

**Results:** The mean (SD) age was 59 (8) years, 63% were women. Self-reports of physical function (RMDQ) were 4.5 (4.8), health related quality of life (EQ5D) 0.71 (0.21), kinesiophobia (FABQ-PA and FABQ-Work) 8.3 (5.9) and 14.7 (11.1), and mental health (HAD-A and HAD-B) 8.8 (2.0) and 4.5 (1.7). Comparing the different screening methods, 5 patients (7%) were at high risk as captured by SBST while using the pain mannequin 38 (52%) patients had CWP and 22 (30%) had MS-CWP. No patients in the SBST high risk group had NCP, but 31 (50%) in the SBST low risk group reported CWP, and 16 (26%) reported MS-CWP. In the medium risk group 3 reported CWP, and 3 were also categorized as MS-CWP.

Table 1

Pain distribution groups	StarT Back Screening Tool		
	Low risk	Medium risk	High risk
No chronic pain (NCP)	7	2	0
Chronic regional pain (CRP)	24	1	1
Chronic widespread pain (CWP)	31	3	4
No multisite - CWP	46	3	2
Multisite - CWP (high risk)	16	3	3

**Conclusions:** SBST and the pain mannequin as screening tools partly capture different patients at high risk of developing chronic back pain. Using a combination of the two instruments may improve the ability to facilitate triage to appropriate treatment level.

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[1] Macfarlane GJ et al. EULAR revised recommendations for the management of fibromyalgia. *Ann Rheum Dis.* 2017;76(2):318–328.

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### AB1200-HPR THE RELIABILITY OF ROMANIAN ROLAND MORRIS DISABILITY QUESTIONNAIRE IN PEOPLE WITH LOW BACK PAIN. A PRELIMINARY STUDY

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**Background:** Patient reported assessments are widely recommended by the clinical guidelines and an important part of a comprehensive assessment. Patient-reported questionnaires should be translated into local language accordingly and validated in the translated language (1). The clinicians in Romania suffer from lack of validated questionnaires in Romanian language. The Roland Morris Disability questionnaire is one of the most recommended questionnaires evaluating low back pain. Although, the Romanian translation was performed before, there is no effort regarding to its validation in Romanian language until now.

**Objectives:** To investigate the test-retest reliability Romanian version of the Roland Morris Disability Questionnaire (RMDQ-Ro) in people low back pain.

**Methods:** The permission to conduct such a study was asked to the original author Prof. Martin Roland, before starting to the study. The Romanian translated form of Roland Morris Disability Questionnaire which is provided on the web site "http://www.rmdq.org/" was used in the study. A total of 100 people with low back pain filled the RMDQ as well as Numeric Rating Scales for rest (NRS-R) and activity (NRS-A). Due to the lack of other validated measures such the Oswestry Disability Index in Romanian, these additional assessments (VAS-R and VAS-A) were performed for investigating convergent validity. For test-retest reliability 30 people filled the RMDQ-Ro after 3–14 days later as recommended. Test-retest reliability was assessed with intra-class coefficient correlation (ICC). Non-parametric tests were employed due to the heterogeneity of the data. Therefore, the Spearman correlation test was used for determining the relationship between RMDQ-Ro and VAS-R and VAS-A.

**Results:** The characteristics of the participants were shown at Table 1. The test-retest reliability of RMDQ-Ro was found at an excellent level (ICC: 0.95). Moderate positive correlations were determined between RMDQ-Ro and NRS-R (rho: 0.518,  $p < 0.001$ ), and NRS-A (rho: 0.484,  $p < 0.001$ ).

Table 1. Characteristics of the Participants

	Male (n: 52)	Female (n: 48)	Total (n: 100)
	Median (IQR 25/75)	Median (IQR 25/75)	Median (IQR 25/75)
Age (years)	32 (28.25/46.50)	35 (28.5/45.5)	34.5 (28.5/46)
Height (cm)	179.50 (175/183)	168 (163/170.5)	174 (168/180)
Weight (kg)	81 (72/90)	61 (55.5/61)	71 (61/81.5)
RMDQ-Ro (0–24)	6 (3/8)	4 (3/7)	5 (3/7)
NRS-R (0–10)	3.5 (2/5)	3.5 (2/5)	3.5 (2/5)
NRS-A (0–10)	2 (1/5)	3 (1/6)	2 (1/5)

IQR: Interquartile Range, RMDQ-Ro: Romanian Version of Roland Morris Disability Questionnaire, NRS-R: Numeric Rating Scale in Rest, NRS-A: Numeric Rating Scale in Activity.

**Conclusions:** RMDQ-Ro was found reliable regarding test-retest reliability. This questionnaire can be performed in the repeated measures for evaluating low back pain patients. However, more psychometric characteristics of RMDQ-Ro such as internal consistency and construct validity should be investigated in further studies.

#### References:

[1] Beaton DE, Bombardier C, Guillemin F, Ferraz MB. Guidelines for the process

of cross-cultural adaptation of self-report measures. *Spine (Phila Pa 1976).* 2000;25(24):3186–91.

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### AB1201-HPR THE VALIDITY AND TEST-RETEST RELIABILITY OF THE TURKISH PATIENT SPECIFIC FUNCTIONAL SCALE IN CHRONIC NECK PAIN PATIENTS. A PRELIMINARY REPORT

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**Background:** Current clinical guidelines recommend to use both clinical and self-reported measurements for evaluation of chronic neck pain. Among the self-reported outcomes, Neck Disability Index (NDI) and Patient Specific Functional Scale (PSFS) are the most widely used and recommended instruments.<sup>1</sup> Although, NDI was validated in Turkish language before, no validation study related to the PSFS was detected in the literature.

**Objectives:** The aims of this study were to translate PSFS in Turkish language and to establish the test-retest reliability and validity of the PSFS-T in chronic neck pain patients.

**Methods:** The PSFS was translated into Turkish by using the "translation-backward translation" method as recommended in the guidelines.<sup>2</sup> The demographic information, PSFS-T and NDI were recorded at the first visit of the patients. Thirty patients were called by phone for the retest evaluation of PSFS-T. The construct validity of PSFS-T was determined by investigating the correlation between NDI and PSFS-T scores. The Cronbach's alpha was used for the internal consistency. Intra-class coefficient (ICC) was employed to determine the test-retest reliability.

**Results:** The final form was completed by 42 chronic neck pain patients (18 F) until now. The mean age was 42±14. The internal consistency was found as good (Cronbach's alpha:0.89). A positive moderate correlation was determined between NDI and PSFS-T scores ( $p < 0.05$ ;  $r = 0.405$ ). The ICC for test-retest reliability was determined in high level (ICC: 0.88).

**Conclusions:** The PSFS-T is a reliable and valid instrument for chronic neck pain patients. However, the preliminary results should be confirmed by completing the study.

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[2] Beaton DE, Bombardier C, Guillemin F, Ferraz MB. Guidelines for the process of cross-cultural adaptation of self-report measures. *Spine (Phila Pa 1976).* 2000;25(24):3186–91.

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### AB1202-HPR RELATIONSHIP OF WORK DISABILITY BETWEEN THE DISEASE ACTIVITY, DEPRESSION AND QUALITY OF LIFE IN HOUSEWIFE AND WORKING PATIENTS WITH RHEUMATOID ARTHRITIS

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**Background:** The aim of this study was to determine the work status in patients with rheumatoid arthritis (RA) while also defining the factors related to work disability.

**Objectives:** In this study, our objective was to determine the work productivity, work disability and difficulty in time-off daily activities of the housewife and working patients with rheumatoid arthritis (RA) and to investigate the relation of these parameters with disease activity, anxiety, depression and quality of life.

**Methods:** 82 patients with the diagnosis of RA (26 males, 56 females) and 29 healthy control subjects (5 males, 24 females) were included in the study. In patients with RA, DAS28 was used to evaluate the disease activity; Duruöz hand index was used to determine the functional status. In addition, HAQ (Health assessment quality) and The Short Form (SF-36) Health Survey was used to evaluate the health status, Hospital Anxiety and Depression Scale (HADS) was used for the evaluation of depression and anxiety and Work Productivity and Activity Impairment Questionnaire: Specific Health Problem v2.0 (WPAI:SHP) was used to evaluate the work productivity.

**Results:** Demographic characteristics such as age and gender, were comparable in both patient and control groups ( $p > 0.05$ ). The difficulty in the time off daily activities were worse in the patient group compared with the control group ( $p < 0.05$ ). Anxiety, were significantly higher in housewife RA group ( $p < 0.05$ ). Difficulty in time-off daily activities was correlated with VAS-fatigue and DAS28, HAQ, Duruöz hand index was correlated. ( $p < 0.05$ ).

**Conclusions:** Even if they are not working in housewives, we have found that

as much as the least active RA patients, it is difficult for activities in daily life, that the quality of life associated with the illness is low, and that depression and anxiety are similar to employees. As a result, disease activity, quality of life and functional status control in RA patients are as important as those who are working as housewives. Particularly in increasing productivity and participation in everyday life, the mood is influential and physicians must examine their patients in this regard. There is a need for more extensive cohort studies on this topic.

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#### AB1203-HPR COMPARISON OF QUALITY OF LIFE OF PATIENTS WITH RHEUMATOID ARTHRITIS, PSORIATIC ARTHRITIS AND ANKILOSING SPONDYLITIS WITH TREATMENT OR PRESCRIPTION OF BIOLOGIC DRUGS: RESULTS FROM THE CARA STUDY

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**Background:** Chronic rheumatic conditions such as rheumatoid arthritis (RA), ankylosing spondylitis (AS), and psoriatic arthritis (PsA) are associated with severe morbidity and significant impairment of patients' health related quality of life (HRQoL). Several treatments are available but not all the patients respond positively to them. Biologic therapies such as anti-TNF $\alpha$  agents are shown to benefit who fail or have partial responses to standard DMARD therapy.

**Objectives:** Within a multicenter stated preferences study (CARA Study), we assessed HRQoL in patients with RA, AS and PsA, and estimated relationship of HRQoL with the different diagnoses, clinical characteristics and biological treatment experience.

**Methods:** Patients with RA, AS, or PsA, who at the time of enrollment were following a treatment (experienced) or received a first prescription (naïve) of treatment with biological drugs were enrolled. Together with preferences data, clinical and HRQoL information was reported. HRQoL was assessed with the recently developed and successfully validated version of the EQ-5D-5L, which allows to obtain a description of health (in 5 domains and 5 levels of severity each), a measure (EQ-VAS) and a valuation (utility) of health. Multiple linear regression analyses were conducted to assess the association between EQ-5D VAS score and the utility with age, sex, diagnosis, treatment experience, years from symptoms onset and years from diagnosis.

**Results:** 513 patients were enrolled (mean $\pm$ SD =50.0 $\pm$ 13.6, 42.5% female). As regards the diagnosis, 33.9% had RA, 34.9% PsA and 31.2% AS. The mean $\pm$ SD time from the symptoms onset was 10.8 $\pm$ 9.4 and from the diagnosis was 8.0 $\pm$ 8.2 years. Almost half of the patients (47.4%) were naïve to the biological treatment. Patients reporting severe or extreme problems were: 7.1% in mobility, 3.6% in self-care, 10.3% in usual activities, 18.6% in pain/discomfort, 5.5% in anxiety/depression. The mean $\pm$ SD of the VAS was 60.4 $\pm$ 20.5 and of the utility was 0.773 $\pm$ 0.116. From the regression model the VAS and utility are significantly ( $p < 0.05$ ) associated with age, sex and treatment experience (table 1). In particular, the patients being naïve to the treatment with biological drugs had on average significant worse levels of HRQoL than experienced patients, adjusting for the other variables included in the model.

Table 1. Results of the regression analyses

Variables	EQ-5D VAS		EQ-5D UTILITY	
	Coeff. Regr	p-value	Coeff. regr	p-value
Constant	92.455	0.000	0.954	0.000
Age	-0.205	0.002	-0.001	0.013
Gender (Female)	-7.473	0.000	-0.055	0.000
Psoriatic arthritis	-3.986	0.063	-0.009	0.448
Ankylosing spondylitis	-4.236	0.076	-0.016	0.228
Naïve patients	-13.873	0.000	-0.074	0.000
Time from symptoms onset	-0.105	0.557	0.000	0.858
Time from diagnosis	0.061	0.768	0.000	0.815

**Conclusions:** Patients naïve to biological treatment have significant lower levels of HRQoL, suggesting that their current situation is not satisfactory and need to start with a more effective treatment.

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#### AB1204-HPR EVALUATION OF CARBOHYDRATE METABOLISM IN RHEUMATOLOGIC PATIENTS AFTER PULSE THERAPY WITH GLUCOCORTICIDS

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**Background:** Chronic inflammation – the crucial pathogenic mechanism of rheumatoid arthritis is the main cause of accelerated atherosclerosis, insulin resistance and well-known consequences related to it. The conservative treatment of rheumatoid arthritis may provide a significant influence on glucose metabolism. When the duration of rheumatic diseases of administration and dosage of glucocorticoids (GC) are significant predictors of the development of impaired glucose tolerance and diabetes mellitus.

**Objectives:** To study the effect of pulse-therapy (PT) of the GC on the violation of carbohydrate metabolism in patients with rheumatic diseases

**Methods:** The study included 35 patients (7 men, 18 women) with a variety of rheumatic diseases (systemic lupus erythematosus - 23, systemic vasculitis - 12) between the ages of 18 to 68 years (mean age 42.3 $\pm$ 14.43 years) and duration of disease from 6 months to 12 years (mean 3.55 $\pm$ 3.36 years). Pulse-therapy of GK included intravenous prednisolone 600–1000 mg per day for 3 consecutive days (course dose of 1800–3000 mg). Oral glucose tolerance test (OGTT) was performed after the course. The first group included patients with a normal result of OGTT (glucose concentration of <7.8 mmol/L at 2 hours after taking 75 g of glucose). There were 23 patients in the first group at the age of 18 to 54 years (mean age 38.0 $\pm$ 2.8 years). Patients of the second group level had OGTT was >7.8 mmol/L. This group included 12 people aged from 44 to 61 years (mean age 52.6 $\pm$ 8.4 years). All patients underwent the measurement of blood glucose levels prior to PT, 2, 4, 6, 10, 24, 48 and 72 hours and after the PT

**Results:** All patients included in the study, after the PT session there was an increase in blood glucose levels with a peak at 4 hours after the start of administration - 12.2 $\pm$ 0.82 in the first group, in the second to 21.95 $\pm$ 0.25 mmol/l ( $p < 0.05$ ). Normalization of glucose levels in the first group of patients occurred within 1.75 $\pm$ 0.18 days (1 to 3), whereas in the second - for 5.0 $\pm$ 1.0 (3 to 5;  $p < 0.05$ ). During the OGTT the mean fasting blood glucose levels in patients with the first group was 4.49 $\pm$ 0.12 mmol/l, and the second - 5.85 $\pm$ 0.35 ( $p < 0.05$ ), after 2 hours - 6.0 $\pm$ 0.21 and 10.0 $\pm$ 1.5 mmol/l, respectively ( $p < 0.05$ ).

**Conclusions:** Application PT of GC in rheumatic patients causes blood glucose levels to change values, indicating the development of impaired glucose tolerance. Predictors of disorders of carbohydrate metabolism in these patients are high levels of glycemia during the PT more continuous glucose normalization indices after the course PT GC.

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#### AB1205-HPR THE EFFECTS OF KINESIOTAPING ON JOINT POSITION SENSE AND POSTURAL STABILITY FOLLOWING FATIGUE PROTOCOL

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**Background:** Muscle fatigue is common in sports activities and has been shown to adversely alter proprioception, impair neuromuscular control, and increase the risk of injury. Kinesiotaping has recently gained popularity among sports professionals for its assumed injury prevention and performance enhancement (1). Two studies have reported conflicting findings with respect to the effects of KT on proprioception. Halseth et al reported that KT produced no significant change in the absolute error in ankle joint position sense (2). However, Chang et al reported that KT decreased the force sense error in grip strength measurements among 21 healthy college athletes (3). Thus, the current literature does not provide clear information about the effects of KT on proprioception. Although there are published articles about investigating KT on joint position sense and postural stability, the effects of KT is still unknown after muscle fatigue, to our knowledge.

**Objectives:** There is a lack of literature examining the KT on joint position sense and postural stability following fatigue protocol. Therefore, the aim of this study was to investigate the effects of KT on knee joint position sense and postural stability after muscle fatigue. It was hypothesized that KT applied on quadriceps femoris muscle would partially compensate for the proprioceptive and balance-related deficits caused by muscle fatigue.

**Methods:** Thirty – six healthy subjects were evaluated in the study. Knee joint position sense was assessed by Biodex System Pro 4 during active repositioning tests at the target angles of 30°, 50° and 70° of knee flexion in sagittal plane. Postural stability was assessed by Pedalo Sensamove® System in antero –