Conclusion: Secukinumab was associated with higher mean change in MASES and complete resolution of enthesitis compared to placebo at Week 16, which further improved through Week 52.

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Table. Summary of results

	SEC 150 mg N=355		SEC 300mg N=58		PBO N=280
	W16	W52 ^a	W16	W52 ^a	W16
LS mean change from BL in MASES score^a					
Overall MASES ^a	-2.4 [‡]	-3.5	-2.9 [§]	-3.9	-1.9
AxS ^b	-2.3 [‡]	-3.2	-2.9 [§]	-3.6	-1.8
PS ^c	-1.3	-1.9	-1.6	-2.1	-1.2
AT ^d	-1.0	-1.2	-1.0	-1.3	-0.8
Complete resolution of enthesitis (MASES=0)^a, %					
Overall MASES ^a	40.8 [§]	56.4	36.2	52.9	28.9
AxS ^b	42.7 [§]	58.6	42.1	60.0	30.1
PS ^c	46.3	65.5	52.5	69.7	38.3
AT ^d	57.0	78.4	55.0	77.8	48.0
Improvement from BL in MASES score (≥5 counts)^a, %					
Overall MASES ^a	23.7	34.1	27.6	43.1	16.1
AxS ^b	20.1	28.0	22.8	32.0	15.4

[§]P<0.01; [‡]P<0.05 vs PBO. [‡]P-values from repeated MMRM until Week 16. [§]P-values from logistic regression model. SEC 150mg (n=355, ^a344, ^c229, ^d128); 300mg (n=58, ^b57, ^c40, ^d20) and PBO (n=280, ^a272, ^b188, ^c98). ^aObserved data. LS, least squares; N, number of patients analysed; n, number of patients with measurement.

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FRI0381

TROUGH SERUM DRUG LEVELS AND DISEASE ACTIVITY IN AXIAL SPONDYLOARTHRITIS PATIENTS ON LONG-TERM TREATMENT WITH TNF- α INHIBITORS

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Background: In approximately 50% of patients with axial spondyloarthritis (ax-SpA) treated with TNF- α inhibitors, treatment loses efficacy after a period of time.¹ Previous research has shown that high disease activity is associated with low serum drug levels after 6 months of treatment with TNF- α inhibitors.² There is limited literature regarding this subject in axial SpA patients on long-term treatment with TNF- α inhibitors.

Objectives: To investigate the association between trough serum drug level of TNF- α inhibitors and disease activity in axial SpA patients.

Methods: All consecutive ax-SpA patients of the Groningen Leeuwarden Axial SpA (GLAS) cohort, fulfilling the ASAS classification criteria, treated with TNF- α inhibitors and visiting the out-patient clinic in Groningen

between the 1st of June 2015 until the 31st of May 2016 were approached to have a trough serum drug level measurement within two months from the out-patient visit. Serum trough levels were stratified in a 'therapeutic' and 'below-therapeutic' range according to the reference values of Sanquin³. Disease activity was assessed with the ASDAS, BASDAI and CRP.

Results: 67 (60%) of the 112 approached patients were eligible for analyses. Thirty-one (46%) were male, mean age was 45 $\pm$ 12 years, 48 patients (72%) were HLA-B27 positive, mean symptom duration was 20 $\pm$ 12 years and median duration of TNF- α inhibitor treatment was 49 months (IQR 14-64). 34 patients were on adalimumab (51%), followed by 21 on etanercept (31%) and the remaining 12 patients (18%) were on infliximab, certolizumab or golimumab. 32 of the 67 patients (48%) had a 'therapeutic' serum trough drug level and 35 (52%) were 'below-therapeutic', with no significant difference in patient characteristics between these 2 groups, including disease activity (ASDAS 2.2 $\pm$ 1.0 vs. 2.3 $\pm$ 0.8; BASDAI 3.9 $\pm$ 2.4 vs. 4.1 $\pm$ 2.1; CRP 4.5, IQR 2.0-6.6 vs. 3.0, IQR 2.0-6.0). No significant correlations for ASDAS, BASDAI and CRP with adalimumab or etanercept drug level were found (adalimumab r=-0.164, p=0.36; r=-0.191, p=0.29; r=-0.041, p=0.83 resp.; etanercept r=-0.185, p=0.42; r=-0.113, p=0.63; r=-0.216, p=0.36 resp.).

Stratified by gender, only women on adalimumab showed a weak significant negative correlation between serum level and ASDAS and BASDAI (r=-0.444, p<0.05; r=-0.497, p<0.05 resp.) but not for CRP (r=0.038, p=0.87). Compared to men, women had a significantly higher ASDAS and CRP. BASDAI was not significantly different (data not shown). Patient characteristics between patients with and without serum trough level measurements did not differ significantly.

Conclusion: In daily clinical practice random serum trough levels in ax-SpA patients are relatively low according to reference values of Sanquin. Furthermore, only for women on adalimumab a weak correlation was found between trough serum drug level and ASDAS and BASDAI but not for CRP.

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FRI0382

TEN-YEAR RETENTION RATES OF FIRST-LINE BIOLOGICAL AGENT IN AXIAL SPONDYLOARTHRITIS IN DAILY PRACTICE: A ROMANIAN MULTICENTRE EXPERIENCE

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Background: Although the efficacy and long-term persistence of TNF inhibitors (TNF-i) are widely recognized in axial spondyloarthritis (axSpA), up to about one third of patients experience failure (loss of therapeutic response or toxicity) with the first biological agent requiring switching to another drug.