



Treatment Approaches in SpA Conditions: Best Practices for Selection, Intensification, and Shared Decision-Making



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Faculty Disclosures

- **Robert Laugherty** reports the following

| Relationships | Manufacturer |
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| Speakers Bureau | Amgen, BI, Lilly, UCB |

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Learning Objectives

- Evaluate clinical data for current and emerging therapies for spondyloarthritis (SpA) conditions, including real-world and comparative data, to differentiate the benefit-risk profiles of agents across domains and sub-populations
- Describe guideline recommendations for treating patients with SpA conditions including strategies for treatment selection, modification, and intensification
- Utilize SDM and clinical considerations to individualize treatment for patients with SpA conditions

Guideline-Informed Treatment Selection and Sequencing for SpA Conditions and Treat-to-Target Recommendations for PsA

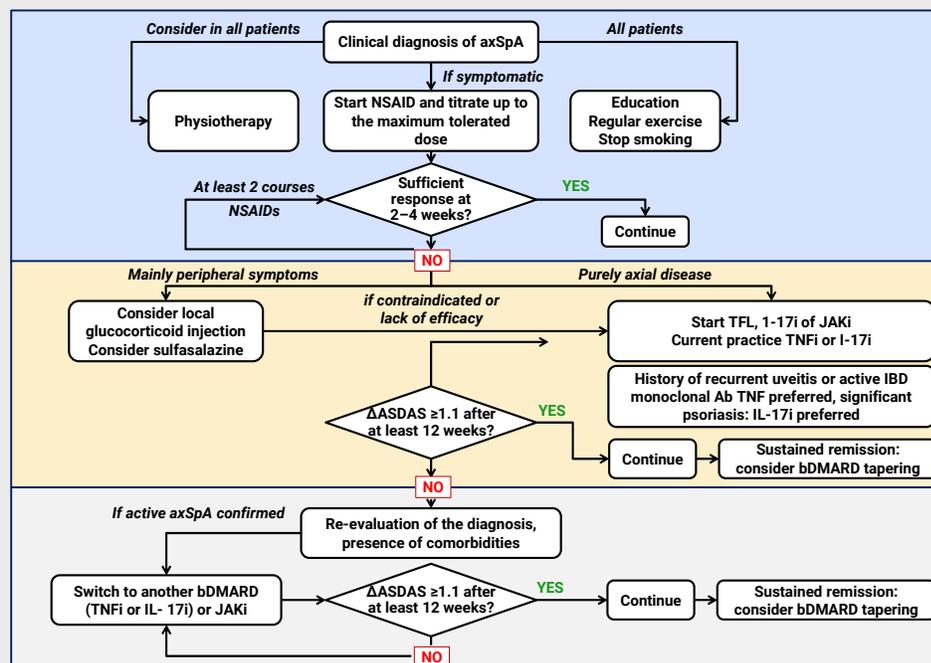


ASAS/EULAR Guidelines

Phase I

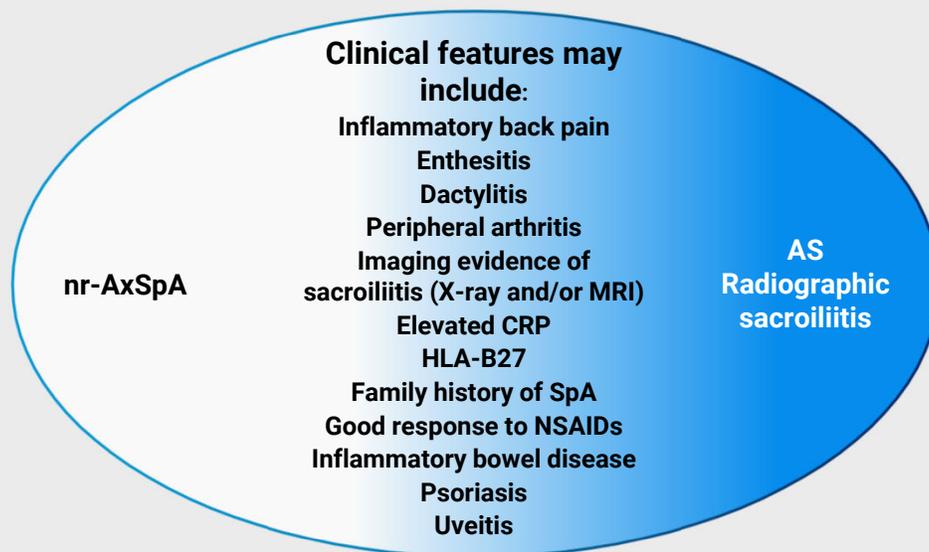
Phase II

Phase III



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

AxSpA Includes r-AxSpA (AS) and nr-AxSpA



AS = ankylosing spondylitis; axSpA = axial spondyloarthritis; CRP = C-reactive protein; HLA-B27 = human leukocyte antigen B27; MRI = magnetic resonance imaging; nr-axSpA = non-radiographic axSpA; NSAID = nonsteroidal anti-inflammatory drug; r-axSpA = radiographic axSpA; SpA = spondyloarthritis.

Magrey MN, et al. *Mayo Clin Proc.* 2020;95:2499-2508.

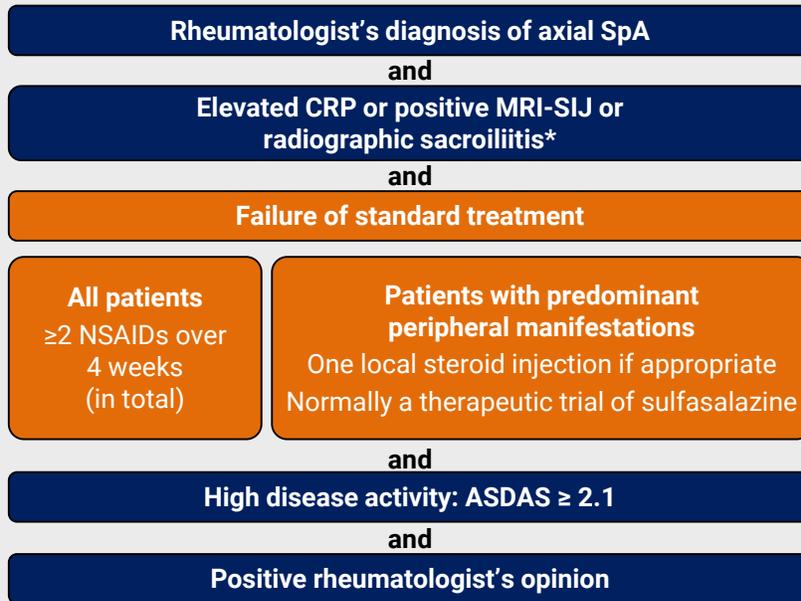
Modified New York Classification Criteria for AxSpA

- | | | |
|---|---|--|
| <ol style="list-style-type: none"> 1. Low back pain \geq 3 months <ul style="list-style-type: none"> – Improved with exercise – Not relieved by rest 2. Limited lumbar motion 3. Reduced chest expansion | } | <p>Definite AS equals:</p> <p>\geq 1 criteria</p> |
| | } | + |
| <ol style="list-style-type: none"> 4. Bilateral grade > 2 sacroiliitis on X-ray 5. Unilateral grade 3 or 4 sacroiliitis on X-ray | } | <p>4. or 5.</p> |

AS = ankylosing spondylitis; axSpA = axial spondyloarthritis.

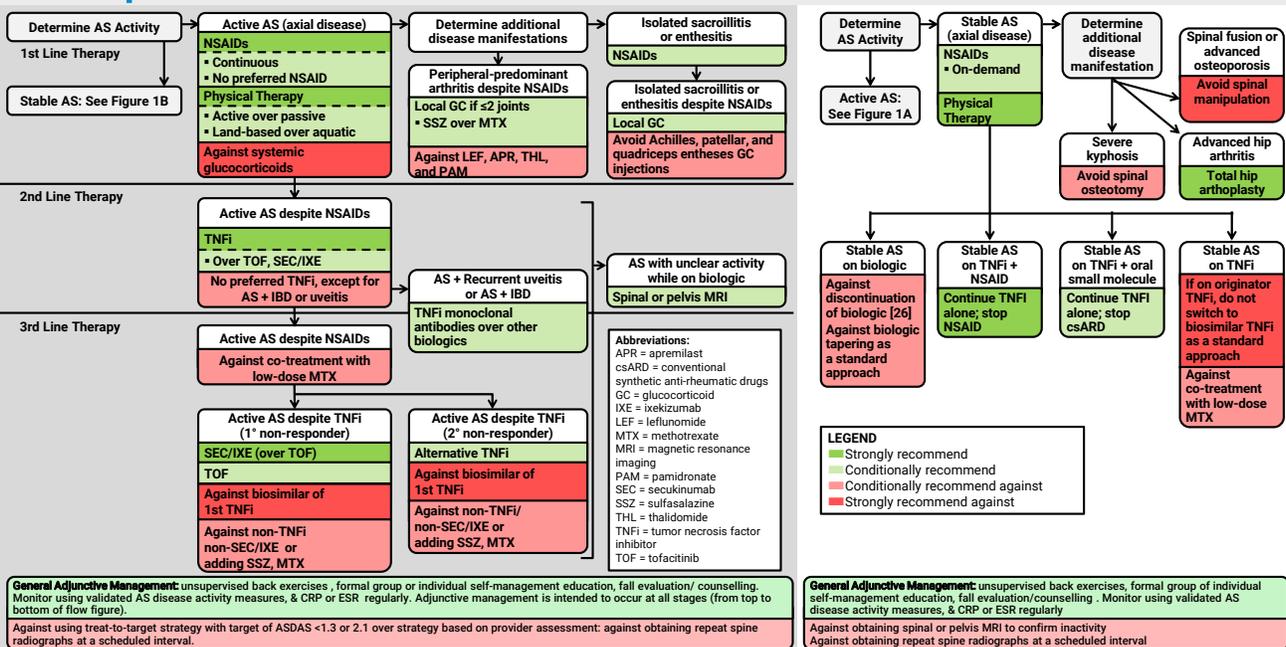
van der Linden S, et al. *Arthritis Rheum.* 1984;27:361-368. Goie The HS, et al. *Br J Rheumatol.* 1985;24:242-249.

ASAS/EULAR Guidelines



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

ACR/Spartan/SAA Guidelines



Ward MM, et al. *Arthritis Rheumatol.* 2019;71:1599-1613.

CASPAR Criteria

A patient must have inflammatory articular disease (joint, spine, or enthesal) and ≥ 3 points from the following categories:

| Category | Description | Points |
|---|--|----------------------------|
| Evidence of current psoriasis or personal or family history of psoriasis | Current psoriasis: Psoriatic skin or scalp disease present today as judged by a rheumatologist or dermatologist Personal history: A history of psoriasis that may be obtained from a patient, family physician, dermatologist, rheumatologist, or other qualified healthcare provider Family history: A history of psoriasis in a first- or second-degree relative according to patient report | 2 (current) or 1 (history) |
| Psoriatic nail dystrophy on current examination | Includes onycholysis, pitting, and hyperkeratosis observed on current physical examination | 1 |
| Negative rheumatoid factor | A negative test result for the presence of rheumatoid factor by any method except latex but preferably by enzyme-linked immunosorbent assay or nephelometry, according to the local laboratory reference range | 1 |
| Dactylitis (current or on history as recorded by rheumatologist) | Defined as swelling of an entire digit | 1 |
| Radiographic evidence of juxta-articular new bone formation | Appearing as ill-defined ossification near joint margins (but excluding osteophyte formation) on plain radiographs of the hand or foot | 1 |

CASPAR = classification criteria for psoriatic arthritis.

Taylor W, et al. *Arthritis Rheum.* 2006;54:2665-2673.

PROM: Key Areas Measured by Patient Reported Outcome Measures

- **Disease Activity:** Fatigue, spinal pain, joint pain/swelling, enthesitis (tenderness), and morning stiffness duration/severity
- **Physical Function:** Ability to perform daily activities, mobility, and range of motion
- **Quality of Life:** Overall well-being, emotional health, and impact on daily life domains (physical, mental, social)
- **Work Productivity:** Activity impairment, presenteeism (reduced productivity at work), and productivity loss

Keller S. AIR. 21 June 2017. <https://www.air.org/resource/video/long-story-short-what-value-patient-reported-outcomes>. CMS.gov. Types of measures. <https://www.cancer.gov/publications/dictionaries/cancer-terms/def/patient-reported-outcome>. Concoff A, et al. *Rheumatol Adv Practice.* 2026;10:rkaf119.

Commonly Used PRO Tools

Commonly used PRO tools:

- **[Bath Ankylosing Spondylitis Disease Activity Index \(BASDAI\)](#)**:
Assesses disease activity through six questions covering fatigue, pain, stiffness, and tenderness
- **[Ankylosing Spondylitis Quality of Life \(ASQoL\)](#) / [ASQoL-FI \(Functional Impairment\)](#)**:
Evaluates functional ability and quality of life
- **[Patient-Reported Outcomes Measurement Information System \(PROMIS\)](#)**:
Measures aspects like depression and physical function, showing strong correlations with traditional measures
- **[Work Productivity and Activity Impairment Questionnaire \(WPAI:SpA\)](#)**:
Quantifies work-related impacts like absenteeism and presenteeism

https://qxmd.com/calculate/calculator_299/basdai#; <https://pmc.ncbi.nlm.nih.gov/articles/PMC1754293/>; <https://doi.org/10.1093/occmed/kqaf097>

Why PROs Matter

Why PROs matter:

- **Holistic Assessment:** Capture the patient's experience beyond objective signs, recognizing symptoms like fatigue
- **Treatment Efficacy:** Show improvements in pain, function, and quality of life with effective treatments (like biologics), leading to better daily living
- **Impact on Life:** Reveal the significant burdens of AS, including reduced work capacity and lower quality of life, with physical domains often most affected

Keller S. AIR. 21 June 2017. <https://www.air.org/resource/video/long-story-short-what-value-patient-reported-outcomes>.
CMS.gov. Types of measures. <https://www.cancer.gov/publications/dictionaries/cancer-terms/def/patient-reported-outcome>.
Concoff A, et al. *Rheumatol Adv Practice*. 2026;10:rka119.

AxSpA

- A chronic, systemic, inflammatory disorder involving the sacroiliac joints, spine, and often hips
- Axial joints are *always* involved, peripheral joints are frequently affected
- Characterized by “inflammatory” back pain, loss of spinal mobility
- In severe cases, extensive fusion (ankylosis) of vertebrae can increase the risk of spinal deformity, fracture, and disability



AxSpA = axial spondyloarthritis.

Brophy S, et al. *J Rheumatol*. 2002;29:1236-1243. Magrey MN, et al. *Mayo Clin Proc*. 2020;95:2499-2508. Sieper J, et al. *Ann Rheum Dis*. 2002;61(suppl 3):iii8-iii18.

Acute Phase Reactants in PsA

CRP and ESR are not always elevated in PsA. While they are reliable markers of inflammation in diseases like rheumatoid arthritis, in PsA they may be normal even when patients have active disease.

Normal CRP and ESR should not be used to rule out a diagnosis of psoriatic arthritis, as these are increased in only about 40% of patients.

Regular Assessment: CRP and ESR can provide useful information, but their absence does not exclude active disease, and other clinical findings, such as joint counts and patient-reported symptoms, are also crucial in disease assessment.

CRP = C-reactive protein, ESR = erythrocyte sedimentation rate; PsA = psoriatic arthritis.

Kumthekar A, et al. *Curr Rheumatol Rep*. 2024;26:170-177. Tiwari V, Brent LH. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan. <https://www.ncbi.nlm.nih.gov/books/NBK547710/>.

Why are MDA Criteria Important for PsA?

- **Treatment Target:** MDA provides a clear, measurable goal for doctors and patients in managing PsA
- **Prevents Damage:** Achieving MDA significantly reduces the risk of long-term joint damage and disability
- **Comprehensive:** It considers joint, skin, pain, disability, and enthesal involvement, reflecting the multifaceted nature of PsA

AxSpA = axial spondyloarthritis; SI = sacroiliac.

Coates LC, et al. *Ann Rheum Dis*. 2010;69:48-53. <https://doi.org/10.3899/jrheum.2024-1162>.

MDA Criteria

To achieve minimal disease activity in PsA, a patient must meet at least 5 out of 7 of the following specific targets:

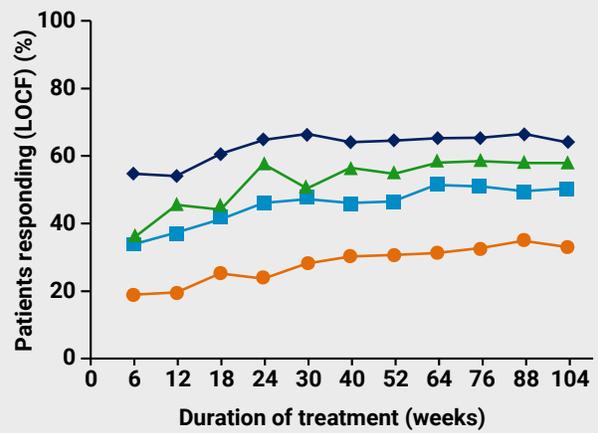
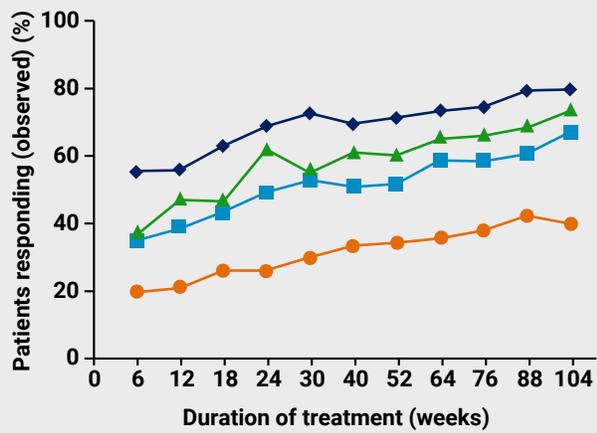
- **Tender Joint Count (TJC):** ≤ 1 tender joint
- **Swollen Joint Count (SJC):** ≤ 1 swollen joint
- **Skin Psoriasis Activity:** Psoriasis Area and Severity Index (PASI) ≤ 1 , or Body Surface Area (BSA) $\leq 3\%$
- **Patient Pain:** Pain Visual Analog Scale (VAS) ≤ 15 mm (or ≤ 1.5 cm)
- **Patient Global Disease Activity:** Patient Global Assessment (PtGA) VAS ≤ 20 mm (or ≤ 2 cm)
- **Disability:** Health Assessment Questionnaire (HAQ) Disability Index ≤ 0.5
- **Enthesitis:** Tender enthesal points (eg, Achilles tendon) ≤ 1

Coates LC, et al. *Ann Rheum Dis*. 2010;69:48-53. <https://doi.org/10.3899/jrheum.2024-1162>.

Treatments – Additional Data Slides



Adalimumab in AS (ATLAS Trial)

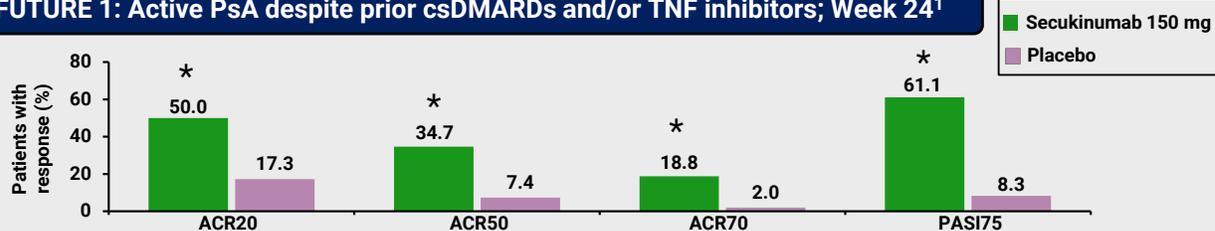


ASAS20 ASA 5/6
 ASAS40 ASAS partial remission

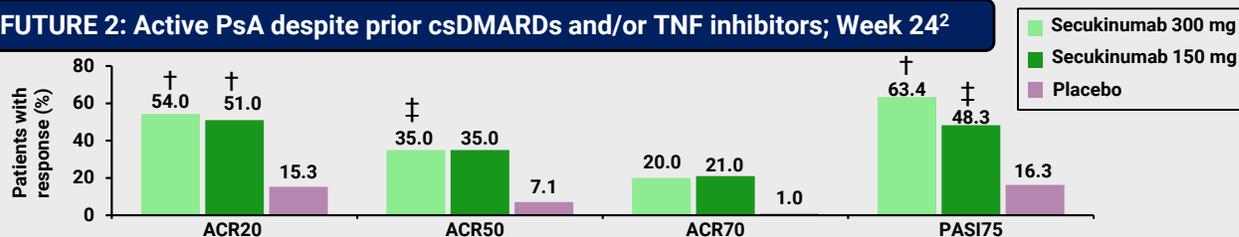
ATLAS = Adalimumab Trial Evaluating Long-term Efficacy and Safety for AS; LOCF = last observation carried forward. van der Heijde D, et al. *Ann Rheum Dis.* 2009;68:922-929.

Secukinumab: Efficacy in PsA

FUTURE 1: Active PsA despite prior csDMARDs and/or TNF inhibitors; Week 24¹



FUTURE 2: Active PsA despite prior csDMARDs and/or TNF inhibitors; Week 24²



* $P < .001$; † $P < .0001$; ‡ $P < .05$ vs placebo.

ACR = American College of Rheumatology; ACR20/50/70 = ACR criteria 20%/50%/70% improvement; csDMARDs = conventional synthetic disease-modifying antirheumatic drugs; PASI75 = Psoriasis Area and Severity Index improvement of $\geq 70\%$; PsA = psoriatic arthritis; TNF = tumor necrosis factor.

1. Mease PJ, et al. *N Engl J Med*. 2015;373:1329-1339 and suppl. 2. McInnes IB, et al. *Lancet*. 2015;386:1137-1146.

Secukinumab Long-term Safety

- Pooled analysis of long-term safety profile demonstrated in 1380 patients across three phase 3 trials (FUTURE 1-3)

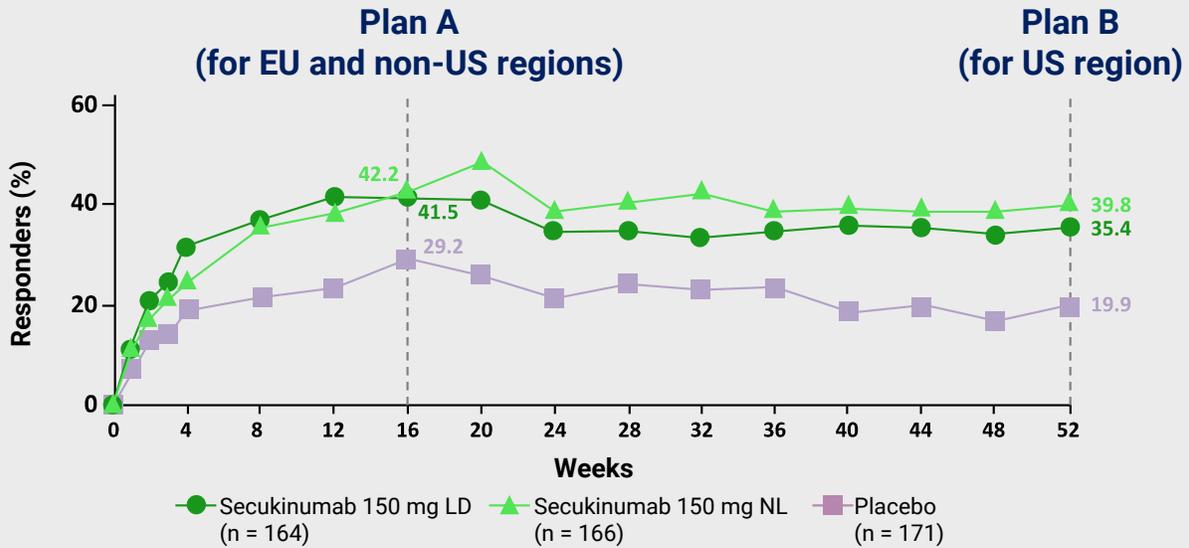
PsA Safety Profile Through Year 5

| Adverse events of special interest (COSENTYX® any dose, EAIR/100 PY) | Year 1 N = 1380 | Year 2 N = 1183 | Year 3 N = 948 | Year 4 N = 587 | Year 5 N = 290 |
|--|--------------------|--------------------|-------------------|-------------------|-------------------|
| Serious infections | 2.3 | 2.4 | 1.4 | 2.5 | 1.7 |
| <i>Candida</i> infections | 2.3 | 2.1 | 1.1 | 0.7 | 0.0 |
| Crohn's disease | 0.08 | 0.00 | 0.3 | 0.0 | 0.0 |
| Ulcerative colitis | 0.08 | 0.09 | 0.1 | 0.0 | 0.0 |
| IBD unclassified | 0.08 | 0.00 | 0.1 | 0.0 | 0.0 |
| Major adverse cardiac events | 0.4 | 0.6 | 0.7 | 0.7 | 0.0 |
| Malignancy | 1.2 | 1.2 | 1.1 | 2.0 | 0.8 |

EAIR = exposure-adjusted incidence rate; IBD = inflammatory bowel disease; PsA = psoriatic arthritis; PY = patient-years.

Secukinumab (Cosentyx®). <https://www.cosentyxhcp.com/rheumatology/safety/psoriatic-arthritis>.

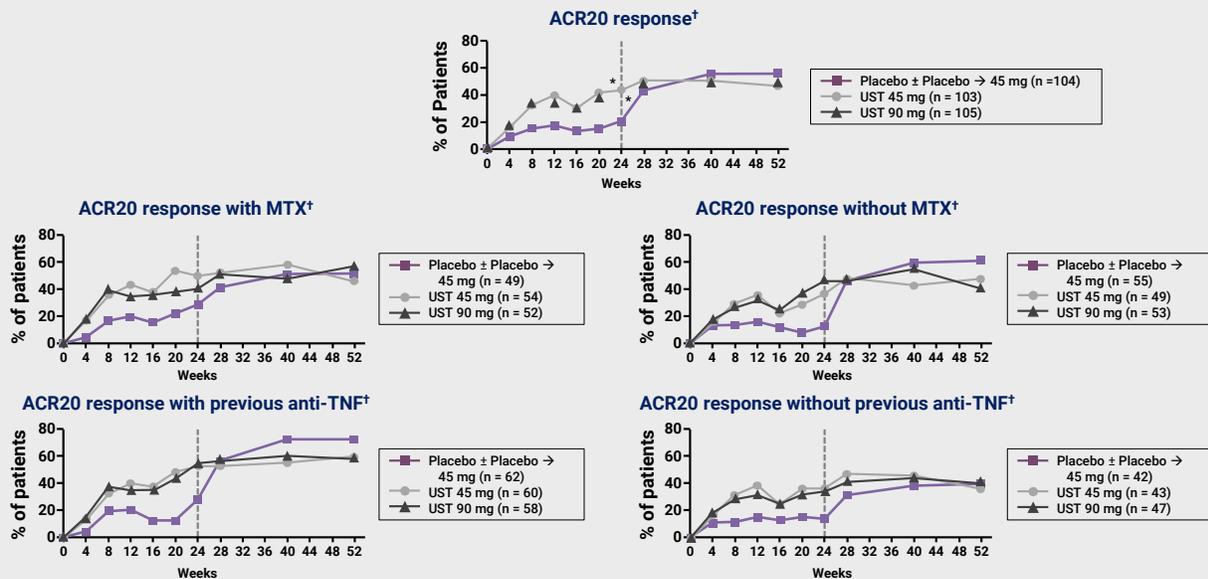
PREVENT: Secukinumab in nr-AxSpA



EU = European Union; LD = loading dose; NL = non-loading dose; nr-axSpA = non-radiographic axial spondyloarthritis; US = United States.

Deodhar A, et al. *Arthritis Rheumatol.* 2021;73:110-120.

Ustekinumab Efficacy Data (PSUMMIT 2 TRIAL)



*P < .001 vs placebo. †For patients who qualified for early escape, data at or prior to week 16 were carried forward through week 24. After week 24, observed data were used.

Ritchlin C, et al. *Ann Rheum Dis.* 2014;73:990-999.

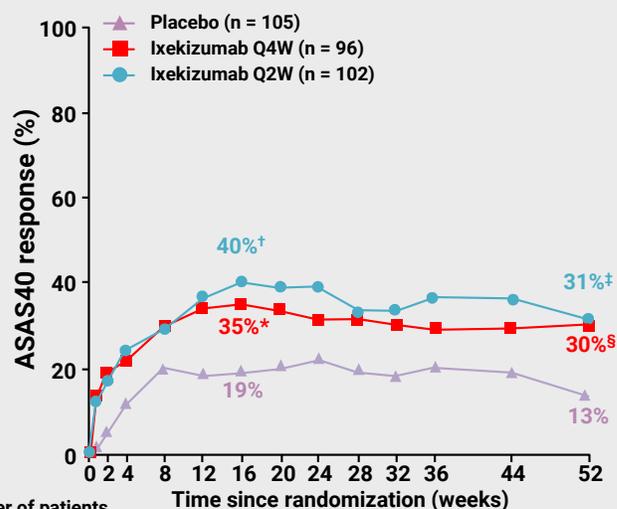
Ustekinumab SAFETY DATA

| | Ustekinumab 90 mg | Ustekinumab 45 mg | Placebo |
|--|-------------------|-------------------|------------|
| Patients treated, n | 308 | 308 | 309 |
| Average duration of follow-up, weeks | 16.01 | 16.15 | 15.79 |
| Average exposure, number of administrations | 1.97 | 1.99 | 1.96 |
| Patients with AEs, n (%) | 152 (49.4) | 149 (48.4) | 148 (47.9) |
| Most common AEs (occurring in >3% of patients) | | | |
| Nasopharyngitis, n (%) | 21 (6.8) | 16 (5.2) | 13 (4.2) |
| Headache, n (%) | 9 (2.9) | 15 (4.9) | 6 (1.9) |
| Upper respiratory tract infection, n (%) | 12 (3.9) | 10 (3.2) | 14 (4.5) |
| Arthralgia, n (%) | 10 (3.2) | 9 (2.9) | 4 (1.3) |
| Serious AEs, n (%) | 4 (1.3) | 4 (1.3) | 9 (2.9) |
| Infections, n (%) | 66 (21.4) | 64 (20.8) | 68 (22.0) |
| Serious infections, n (%) | 0 | 0 | 1 (0.3) |
| Infections requiring treatment, n (%) | 30 (9.7) | 28 (9.1) | 38 (12.3) |
| AEs leading to discontinuation, n (%) | 4 (1.3) | 3 (1.0) | 11 (3.6) |
| Malignancies, n (%) | 1 (0.3) | 0 | 0 |

Ustekinumab (Stelara®) Proven Safety Profile. <https://www.stelarahcp.com/psoriatic-arthritis/safety-profile/>.

COAST-X Trial: Ixekizumab in nr-AxSpA

- 303 patients with nr-axSpA who met ASAS classifications (but not New York criteria) and had inflammation on MRI and/or elevated CRP
- Patients randomized 1:1:1 to ixekizumab 80 mg Q4W, ixekizumab 80 mg Q2W, or placebo; at Week 16, escape to open-label ixekizumab Q2W allowed
- Frequency of serious adverse events that led to treatment discontinuation was low and similar across all arms; no new safety signals identified



*P = .0094; †P = .0016; ‡P = .0037; and §P = .0045 vs placebo.

ASAS = Assessment of SpondyloArthritis international Society; ASAS40 = ASAS 40% response; CRP = C-reactive protein; MRI = magnetic resonance imaging; nr-axSpA = non-radiographic axial spondyloarthritis; Q2W = every 2 weeks; Q4W = every 4 weeks.

Deodhar A, et al. *Lancet*. 2020;395:53-64.

| | Number of patients | | | | | | | | | | | | |
|----------------|--------------------|----|----|----|----|----|----|----|----|----|----|----|----|
| | 0 | 2 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 44 | 52 |
| Placebo | 99 | 95 | 90 | 83 | 79 | 73 | 68 | 63 | 59 | 56 | 54 | 54 | 53 |
| Ixekizumab Q4W | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 96 |
| Ixekizumab Q2W | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 |

Ixekizumab: Long-term Safety

Safety population (N = 932)

| | IXE Q4W (N = 454) | | IXE Q2W (N = 604) | | Total IXE (N = 932) | |
|--|-------------------|----------------------------|-------------------|-----------------------------|---------------------|-----------------------------|
| | n (%) | IR (95% CI) PYs = 878.2 | n (%) | IR (95% CI) PYs = 1219.5 | n (%) | IR (95% CI) PYs = 2097.7 |
| Injection site reactions | 53 (11.7) | 6.0 (4.6–7.9) | 107 (17.7) | 8.8 (7.3–10.6) | 156 (16.7) | 7.4 (6.4–8.7) |
| Mild | 40 (8.8) | 4.6 (3.3–6.2) | 79 (13.1) | 6.5 (5.2–8.1) | 115 (12.3) | 5.5 (4.6–6.6) |
| Moderate | 12 (2.6) | 1.4 (0.8–2.4) | 23 (3.8) | 1.9 (1.3–2.8) | 35 (3.8) | 1.7 (1.2–2.3) |
| Severe | 1 (0.2) | 0.1 (0.0–0.8) | 5 (0.8) | 0.4 (0.2–1.0) | 6 (0.6) | 0.3 (0.1–0.6) |
| Allergic reactions/hypersensitivities | 39 (8.6) | 4.4 (3.2–6.1) | 52 (8.6) | 4.3 (3.2–5.6) | 88 (9.4) | 4.2 (3.4–5.2) |
| Infections | 248 (54.6) | 28.2 (24.9–32.0) | 309 (51.2) | 25.3 (22.7–28.3) | 540 (57.9) | 25.7 (23.7–28.0) |
| Serious | 9 (2) | 1.0 (0.5–2.0) | 14 (2.3) | 1.1 (0.7–1.9) | 23 (2.5) | 1.1 (0.7–1.6) |
| Herpes zoster | 6 (1.3) | 0.7 (0.3–1.5) | 6 (1) | 0.5 (0.2–1.1) | 12 (1.3) | 0.6 (0.3–1.0) |
| Candida infections | | | | | | |
| Oral candidiasis | 3 (0.7) | 0.3 (0.1–1.1) | 2 (0.3) | 0.2 (0.0–0.7) | 5 (0.5) | 0.2 (0.1–0.6) |
| Vulvovaginal candidiasis* | 3 (2.3) | 0.3 (0.1–1.1) | 4 (2.1) | 0.3 (0.1–0.9) | 7 (2.5) | 0.3 (0.2–0.7) |
| Skin candidiasis | 0 (0) | 0.0 (0.0–0.9) | 2 (0.3) | 0.2 (0.0–0.7) | 2 (0.2) | 0.1 (0.0–0.4) |
| Genital candidiasis | 0 (0) | 0.0 (0.0–0.9) | 1 (0.2) | 0.1 (0.0–0.6) | 1 (0.1) | 0.0 (0.0–0.3) |
| Esophageal candidiasis | 2 (0.4) | 0.2 (0.1–0.9) | 2 (0.3) | 0.2 (0.0–0.7) | 4 (0.4) | 0.2 (0.1–0.5) |
| IBD | 11 (2.4) | 1.3 (0.7–2.3) | 6 (1) | 0.5 (0.2–1.1) | 17 (1.8) | 0.8 (0.5–1.3) |
| Crohn's disease | 5 (1.1) | 0.6 (0.2–1.4) | 2 (0.3) | 0.2 (0.0–0.7) | 7 (0.8) | 0.3 (0.2–0.7) |
| Ulcerative colitis | 6 (1.3) | 0.7 (0.3–1.5) | 4 (0.7) | 0.3 (0.1–0.9) | 10 (1.1) | 0.5 (0.3–0.9) |
| Uveitis | 28 (6.2) | 3.2 (2.2–4.6) | 30 (5) | 2.5 (1.7–3.5) | 58 (6.2) | 2.8 (2.1–3.6) |
| MACE | 2 (0.4) | 0.2 (0.1–0.9) | 4 (0.7) | 0.3 (0.1–0.9) | 6 (0.6) | 0.3 (0.1–0.6) |
| Malignancies | 3 (0.7) | 0.3 (0.1–1.1) | 6 (1) | 0.5 (0.2–1.1) | 9 (1) | 0.4 (0.2–0.8) |
| Depression | 6 (1.3) | 0.7 (0.3–1.5) | 13 (2.2) | 1.1 (0.6–1.8) | 19 (2) | 0.9 (0.6–1.4) |
| Cytopenia | 8 (1.8) | 0.9 (0.5–1.8) | 21 (3.5) | 1.7 (1.1–2.6) | 28 (3) | 1.3 (0.9–1.9) |

*Denominator is different because this was a sex-specific event for females.

CI = confidence interval; IBD = inflammatory bowel disease; IR = incidence rate per 100 patient-years; IXE = ixekizumab; MACE = major adverse cerebro-cardiovascular event;

PYs = patient-years; Q2W = every 2 weeks; Q4W = every 4 weeks.

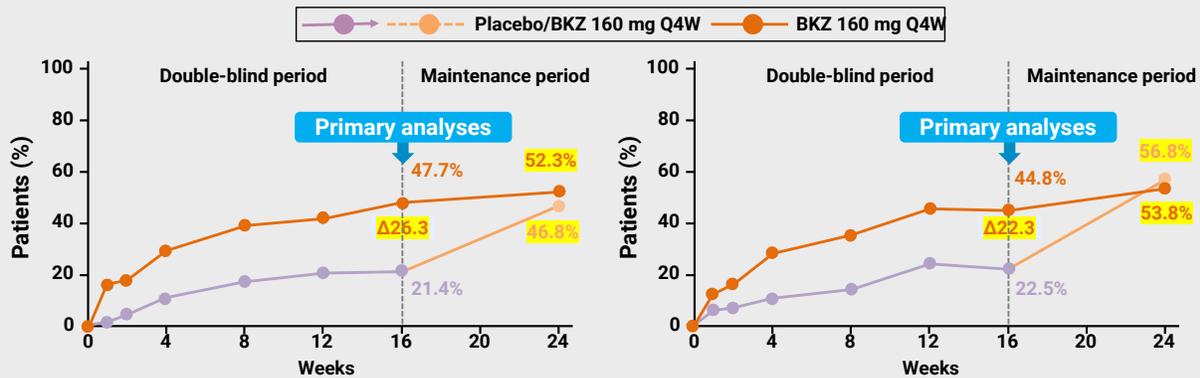
Deodhar A, et al. *J Rheumatol*. 2023;50:1020-1028.

BE MOBILE 1 and BE MOBILE 2: Bimekizumab in AS

BE MOBILE 1 (nr-axSpA)

ASAS40 (NRI)

BE MOBILE 2 (r-axSpA)



Safety overview for the double-blind treatment (Weeks 0–16) and overall periods (Weeks 0–52)

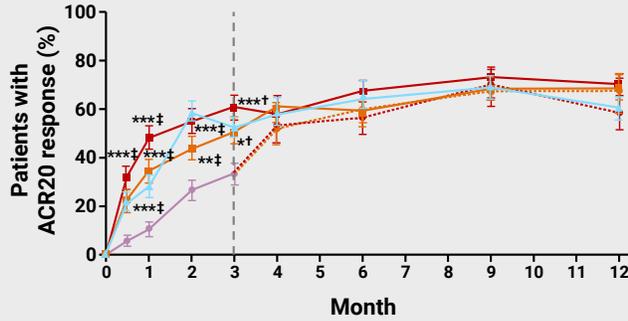
| N (%), overall period (EAIR/100 patient-years) | Double-blind treatment period Weeks 0–16 | | Maintenance period Weeks 16–52 | Overall Weeks 0–52 |
|--|---|---------------------|-----------------------------------|-----------------------|
| | Placebo | BKZ 160 mg Q4W | BKZ 160 mg Q4W | BKZ 160 mg Q4W |
| nr-AxSpA (BE MOBILE 1) | n = 126 (38.1 PYAR) | n = 128 (40.4 PYAR) | n = 242 (167.8 PYAR) | n = 244 (208.2 PYAR) |
| r-AxSpA (BE MOBILE 2) | n = 111 (34.6 PYAR) | n = 221 (68.3 PYAR) | n = 319 (220.0 PYAR) | n = 330 (290.9 PYAR) |

AS = ankylosing spondylitis; ASAS40 = Assessment of SpondyloArthritis international Society 40% response; BKZ = bimekizumab; EAIR = exposure-adjusted incidence rate; nr-axSpA = non-radiographic axial spondyloarthritis; NRI = nonresponder imputation; PYAR = patient-years at risk; Q4W = every 4 weeks; r-axSpA = radiographic axSpA.

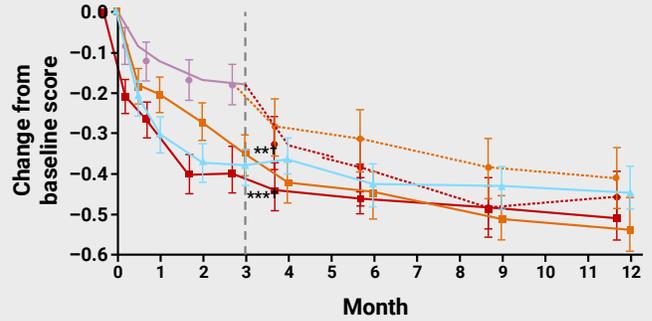
Baraliakos X, et al. *Ann Rheum Dis*. 2024;83:199-213. van der Heijde D, et al. *Ann Rheum Dis*. 2022;82:515-526.

Tofacitinib Clinical Data in PsA (OPAL Broaden Trial)

ACR20 Response



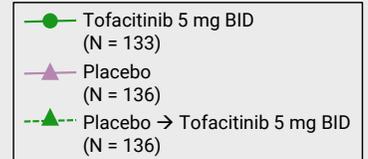
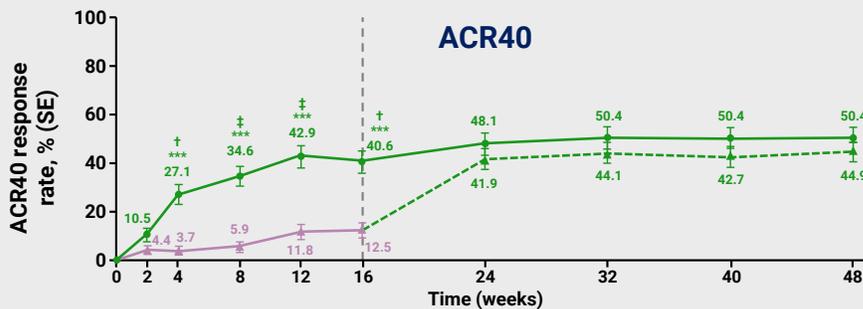
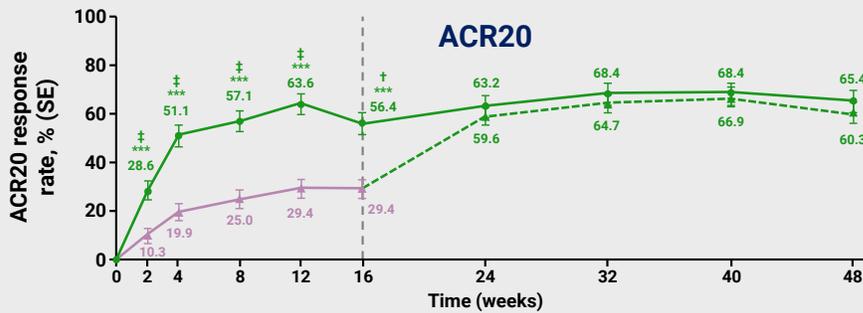
Change in HAQ-DI Score



(*) unadjusted P value of 0.05 or less, (**) unadjusted P value of less than 0.01, (***) unadjusted P value of less than 0.001. (†) P value was 0.05 or less for the comparison with placebo for global type I error control, according to the prespecified step-down testing procedure. (‡) P value was 0.05 or less, according to the prespecified step-down testing procedure for type I error control within the ACR20 response time course.

Mease PJ, et al. *N Engl J Med.* 2017;377:1537-1550.

Tofacitinib Clinical Trial Data in AS (NCT03502616)



***p<0.001 for comparing tofacitinib 5 mg two times per day versus placebo. †p<0.05 for comparing tofacitinib 5 mg two times per day versus placebo, according to the prespecified step-down testing procedure for global type I error control. ‡p<0.05 for comparing tofacitinib 5 mg two times per day versus placebo, according to the prespecified step-down testing procedure for type I error control of ASAS response over time.

Deodhar A, et al. *Ann Rheum Dis.* 2021;80:1004-1013.

Safety Data Tofacitinib (OPAL Broaden Trial)

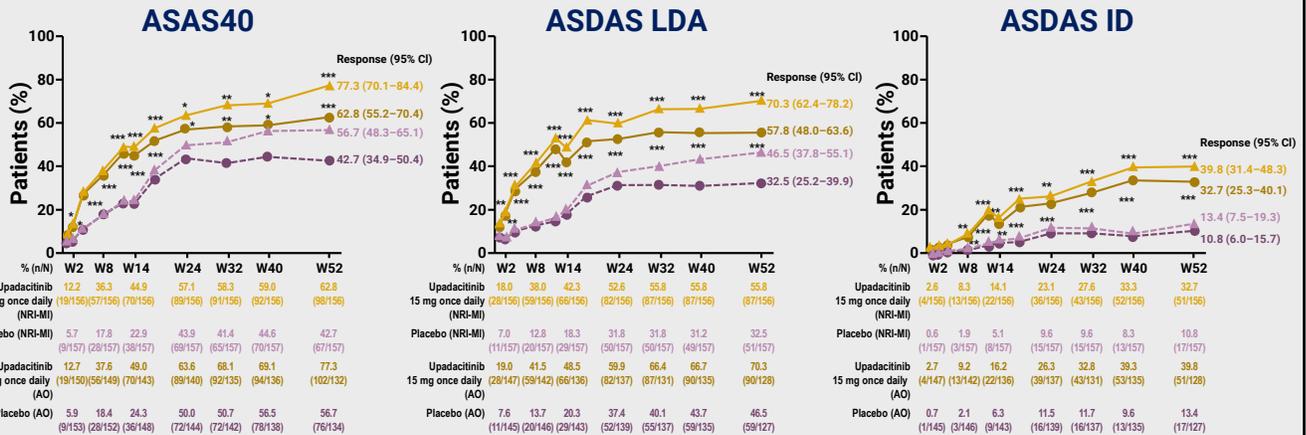
Summary of Safety Events*

| Event | Up to 3 Months | | | | Up to 12 Months | | | | |
|---|--------------------------|----------------------------|-----------------------------|----------------------|--------------------------------------|---------------------------------------|----------------------------|-----------------------------|-----------------------|
| | Pooled Placebo (N = 105) | Tofacitinib 5 mg (N = 107) | Tofacitinib 10 mg (N = 104) | Adalimumab (N = 106) | Placebo to Tofacitinib 5 mg (N = 52) | Placebo to Tofacitinib 10 mg (N = 53) | Tofacitinib 5 mg (N = 107) | Tofacitinib 10 mg (N = 104) | Adalimumab (N = 106) |
| Any adverse event – no. (%) | 37 (35) | 42 (39) | 47 (45) | 49 (46) | 36 (69) | 34 (64) | 71 (66) | 74 (71) | 76 (72) |
| Serious adverse event – no. (%) | 1 (1) | 3 (3) | 1 (1) | 1 (1) | 3 (6) | 4 (8) | 8 (7) | 4 (4) | 9 (8) |
| Discontinuation due to adverse event – no. (%) | 1 (1) | 3 (3) | 0 | 2 (2) | 2 (4) | 2 (4) | 6 (6) | 3 (3) | 4 (4) |
| Adverse event of special interest – no. (%) [day of onset]† | | | | | | | | | |
| Serious infection | 0 | 0 | 0 | 0 | 2 (4) [days 102, 331] | 0 | 0 | 1 (1) [day 132] | 1 (1) [day 170] |
| Herpes zoster infection | 0 | 1 (1) [day 61] | 0 | 0 | 0 | 0 | 2 (2) [days 61, 173] | 2 (2) [days 221, 317] | 0 |
| Opportunistic infection | 0 | 1 (1) [day 61] | 0 | 0 | 0 | 0 | 1 (1) [day 61] | 0 | 0 |
| Cancer, excluding nonmelanoma skin cancer | 0 | 2 (2) [days 1, 11] | 0 | 0 | 0 | 0 | 3 (3) [days 1, 11, 232] | 0 | 0 |
| Nonmelanoma skin cancer | 0 | 0 | 1 (1) [day 103] | 0 | 0 | 0 | 0 | 1 (1) [day 103] | 0 |
| Cardiovascular event | 0 | 0 | 0 | 0 | 1 (2) [day 139] | 0 | 0 | 0 | 2 (2) [days 263, 345] |
| Gastrointestinal perforation | 0 | 0 | 0 | 0 | 1 (2) [day 102] | 0 | 0 | 0 | 0 |

*Analyses were performed with data from safety analysis set, which was the same as full analysis set and included all patients who received ≥1 dose of tofacitinib, adalimumab, or placebo. AEs from any cause were included in analyses. †Among AEs of special interest, cases of herpes zoster infection were not judged to be serious, and events of opportunistic infection, cancer, cardiovascular event, and gastrointestinal perforation were all adjudicated.

Mease PJ, et al. *N Engl J Med.* 2017;377:1537-1550.

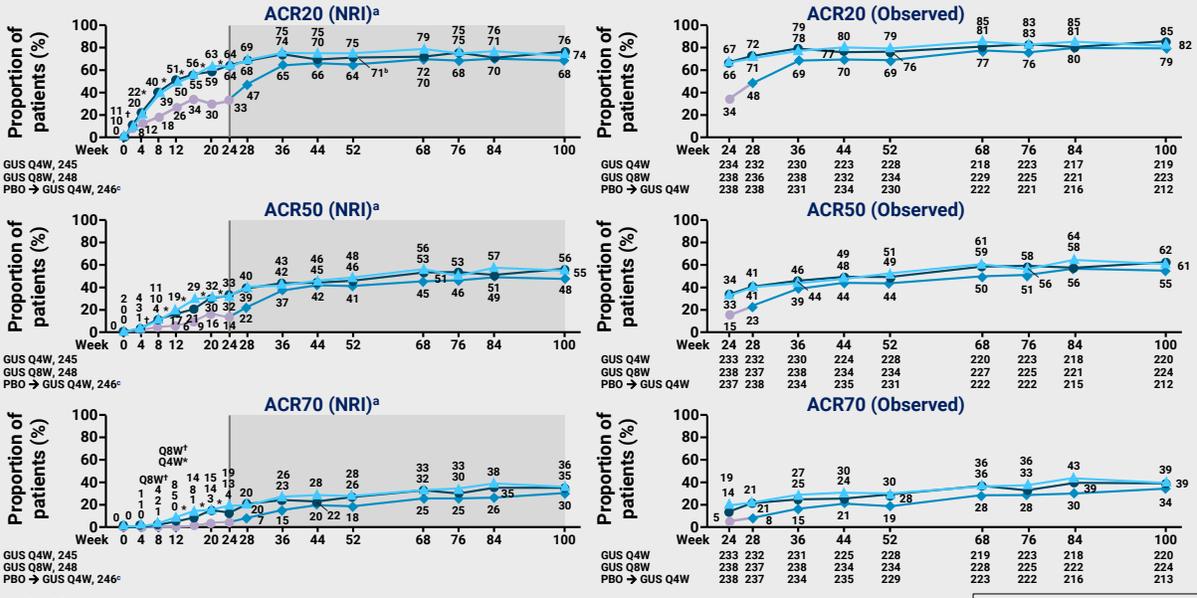
Upadacitinib in nr-AxSpA (SELECT-AXIS 2)



*P < 0.05; **P < 0.01; ***P < 0.001 versus placebo (all P values are nominal).

AO = as observed; ID = inactive disease; LDA = low disease activity; MI = multiple imputation; NRI = nonresponder imputation; W = week. Van den Bosch F, et al. *ACR Open Rheumatol.* 2024;6:470-480.

Guselkumab in PsA (DISCOVER2)



^aP ≤ .001; [†]P < .05
^a Includes patients randomized to Q4W and Q8W at Week 0 who received ≥1 dose of study agent. ^b One patient's Week 52 visit, which was not captured in the interim data base lock, was included in the final data base lock. ^c 238 crossed over to O4W at Week 24 and eight received placebo only before study agent discontinuation.
 McInnes IB, et al. *Arthritis Rheumatol.* 2022;74:475-485.

Guselkumab Safety Data (Pooled DISCOVER 1 and 2)

Adverse reactions reported by ≥ 1% of patients through week 24 in DISCOVER 1 and DISCOVER 2

| | Placebo N = 372 n (%) | Guselkumab Q8W ^a N = 375 n (%) | Guselkumab Q4W ^b N = 373 n (%) |
|---|-----------------------------|---|---|
| Gastrointestinal disorders | | | |
| Diarrhea | 3 (0.8%) | 6 (1.6%) | 4 (1.1%) |
| General disorders and administration site conditions | | | |
| Injection site reactions ^c | 1 (0.3%) | 5 (1.3%) | 3 (0.8%) |
| Infections and infestations | | | |
| Respiratory tract infections ^d | 45 (12.1%) | 46 (12.3%) | 52 (13.9%) |
| Investigations | | | |
| • Transaminases increased ^e | 17 (4.6%) | 31 (8.3%) | 32 (8.6%) |
| • Neutrophil count decreased | 0 | 1 (0.3%) | 6 (1.6%) |
| Nervous system disorders | | | |
| Headache/tension headache | 3 (0.8%) | 8 (2.1%) | 7 (1.9%) |

^a Subjects received 100 mg of guselkumab at week 0, week 4, and every 8 weeks thereafter. ^b Subjects received 100 mg of guselkumab at week 0, and every 4 weeks thereafter.
^c Injection site reactions include injection site erythema, bruising, hematoma, hemorrhage, swelling, edema, pruritus, pain, discoloration, induration, inflammation, and urticaria.
^d Respiratory tract infections include nasopharyngitis, upper respiratory tract infection (URTI), bronchitis, pharyngitis, and viral URTI. ^e Transaminases increased includes: alanine aminotransferase increased, aspartate aminotransferase increased, hepatic enzyme increased, transaminases increased, liver function test abnormal, hypertransaminasemia.
 NPS MedicineWise. Consumer medicine information. Guselkumab (Tremfya®). <https://www.nps.org.au/medicine-finder/Tremfya>.