

Overall, it affects the patients' self-image and the patients' independence may be lost.

**Conclusions:** HAQ questionnaire is relevant in the term of defining the areas in everyday life, where the patients have problems. But the questionnaire does not contribute to elucidate the implications for the patient, which probably is the reason why many patients do not find the meaning with the questions. To evaluate the everyday living with and treatment of arthritis embedding the patient values, patient involvement in designing questionnaires is vital

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**Disclosure of Interest:** None declared

**DOI:** 10.1136/annrheumdis-2017-eular.2153

**SAT0745-HPR IMPACT OF AN INTERDISCIPLINARY INTERVENTION ON RA PATIENTS**

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**Background:** Rheumatoid arthritis (RA) impairs patient function and quality of life (QoL) which, in turn, may lead to invalidity and chronicity of pain. Even though a variety of effective treatments are available, there is still a significant portion of patients not attaining remission, of whom many continue to report moderate to high pain and fatigue despite low levels of inflammation. Interdisciplinary interventions are promising approaches that may complement the medication effect on patient well-being and disease control, however previous studies on the effectiveness of interdisciplinary interventions seem conflicting.

**Objectives:** The primary objective is to compare the DAS28 response between patients receiving an interdisciplinary intervention (Intervention group) and patients followed under standard rheumatologic practice (Control group). Secondary objectives are to compare patient-reported outcomes such as pain, fatigue, general health, and patient empowerment between the two groups.

**Methods:** Prospective quasi-experimental, matched cohort (age, gender) study. Adult patients with a diagnosis of RA and DAS28 (CRP) > 2.6 are eligible for the study. The Intervention group (n=28) benefits from interdisciplinary team intervention with the following professionals: rheumatologist, nurse, physiotherapist, social worker, kinesiologist, occupational therapist, and nutritionist. The Control group (n=32) receives a conventional rheumatologist-nurse intervention. Both groups see the rheumatologist approximately three times over 12 months. Interdisciplinary meetings take place in the hospital setting with the patients at Month 0 and Month 12 and without them at Month 6. The following outcome measures are used at each visit to the rheumatologist: patient pain, fatigue (Multidimensional Assessment of Fatigue; MAF), disability (HAQ), quality of life (SF-36), patient empowerment (Patient Activation Measure; PAM13), and patient satisfaction (QSC-F; only in Intervention group at Month 12).

**Results:** A total of 28 patients were enrolled in the Intervention group and 32 in the Control group without any significant differences in demographics or disease parameters with the exception of disease duration which was significantly higher in the Intervention group (10.9 vs. 5.8 years; p=0.021). Within 6 months of treatment, clinically important and statistically significant (p<0.01) improvements in DAS28 were observed in both groups which were maintained until 12 months. Overall, at 12 months, DAS28 response was comparable between groups (68% vs. 63%; p=0.140). However, when looking at patients with established RA (75% vs. 66.7%; p=0.039) and patients with low to moderate disease activity at baseline (73.9% vs. 56.5%; p=0.035), a higher response rate was observed in the Intervention group. No statistical differences were observed in the remaining outcomes between groups.

**Conclusions:** The results of the current study suggest that interdisciplinary interventions may be useful in conferring benefits on patient well-being and disease control that are above and beyond those resulting from medications. This seems to be particularly true among patients with established disease. Additional analyses looking into the exact mechanism of action of such interventions are required.

**Disclosure of Interest:** I. Fortin Grant/research support from: grant UCB, H. Sylvain Grant/research support from: Grant UCB, F. Banville Grant/research support from: UCB, B. Lovisi: None declared, S. V. Rochefort Grant/research support from: UCB

**DOI:** 10.1136/annrheumdis-2017-eular.6332

**SAT0746-HPR TOWARDS MEASUREMENT OF PERSON-CENTERED CARE OUTCOMES IN OUTPATIENT NURSE-LED CLINICS**

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**Background:** Person-centered care (PCC) is increasingly emphasized as a key component of effective illness management and of developing high quality of care. Despite considerable progress of PCC in many areas of care there is currently a gap and a need for means to assess PCC practice in outpatient care. In rheumatology, PCC is considered an unmet need and further development and evaluation of this approach to care is thus of high priority.

**Objectives:** To develop an instrument for measuring person-centered care from the perspective of the person with rheumatoid arthritis (RA) in nurse-led outpatient clinics.

**Methods:** A conceptual framework of PCC in the outpatient context and focusing on the meeting between the person with RA and the nurse and on the patient as an active care partner was undertaken. Based on this framework, qualitative interviews (1,2) and a literature review, a 35-item questionnaire was proposed and qualitatively tested regarding acceptability and content validity among 50 persons with RA attending a nurse-led outpatient clinic. Two versions of the questionnaire were tested: one using four response categories (0 = Totally disagree; 3 = Completely agree), and one using two response categories (0 = Disagree; 1 = Agree). Content validity was estimated by calculating Content Validity Index of the individual items (I-CVI) and of the overall instrument (S-CVI).

**Results:** Respondents found the items easy to understand (77%) and relevant (93%). Seventy-three percent of the respondents preferred the questionnaire version with four response categories. This version took a mean (SD) of 5.3 (2.5) minutes to complete. I-CVI values ranged from 0.87 to 1.00 and S-CVI was 0.94. About 80% of the respondents considered some items to be redundant. This resulted in a reduced 24-item draft questionnaire that yield a total score between 0–72.

**Conclusions:** A preliminary 24-item patient-reported PCC questionnaire was developed. Psychometric testing is needed for validation of this tool before implementation.

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**Disclosure of Interest:** None declared

**DOI:** 10.1136/annrheumdis-2017-eular.6530

**SAT0747-HPR CAN ACHIEVING SUSTAINED DAS REMISSION PREVENT PROGRESSION OF SUB-CLINICAL ATHEROSCLEROSIS? A PROSPECTIVE COHORT STUDY IN EARLY RHEUMATOID ARTHRITIS (ERA)**

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**Background:** Patients with rheumatoid arthritis (RA) have higher incidence of cardiovascular disease (CVD) and prevalence of arterial stiffness (AS) due to underlying inflammation. Effective immunosuppression using anti-TNF was shown to improve AS in early RA (ERA) patients. Whether it is a specific effect by blocking the TNF $\alpha$  pathway or suppression of inflammation remains uncertain. While achieving Disease Activity Score in 28joints (DAS) remission was associated with significant benefits in articular disease, its effect on co-morbidities such as CVD risk is uncertain.

**Objectives:** To investigate the effect of achieving sustained DAS remission on AS.

**Methods:** This randomized control trial investigates the effect of 2 tight-control treatment strategies aiming 1. Simplified disease activity score [SDAI]  $\leq$  3.3 or 2. minimal disease activity [DAS < 2.6] on AS in ERA patients. 120 patients with active disease (DAS  $\geq$  3.2), symptoms onset < 2 years and bDMARDs naive were recruited and received 1-year treatment. Treatment are adjusted based on the standardized protocol every 3 month aiming at either 1 of the 2 targets. AS is measured by brachial-ankle pulse wave velocity (baPWV) using a dedicated tonometry system (Omron VP-2000).

**Results:** In the interim analysis, results of 100 patients [male (23.0%); 52.8  $\pm$  13 years] completed 1 year follow-up were analyzed. No significant differences between groups in clinical features, DMARD use and baPWV at month 12

(M12) was observed yet significant improvement in disease activity was found in both groups. Hence, results from the 2 groups were combined to ascertain if achieving sustained DAS remission can prevent AS progression. The disease activity improved significantly [DAS: 4.8 (4.2,5.6) at baseline (BL) vs 2.38 (1.6,3.0) at M12,  $p < 0.001$ ]. 57% patients achieved DAS remission at M12 and 36% patients achieved DAS remission over 3 consecutive visits (sustained remission). No significant differences were found in disease activity, cardiovascular risk factors (CRF) and baPWV at BL between groups who can (CA) or cannot achieve (NA) sustained remission. At M12, no significant differences in CRF and baPWV were found between groups. However, the change in baPWV was significantly different between CA and NA group [-65.5 (-147.25, 44.0) cm/s vs 39 (-65.25, 124.75) cm/s,  $p = 0.005$ ]. The differences remained significant in the %change of baPWV [-4.4 (-9.67–2.84)% vs 2.51 (-4.34–10.28)%,  $p = 0.006$ ]. In univariate analysis, association of change in baPWV and potential predictors included BL baPWV, blood pressure (systolic & diastolic) and sustained DAS remission was found. By multivariate analysis, achieving sustained DAS remission was an independent predictor for baPWV reduction.

**Table 1 – Changes in baPWV over a period of 12 months in patients who can or cannot achieve sustained DAS remission in 3 consecutive visits**

	Sustained DAS remission in 3 consecutive visits		<i>p</i>	<i>p</i> *
	No (n=64)	Yes (n=36)		
<b>Baseline characteristics</b>				
Female (n, %)	47 (73.4%)	30 (83.3%)	0.259	
Age (year)	51.6 ± 12.8	54.9 ± 13.2	0.232	
DAS 28	5.01 ± 1.04	4.81 ± 0.92	0.327	
SDAI	27.4 (20.02, 41.08)	26.55 (18.95, 33.5)	0.343	
Diabetes (n, %)	5 (7.8%)	3 (8.3%)	0.927	
Mean baPWV (cm/s)				
Baseline	1422.5 (1207.5, 1581)	1478.5 (1286.3, 1624)	0.166	
Month 12	1436 (1264, 1636.3)	1394.3 (1244.5, 1567.3)	0.698	
Changes in PWV (cm/s)	39(-65.25, 124.75)	-65.5 (-147.25, 44)	0.005	0.02
Percentage change in PWV, %	2.51 (-4.34, 10.28)	-4.4(-9.67, 2.84)	0.006	0.012

\* Adjusted for baseline blood pressure and baPWV

**Conclusions:** Effective suppression of inflammation by achieving sustained DAS remission may prevent progression of AS in ERA patients.

**Disclosure of Interest:** None declared

DOI: 10.1136/annrheumdis-2017-eular.3367

#### SAT0748-HPR WORKING WITH A MUSCULOSKELETAL DISORDER – A QUALITATIVE STUDY OF WORKERS' EXPERIENCES

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**Background:** Musculoskeletal disorders (MSDs) are the leading cause of temporary and permanent work related disability across Europe, yet many people are able to remain at work.

**Objectives:** To explore perceived facilitators and barriers to staying at work amongst people experiencing MSD.

**Methods:** Semi-structured interviews conducted with 19 individuals who had attended musculoskeletal assessment clinics in three Irish hospitals within the preceding year with a confirmed diagnosis of non-inflammatory musculoskeletal disorder. Participants were only included if they had been in paid employment continuously for at least six of the previous 12 months. The interviews were audio-recorded and transcribed. Data were analysed using thematic analysis.

**Results:** Participants ranged in age from 21 to 50 years, most were female (n=16). Fifteen participants were continuing to work, while experiencing pain and some functional limitations. Job control emerged as a key factor in continued work participation, specifically, being able to organise workload and make modifications to work practices enabled participants to maintain an acceptable level of work performance. The value of work, both personal and financial, motivated people to continue to work. While some co-workers and supervisors were considered to be helpful, interviewees were concerned that they could lose their job if they asked for assistance or took time off work. Fatigue had a considerable impact on life outside of work, with interviewees reporting effects on family life and reduced participation in social activities.

**Conclusions:** While continuing to work was beneficial, negative spillover effects on life outside of work were commonly reported. Workers with MSD may benefit from interventions that focus on coping with pain and fatigue management, as well as those that raise awareness amongst employers.

**Acknowledgements:** This research is funded by the Health Research Board [RCQPS-2014–2].

**Disclosure of Interest:** None declared

DOI: 10.1136/annrheumdis-2017-eular.2909

#### SAT0749-HPR THE RELATIONSHIP BETWEEN SPINAL MOBILITY AND STATIC AND DYNAMIC BALANCE IN PATIENTS WITH ANKYLOSING SPONDYLITIS

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**Background:** Ankylosing spondylitis (AS) is a major chronic rheumatic disease that predominantly affects axial joints, determining a rigid spine from the occiput to the sacrum. The disease can lead to permanent spinal deformity and postural disorder during the later stages. Changes in axial mobility may lead to impaired postural control, with altered postural control being associated with increased fall risk and lower quality of life. The population with AS has been rarely studied regarding postural control, both dynamic and static.

**Objectives:** The aim was to investigate the relationship between spinal mobility and static and dynamic balance of patients with mild to moderate AS.

**Methods:** The study included 137 (74 male and 63 female) patients with a mean age of 51.19±10.72 (20–78) years who were diagnosed with AS according to the modified New York criteria. Patients were divided into two groups as tragus to the wall distance (TWD) <15 cm (Group I = mild AS, n=51) and TWD ≥15 cm (Group II = moderate AS, n=84). The mean duration of disease in Group I was 17.83±11.3 (1–50) years and the mean duration of disease in Group II was 20.78±9.67 (2–43) years. Spinal mobility measurements [TWD, cervical rotation (CR), modified Schober test (MST), lumbar lateral flexion (LLF), intermalleolar distance (IMM), thoracic expansion (TE) tests] were compared with static and dynamic balance tests in the groups. Static balance was assessed with one-foot standing with eyes open and closed. Dynamic balance was assessed with timed up and go test and Berg balance scale.

**Results:** A statistically significant difference was found between spinal mobility measurements and Berg balance scale scores between the groups. Spinal mobility values of Group II were worse than Group I ( $p < 0.05$ ). Berg balance scale scores were better in Group I than Group II ( $p = 0.028$ ). No statistically significant difference was found between the two groups in terms of static balance and timed up and go test ( $p > 0.05$ ). There was a weak and significant correlation between spinal mobility measurements [CR, MST, LLF, IMM, and TE] and static and dynamic balance in the positive direction ( $r = 0.177–0.284$ ,  $p < 0.05$ ). There was no significant correlation between TWD and static and dynamic balance ( $p > 0.05$ ).

**Conclusions:** In patients with AS, as the severity of the disease progresses, spinal mobility and dynamic balance worsen; however, the static balance does not change. These changes in the posture and balance can negatively affect patients' participation levels in daily life and increase their risk of falling. For this reason, we think that detailed evaluation of balance, balance training and fall preventing approaches should be included in the rehabilitation programs for the patients with AS.

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**Disclosure of Interest:** None declared

DOI: 10.1136/annrheumdis-2017-eular.2278

#### SAT0750-HPR "IS THIS REALLY THE WAY WE SHOULD GO?" – PATIENT PERSPECTIVES ON RHEUMATOID ARTHRITIS MANAGEMENT

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**Background:** Current rheumatoid arthritis (RA) treatment guidelines suggest aggressive management in order to minimize disease activity. To achieve this goal, clinicians will need to engage patients in shared decision making. Currently little is known regarding patient's preferences and goals for treatment.

**Objectives:** To understand patient perspectives on their goals with regard to RA disease and flare management and the barriers to, and facilitators of achieving those goals.

**Methods:** Participants were interviewed utilizing open-ended questions focused on understanding their goals of managing their disease (both disease flares and longstanding disease) as well as the barriers and facilitators of achieving those goals. We explored the following: disease impact; disease beliefs and behaviors; medication use; provider relationship and communication; availability of insurance coverage; and community resources. Interviews were recorded and transcribed. Data were categorized using content analysis techniques. Convenience sample of persons living with rheumatologist-diagnosed RA was recruited from rheumatology practices in 4 states to participate in telephone interviews.

**Results:** Twenty-seven participants completed an interview from March-August 2015. Mean age was 63 years; 82% were female and 82% Non-Hispanic White. Participants reported living with RA for an average of 12 years and 44% reported