EULAR Highlights 2021

Spondyloarthritis

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Imaging in axial spondyloarthritis: what is new?

EULAR 2021 OP0251

Data-driven Definitions Based on Inflammatory Lesions for a Positive MRI of the Spine Consistent with Axial Spondyloarthritis

Maksymowych WP[1,2], Lambert RG[1,2], Baraliakos X[3], Pedersen SJ[4], Weber U[5], Eshed I[6], Machado PM[7], de Hooge M[8], Sieper J[9], Wichuk S[1], Poddubnyy D[9], Rudwaleit M[10], van der Heijde D[11], Landewe R[12], Østergaard M[4]

[1]University of Alberta, Edmonton, Canada;[2]CARE Arthritis, Edmonton, Canada; [3]Rheumazentrum Ruhrgebiet, Herne, Germany; [4]Rigshospitalet University of Copenhagen, Copenhagen, Denmark; [5]University of South Denmark, Odense, Denmark; [6]Sheba Medical Center, Tel Aviv, Israel; [7]University College London, UK; [8]Ghent University Hospital, Ghent, Belgium;[9]Charité Universitätsmedizin, Berlin, Ge[10]Klinikum Bielefeld, Bielefeld, Germany;[11]Leiden University Netherlands; [12]Academic Medical Center, Univer Netherlands

On behalf of ASAS MRImagine

EULAR 2021 OP0251

OBJECTIVES: What defines a positive MRI for active lesions in the spine indicative of axSpA?

We aimed to identify quantitative cut-offs based on numbers of vertebral corners that define ASASMRIspine+, there being two gold standards:

- A. majority central reader decision as to the presence of spine MRI findings consistent with axSpA
- B. rheumatologist expert opinion diagnosis of axSpA.

CONCLUSIONS

- **Data driven cut-offs based on active lesions for defining a positive MRI of the spine consistent with axSpA are:**
- **BME in ≥4 vertebral corners**
- Or
- **BME in ≥3 vertebral corners in the setting of additional inflammatory lesions at other locations or the presence of corner fat**

Data-driven definitions for active and structural MRI lesions in the sacroiliac joint in spondyloarthritis and their predictive utility

Walter P. Maksymowych [1,2], Robert G. Lambert[3,4], Xenofon Baraliakos[5], Ulrich Weber[6,7], Pedro M. Machado [8,9,10], Susanne J. Pedersen[11], Manouk de Hooge[12,13], Joachim Sieper[14], Stephanie Wichuk[1], Denis Poddubnyy [14], Martin Rudwaleit[15,16], Désirée van der Heijde[17], Robert Landewe[18,19], Iris Eshed [20] and Mikkel Ostergaard[11,21]

Objective: Identify optimal MRI SIJ lesion cut-offs that reflect definitive active or structural MRI lesions typical of axSpA, or an ASAS positive MRI highly suggestive for axSpA.

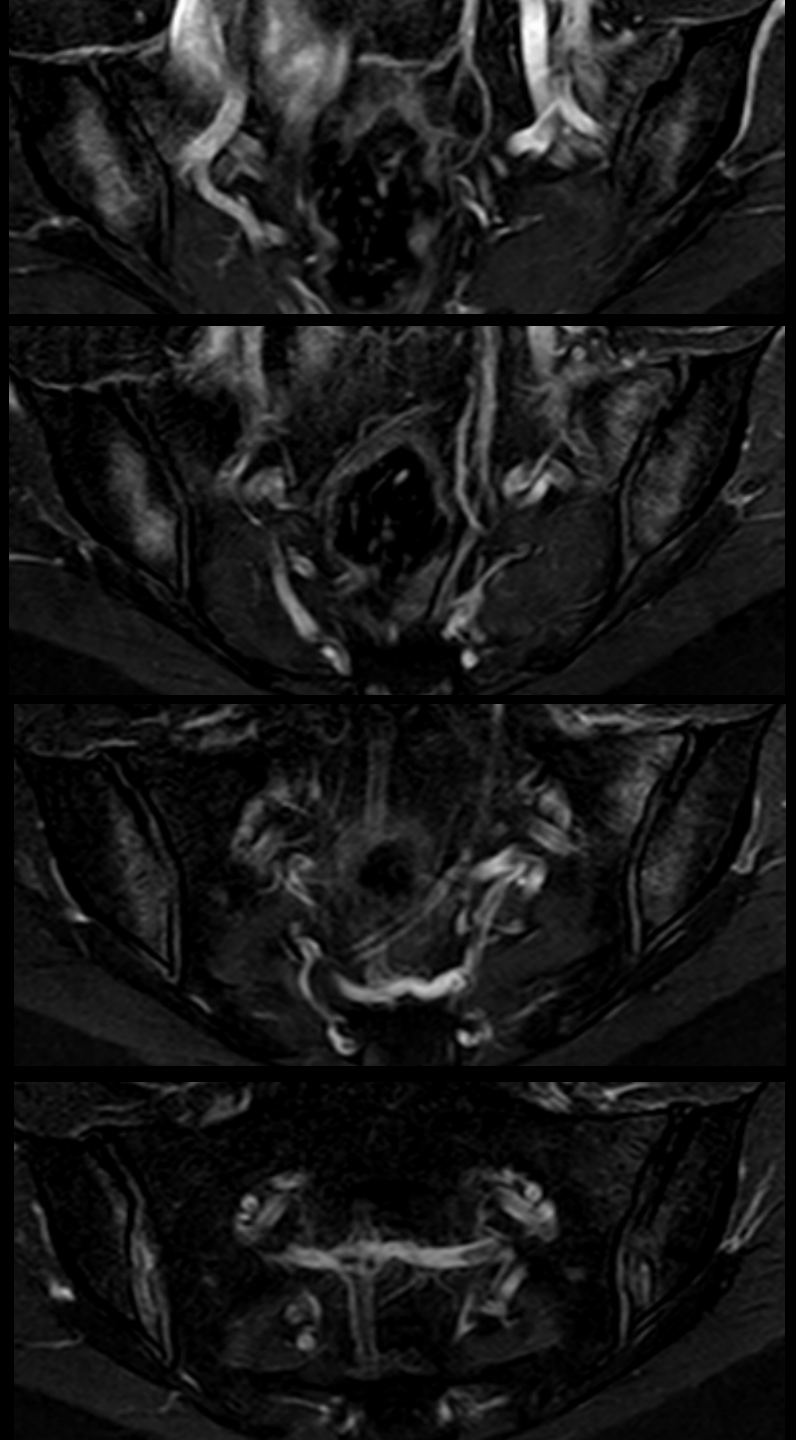
- Bone marrow edema in ≥4 SIJ quadrants or in ≥3 consecutive slices
- Erosion in ≥3 SIJ quadrants or ≥2 consecutive slices
- Fat lesions in ≥5 SI joint quadrants or ≥3 consecutive slices

Rheumatology (Oxford). 2021 Feb 1:keab099. doi: 10.1093/rheumatology/keab099.

35-j. Frau mit Beginn von Lumbosakralgien während Schwangerschaft.

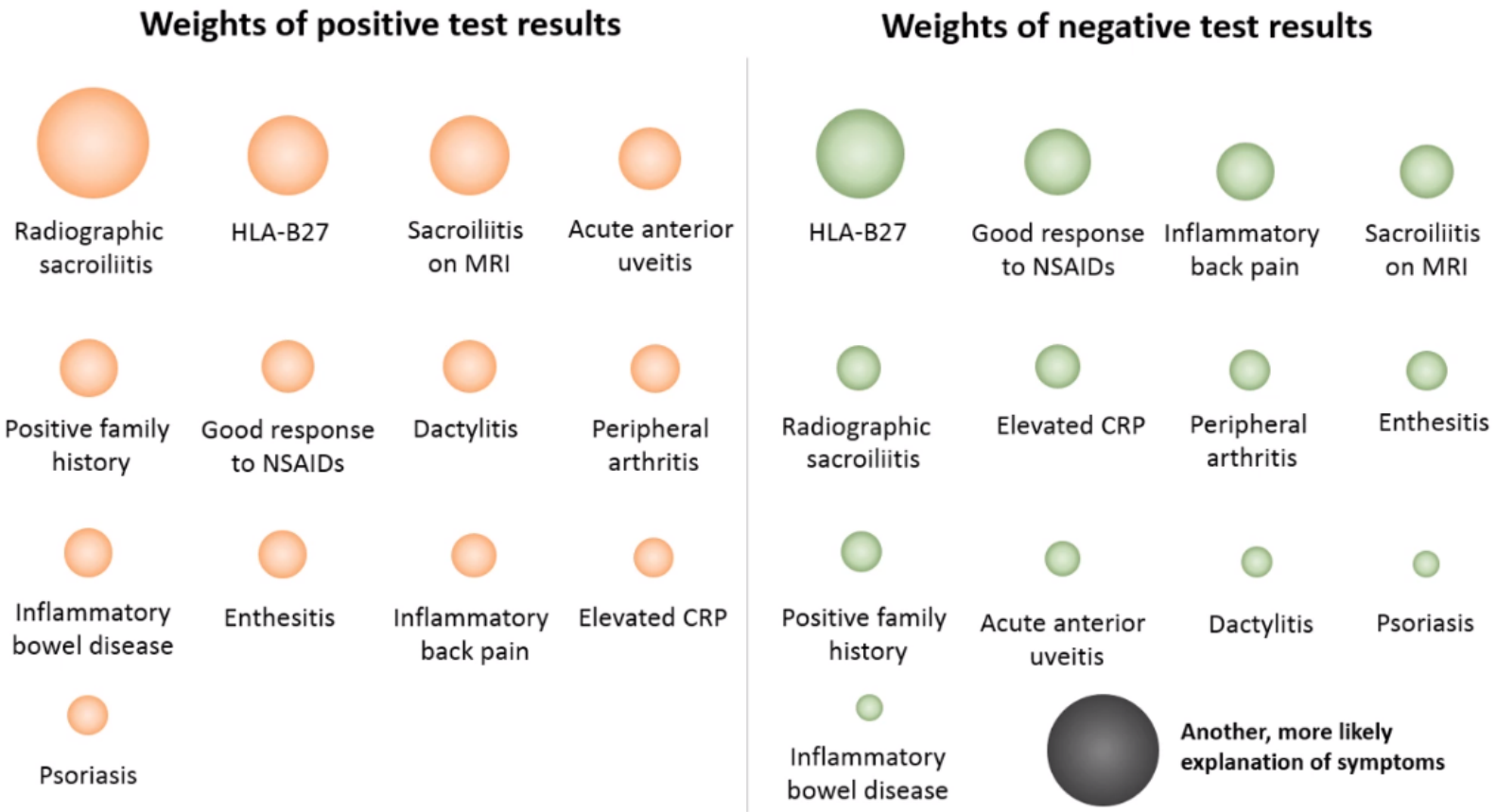
MRI 3 Monate nach Entbindung von Zwillingen

Zu diesem Zeitpunkt (vor 8 Jahren) Diagnose einer axSpA



Knochenmarködem angrenzend an mindestens 7 ISG-Quadranten, sichtbar auf mindestens 4 Schichten

The Diagnostic Weights

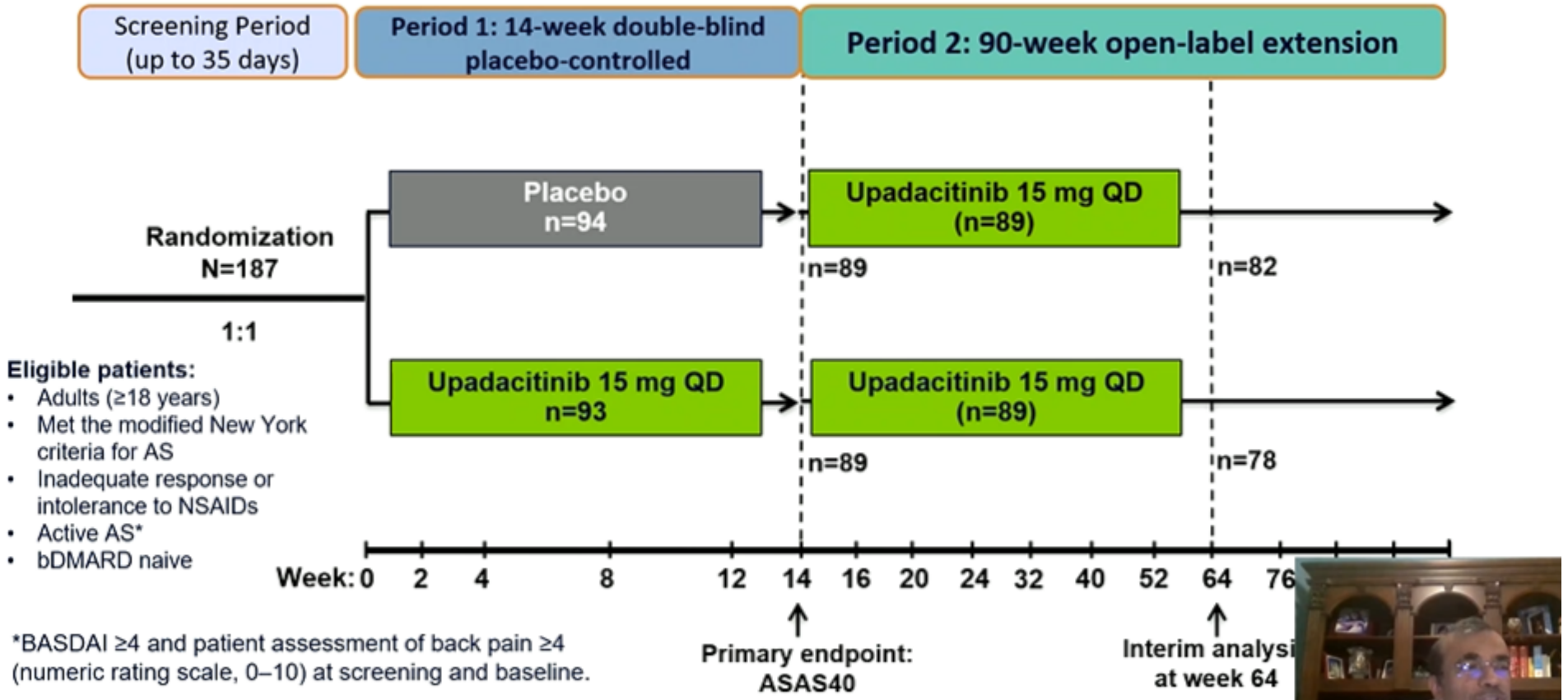


Poddubnyy D. Rheumatology. (Oxford) 2020; 59 (Suppl.4):iv6-iv17.

Efficacy and Safety of Upadacitinib in Patients With Active Ankylosing Spondylitis: 1-Year Results From a Randomized, Double-blind, Placebo-controlled Study With Open-label Extension

EULAR 2021 OP0251

Study Design and Participants



*BASDAI ≥4 and patient assessment of back pain ≥4 (numeric rating scale, 0–10) at screening and baseline.

Period 1 data published previously (van der Heijde D, et al. *Lancet*. 2019;394(10214):2108-2117).

Efficacy Through Year 1: ASAS40

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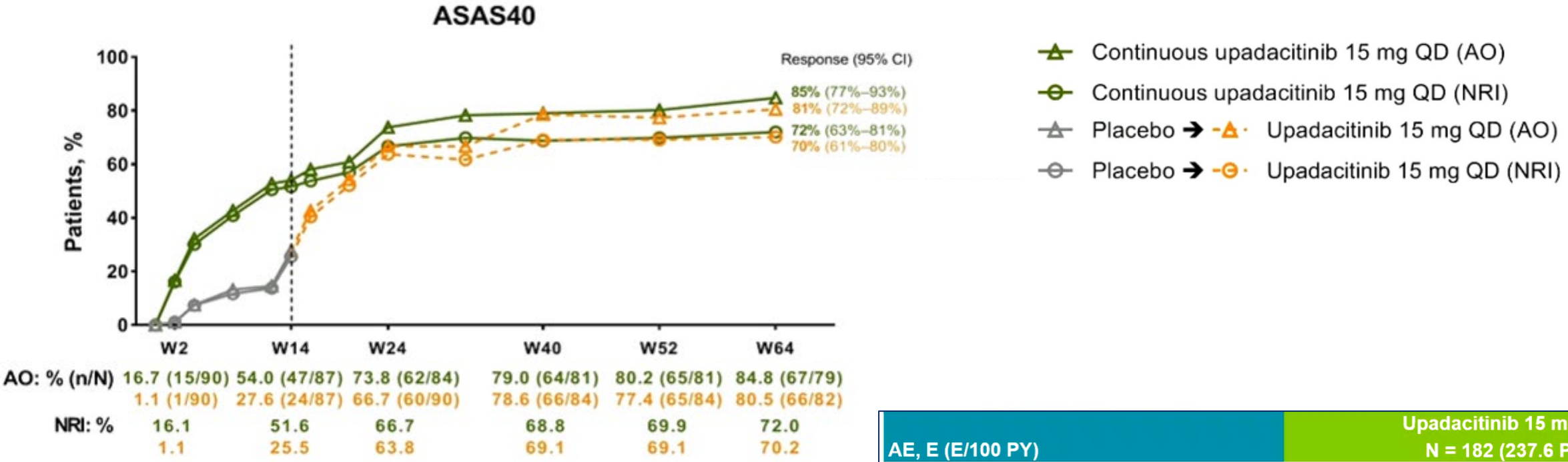


Dashed line: all patients randomized to placebo received open-label upadacitinib starting from week 14. NRI analysis: placebo to up
upadacitinib, n=93. AO, as-observed; ASAS, Assessment of SpondyloArthritis international Society; NRI, non-responder imputation

AE, E (E/100 PY)	Upadacitinib 15 mg QD N = 182 (237.6 PY)
Any AE	618 (260.1)
Serious AE	14 (5.9)
AE leading to discontinuation	15 (6.3)
Infections	205 (86.3)
Opportunistic infection	2 (0.8)
Herpes zoster*	5 (2.1)
Creatine phosphokinase elevation†	28 (11.8)
Hepatic disorder‡	24 (10.1)
Neutropenia	7 (2.9)
Anemia	3 (1.3)
Lymphopenia	2 (0.8)
Malignancy§	1 (0.4)
Death	0

Effects of filgotinib on spinal lesions in ankylosing spondylitis: Magnetic resonance imaging data from the TORTUGA trial

EULAR 2021 OP0141

The CANDEN MRI spine scoring system allows comprehensive semi-quantitative assessment of inflammation, fat, erosion, and new bone formation of the spine by anatomical location[3,4]

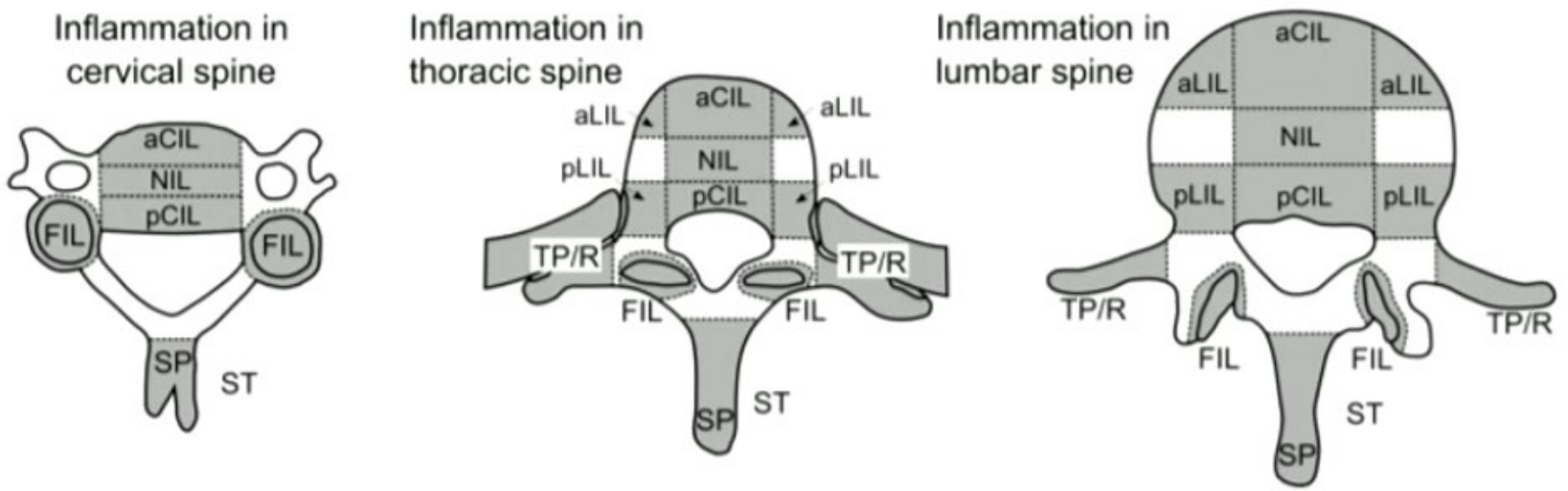
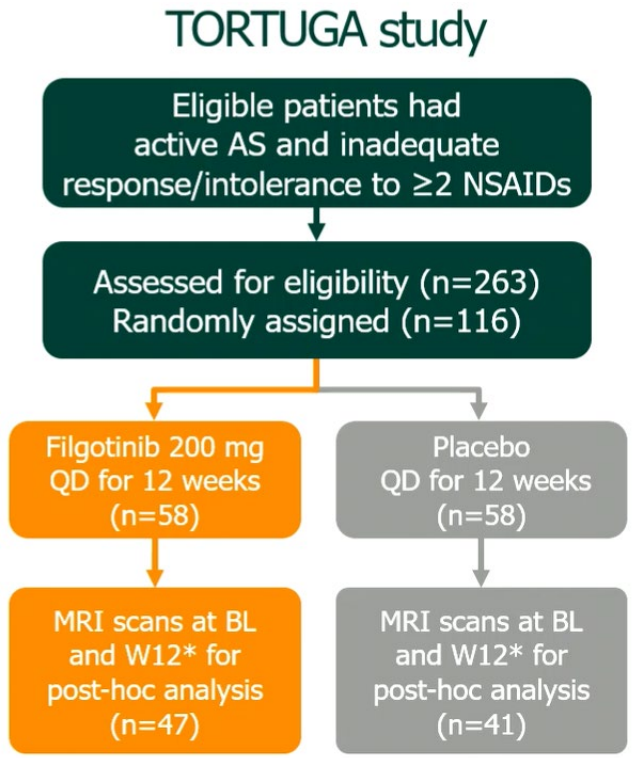
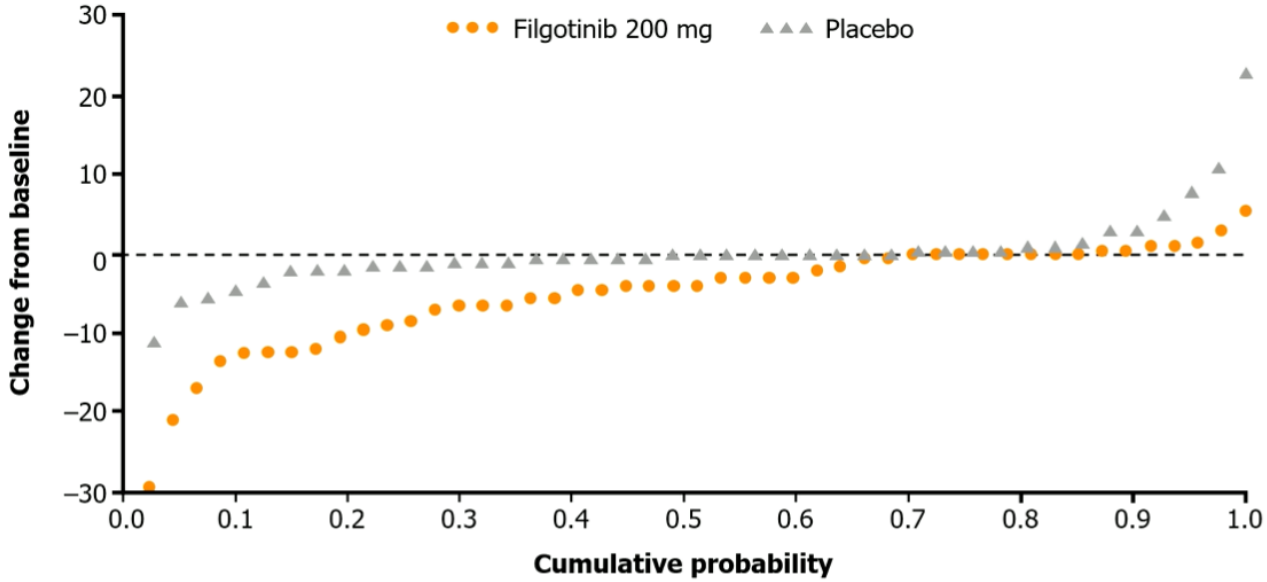


Figure 1b from Krabbe S, et al. RMD Open 2018;4:e000624 reproduced under CC BY-NC 4.0 license

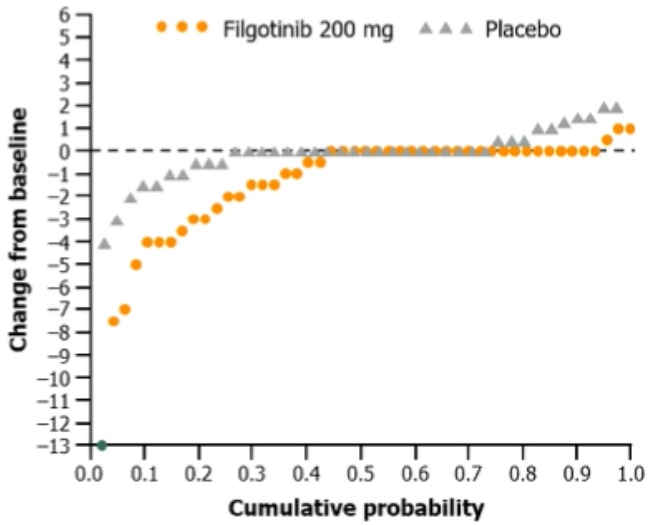


Change from baseline in total CANDEN spine inflammation score

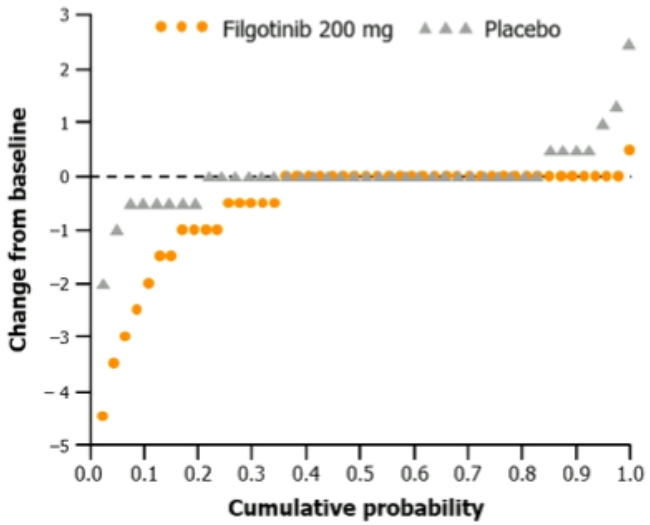
EULAR 2021 OP0141



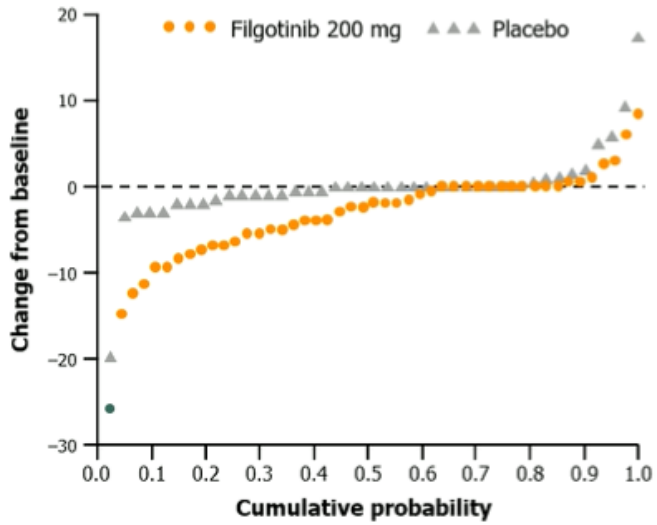
Posterior elements*



Facet joints



Vertebral body



GRAPPA Treatment Recommendations: 2021 Update

Evidence table

EULAR 2021 OP0229

Patient agreement 87.5%
Clinician agreement 93.8%

Indication	Strong recommendation For	Conditional recommendation For	Conditional recommendation Against	Strong recommendation Against	No recommendation: Insufficient evidence
Peripheral Arthritis DMARD Naïve	csDMARDs, TNFi, IL-12/23i, IL-17i, IL-23i, JAKi, PDE4i,	NSAIDs, oral CS, IA CS,			
Peripheral Arthritis DMARD IR	TNFi, IL-12/23i, IL-17i, IL-23i, JAKi	PDE4i, other csDMARD, NSAIDs, oral CS, IA CS, CTLA-4-Ig			
Peripheral Arthritis Biologic IR	TNFi, IL-17i, IL-23i, JAKi,	NSAIDs, oral CS, IA CS, IL-12/23i, PDE4i, CTLA-4-Ig	,		
Axial arthritis, Biologic naïve	NSAIDs, Physiotherapy, simple analgesia, TNFi, IL-17i, JAKi	CS SIJ injections, bisphosphonates		csDMARDs	IL-12/23i, IL-23i
Axial PsA, Biologic IR	NSAIDs, Physiotherapy, simple analgesia, TNFi, IL-17i, JAKi			csDMARDs	IL-12/23i, IL-23i

GRAPPA Treatment Recommendations: 2021 Update

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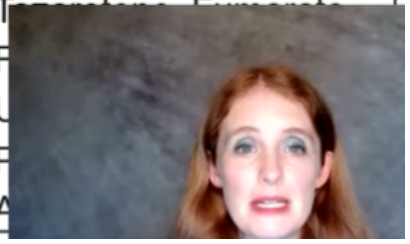
EULAR 2021 OP0229

Patient agreement 87.5%
Clinician agreement 93.8%

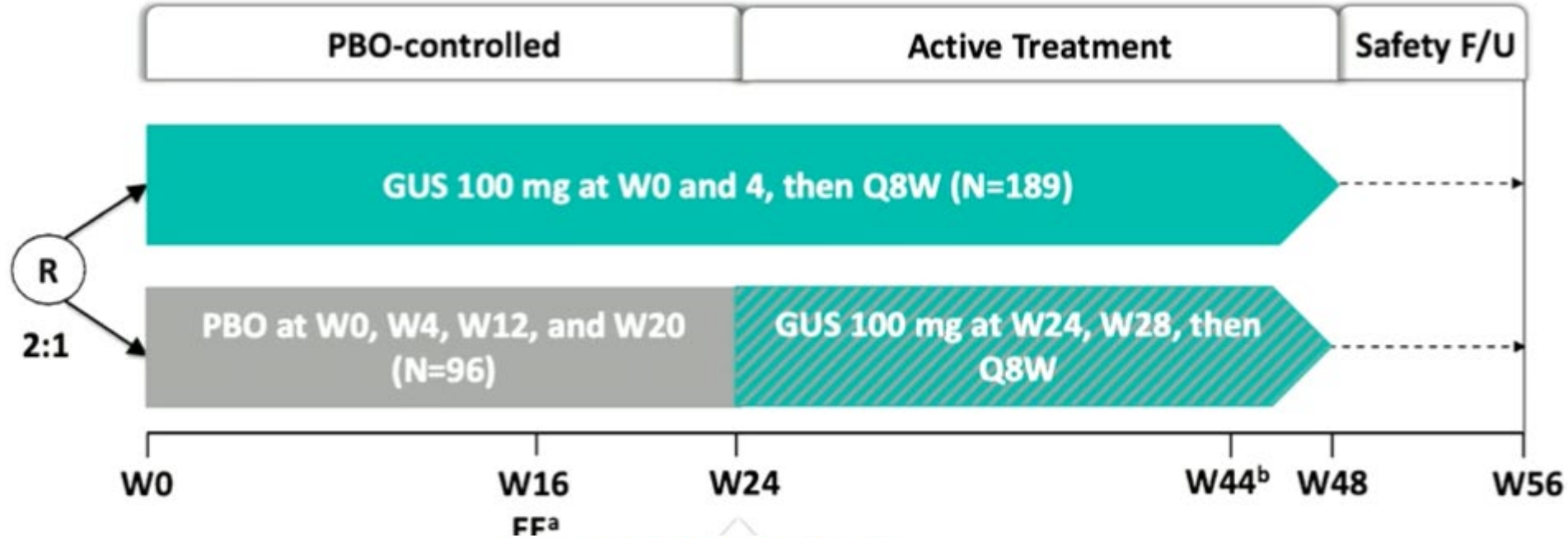
Indication	Strong recommendation For	Conditional recommendation For	Conditional recommendation Against	Strong recommendation Against	No recommendation: Insufficient evidence
Enthesitis	TNFi, IL-12/23i, IL-17i, IL-23i, JAKi, PDE4i	NSAIDs, physiotherapy, MTX, CTLA-4-Ig, CS injections (with extreme caution),			Other csDMARDs
Dactylitis	TNFi, IL-12/23i, IL-17i, IL-23i, JAKi, PDE4i	NSAIDs, CS injections, MTX, CTLA-4-Ig,	Other csDMARDs		
Psoriasis (plaque)	Topical therapies, phototherapy, Conventional systemics (MTX, fumarates, CyA) TNFi, IL-12/23i, IL-17i, IL-23i, PDE4i, JAKi	Acitretin			
Nail psoriasis	TNFi, IL12/23i, IL17i, IL23i, PDE4i	Topical corticosteroids, tacrolimus and calcipotriol combination or individual therapies, Pulsed dye laser, csDMARDs, acitretin, JAKi			Topical CyA / T… F… U… F… A…



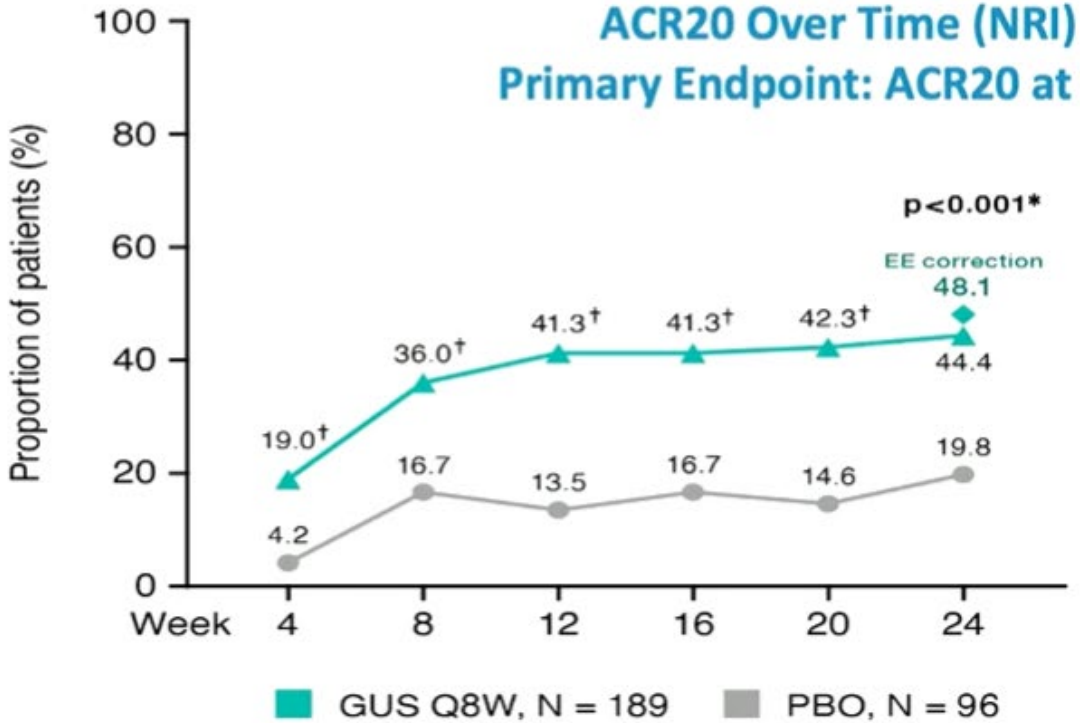
Efficacy and Safety of Guselkumab in Patients With Active Psoriatic Arthritis who Demonstrated Inadequate Response to Tumor Necrosis Factor Inhibition: Results of a Phase 3b, Randomized, Controlled Study

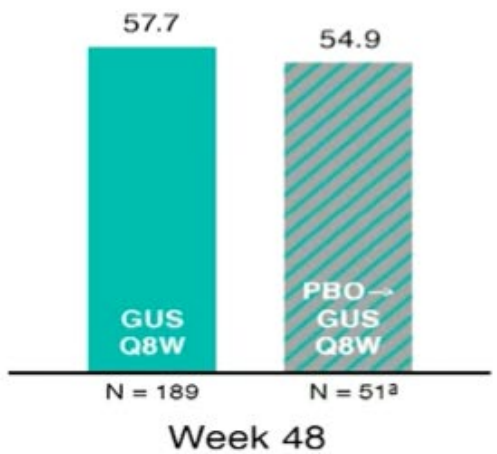
EULAR 2021 OP0230

- Guselkumab (GUS), a selective monoclonal antibody targeting the interleukin-23 p19 subunit, is approved to treat adults with moderate-to-severe plaque psoriasis (PsO) and active psoriatic arthritis (PsA)
- In 2 Phase 3 PsA studies, DISCOVER-1[1] and DISCOVER-2,[2] significantly higher proportions of GUS- than placebo (PBO)-treated patients (pts) achieved joint and skin responses at Week (W) 24. In DISCOVER-1, GUS efficacy was consistent in a subgroup of tumor necrosis factor inhibitor (TNFi)-experienced pts,[1] a cohort of PsA pts with significant unmet needs.
- Here we report GUS efficacy and safety in PsA pts with inadequate response (IR) to 1-2 TNFi assessed in the Phase 3b COSMOS study



ACR20 Over Time (NRI)
Primary Endpoint: ACR20 at W24

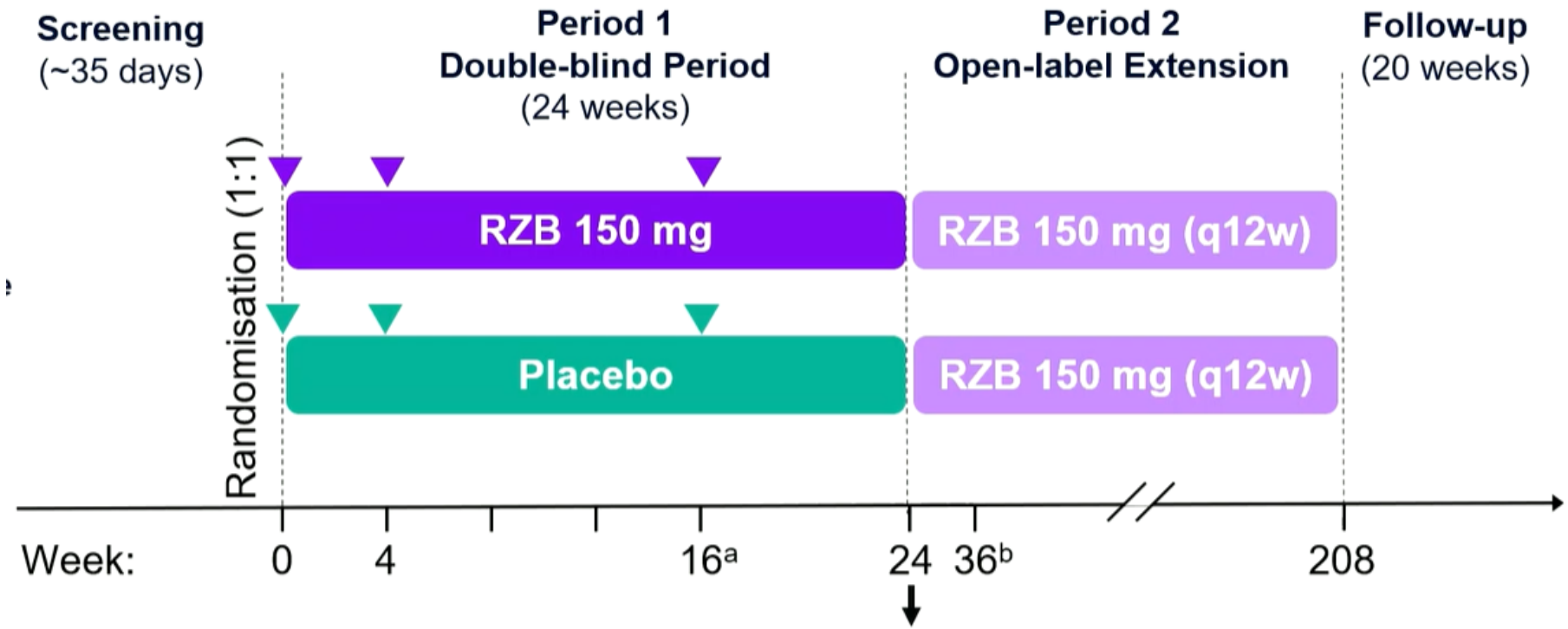




Efficacy and Safety of Risankizumab for Active Psoriatic Arthritis, Including Patients With Inadequate Response or Intolerance to Biologic Therapies: 24-Week Results From the Phase 3, Randomized, Double-blind, KEEPsAKE 2 Trial

EULAR 2021 OP0228

- Risankizumab (RZB), is a humanized immunoglobulin G1 monoclonal antibody that binds to p19 subunit of IL-23 and selectively inhibits this cytokine.[2,3] RZB is approved for the treatment of moderate-to-severe plaque psoriasis in adults



Characteristic	RZB 150 mg N = 224	PBO N = 219
Prior biologics (any), n (%)	105 (46.9)	101 (46.1)
Prior csDMARDs (any), n (%)	212 (94.6)	208 (95.0)
Baseline csDMARDs (any), n (%)	141 (62.9)	129 (58.9)