

**Table 1. Characteristics and patient- and physician-reported outcomes in patients with inflammatory rheumatic diseases.**

	RA	AS	SLE	PMR	pSS	IIM	SSc
Number of cases	7826	1532	1142	1105	301	106	386
Female (%)	74	42	89	64	89	58	76
Age, in years (mean±SD)	63±14	51±14	47±15	73±8	53±16	58±14	58±14
Disease duration, in years (mean±SD)	13±11	18±13	15±10	5±6	12±9	11±8	12±10
<b>RAID (mean±SD)</b>	<b>3.6±2.3</b>	<b>4.0±2.3</b>	<b>3.0±2.4</b>	<b>3.2±2.3</b>	<b>3.4±2.4</b>	<b>3.5±2.5</b>	<b>3.8±2.3</b>
PtGI health status (mean±SD)	4.2±2.3	4.4±2.2	3.6±2.4	4.1±2.3	4.1±2.3	4.2±2.5	4.6±2.1
PtGI disease activity (mean±SD)	3.7±2.4	4.0±2.4	2.7±2.5	3.8±2.7	3.5±2.6	3.7±2.5	4.1±2.3
PhGI disease activity (mean±SD)	1.8±1.9	2.2±1.9	1.6±1.3	1.0±1.4	1.8±1.3	1.8±1.6	2.2±1.6
EQ-5D (mean±SD)	0.8±0.2	0.8±0.2	0.8±0.2	0.8±0.2	0.8±0.2	0.8±0.2	0.8±0.2
WHO-5 (mean±SD)	57±25	53±23	58±25	56±26	57±25	60±26	53±24

SD, Standard Deviation; PtGI, Patient Global; PhGI, Physician Global; EuroQoL-5 Dimensions (EQ-5D); World Health Organisation Well-Being Index (WHO-5)

RAID (range 0-10). General linear regression was used to assess the age- and sex-adjusted effect of each diagnosis on the difference between the RAID and the five other scores with RA as the referent diagnosis. We defined the effect of a diagnosis as clinically relevant if the mean change of difference was at least one unit.

**Results:** The mean RAID score in RA (3.6) was lower than in AS (4.0) and SSc (3.8) and higher than in SLE, PMR, pSS or IIM (Table 1). Across all diagnoses, the RAID correlated strongly with PtGI health status (0.72 to 0.83), moderately to strongly with PtGI disease activity (0.55 to 0.78) and WHO-5 (0.67 to 0.83), moderately with the EQ-5D (0.61 to 0.68), and weakly with PhGI disease activity (0.25 to 0.41). Small mean differences were found between the RAID and either PtGI disease activity (0 to -0.6), PtGI health status (-0.4 to -0.9) or WHO-5 (-0.7 to -1.3). A higher deviation was observed for EQ-5D (1.1 to 1.7) and PhGI disease activity (1.4 to 2.2). However, the discrepancies between the five outcomes and the RAID turned out to be similar across all diagnoses and, more importantly, comparable to RA. Linear regression revealed no clinically relevant effect of any of the diagnoses on the difference between RAID and the other outcomes (Figure 1).

**Conclusion:** The RAID score performed comparably well across all diagnoses investigated. These findings support the use of the RAID for measuring the impact of disease not only in RA, but also in AS, SLE, PMR, pSS, IIM and SSc.

#### REFERENCES:

- [1] PMID: 21540201  
[2] PMID: 24790067

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POS0003

#### DEVELOPMENT AND VALIDATION OF A DISEASE SPECIFIC PATIENT REPORTED OUTCOME FOR GIANT CELL ARTERITIS

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**Background:** Giant cell arteritis (GCA) is caused by inflammation of the blood vessels of the head and neck; patients can present with cranial, ocular or large vessel vasculitis involvement. Treatment is with glucocorticoids, steroid sparing agents and biologics to control inflammation and protect sight.

**Objectives:** The aim of this study was to produce a validated disease specific PROM for patients with GCA, to capture the impact of GCA and its treatment on health-related quality of life.

**Methods:** Patients with clinician- confirmed GCA from the UK, either diagnosed in the last three years or with a flare in the last year, were included in the survey. A longlist of 40 candidate questionnaire items, each with a 5-point Likert scale, had previously been developed, based on a qualitative study with patients from the UK and Australia [1]. In this cross-sectional survey, patients completed the 40-item draft GCA-PROM alongside EQ5D-5L, CAT-PRO5 and self-report of GCA disease activity. Rasch and factor analysis were used in an iterative manner to determine the underlying construct validity of the new PROM. Items were fitted to the Rasch model to determine its construct validity, reliability, unidimensionality and statistical sufficiency of the total score from the scale. Factor analysis was used to establishing factor structure. Item reduction decisions were based on clinical importance, lack of fit to the Rasch model, and redundancy detected during principal component analysis. External validity was tested by comparing the scores of the newly validated GCA-PROM (i) in participants who self-identify as having 'active disease' versus patients 'in remission' (known groups validity) (ii) with scores derived from EQ5D-5L and CAT-PRO5 (convergent validity).

**Results:** The survey included 428 patients; 327 (76%) cranial GCA, 114 (26.6%) large vessel vasculitis and 142 (33.2%) ocular involvement. 285 (67%) of participants were female with a mean age (SD) of 74.2 (7.2). 167 (39%) temporal artery biopsies and 177 (41.4%) temporal artery ultrasounds, and 51 (11.9%) Positron Emission Tomography and Computed Tomography (PET-CT)s were reported as positive. 108 (25%) received second-line immunosuppressants, and 34 (7.9%) anti-IL6 therapy. Active disease was reported in 197 (46%). Four factors (domains) were identified after deletion of 10 redundant items: Acute symptoms (8 items), Activities of daily living (7 items), Psychological (7 items) and Participation (8 items). The four domains were analysed as 'super-items' and shown to fit the Rasch model. The overall scale had an adequate fit to the Rasch model:  $\chi^2 = 25.219$ ,  $DF=24$ ,  $p=0.394$  including reliability  $PSI=0.828$ . The raw-to-linear transformation scale was calibrated to enable parametric analyses if desired. Each domain was shown to have known-groups validity ( $p<0.001$  patients reporting active versus inactive disease) and correlation with EQ5D-5L and CAT-PRO5 (Rs) ranging between 0.442 and 0.778.

**Conclusion:** The GCA-PROM is a new patient reported outcome measure for patients with GCA which demonstrates good internal and external validity.

#### REFERENCES:

- [1] Robson JC, Almeida C, Dawson J, Bromhead A, Dures E, Guly C, Hoon E, Mackie S, Ndosi M, Pauling J, Hill C. Patient perceptions of health-related quality of life in giant cell arteritis; international development of a disease-specific Patient-Reported Outcome Measure. *Rheumatology (Oxford)*. 2021:keab076. <http://dx.doi.org/10.1093/rheumatology/keab076>

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POS0004

#### WHAT DOES WORSENING IN DAPSA DISEASE ACTIVITY CATEGORIES MEAN FOR PATIENTS WITH PSORIATIC ARTHRITIS? AN ANALYSIS OF 222 PATIENTS

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