Long-Term Efficacy of Netakimab in Radiographic Axial Spondyloarthritis (r-axSpA): Simulated Treatment Comparisons Results

CO110

A. Lazarev, O. Mironenko, N. Sableva, D. Tolkacheva, K. Sapozhnikov, T. Khimich, K. Katilova

Russian Presidential Academy of National Economy and Public Administration (RANEPA), Moscow, Russian Federation

INTRODUCTION

- r-axSpA affects ~105,000 people in Russia; its economic burden is RUB 21.9 bn per year, ~80% of which are indirect costs.[1]
- Comparisons of TNFα, IL-17 and JAK inhibitors mostly cover 16–20 weeks; long-term comparative evidence is scarce.
- 3-year data for the IL-17A inhibitor **netakimab** from the ASTERA RCT now allow long-term comparisons.[2]

OBJECTIVE

To compare the long-term (up to 3 years) efficacy of netakimab with biologic and targeted synthetic DMARDs registered in Russia for active r-axSpA.

METHODS

Systematic literature review

- PubMed and Embase (26 Feb 2026): RCTs in adults with active r-axSpA, ≥1 year of treatment.
- Comparators registered in Russia: **TNFα** (adalimumab, certolizumab pegol, etanercept, golimumab, infliximab), **IL-17A** (ixekizumab, secukinumab), **JAK** inhibitors (tofacitinib, upadacitinib).
- Horizon: week 156 or the longest available time point.

2,849 records (PubMed 786; Embase 2,063) + 10 grey literature
↓
2,464 after de-duplication
↓
242 passed title/abstract screening
↓
68 full texts assessed
↓
19 · 11 **publications · RCTs included**

Unanchored simulated treatment comparison

Placebo arms switched to active therapy at different times, so no valid connected network existed. STC (NICE DSU TSD 18) was preferred to MAIC given limited population overlap.[3]

1 Outcome models on IPD
Longitudinal mixed-effects logistic regression on netakimab-arm IPD from ASTERA (n = 114; 18 visits, weeks 4–156); functional forms chosen by 5-fold cross-validation and BIC.

2 Synthetic comparator populations
NORTA algorithm: 100,000 virtual patients per comparator from published baseline statistics and the ASTERA correlation matrix.[4]

3 Prediction (G-computation)
Netakimab response predicted in each comparator population, marginalised over random effects; 2,000 bootstrap iterations.

4 Comparison
Marginal risk difference (RD) vs published comparator response (NRI); superiority if the lower 95% CI bound > 0.

Adjustment covariates

Age · Sex · BASDAI · ASDAS-CRP · CRP · Disease duration · HLA-B27

Endpoints: ASAS 40, ASAS 20, BASDAI 50, ASDAS-CRP <1.3 and <2.1, ASDAS-CII, ASDAS-MI (non-responder imputation). Analysis in R 4.5.3.

ASTERA netakimab arm: mean age 39.6 years; 23.7% women; disease duration 4.5 years; HLA-B27+ 89.5%; CRP 24.5 mg/L; prior TNFα inhibitor 24.6%.

RESULTS

9 of 10
comparisons with significantly higher ASAS 40 response on netakimab after adjustment

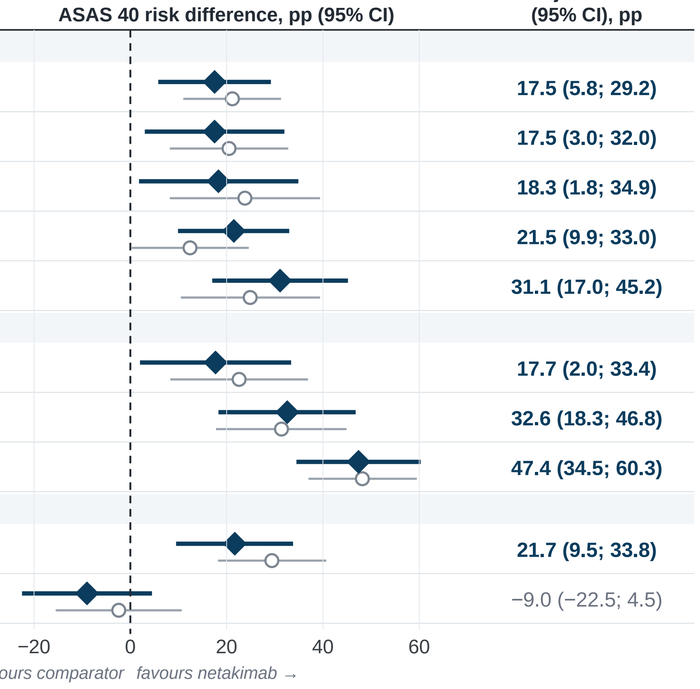
+17.5 to +47.4 pp
adjusted ASAS 40 risk difference vs TNFα inhibitors, IL-17A inhibitors and tofacitinib

−9.0 pp (NS)
vs upadacitinib (95% CI −22.5; 4.5): no significant difference

Evidence base: 11 RCTs (19 publications)[5] — ASTERA (netakimab, IPD) and 10 comparator trials; comparison time points 48–156 weeks; prior TNFα inhibitor exposure 0–100% (ASTERA 24.6%).

Figure 1. ASAS 40 response: netakimab vs each comparator, adjusted (STC) and unadjusted

Comparator	Trial (week)	Prior TNFi, %	Comp. %	NTK adj., %	Adjusted RD (95% CI), pp
TNFα inhibitors					
Adalimumab 40 mg Q2W/QW	ATLAS week 156	0	47.3	**64.7**	**17.5 (5.8; 29.2)**
Certolizumab pegol 200 mg Q2W / 400 mg Q4W	RAPID-axSpA week 156	16.5	47.9	**65.6**	**17.5 (3.0; 32.0)**
Etanercept 50 mg QW	NCT01934933 week 52	0	56.0	**74.4**	**18.3 (1.8; 34.9)**
Golimumab 100 mg Q4W	GO-RAISE week 104	0	50.7	**72.1**	**21.5 (9.9; 33.0)**
Infliximab 5 mg/kg Q6W	Braun 2005 week 156	0	43.5	**74.5**	**31.1 (17.0; 45.2)**
IL-17A inhibitors					
Secukinumab 150 mg Q4W	MEASURE 2 week 156	39.0	45.8	**63.6**	**17.7 (2.0; 33.4)**
Ixekizumab 80 mg Q4W	COAST-V week 156	0	37.0	**69.7**	**32.6 (18.3; 46.8)**
Ixekizumab 80 mg Q4W	COAST-W week 156	100	20.2	**67.5**	**47.4 (34.5; 60.3)**
JAK inhibitors					
Tofacitinib 5 mg BID	NCT03502616 week 48	21.8	50.4	**72.2**	**21.7 (9.5; 33.8)**
Upadacitinib 15 mg QD	SELECT-AXIS 1 week 104	0	65.6	**56.5**	−9.0 (−22.5; 4.5)



◆ Adjusted (STC) ○ Unadjusted (naive)

Comp. %, observed ASAS 40 response in the comparator trial; NTK adj. %, predicted netakimab response in the comparator population. Bold RD, lower 95% CI bound > 0.

Figure 2. Adjusted risk differences, pp (95% CI), across all endpoints

Comparator (trial), week	ASAS 40	ASAS 20	BASDAI 50	ASDAS-CRP <1.3	ASDAS-CRP <2.1	ASDAS-CII	ASDAS-MI
Adalimumab (ATLAS), wk 156	**17.5** (5.8; 29.2)	**22.5** (12.0; 33.0)	**17.7** (5.9; 29.6)	–	–	–	–
Certolizumab pegol (RAPID-axSpA), wk 156	**17.5** (3.0; 32.0)	–	–	**4.6** (−7.2; 16.4)	**−0.7** (−15.1; 13.8)	–	–
Etanercept (NCT01934933), wk 52	**18.3** (1.8; 34.9)	**28.7** (13.5; 44.0)	–	–	–	**7.5** (−7.6; 22.5)	**15.3** (−2.5; 33.1)
Golimumab (GO-RAISE), wk 104	**21.5** (9.9; 33.0)	**14.5** (3.9; 25.2)	**19.3** (7.8; 30.8)	–	–	–	–
Infliximab (Braun 2005), wk 156	**31.1** (17.0; 45.2)	–	**26.1** (12.0; 40.3)	–	–	–	–
Secukinumab (MEASURE 2), wk 156	**17.7** (2.0; 33.4)	**19.7** (4.6; 34.8)	**19.4** (3.9; 35.0)	**6.6** (−6.4; 19.5)	–	–	–
Ixekizumab (COAST-V), wk 156	**32.6** (18.3; 46.8)	**35.5** (21.7; 49.2)	**30.9** (16.5; 45.4)	**15.7** (2.2; 29.2)	**24.1** (9.2; 39.0)	**36.9** (23.4; 50.5)	**26.7** (12.8; 40.5)
Ixekizumab (COAST-W), wk 156	**47.4** (34.5; 60.3)	**55.4** (43.6; 67.3)	**54.1** (41.7; 66.5)	**23.7** (13.2; 34.3)	**46.7** (33.8; 59.7)	**57.9** (46.8; 68.9)	**44.5** (32.6; 56.4)
Tofacitinib (NCT03502616), wk 48	**21.7** (9.5; 33.8)	**20.8** (10.4; 31.3)	**16.5** (4.2; 28.8)	**8.7** (−0.8; 18.2)	**16.5** (4.0; 29.1)	**20.6** (9.6; 31.5)	**15.3** (3.6; 27.0)
Upadacitinib (SELECT-AXIS 1), wk 104	**−9.0** (−22.5; 4.5)	**2.4** (−10.6; 15.3)	**−1.1** (−14.6; 12.3)	**−4.4** (−17.1; 8.3)	**5.7** (−8.1; 19.4)	**9.4** (−3.6; 22.4)	**−3.9** (−17.1; 9.3)

Netakimab superior (lower 95% CI bound > 0) · No significant difference · Not reported

No comparator was superior to netakimab on any endpoint. ASDAS-CII/MI, clinically important / major improvement (Δ ≥1.1 / ≥2.0).

CONCLUSIONS

- Over up to 3 years, netakimab achieved **significantly higher ASAS 40 response** than registered TNFα inhibitors, IL-17A inhibitors and tofacitinib.
- Efficacy was **comparable to upadacitinib** on all endpoints.
- Secondary endpoints supported these findings; no endpoint favoured a comparator.
- Results can inform long-term treatment choice in r-axSpA, including after TNFα inhibitor failure.

Contact: lazarev_auk@icloud.com

Companion poster MSR136: STC vs MAIC methodology. Funding: none.

LIMITATIONS

- Unanchored STC assumes no unmeasured prognostic factors or effect modifiers (e.g. enthesitis, uveitis were not reported).
- Effects are marginal, in each comparator's population: vs bDMARD-naïve trials the benefit may be overestimated, vs COAST-W (100% TNFi-experienced) underestimated.
- Time points (48–156 weeks) and reported endpoints varied across trials.

References

1. Lila AM, et al. Economic burden of axial spondyloarthritis in Russia. Sovrem Revmatol. 2022;16(1):20–25.
2. Mazurov VI, et al. Netakimab in AS: 3-year results of ASTERA. Sovrem Revmatol. 2024;18(1):35–46.
3. Phillippo DM, et al. NICE DSU Technical Support Document 18: population-adjusted indirect comparisons. 2016.
4. Ren S, Welton NJ, Strong M. Advancing unanchored simulated treatment comparisons. Res Synth Methods. 2024;15(4):657–670.
5. Lila AM, et al. Long-term efficacy of netakimab in radiographic axial spondyloarthritis. Rheumatol Sci Pract. 2026;64(4):385–397.

Abbreviations: ASAS, Assessment of SpondyloArthritis international Society; ASDAS, Ankylosing Spondylitis Disease Activity Score; BASDAI, Bath AS Disease Activity Index; IPD, individual patient data; NORTA, NORmal-To-Anything; NRI, non-responder imputation; NS, not significant; NTK, netakimab; pp, percentage points; RD, risk difference; STC, simulated treatment comparison; TNFi, TNFα inhibitor.