diagnosed axial involvements, spinal pain VAS >40/100 and BASDAI >4 despite trial of at least two NSAIDs. Pts were randomised to subcutaneous (SC) SEC (300/150 mg) or PBO weekly for 4 wks and every 4 wks thereafter. At Wk 12, PBO pts were re-randomised to SC SEC 300/150 mg. The primary endpoint was proportion of pts achieving ASAS20 response with SEC 300 mg at Wk 12. The key secondary endpoint was ASAS20 response with SEC 150 mg at Wk 12 after superiority of 300 mg was established. Analyses used multiple imputation

Results: Demographic and baseline (BL) disease characteristics were comparable across groups (Table). Primary and key secondary endpoints were met; ASAS20 response rates at Wk 12 were 63.1% (SEC 300 mg; $P<0.0001$) and 66.3% (150 mg; $P<0.0001$) vs 31.3% (PBO; Figure). ASAS20 responses in pts using concomitant MTX were 65.1% [300 mg], 67.3% [150 mg] vs 33.9% [PBO] and corresponding values in No MTX group were 60.5%, 64.4% vs 27.1%. The safety profile was similar across groups through Wk 12

Conclusion: MAXIMISE is the first randomised controlled trial evaluating the efficacy of a biologic in the management of the axial manifestations of PsA. SEC 300 and 150 mg provided rapid and significant improvement in ASAS20 responses through Wk 12 in PsA pts with axial manifestations and inadequate responses to NSAIDs

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Demographics/BL Characteristics

Mean (SD) unless specified	SEC 300 mg SC (N = 167)	SEC 150 mg SC (N = 165)	PBO (N = 166)
Age (yrs)	46.2 (12.3)	46.9 (11.5)	46.6 (11.5)
Male, n (%)	77 (46.1)	81 (49.1)	88 (53.0)
Evidence of current psoriasis, n (%)	152 (91.0)	147 (89.1)	153 (92.2)
Time since first axial symptoms (yrs)	6.8 (7.7)	7.4 (7.6)	7.7 (9.5)
Total back pain score, VAS	72.5 (13.8)	73.6 (15.3)	74.0 (13.7)
Inflammatory back pain parameters, n (%)			
Onset of back pain is insidious	150 (89.8)	147 (89.1)	152 (91.6)
Back pain improving with exercise	148 (88.6)	139 (84.2)	146 (88.0)
Back pain worsening with rest	152 (91.0)	151 (91.5)	157 (94.6)
Night pain with improvement upon getting up	147 (88.0)	147 (89.1)	143 (86.1)
Awakening due to back pain in 2 nd half of night	143 (85.6)	145 (87.9)	137 (82.5)
Alternating buttock pain	102 (61.1)	98 (59.4)	101 (60.8)
Back pain improved after NSAID intake in past	136 (81.4)	134 (81.2)	138 (83.1)
BASDAI	7.3 (1.2)	7.2 (1.4)	7.3 (1.2)
HLA-B27 positive, n/M (%)	31/85 (36.5)	24/82 (29.3)	26/74 (35.1)

M, number of pts with available HLA-B27 status

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OP0236

SIMILAR ONE-YEAR TREATMENT RETENTION OF ORIGINATOR AND BIOSIMILAR ETANERCEPT. RESULTS OF A NORDIC COLLABORATION INCLUDING 1015 PATIENTS WITH SPONDYLOARTHRITIS

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Background: The marketing approval of the etanercept biosimilar SB4 was based on phase III studies on patients with rheumatoid arthritis, but extended to all etanercept indications. Currently, no randomized controlled trials have compared etanercept originator (ETN) with SB4 in patients with spondyloarthritis (SpA). However, the uptake of etanercept biosimilars in the treatment of SpA has been exponential in the Nordic countries, with marked differences across the countries [1].

Objectives: To compare the one-year treatment retention in bio-naïve patients with SpA treated with ETN versus SB4. Furthermore, to explore baseline characteristics in the two patient groups.

Methods: Observational cohort study. Patients with SpA (ankylosing spondylitis (AS), non-radiographic axial SpA (nrax-SpA) or uSpA)), starting etanercept as their first ever TNFi Jan 2014 through Jun 2017 were identified in biologics registers in the five Nordic countries. Baseline characteristics were retrieved from each biological register and comorbidity data through linkage to national registers. The country-specific data were then pooled for further analysis. Comparisons of treatment retention between ETN and SB4 were assessed through survival probability curves and one-year retention rates.

Results: In total, 1015 patients were included, whereof 49% started ETN and 51% SB4. Baseline characteristics were similar in the two patient groups (Table 1).

Table 1. Baseline characteristics of etanercept treated SpA patients

	ETN (N=493)	SB4 (N=522)
Age, years	41 (14)	41 (14)
Disease duration, years	12 (12)	11 (12)
Sex, men, %	48	50
AS, %	41	38
nrax-SpA or uSpA, %	59	62
Psoriasis*, %	7	5
Inflammatory bowel disease*, %	2	2
CRP, mg/L	11 (18)	10 (15)
VAS-pain, mm	59 (24)	59 (22)
ASDAS	3.05 (0.90)	2.98 (0.94)
BASDAI, mm	5.4 (2.0)	5.4 (1.9)
BASFI	4.1 (2.4)	4.1 (2.5)
Concomitant csDMARD, %	29	22

Numbers are means (standard deviations) unless otherwise stated
ETN=etanercept originator; SB4= etanercept biosimilar.

* comorbidities only available from Sweden, Denmark and Finland.

csDMARD = conventional synthetic Disease Modifying anti-Rheumatic Drugs.

One-year survival probability curves were similar for ETN compared to SB4 (Figure 1), and the proportions of patients remaining on drug after one year were comparable: ETN 66% (95%CI: 61-70%) and SB4 73% (95%CI: 68-78%). Further confounder-adjusted analyses are planned and will be presented at the conference.

Conclusion: In this observational study of 1015 patients with SpA from five Nordic countries, biologics-naïve patients starting treatment with originator versus biosimilar etanercept had similar baseline characteristics and similar one-year treatment retention rates, suggesting similar effectiveness and tolerability of the two drugs.

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OP0237

INTERLEUKIN-17 OR TNF BLOCKADE IN PATIENTS WITH AXIAL SPONDYLOARTHRITIS AFTER WITHDRAWAL OF AT LEAST ONE TNF INHIBITOR

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Background: Secukinumab (SEC), an interleukin-17A inhibitor, is approved for the treatment of ankylosing spondylitis (AS) and has been integrated into the current treatment recommendations of patients with axial spondyloarthritis (axSpA) as an alternative to tumor necrosis factor inhibitors (TNFi). The optimal use of one mode of action over the other remains unclear and longitudinal real-life data are lacking to date.

Objectives: To compare drug survival of SEC versus TNFi in axSpA patients having previously stopped at least one TNFi in a large prospective cohort.

Methods: Patients with a clinical diagnosis of axSpA in the Swiss Clinical Quality Management cohort were included if they had previously stopped treatment with at least one TNFi, initiated therapy with either SEC or a next TNFi after approval of SEC and had a baseline clinical visit. Drug survival was evaluated by Cox proportional hazards models adjusted for sex, age, Bath ankylosing spondylitis disease activity index (BASDAI), Maastricht ankylosing spondylitis enthesitis score (MASES), proportion of patients with elevated CRP, number of previous TNFi and interaction between mode of action and number of previous TNFi.

Results: Baseline characteristics of 382 axSpA patients included (N=107 for SEC and N=275 for next TNFi) are shown in Table 1. The proportion of patients with ≥2 TNFi administered previously was significantly higher in the SEC group. Patients starting SEC had higher baseline disease activity, more enthesitis and greater impairment of spinal mobility, function and quality of life. A history of uveitis was more prevalent in the TNFi group. No differences between the groups could be detected with regards to the reason for discontinuation of the previous TNFi. Unadjusted median (interquartile range) drug maintenance was 1.1 (0.9; 1.3) years for SEC and 2.0 (1.7; 2.2) years for TNFi (p=0.03). The adjusted hazard ratio to stop SEC vs. TNFi in patients without missing data (N=233, 61%) was 1.05 (95% CI 0.42; 2.61; p=0.91) (Table 2).

Table 1. Baseline characteristics of axSpA patients having stopped ≥1 TNFi at start of a next biologic after approval of SEC in Switzerland, stratified by the mode of action.

Parameter	N 382	TNFi N=275	SEC N=107	p
Male sex, %	374	43.3	43.0	1.00
Age, years	382	45.3 (12.6)	45.7 (11.5)	0.81
Symptom duration, years	369	14.0 (10.8)	14.8 (11.3)	0.47
HLA-B27 positive, %	338	58.9	60.0	0.90
BASDAI	276	4.8 (2.1)	6.1 (1.9)	<0.001
ASDAS	239	2.7 (0.9)	3.5 (1.0)	<0.001

Elevated CRP, %	336	31.5	41.0	0.13
BASFI	266	3.0 (2.4)	4.9 (2.6)	<0.001
BASMI	205	1.8 (1.6)	2.6 (1.9)	0.01
Number of swollen joints	348	1.0 (3.0)	1.4 (3.7)	0.32
MASES	352	2.8 (3.3)	3.9 (3.9)	0.02
Uveitis ever, %	369	16.9	8.7	0.05
Psoriasis ever, %	366	9.8	13.0	0.45
Inflammatory bowel disease ever, %	371	10.6	4.7	0.10
≥2 previous TNFi used, %	382	37.8	77.6	<0.001
Ineffectiveness of previous TNFi, %	334	60.7	67.3	0.24

Table 2. Multivariable adjusted cox regression model for drug survival of next biologic DMARD.

	HR	95% CI	p
Secukinumab vs. TNFi	1.05	0.42; 2.61	0.91
Age	1.01	0.99; 1.03	0.42
Female sex	1.60	0.98; 2.61	0.06
BASDAI	1.15	1.02; 1.31	0.03
Elevated CRP	1.15	0.71; 1.86	0.56
Number of previous TNFi	0.83	0.61; 1.13	0.23
Interaction between bDMARD mode of action and number of previous TNFi	1.20	0.83; 1.73	0.34

Conclusion: SEC was predominantly initiated in axSpA after use of at least 2 TNFi. Patients starting SEC had a higher mean disease activity than patients starting a next TNFi. Adjusted drug survival after previous withdrawal of TNFi was comparable for SEC or a next TNFi.

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OP0238

WORK PRODUCTIVITY AND ACTIVITY IMPAIRMENT AMONG PATIENTS WITH ACTIVE ANKYLOSING SPONDYLOARTHRITIS AND TREATED WITH IXEKIZUMAB FOR 16 WEEKS: RESULTS FROM COAST-V AND COAST-W

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Background: Axial spondyloarthritis (axSpA) negatively impacts work productivity and IL-17A antagonists, such as ixekizumab (IXE), may improve paid and unpaid work productivity.^{1,2} Also, it is unknown if improvements with IXE differ between biologic-naïve and TNF inhibitor (TNFi) experienced patients.

Objectives: We investigated the effect of IXE treatment for 16-weeks on work productivity and activity impairment among patients with radiographic axSpA (r-axSpA) using data from the biologic-naïve and TNFi-experienced patients receiving either placebo (PBO), IXE, or adalimumab (ADA; if biologic-naïve).

Methods: Both COAST-V and COAST-W investigated the efficacy and safety of IXE among patients with r-axSpA that either were biologic-naïve patients (COAST-V, NCT02696785) or TNFi-experienced patients (COAST-W, NCT02696798), as defined by prior inadequate response or intolerance to 1 or 2 TNFi. Patients were required to have a diagnosis of axSpA. Patients fulfilled ASAS criteria for r-axSpA and mNY criteria for ankylosing spondylitis. Active disease was defined by BASDAI ≥4 and back pain ≥4 on a numeric ratings scale (NRS).^{1,2} Full eligibility criteria were previously reported.^{1,2} Patients were treated with placebo (PBO), 40-mg adalimumab (ADA) every 2 weeks (Q2W; COAST-V only), 80-mg IXE Q2W (IXEQ2W) or every 4 weeks (IXEQ4W) for 16 weeks. Work productivity was investigated using the Work Productivity and Activity Impairment Questionnaire for Ankylosing Spondylitis (WPAI:SpA). Individual and integrated