life including daily routine, footwear choice, family life, work and accessing health care (44%). Percentage coverage of items directly reflects the dominant concerns of people with PsA-related foot problems and clinicians. Whilst priorities for clinicians included the diverse expression of disease and determining the nature of foot symptoms as mechanical or inflammatory, a key theme from patients was the psychological impact of foot involvement on daily life coupled with self-management strategies (coping skills, self-care activities and availability of social support), which was poorly recognised by clinicians. Consequently, nearly a quarter of survey content was dedicated to these areas of impact highlight by patients (23%). Engaging patients and clinicians in the survey development methods ensured that face and content validity were confirmed and cognitive and usability standards were achieved.

**Conclusion:** By incorporating the views of those with the disease and of clinicians into the survey development process, good conceptual coverage of items important to both patients and clinicians was achieved whilst minimising responder burden. This is the first study to develop a survey on foot involvement in PsA based on best practice methods in qualitative survey design, which may have utility in the future development of assessment or screening tools.

**REFERENCES**

**Disclosure of Interests:** None declared

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**SAT0708-HPR**

**DEVELOPING AN ALLIED HEALTH CORE OUTCOME SET FOR PAEDIATRIC RHEUMATOLOGY MUSCULOSKELETAL CONDITIONS**

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**Background:** Musculoskeletal (MSK) conditions are prevalent within the general population, including children and young people (CP) with MSK pain. There is evidence that MSK pain in CP is an antecedent of adult MSK pain. Paediatric Rheumatology Allied Health Professionals (PRAHPs) are well placed to manage these CP, but there is no current standardisation in treatment, services or outcomes.

**Objectives:** To develop a core outcome measure set for clinical use by PRAHPs to facilitate national collaboration and standardisation of care.

**Methods:** A modified Nominal Group technique study was undertaken by an expert panel of PRAHP’s working in 8 Tertiary Paediatric and Adolescent UK centres. Literature search and presentation of findings informed expert panel discussion with particular reference to the following criteria: paediatric population specific, ease of clinical use, cost, general availability to clinicians, reliability, validity, length to administer/perform and previous research use. Expert panel discussion and ranking identified eight domains. A survey was sent to the 12 members of the expert panel asking participants to choose two measures or none, based on criteria above. Consensus was pre-determined as agreement between experts of 60% or more.

**Results:** Survey response rate was 83% with consensus achieved for 6 outcome measures see table. Consensus could not be reached for hand function, sleep and goal-setting in part due to the large number of measures and variation in use, lack of paediatric specific measures, length of time taken to administer or costs involved. Psychological measures were not included within the scope of this work, but would be a valuable future addition.

**Conclusion:** This study informs a pilot outcome measure set for PRAHPs in clinical settings when time, space, money and ease of use are paramount.

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**Outcome domain selected by expert panel Measure with consensus**

| Fatigue | Fatigue VAS |
| School attendance | PedsQL pain and fatigue scale |

**SAT0709-HPR**

**SPINAL MOBILITY IN SPONDYLOARTHRITIS PATIENTS: DO THE BASMI-MEASUREMENTS CORRELATE WITH THE DAVID BACK DEVICES-MEASUREMENTS?**

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**Background:** The BASMI is a common used and well established index to measure spinal mobility in spondyloarthritis (SpA)-patients, both in the clinic as well as for research. The David Back Devices (DBD) on the other hand, are used to measure and exercise lumbar and cervical mobility and strength in spine patients. The DBD might have the potential advance of not being operator dependent in contrast to the BASMI-measurements.

**Hence,** the question rose if the BASMI measurements that correspond with cervical rotation and lumbar lateral flexion movements on the DBD are correlated with one another.

**Objectives:** The aim of this study was to measure the spinal mobility in SpA-patients both by using BASMI measurements and by using the DBD and determine their relationship.

**Methods:** SpA-patients of the outpatient rheumatology department of the Ghent University Hospital (included in the Be-Giant cohort) were consecutively asked to participate in the study. After informed consent, BASDAI, BASFI and BASMI were evaluated. To measure mobility on the DBD both trunk and cervical range of motion for flexion, extension, lateral flexion and rotation were assessed. Spearman correlation coefficients were calculated for cervical rotation and lumbar lateral flexion.

**Results:** Thirty-one SpA-patients participated of which 18 were male (58%). Twenty-four (77%) were classified as axial SpA and 7 (23%) as peripheral SpA. Median time since diagnosis was 5 years. Mean age of the patients was 41 years (range: 21 – 58 years) and their BMI was on average 24 (range: 17-33). Averages for BASDAI, BASFI and BASMI were 2.6, 1.7 and 0.9 respectively.

There was a significant positive correlation between the cervical rotation movement measurement obtained by BASMI and DBD ($r=0.84$ for right and $r=0.80$ for left) as well as between the lateral flexion movement obtained by BASMI and DBD ($r=0.72$ for right and $r=0.65$ for left). Due to the sitting position during testing the lumbar flexion by DBD, the range of motion was limited when the chest touched the thighs. Therefore, correlation could not accurately be determined between the modified Schoberindex and DBD lumbar flexion.

**Conclusion:** This study demonstrated that in SpA-patients, the BASMI measurements for cervical rotation and lumbar lateral flexion show high correlations when compared with the similar measurements on the DBD. The correlations for cervical rotation were better than those for lumbar lateral flexion.

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**SAT0710-HPR** RADIOFREQUENCY ECHOGRAPHIC MULTI SPECTROMETRY OSTEOPOROSIS DIAGNOSIS ON FEMORAL NECK: A SPANISH CLINICAL EXPERIENCE

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**Background:** Radiofrequency Echographic Multi Spectrometry (REMS) is an innovative echographic technology able to provide the most important densitometric parameters by a fully automatic approach. Its high accuracy with respect to the conventional Dual X-ray absorptiometry (DXA) has been shown in a very recently published multicenter clinical trial [1].

**Objectives:** To evaluate the performance of the REMS technology in osteoporosis diagnosis, with respect to DXA(Clinical Gold Standard), when applied on femoral neck.

**Methods:** DXA and REMS acquisitions were performed on the femoral neck in 324 female patients, aged between 51 and 70 years, recruited at the Department of Internal Medicine of the Hospital del Mar (Barcelona, Spain). REMS technology is based on a automatic integrated processing of the native unfiltered “raw” (RF) signals, which can be employed to assess the bone health status through comparisons with reference spectral models previously derived from osteoporotic and healthy patients. The data shown have been obtained in the strictest adherence to manufacturer’s procedures and indications. REMS accuracy was assessed by investigating its discriminating ability between osteoporotic and non-osteoporotic patients and by evaluating the correlation between REMS and DXA measurements.

**Results:** The REMS approach is effectively able to discriminate between osteoporotic and non-osteoporotic patients with a sensitivity equal to 93% and a specificity equal to 95%. These data are further emphasized by the obtained Pearson Correlation value ($r = 0.90; p<0.001$). REMS accuracy was confirmed also by Cohen’s kappa coefficient ($k$ equal to 0.76). Finally, a very low average difference (expressed as bias ± 2 SD) between REMS and DXA measured BMD (<0.006 ± 0.078 g/cm²) was shown.

**Conclusion:** In conclusion, REMS technology has proven to be an accurate non-ionizing approach to detect osteoporosis disease at the femoral neck. The performance of this radiation-free technique opens new perspectives for early diagnosis and screening of osteoporosis in clinical and epidemiological studies.

**REFERENCE**


**Disclosure of Interests:** Diana Ovejero Crespo: None declared, Xavier Noguès Speakers bureau: Lilly, Agmen and Eli Lily, Adolfo Díez-Pérez

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**SAT0712-HPR** VALIDATION OF THE TEST FOR SUBSTITUTION PATTERNS – IN INDIVIDUALS WITH SYMPTOMATIC KNEE OSTEOARTHRITIS

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**Background:** Few tools evaluates quality of movements in individuals with knee osteoarthritis (OA). The Test for Substitution Patterns (TSP) is developed to measure the ability to perform five functional movements regarding postural control and altered movement patterns (1). TSP is validated and reliable in individuals with anterior cruciate ligament injury, but has not yet been evaluated in individuals with knee OA.

**Objectives:** To study the relationships between the OA modified TSP (OA-TSP) and self-reported knee function as measured with the Knee Injury and Osteoarthritis Outcome Score (KOOS) and the 30-s chair stand test (30-s CST) in individuals with symptomatic knee OA. A second aim was to study the discriminative ability of the OA-TSP for unilateral knee pain.

**Methods:** Sixty-two individuals with symptomatic knee osteoarthritis were included using consecutive sampling. Health status was assessed with the EuroQol five dimension scale (EQ5D, 0-1 worst-best), and knee function in five subscales for KOOS (pain, symptoms, ADL, quality of life and sport/recreation, 0-100 worst-best). The 30-s CST-test measured the number of rises in 30 seconds. In the OA-TSP, substitution patterns are observed and scored from 0-3 (no substitution pattern-poorly performed) during five standardized functional movements. The maximum score is 54 points and each score of 10 points. Median and interquartile were used for all descriptive data. Spearman’s correlation and Wilcoxon signed rank test were used for analyzes. A correlation coefficient $r_S ≥ 0.50$ is considered large, $0.30 < r_S < 0.50$ moderate and $0.10 < r_S < 0.30$ small.

**Results:** The median age was 54 years (30-61), 76% were women. The median Body Mass Index was 25 (18.48) and EQ5D 0.8 (0.29-1.00). There were no significant differences between the gender regarding BMI and EQ5D. Median OA-TSP total score was 29 (10-70). Median KOOS pain was 75 (36-100), symptoms 71 (21-96), ADL 87 (30-100), and EQ5D (0.72, 0.53, 0.38, p<0.001), HADd (2.9, 4.0, 8.4, p<0.001), FABQ PA (9.1, 12.7, 14.4, p<0.005), FABQ work (9.9, 16.7, 23.1 p<0.001), EQSD (0.72, 0.53, 0.38, p<0.001).

**Conclusion:** Adding information on multisite widespread pain to the SBST resulted in classifying more patients in the high risk group as compared to the original SBST. The three groups identified by combining the screening tools differed significantly on all investigated health variables, indicating the combination may be capturing more patients at risk for CLBP.

**Disclosure of Interests:** None declared

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