Methods: A research librarian conducted systematic searches in Medline, Embase and Amed from earliest date until August 2016. Inclusion criteria were adult human case-control studies published in English or a Scandinavian language, presenting data on HRV in patients with IJD (Rheumatoid Arthritis (RA) or Spondyloarthritis (SpA)). Included under the SpA diagnosis were patients with psoriatic arthritis or ankylosing spondylitis. Six established measures of HRV were selected: the Square root of mean squared difference of successive R-R interval (rMSSD), high frequency (HF), total power (TP), Ewing protocol standing (E-S), breathing (E-B) and Valsalva (E-V). Patients with RA, SpA and healthy controls were compared separately using random-effects meta-analyses of standardized mean differences (SMD).
Results: 847 titles and abstracts were reviewed, 36 papers were eligible for inclusion (Figure 1). For rMSSD the pooled SMD (95% CI) RA vs. controls was -0.90 (-1.35 to -0.44), for SpA vs. controls; -0.34 (-0.73 to 0.06). For HF, the pooled SMD RA vs. controls was -0.78 (-0.99 to -0.57), for SpA vs. controls; -0.04 (-0.22 to 0.13). For TP the pooled SMD RA vs. controls was -0.60 (-1.26 to 0.06), SpA vs. controls; -0.27 (-0.51 to -0.03). All pooled Ewing parameters were significantly lower in cases compared to controls, except for E-V which was comparable between cases and controls in patients with RA. 18/36 papers examined the relationship of IJD disease activity to HRV, of which the majority, 13, describe an inverse association between the parameters. The impact of pain on HRV was not explored in any study, and only one study explored the impact of physical activity on HRV, finding no cross-sectional association.
Conclusions: Patients with IJD have lower cardiac parasympathetic modulation compared to healthy controls and this may be a risk factor for CVD. There is an inverse relationship between IJD disease activity and HRV. The relationship between pain, physical activity and HRV should be further explored.
References:
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THU0687 FEASIBILITY AND VALIDITY OF PROMIS® GLOBAL HEALTH SHORT FORM (PROMIS10) IN OUTPATIENTS WITH SLE

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Background: Routine measurement of patient reported outcomes (PROs) is a priority for improving quality of care and outcomes in chronic rheumatic conditions including systemic lupus erythematosus (SLE). Measuring PROs at the point of care requires validated instruments with minimal responder burden. PROMIS10 is a 10 question universal (non-disease specific) PRO instrument measuring physical and mental health domains with T-scores normalized to the general population (mean score =50). The feasibility and validity of PROMIS10 have not been demonstrated in SLE.
Objectives: To evaluate: 1) feasibility and 2) validity of PROMIS10 in outpatients with SLE.
Methods: Adults meeting 1997 ACR SLE classification criteria were recruited from an SLE Center of Excellence. Subjects completed SF-36, LupusQoL-US, selected PROMIS Computerized Adaptive Tests (CATs), and PROMIS10. Construct validity was evaluated using Spearman's correlations comparing PROMIS10 physical and mental health scores with PROMIS CATs and legacy instruments. Test-retest reliability was evaluated in subjects reporting stable SLE activity at 2 assessments a week apart with intraclass correlation coefficients (ICCs). Focus groups of participants evaluated the relevance and utility of PROMIS10.

Table 1. Spearman's Correlations of PROMIS10 with PROMIS CATs, SF-36, and LupusQOL

	PROMIS10 Physical Health (n=199)	PROMIS10 Mental Health (n=187)
PROMIS CAT- Physical Function	**0.77**	0.54
PROMIS CAT- Pain Interference	**-0.80**	-0.59
PROMIS CAT- Fatigue	-0.65	-0.60
PROMIS CAT- Anxiety	-0.41	-0.61
PROMIS CAT- Depression	-0.48	**-0.73**
PROMIS CAT- Ability to Participate in Social Roles	**0.74**	0.65
SF-36- Physical Function	**0.76**	0.47
SF-36- Role Physical	0.60	0.46
SF-36- Physical Component Summary	**0.77**	0.41
SF-36- Mental Health	0.42	**0.72**
SF-36- Role Emotional	0.49	0.61
SF-36- Mental Component Summary	0.41	0.72
SF-36- Bodily Pain	**0.79**	0.56
SF-36- Social Function	**0.70**	0.66
LupusQoL-US- Physical Health	**0.77**	0.59
LupusQoL-US- Emotional Health	0.52	**0.70**
LupusQoL-US- Pain	**0.74**	0.56
LupusQoL-US- Fatigue	0.62	0.62
LupusQoL-US- Planning	0.69	0.62

$p<0.01$.

Results: 204 (86%) of 238 patients approached, enrolled. There were no statistically significant differences in demographic characteristics between participants and non-participants. SLE patients scored worse than the general population in PROMIS10 physical health (mean T-score 41.6 +/- SD 8.8; range 19.9 - 67.7) and mental health (mean T-score 43.7 +/- SD 8.7; range 25.1 - 67.6). PROMIS10 physical health scores correlated strongly with physical function, pain, and social health domains in PROMIS CATs, SF-36, and LupusQoL, while PROMIS10 mental health scores correlated strongly with PROMIS depression CAT and SF-36 and LupusQoL mental health domains (Table 1). Test-retest reliability for both PROMIS10 physical and mental health scores was high with ICCs of 0.89 and 0.85 respectively. Median time to complete PROMIS10 was <2 minutes. Focus group participants found PROMIS10 relevant and useful.
Conclusions: PROMIS10 is feasible to administer to outpatients with SLE and valid compared to legacy instruments. PROMIS10 can be used to quickly, accurately, and reliably screen for impaired physical function, pain, and depression and could be an important tool in the measurement of patient centered outcomes and improvement of quality of care in SLE.
Disclosure of Interest: None declared
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THU0688 DISEASE FLARES, DAMAGE ACCRUAL AND SURVIVAL IN ANCA-ASSOCIATED VASCULITIS

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Background: ANCA- associated vasculitis (AAV) is a potentially life threatening condition requiring careful monitoring and balancing of treatment options to minimize morbidity and mortality.
Objectives: To investigate the influence of baseline disease characteristics and induction therapy on the disease course and outcome in ANCA- associated vasculitis.
Methods: Single centre longitudinal cohort study of all adult patients with an EMEA algorithm based diagnosis of AAV followed up to August 2016. Clinical data including disease activity (BVAS), ANCA type and level, treatment, relapses (BVAS >3) and organ damage (VDI) and other complications (e.g. infections) during the disease course were recorded. Predictors for ESRD, death, cancer and damage accrual were analysed by multivariate logistic regression presented as Odds Ratios (OR).
Results: A total of 63 patients (59% male) (mean age at diagnosis 57 years, 59% with GPA, 24% MPA and 16% EGPA) were included. Fluorescence ANCA was positive in 92%, while 47% had MPO-ANCA and 43% PR3-ANCA. Induction therapy included corticosteroids (92%), Cyclophosphamide (57%), Rituximab (35%) and Plasmapheresis (6%). During 46 months of follow-up 34 patients (54%) experienced 71 relapses (rate 2.5/100 months) and 55 serious complications occurred (rate 2/100 months). Mean VDI at last follow-up was 2.1 with only 11 patients (17.4%) not developing organ damage. Averaged BVAS correlated with last VDI scores (Rs 0.25,p=0.012). Overall, 4 patients (6.3%) died, 19 (27%) developed renal insufficiency of which 2 (3.1%) required chronic dialysis, while 6 (9.5%) developed a new cancer. Age was an independent predictor (OR 1.09, p=0.05) for patient survival (95% and 91% at 1 and 5 years), but no effect was seen for baseline BVAS, gender, AAV or ANCA subtype (all $p>0.1$).
Conclusions: While current treatment reduces the risk of death, AAV is still associated with a high rate of disease relapse, organ damage accrual and serious complications.
Disclosure of Interest: None declared
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THU0689 MODERATE TO GOOD CONSTRUCT VALIDITY OF GLOBAL PRESENTEEISM MEASURES WITH MULTI-ITEM PRESENTEEISM MEASURE AND PATIENT REPORTED HEALTH OUTCOMES: EULAR-PRO WORKER PRODUCTIVITY STUDY

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Background: Inflammatory arthritis (IA) and osteoarthritis (OA) often impact on