the worker's performance whilst at work due to ill health (i.e. presenteeism). A number of global measures have been developed to assess presenteeism in clinical studies. However, limited information is available on the correlation between these measures and the construct validity of these measures.

Objectives: To i) determine the correlation between four global measures of presenteeism and ii) to evaluate the construct validity of these measures.

Methods: The main aim of this international observational study (7 countries in Europe and Canada), recruiting patients with IA (RA, PsA or AS) or OA in paid employment, was to investigate content and construct validity of global presenteeism measures. Patients completed 4 global measures (Work Productivity Scale – Arthritis (WPS-A), Work Productivity and Activity Impairment Questionnaire (WPAI), Work Ability Index (WAI), and both the Quality and Quantity scales of the QQ questionnaire) (see table legend for descriptions individual scales). Spearman correlations were applied to test the correlation between individual presenteeism scales and to test construct validity with the 11-item Workplace Activity Limitation presenteeism Scale (WALS) and several health related patient reported outcome measures. Interpretation of correlation coefficients: (very) weak (r_{range}=0.0–0.39), moderate (r_{range}=0.40–0.59) to strong (r_{range}=0.60–1.0).

Results: 468 patients with a median disease duration of 10 [IQR 5–18] yrs were included; 62% were female. Median [IQR] presenteeism scores were, respectively: 2 [0–5] for WPS-A, 3 [1–5] for WPAI, 8 [6–9] for WAI, 81 [49–100] QQ-total, with WAI and QQ having reversed scales (Legend table). Correlations between the 4 global measures were moderate to strong, ranging from -0.49 for the correlation between WPS-RA and QQ-Quality to 0.83 between WPAI and WPS-RA. The multi-item presenteeism scale WALS, measuring difficulty at work, strongly correlated with both WPAI (r=0.65, $p<0.05$) and WPS-RA (r=0.64, $p<0.05$), both measures capturing the affect and interference of arthritis on work productivity. Moderate correlations were achieved between all six global presenteeism measures and health outcomes ($r_{range\ irrespective\ direction}$: $|r_{presenteeism\text{-}VAS\ Well\text{-}being}|$ =0.36 to 0.54; $|r_{presenteeism\text{-}EQ\text{-}5D}|$ =0.37 to 0.54; and $|r_{presenteeism\text{-}HAQ}|$ =0.40 to 0.58).

		WPAI	WPS-RA	WAI	QQ-Quantity	QQ-Quality	QQ-Total
Global presenteeism scales	WPAI	1.0					
	WPS-RA	0.83	1.0				
	WAI	-0.65	-0.62	1.0			
	QQ-Quantity	-0.58	-0.53	0.60	1.0		
	QQ-Quality	-0.52	-0.49	0.58	0.75	1.0	
	QQ-Total	-0.60	-0.56	0.63	0.95	0.88	1
Multi-item presenteeism scale	WALS	0.65	0.64	-0.55	-0.50	-0.49	-0.54
Health related patients reported outcomes	VAS Well being	0.54	0.51	-0.43	-0.39	-0.36	-0.42
	EQ-5D	-0.54	-0.54	0.48	0.37	0.39	0.42
	HAQ	0.57	0.58	-0.52	-0.40	-0.41	-0.45

WPAI (0= condition no effect on work – 10=condition completely prevented work); WPS-IA/OA (0=no interference – 10=complete interference; WAI (0=completely unable to work – 10=work ability at its best); QQ-Quantity/Quality (0=normal quantity/good quality – 10=normal quantity/good quality); QQ-Total=$Q_{quantity} * Q_{quality}$; VAS well-being = Visual Analogue Scale general Well being; EQ-5D=EuroQol 5D measurement; HAQ= health assessment questionnaire.

Conclusions: Global measures of presenteeism show good to moderate construct validity, with the WPAI and WPS-IA/OA showing slightly better construct validity compared to the WAI and QQ. The information obtained in this study will further inform research on instrument use for a standardized approach to estimate presenteeism in future clinical studies.

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THU0690 SERUM AMYLOID A LEVELS AS A POTENTIAL BIOMARKER TO MONITOR PSORIATIC ARTHRITIS PATIENTS ON BIOLOGICS – A RETROSPECTIVE OBSERVATIONAL STUDY

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Background: According to previous studies, serum amyloid A (SAA) is involved in the pathophysiology of several conditions including inflammatory arthritis and psoriasis. Recent evidence suggests its valuable role in monitoring disease activity in Rheumatoid Arthritis, but its role is yet to be determined in Psoriatic Arthritis (PsA).

Objectives: To study the association between SAA levels and its variation with other biomarkers and disease activity/functional parameters in a cohort of PsA patients under biologic therapy.

Methods: Observational retrospective study was conducted including PsA patients (according to CASPAR criteria) followed at our Rheumatology department with at least one measurement of SAA levels from January 2015 until December 2016. Demographic and clinical data were obtained by consulting the national database (Reuma.pt). The disease activity/functional scores from at least one visit and corresponding measurements of SAA, ESR and CRP levels were collected. The difference (Δ) between 2 evaluations separated by a median time of 6 months [6–18] was calculated for all variables. Agreement between dichotomized biomarkers was calculated using kappa coefficients. Correlations were studied using Pearson and Spearman coefficient analysis. Significance level was set as 0.05.

Results: 53 PsA patients were included. 31 (59%) patients were females with a mean (SD) age of 50 (11.2) years and a median disease duration of 9 years [1–43]. 28% had axial involvement, 34% peripheral involvement and 38% had both types. All patients were under biologic DMARD. 100 SAA measurements were collected. Median SAA and ESR levels were significantly superior in female patients (23 vs 6mm/1sth and 8.6 vs 4.4mg/L, respectively, $p<0.05$) and only ESR levels correlated with age (r=0.20, p=0.05). The three biomarkers showed a weak association with serum creatinine levels, with greater correlation for SAA (r=0.46, $p<0.001$). SAA levels had a stronger correlation with CRP (r=0.75, $p<0.001$) than with ESR levels (r=0.26, $p<0.01$). SAA and CRP (dichotomized as negative/positive) had a greater level of agreement (κ=0.40) compared to ESR (κ=0.26 and κ=0.32, respectively). No significant correlations were found between the biomarkers and the tender/swollen joint count or the pain/global disease activity VAS. SAA levels correlated with ASDAS CRP (r=0.43, $p<0.001$) and weakly with ASDAS ESR and DAS28 CRP (r=0.20 and r=0.24, respectively, $p<0.05$). Only ESR had a significant weak correlations with BASDAI, MASES and SPARCC scores (r=0.25, r=0.21, r=0.35; $p<0.05$). All the biomarkers had weak correlations with BASFI and HAQ scores. ΔSAA levels had a weak correlation with ΔCRP (r=0.32, p=0.03; n=47) and no significant association was found with ΔESR. ΔSAA correlated significantly with ΔASDAS CRP and ΔBASMI (r=0.32, r=0.39; $p<0.05$).

Conclusions: This study showed that SAA levels and its variation had a significant correlation with CRP levels and its variation, respectively. Significant association with ASDAS CRP variations suggests that serial measurements of SAA may represent an additional marker for monitoring disease activity over time in PsA patients.

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THU0691 IS SERUM AMYLOID A PROTEIN AN USEFUL BIOMARKER TO MONITOR TREATMENT WITH ANTI-TUMOUR NECROSIS FACTOR-ALPHA AGENTS IN SPONDYLOARTHRITIS PATIENTS?

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Background: Quantitating the degree of inflammation has become essential to tailor the treatment strategy of various rheumatic diseases. Traditionally used measures to assess disease activity and treatment response in spondyloarthritis (SpA) are ESR, CRP and Bath Ankylosing Spondylitis Disease Activity Index (BASDAI) and Ankylosing Spondylitis Disease Activity Score (ASDAS). Serum amyloid A (SAA) is an acute-phase reactant predominantly synthesized in the liver by hepatocytes in response to proinflammatory cytokines. Some studies have shown that SAA can be a valuable indicator of disease activity, damage and functional impairment, however it has not been extensively used in clinical practice.

Objectives: To investigate if SAA levels have better correlation with conventional assessments used to monitor anti–tumor necrosis factorα (anti-TNF) treatment in SpA than CRP and ESR.

Methods: Prospective study, including SpA patients under anti-TNFα treatment at a Rheumatology Department of a Portuguese Universitary Hospital. The following parameters were collected and registered in two different evaluations 6 months apart from each other: SAA, CRP and ESR levels, BASDAI, ASDAS-PCR, ASDAS-VS, BASFI, BASMI, swollen and tender joints counts (SJC and TJC), MASES, SPARCC, and patient global assessment (PtGA), physician global assessment (PGA), total back pain (TBP), nocturnal back pain (NBP) measured in a visual analogue scale (VAS). The variation of each parameter was calculated as the difference between the levels registered at each evaluation (baseline and 6 months) and presented as Δ(parameter). We compared the correlation between ΔSAA, ΔCRP and ΔESR levels with ΔBASDAI, ΔASDAS-PCR, ΔASDAS-VS, ΔBASFI, ΔBASMI, ΔSJC, ΔTJC, ΔMASES, ΔSPARCC, ΔPtGA-VAS, ΔPGA-VAS, ΔTBP-VAS, ΔNBP-VAS. The statistical analysis was performed using SPSS 21.0 software, and *$p<0.05$* was taken to indicate statistical significance. Correlation was calculated using the Spearman rank correlation (r).

Results: 89 patients were included, 58.4% (n=52) were male. On baseline the median age was 44.0 years (range 21.0–74.6) and median disease duration was 18.8 years (2- 51.6). ΔSAA was moderately correlated with ΔCRP (r=0.65,