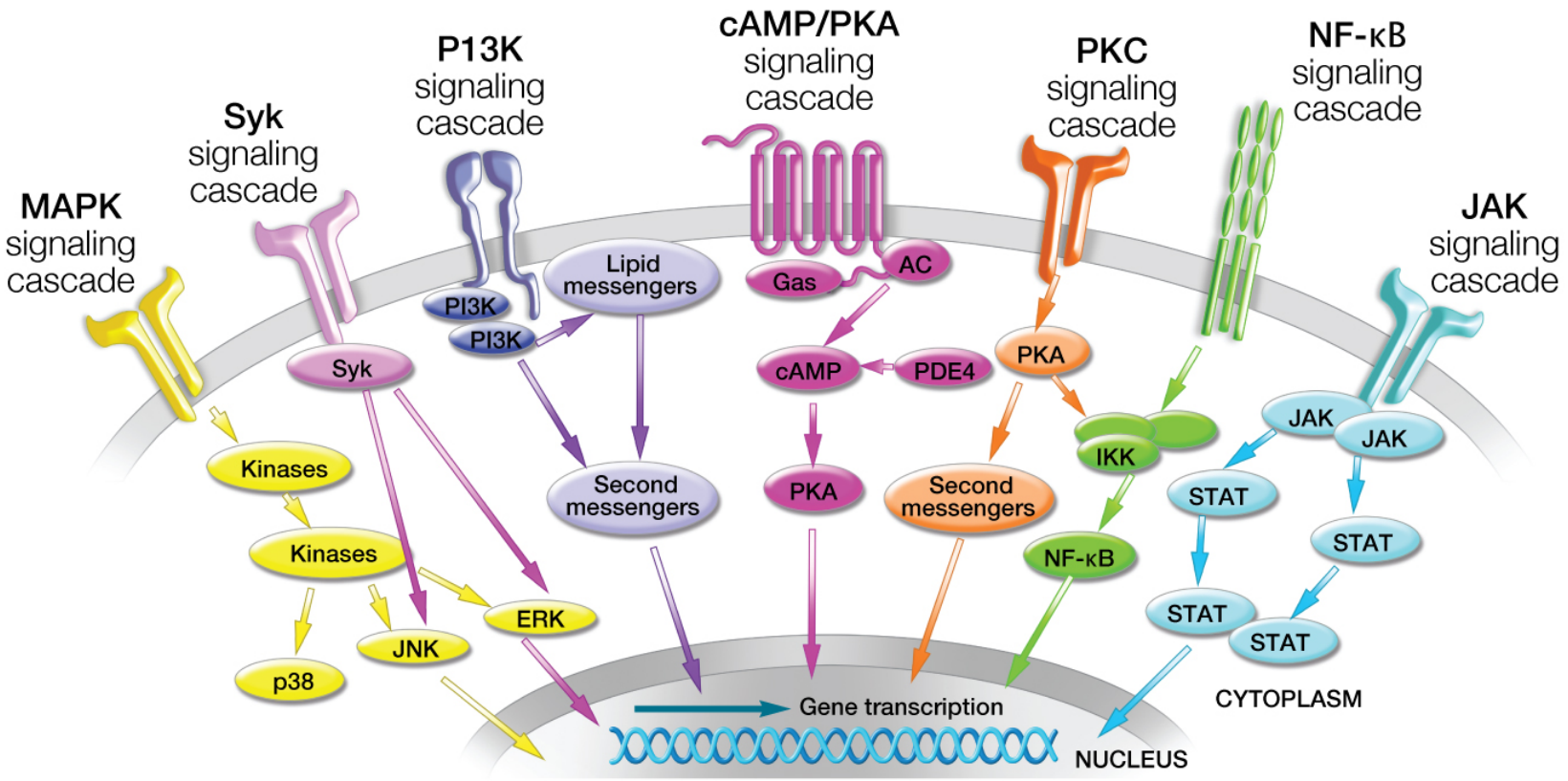
Abstract: TH17 is a lymphocyte subset, which is characterized by its polarization to secrete interleukin (IL)-17. IL-23 is the pivotal mediator responsible for TH17 differentiation and the IL-23/IL-17 axis has been strongly implicated in the pathogenesis of several immune mediated diseases, in particular chronic arthritis and skin psoriasis. This review will summarize the basic immunology and the new monoclonal antibodies, which antagonize this pathway allowing a new therapeutic approach.

Keywords: TH17, IL-17, IL-23, psoriasis, psoriatic arthritis, ankylosing spondylitis

Table 1 Monoclonal antibodies developed for use in human diseases which interfere with the interleukin (IL)-23/IL-17 axis

IL-17 inhibitors
Secukinumab
Ixekizumab
Brodalumab
IL-23 inhibitors
Guselkumab
Tildrakizumab
IL-12 and IL-23 inhibitors
Ustekinumab

Intracellular signalling pathways in chronic inflammatory immune processes: possible new targets for PsA therapy



MAIN DRUGs IN THE FIELD FOR PsA TREATMENT

- NSAIDs
- Corticosteroids
- Methotrexate, Leflunamide, SLZ
- TNF-alpha antagonists :
  - Infliximab
  - Etanercept
  - Adalimumab
  - Golimumab
  - Certolizumab
- Anti IL-12/23 Ustekinumab
- Anti IL-17 Secukinumab
- PDE4 inhibitor Apremilast

Recommendations for the use of biologic therapy in the treatment of psoriatic arthritis: update from the Italian Society for Rheumatology

C. Salvarani[1], N. Pipitone[1], A. Marchesoni[2], F. Cantini[3], A. Cauli[4], E. Lubrano[5], L. Punzi[6], R. Scarpa[7], A. Spadaro[8], M. Matucci-Cerinic[9], I. Olivieri[10]

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Carlo Salvarani, Nicolò Pipitone, Antonio Marchesoni, Fabrizio Cantini, Alberto Cauli, Ennio Lubrano, Leonardo Punzi, Raffaele Scarpa, Antonio Spadaro, Marco Matucci-Cerinic, Ignazio Olivieri.

Received on August 29, 2009; accepted in revised form on June 14, 2011.

Clin Exp Rheumatol 2011; 29 (Suppl. 66): S28-S41.

Key words: psoriatic arthritis, monoclonal antibodies, biologics, tumour necrosis factor-alpha/ antagonists and inhibitors

Competing interests: none declared.

ABSTRACT

Objective. *To update the 2006 Italian Society for Rheumatology recommendations for the use of biologic (TNF-α blocking) agents in the treatment of psoriatic arthritis (PsA).*

Methods. *A panel of experts performed a literature search and identified the items that required updating on the basis of new published data. A draft of the updated recommendations was circulated to a group of Italian Rheumatologists with a specific expertise in PsA and in therapy with biologic agents, and their suggestions were incorporated in the final version.*

Results. *A consensus was achieved regarding the initiation and the monitoring of anti-TNF-α agents in PsA. Inclusion and exclusion criteria were defined and specific recommendations were made for patients with psoriatic peripheral synovitis, spondylitis, enthesitis, and dactylitis, respectively. We also specified criteria for assessment of response to treatment and for withholding and withdrawal of therapy.*

Conclusions. *These recommendations may be used for guidance in deciding which patients with PsA should receive biologic therapy. Further updates of these recommendations may be published on the basis of the results of new clinical studies and of data from post-marketing surveillance.*

Background

Psoriatic arthritis (PsA) is a chronic inflammatory disorder typically characterised by arthritis and psoriasis variably associated with other extra-articular manifestations (1). A set of criteria (CASPAR, Classification criteria for psoriatic arthritis) has recently become available to classify PsA (2) (Table I). These criteria have been shown to have a 98.7% specificity and a 91.4% sensitivity in the original study, while their sensitivity in early PsA has been estimated to be in the range of 77.3–100% (3, 4).

PsA has traditionally been considered a milder and less disabling disease compared with rheumatoid arthritis (RA). However, in a population of PsA patients from a tertiary care Centre, where the gamut of disease expression is likely to be skewed toward the severe end of the spectrum, 40% of patients had joint erosions and damage (5, 6). In addition, about 20–40% of PsA patients have axial skeleton involvement ("psoriatic spondylitis") (7, 8), which may lead to functional limitation and deformity akin to, although usually less severe than that observed in ankylosing spondylitis (AS) (9). These and other (10) data suggest that a sizeable proportion of PsA patients have severe, potentially disabling disease requiring aggressive treatment, although the lack of population-based studies using standardised classification criteria precludes a confident estimate of the precise prevalence of severe PsA.

The initial treatment of PsA usually rests on non-steroidal anti-inflammatory drugs (NSAIDs) and topical steroid injections, but in patients with recalcitrant peripheral joint disease aggressive treatment with one or more disease-modifying anti-rheumatic agents (DMARDs) is indicated to suppress inflammation. In clinical practice, the most widely used DMARDs are methotrexate (level of evidence B), sulfasalazine (level of evidence A), leflunomide (level of evidence A), and cyclosporine (level of evidence B) (11-17). However, the efficacy of these agents in inhibiting articular erosions has not been assessed in proper controlled studies (12-17)

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SPECIAL ARTICLE

Group for Research and Assessment of Psoriasis and Psoriatic Arthritis 2015 Treatment Recommendations for Psoriatic Arthritis

Laura C. Coates,[1] Arthur Kavanaugh,[2] Philip J. Mease,[3] Enrique R. Soriano,[4] Maria Laura Acosta-Felquer,[4] April W. Armstrong,[5] Wilson Bautista-Molano,[6] Wolf-Henning Boehncke,[7] Willemina Campbell,[8] Alberto Cauli,[9] Luis R. Espinoza,[10] Oliver FitzGerald,[11] Dafna D. Gladman,[12] Alice Gottlieb,[13] Philip S. Helliwell,[14] M. Elaine Husni,[15] Thorvardur J. Love,[16] Ennio Lubrano,[17] Neil McHugh,[18] Peter Nash,[19] Alexis Ogdie,[20] Ana-Maria Orbai,[21] Andrew Parkinson,[22] Denis O'Sullivan,[23] Cheryl F. Rosen,[24] Sergio Schwartzman,[25] Evan L. Siegel,[26] Sergio Toloza,[27] William Tuong,[28] and Christopher T. Ritchlin[29]

GRAPPA
GROUP FOR RESEARCH AND ASSESSMENT OF PSORIASIS AND PSORIATIC ARTHRITIS

Objective

- To provide up-to-date systematic and evidence based guidance for the treatment and management of adult patients with PsA (not specifically relevant for patients with juvenile idiopathic arthritis or psoriasis only).
- Target audience is anyone involved in the treatment of PsA patients.

Methods

- Rheumatologists, Dermatologists and PsA patients were actively involved. No role of pharmaceutical industry.
- Literature reviews, face to face meetings, online surveys (using the GRADE process).
- Overarching principles, treatment recommendations and a schema incorporating these principles for:
- Peripheral arthritis
- Spondylitis
- Enthesitis
- Dactylitis
- Skin and nail disease
- Comorbidities

Case reports were also drafted in order to provide examples

Methods II

- The psoriasis and nail group were led by dermatologists while rheumatologists led the musculoskeletal manifestation groups.
- Recommendations could be for or against a treatment, and could be strong or conditional, based upon the best scientific evidence and relevant clinical context.
- The entire group decide that recomendations based on high quality studies published only as abstracts should be considered conditionaly only and demarcated by lighter text in the treatment schema.

OVERARCHING PRINCIPLES 1

- **1** The ultimate goals of therapy for all patients with psoriatic arthritis (PsA) are: a) To achieve the lowest possible level of disease activity in all domains of disease; as definitions of remission and low or minimal disease activity become accepted, these will be included in the goal. b) To optimize functional status, improve quality of life and wellbeing, and prevent structural damage to the greatest extent possible. c) To avoid or minimize complications, both from untreated active disease and from therapy.

OVERARCHING PRINCIPLES 2

- **2** Assessment of patients with PsA requires consideration of all major disease domains, including peripheral arthritis, axial disease, enthesitis, dactylitis, psoriasis, and nail disease. The impact of disease on pain, function, quality of life, and structural damage should be examined. In addition, activity in other potential related conditions should be considered, including cardiovascular disease, uveitis, and inflammatory bowel disease. Multidisciplinary and multispecialty assessment and management will be most beneficial for individual patients.

OVERARCHING PRINCIPLES 3

- **3** Clinical assessment ideally includes patient-reported measures with a comprehensive history and physical examination, often supplemented by laboratory tests and imaging techniques (e.g., x-ray, ultrasound, MRI). The most widely accepted metrics that have been validated for PsA should be utilized whenever possible.

OVERARCHING PRINCIPLES 4

- **4** A comprehensive assessment of relevant comorbidities (including but not restricted to obesity, metabolic syndrome, gout, diabetes, cardiovascular disease, liver disease, depression and anxiety) should be undertaken and documented.

OVERARCHING PRINCIPLES 5

- **5** Therapeutic decisions need to be individualized, and are made jointly by the patient and their doctor. Treatment should reflect patient preferences, with the patients provided with the best information and relevant options provided to them. Treatment choices may be affected by various factors, including disease activity, structural damage, comorbid conditions and previous therapies.

OVERARCHING PRINCIPLES 6

- **6** Ideally, patients should be reviewed promptly, offered regular evaluation by appropriate specialists, and have treatment adjusted as needed in order to achieve the goals of therapy. Early diagnosis and treatment is likely to be of benefit.

RECOMENDATIONS

- Individual treatment decisions dependent on disease activity, prognostic factors, comorbidities, local accesss to therapies.
- Central concept: **«optimal care is an iterative process»**
- Strongly reccommended **repeted evaluations over time and alteration of therapy as appropriate**
- Choice of treatment to ensure it **addressess as many manifestation of disease as possible**

Peripheral arthritis

- NSAIDS: conditionally recommended (CR)
- Corticosteroids: CR, systemically or IA with smallest dose required and short periods
- DMARDs: despite the lack of evidence from RCTs, DMARDs are recommended based on data from LOS, low cost and universal access, lack of evidence that a short delay would impact long-term function or QoL. PDE4i in naive pts CR.
- For patients failing DMARDs: biolgics (including anti-TNF and IL12/23 inhibitors) and PDE4i are SR
- IL-17i conditionally recommended
- Abatacept: off-label use only (based on positive phase 2 trial)
- No evidence to support use of concomitant DMARDs with biologics (registry data suggest use for IFX)
- In inadequate responders «switching» to an alternative biolgic (same or different mode of action)

Axial disease

- No specific data available for axPsA, recommendation derived from AS.
- NSAIDs, Physiotherapy, SI injections.
- TNFi
- No evidence of efficacy for SLZ.
- Evidence of efficacy in clinical trial for Secukinumab and Ustekinumab, but currently not approved for AS or axPsA (but licensed for PsA).
- No formal data but observational data support switching in TNFi IR pts

Enthesitis

- NSAIDs (based on expert opinion)
- Physiotherapy (no formal studies)
- SLZ not effective and no evidence support use of DMARDs
- High quality evidence for TNFi and ustekinumab
- PDE4i and secukinumab CR
- No formal data on switching

Dactylitis

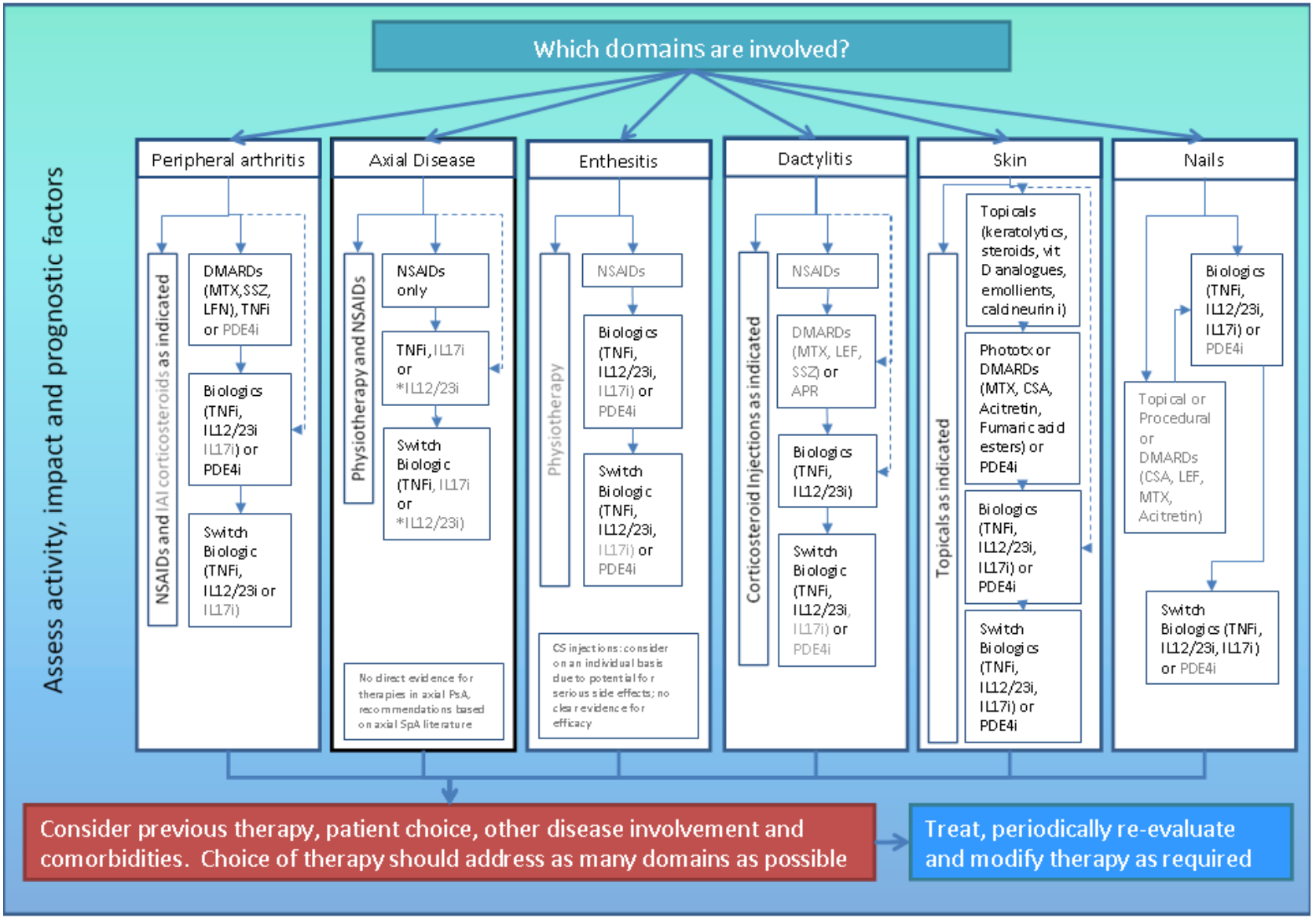
- In contrast to enthesitis, DMARDs are recommended as first step
- Corticosteroid injections should be considered
- Strong evidence for TNFi and ustekinumab (data on switching not available)
- PDE4i and secukinumab CR

Skin disease

- Topical agents (keratolitics, steroids, vit D analogues, emolients, calcineurin i)
- Phototherapy , DMARDs (MTX, CyA, Acitetrin, Fumaric acid esters) (combined in widespread disease) or PDE4i .
- Biologics TNFi, IL12/23i, IL17i (with or without topicals or DMARDs in certains patients)
- Consider switching DMARDs/bio

Nail disease

- Data derived from psoriasis.
- Biologics (TNFi, IL12/23, IL-17i) SR or PDE4i CR
- Topical or procedural or DMARDs (CyA, LEF, MTX, Acitretin) CR
- Switch bio or PDE4i


Assess activity, impact and prognostic factors
Which domains are involved?
Peripheral arthritis
NSAIDs and IAI corticosteroids as indicated
DMARDs (MTX,SSZ, LFN), TNFi or PDE4i
Biologics (TNFi, IL12/23i IL17i) or PDE4i
Switch Biologic (TNFi, IL12/23i or IL17i)
Axial Disease
Physiotherapy and NSAIDs
NSAIDs only
TNFi, IL17i or *IL12/23i
Switch Biologic (TNFi, IL17i or *IL12/23i)
No direct evidence for therapies in axial PsA, recommendations based on axial SpA literature
Enthesitis
Physiotherapy
NSAIDs
Biologics (TNFi, IL12/23i, IL17i) or PDE4i
Switch Biologic (TNFi, IL12/23i, IL17i) or PDE4i
CS injections: consider on an individual basis due to potential for serious side effects; no clear evidence for efficacy
Dactylitis
Corticosteroid Injections as indicated
NSAIDs
DMARDs (MTX, LEF, SSZ) or APR
Biologics (TNFi, IL12/23i)
Switch Biologic (TNFi, IL12/23i, IL17i) or PDE4i
Skin
Topicals as indicated
Topicals (keratolytics, steroids, vit D analogues, emollients, calcineurin i)
Phototx or DMARDs (MTX, CSA, Acitretin, Fumaric acid esters) or PDE4i
Biologics (TNFi, IL12/23i, IL17i) or PDE4i
Switch Biologics (TNFi, IL12/23i, IL17i) or PDE4i
Nails
Biologics (TNFi, IL12/23i, IL17i) or PDE4i
Topical or Procedural or DMARDs (CSA, LEF, MTX, Acitretin)
Switch Biologics (TNFi, IL12/23i, IL17i) or PDE4i
Consider previous therapy, patient choice, other disease involvement and comorbidities. Choice of therapy should address as many domains as possible
Treat, periodically re-evaluate and modify therapy as required
KEY
Standard Therapeutic Route
Expedited Therapeutic Route


For Three Men
The Civil War
Wasn't Hell.
It Was
Practice!
CLINT EASTWOOD
"THE GOOD, THE BAD AND THE UGLY"
LEE VAN CLEEF
ELI WALLACH
ALDO GIUFFRE | MARIO BREGA
SERGIO LEONE
TECHNISCOPE TECHNICOLOR
United Artists

COMORBIDITIES and/or EXTRAARTICULAR MANIFESTATIONS - Legend -

Comorbidity	Non-steroidal Anti-inflammatory Drugs	Glucocorticoids	Hydroxychloroquine	Sulfasalazine	Methotrexate	Leflunomide	Cyclosporine	Etanercept	Adalimumab	Infliximab	Certolizumab	Golimumab	Ustekinumab	Apremilast

A = Approved for primary therapy of the comorbid condition

C = Reason for caution

NI = no information available

OL = Off-label use for the therapy of the comorbid condition

P = Preferred therapy

SM = Requires special monitoring

? = Data insufficient but concerns have been raised

* When treating patients with chronic infections that can affect the liver, consider consultation with providers having expertise in the area.

Corticosteroids used as preferred therapy for uveitis are most commonly given as topical and/or intraocular injections in preference to oral steroids

COMORBIDITIES and/or EXTRAARTICULAR MANIFESTATIONS 1

Comorbidity	Non-steroidal Anti-inflammatory Drugs	Glucocorticoids	Hydroxychloroquine	Sulfasalazine	Methotrexate	Leflunomide	Cyclosporine	Etanercept	Adalimumab	Infliximab	Certolizumab	Golimumab	Ustekinumab	Apremilast
Cardiovascular Disease	C	?	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Congestive Heart Failure	C	C	NI	NI	NI	NI	NI	C	C	C	C	C	NI	NI
Obesity	NI	NI	NI	NI	C	NI	NI	NI	NI	NI	NI	NI	NI	NI
Metabolic Syndrome	NI	C	NI	NI	C	NI	NI	NI	NI	NI	NI	NI	NI	NI
Diabetes	NI	C	NI	NI	C	NI	NI	NI	NI	NI	NI	NI	NI	NI
Ulcerative Colitis	?	NI	NI	A	NI	NI	OL	NI	A	A	NI	A	NI	NI
Crohn's Disease	?	NI	NI	A	OL	NI	NI	NI	A	A	A	NI	NI	NI
Uveitis	NI	P[#]	NI	NI	NI	NI	NI	?	P	P	NI	NI	NI	NI

CO-MORBIDITIES and/or EXTRAARTICULAR MANIFESTATIONS 2

Comorbidity	Non-steroidal Anti-inflammatory Drugs	Glucocorticoids	Hydroxychloroquine	Sulfasalazine	Methotrexate	Leflunomide	Cyclosporine	Etanercept	Adalimumab	Infliximab	Certolizumab	Golimumab	Ustekinumab	Apremilast
Osteoporosis	NI	C	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Malignancy	NI	NI	NI	NI	NI	NI	NI	C	C	C	C	C	?	NI
Fatty Liver Disease	C	NI	NI	C	C	C	NI	NI	NI	NI	NI	NI	NI	NI
Chronic Kidney Disease	C	NI	NI	NI	C	?	SM	NI	NI	NI	NI	NI	NI	NI
Depression	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	?
Chronic Hepatitis B *	C	NI	NI	NI	C	C	NI	SM	SM	SM	SM	SM	?	NI
Chronic Hepatitis C *	C	NI	NI	NI	C	C	NI	?/P	?	?	?	?	?	NI
Human Immunodeficiency Virus								SM	SM	SM	SM	SM	?	

RESEARCH AGENDA

- Outcome measures
- Biomarkers
- Better identifications and treatment of patients
- Treatment strategies

European League Against Rheumatism (EULAR) recommendations for the management of psoriatic arthritis with pharmacological therapies: 2015 update

L Gossec,[1,2] J S Smolen,[3,4] S Ramiro,[5] M de Wit,[6] M Cutolo,[7] M Dougados,[8,9] P Emery,[10,11] R Landewé,[12,13] S Oliver,[14] D Aletaha,[3] N Betteridge,[6] J Braun,[15] G Burmester,[16] J D Cañete,[17] N Damjanov,[18] O FitzGerald,[19] E Haglund,[20,21] P Helliwell,[22] T K Kvien,[23] R Lories,[24,25] T Luger,[26] M Maccarone,[27] H Marzo-Ortega,[10,11] D McGonagle,[10,11] I B McInnes,[28] I Olivieri,[29] K Pavelka,[30] G Schett,[31] J Sieper,[32] F van den Bosch,[33] D J Veale,[34] J Wollenhaupt,[35] A Zink,[36] D van der Heijde[5]

eular

fighting rheumatic & musculoskeletal diseases together

Table 1 Updated EULAR recommendations for the management of PsA, with levels of evidence, grade of recommendations and level of agreement

	Overarching principles			Level of agreement (mean±SD)
A.	PsA is a heterogeneous and potentially severe disease, which may require multidisciplinary treatment			9.6±1.1
B.	Treatment of patients with PsA should aim at the best care and must be based on a shared decision between the patient and the rheumatologist, considering efficacy, safety and costs			9.2±1.7
C.	Rheumatologists are the specialists who should primarily care for the musculoskeletal manifestations of patients with PsA; in the presence of clinically significant skin involvement a rheumatologist and a dermatologist should collaborate in diagnosis and management			9.5±0.8
D.	The primary goal of treating patients with PsA is to maximise health-related quality of life, through control of symptoms, prevention of structural damage, normalisation of function and social participation; abrogation of inflammation is an important component to achieve these goals			9.6±1.0
E.	When managing patients with PsA, extra-articular manifestations, metabolic syndrome, cardiovascular disease and other comorbidities should be taken into account			9.5±1.0
	Recommendations	**Level of evidence**	**Grade of recommendation**	**Level of agreement (mean±SD**
1.	Treatment should be aimed at reaching the target of remission or, alternatively, minimal/low disease activity, by regular monitoring and appropriate adjustment of therapy	1b	A	9.6±0.9
2.	In patients with PsA, NSAIDs may be used to relieve musculoskeletal signs and symptoms	1b	A	9.6±0.8
3.	In patients with peripheral arthritis, particularly in those with many swollen joints, structural damage in the presence of inflammation, high ESR/CRP and/or clinically relevant extra-articular manifestations[a], csDMARDs should be considered[b] at an early stage[a], with methotrexate preferred in those with relevant skin involvement[b]	[a]: 3 [b]: 1b	B	9.4±0.8
4.	Local injections of glucocorticoids should be considered as adjunctive therapy in PsA[a]; systemic glucocorticoids may be used with caution at the lowest effective dose[b]	[a]: 3b [b]: 4	C	9.1±1.2
5.	In patients with peripheral arthritis and an inadequate response to at least one csDMARD, therapy with a bDMARD, usually a TNF inhibitor, should be commenced	1b	B	9.5±0.7
6.	In patients with peripheral arthritis and an inadequate response to at least one csDMARD, in whom TNF inhibitors are not appropriate, bDMARDs targeting IL12/23 or IL17 pathways may be considered	1b	B	9.1±1.1
7.	In patients with peripheral arthritis and an inadequate response to at least one csDMARD, in whom bDMARDs are not appropriate, a targeted synthetic DMARD such as a PDE4-inhibitor may be considered	1b	B	8.5±1.4
8.	In patients with active enthesitis and/or dactylitis and insufficient response to NSAIDs or local glucocorticoid injections, therapy with a bDMARD should be considered, which according to current practice is a TNF inhibitor	1b	B	9.1±1.2
9.	In patients with predominantly axial disease that is active and has insufficient response to NSAIDs, therapy with a bDMARD should be considered, which according to current practice is a TNF inhibitor	1b	B	9.6±0.6
10.	In patients who fail to respond adequately to a bDMARD, switching to another bDMARD should be considered, including switching between TNF inhibitors	1b	B	9.6±0.7

CONCLUSIONS

- Psoriatic disease is complex and etherogeneous, characterized by differences in clinical subsets, comorbidities, severity and response to treatment.
- Continuous assessment and re-evalutation of therapy is suggested
- Rheumatologists and Dermatologists should follow these patients patients although the disease often require a multydisciplinary approach.

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