and contribute to raising awareness of SS and to participate in patient and public involvement and engagement (PPIE) events.
The majority of patients interviewed were willing to take part in research by donating blood samples and/or filling in questionnaires (96%).
58% of patients who completed the survey would either definitely or probably take part in discussion groups helping researchers to design future studies in SS.
**Conclusion:** This survey highlighted patients' perception of the need for more meaningful research into the causes of SS, as their priorities were centred around finding a cure or better treatments for Sjögren's Syndrome. The survey also identified patients' lack of knowledge about their condition as well as their desire to help with shaping future research ideas and support funding for research. The results of this survey will be incorporated in our future PPIE events aiming at shaping our research strategy in SS.
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## THU0724-HPR RELIABILITY AND VALIDITY OF AN ACTIVITY LIMITATION MEASURE IN PERSONS WITH INCLUSION BODY MYOSITIS (IBM)

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**Background:** Persons with Inclusion Body Myositis (IBM) are affected in their activities of daily living (1,2).
**Objectives:** The aim of this study was to test validity and reliability of the questionnaire Disability in the Arm Shoulder and Hand (DASH) for patients with IBM. A second aim was to describe activity limitation measured by the Canadian occupational Performance measure (COPM).
**Methods:** Persons diagnosed with IBM were identified through the Swedish Myositis Network (SweMyoNet) quality registry in Stockholm Sweden. A total of 36 persons with IBM were included in the registry and were invited to participate. A total of 17 men and 9 women agreed to participate. Median (Q1-Q3) age was 74 (70-79) years and the median (Q1-Q3) disease duration was 7 (3-8) years.
Activity limitation were assessed by the questionnaire Disability of the Arm, Shoulder and Hand (DASH) and the The Canadian occupational performance measure (COPM) which investigate patient derived areas of daily activities.
The data collection was performed at the Karolinska university hospital in Stockholm Sweden. At baseline both DASH and COPM were performed. The participants received a second DASH questionnaire to be answered within two weeks (Follow-up) and send back to the researcher.
**Results:** There were good correlations between baseline measure and follow-up on DASH (rs 0.997; p=0.01) Indicating that the DASH is consistent over a short period of time.
The results from COPM showed a variety of activities persons with IBM experienced problem with. Area with most activity limitations were basic self-care area such as dressing and grooming, fall, feeding, managing communication.
Instrumental activities such as managing instruments, shopping and meal preparation. Leisure activities such as playing an instrument, run, paint and social activities such as visit friends, social engagements.
Some of these activities were found in the DASH but not all. E.g. missing socializing with friends and family, problems swallowing or were environment dependent.
**Conclusion:** The results indicate that DASH have a good test re-test reliability DASH includes some of the activities that persons with IBM experience difficulties with but not all. The participants experienced difficulties in all areas of life.

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## THU0725-HPR SCREENING OF SILENT MYOCARDIAL ISCHEMIA USING A STRESS TEST IN RHEUMATOID ARTHRITIS PATIENTS: ASSOCIATION WITH TRADITIONAL RISK FACTORS AND DISEASE ACTIVITY

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**Background:** The rheumatoid arthritis is responsible of an increased risk of cardiovascular (CV) morbidity and mortality.
**Objectives:** The aim of the study is to determine, in established RA patients, the presence of silent myocardial ischemia using a stress test and its association with the disease activity and the CV risk factors and scores.
**Methods:** It is a transversal and prospective study in a rheumatologic center in Charles Nicolle hospital in Tunisia. 103 RA patients, asymptomatic for CV disease were submitted to a stress test. Demographic data, cardiovascular risk factors and the disease characteristics were assessed for all patients and risk factors of silent myocardial ischemia in RA patients were identified.
The comparison of qualitative variables was performed with the Chi square test and the comparison of qualitative variable and quantitative ones was performed with the Student's test. The significance level was set at 0.05.
**Results:** There were 103 patients (sex-ratio=0.3) with a mean age of 53 ±10 years. The evaluation of the disease activity showed that the mean DAS28 CRP, CDAI and SDAI were 3.9±1.38, 17.17±11.4 and 33.39±26, respectively. A screening for CV risk factors revealed: 13% of patients had a cardiovascular inheritance, 25% of patients were either smokers or hypertensives, 18% had diabetes, 70% were obese or overweighted and 14 patients had dyslipidemia. The ischemic ratio (CT/HDL) revealed that 42% of patients had a moderate to high myocardial ischemic risk. Heart-SCORE was high in 35% of cases. A silent myocardial ischemia in the stress test was found in 11 patients (10.6%) and was associated with male sex (p=0.03), advanced age (p=0.04), erosive character (p=0.05), the advanced age of the rheumatoid arthritis diagnosis (p=0.01) and the ischemic ratio (p=0.06). No relationship was found with the majority of traditional CV factors nor with disease activity variables.
**Conclusion:** Our results corroborated the hypothesis that the stress test could reveal subclinical CV dysfunction, supported the utility of the Heart-score as a screening tool, and put in perspective the potential usefulness of complementary approaches in CV risk assessment in RA patients.
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## THU0726-HPR THE COMPARISON OF ARTERIAL STIFFNESS, FUNCTIONAL EXERCISE CAPACITY AND PHYSICAL ACTIVITY IN SYSTEMIC SCLEROSIS AND HEALTHY INDIVIDUALS

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**Background:** Systemic sclerosis (SSc) is characterized by abnormal production of fibrotic tissue in the skin and internal organs. SSc has a effect on large and conduit arteries damage as well as microvascular damage (1). It is known that sedentary lifestyle may contribute to vascular dysfunction (2). Therefore, it is important to evaluate arterial stiffness, exercise capacity and physical activity in people with SSc.
**Objectives:** The aim of this study is to compare arterial stiffness, functional exercise capacity and physical activity in SSc and healthy individuals.
**Methods:** Fifteen SSc (53 years) and 15 healthy (48 years) women were included in this study. Arterial stiffness was evaluated with pulse wave velocity that was obtained by measuring the carotid-to-radial pulse wave transit time. Functional exercise capacity was assessed by 6-minute walk test (6MWT). Physical activity was questioned International Physical Activity Questionnaire (IPAQ)-short form. The differences between the groups were analyzed with Mann-Whitney U test.
**Results:** Age, weight, height and body mass index were similar in the groups (p>0.05). There was significant difference in pulse wave velocity and pulse wave transit time between the two groups (p<0.05). The

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6MWT distance and IPAQ score of the group with SSc were significantly lower than the healthy group (p<0.05).
**Conclusion:** This study demonstrates that women with SSc have increased arterial stiffness, decreased functional exercise capacity and physical activity. Exercise training is an important part of the comprehensive care of people with SSc. People with SSc should be included in an exercise training program to reduce arterial stiffness, increase exercise capacity and physical activity.

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## THU0726B-HPR THE FACTORS AFFECTING HANDWRITING SPEED IN PATIENTS WHO HAVE AN AFFECTED WRIST JOINT WITH OLIGOARTICULAR JUVENILE IDIOPATHIC ARTHRITIS

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**Background:** Juvenile idiopathic arthritis (JIA) encompasses a complex group of disorders with arthritis. Patients with JIA may experience significantly decreased life skills owing to muscular weakness, joint pain, contracture, and reduced mobility (1). Poor handwriting speed is an example of an affected life skill that has been observed by educators and clinicians for patients with chronic disease (2).
**Objectives:** The aim of this study was to investigate the factors affecting handwriting speed in patients who have an affected wrist joint with oligoarticular JIA.
**Methods:** 42 patients (aged 6–18 years) who have an affected wrist joint with oligoarticular JIA were included in this study. Muscular strength was estimated at maximal isometric force for the muscles of the upper extremities by using a portable handheld dynamometer. Grip and pinch strengths were evaluated by a dynamometer. Handwriting speed was evaluated with a sentence writing duration of 24 letters. All tests were performed thrice and the mean values of all were recorded. The correlation between all parameters was analyzed by the Pearson Correlation Test. Also, relations between the factors affecting handwriting speed in JIA were assessed by multiple linear regression analysis.
**Results:** The mean age was 12.71±3.35 and the mean disease duration was 6.52±3.81 years. The mean of handwriting speed was 20.53±10.39 seconds. Significant relationships were found between handwriting speed and muscular strengths of shoulder and elbow (p<0.05). Also, significant relationships were found between handwriting speed and lateral (r=-0.352, p=0.022), tip (r=-0.309, p=0.047) and triple (r=-0.375, p=0.015) pinch strengths. According to linear regression analysis, handwriting speed was affected by only muscle strength of elbow pronation (β=-0.515, p=0.037).
**Conclusion:** Handwriting is a complex functional activity simultaneously involving motor skills, cognitive and visual perceptual processing in all chronic disease. In the current study, it was found that handwriting speed was related with shoulder and elbow muscle strengths and pinch strengths in patients with JIA. Although patients with JIA had only affected wrist joint, only muscle strength of elbow pronation was the only primary predictor of handwriting speed. We suggested that handwriting speed should be considered in patients with juvenile idiopathic arthritis. So, accurate assessment of handwriting speed is essential for developing appropriate intervention programs and evaluating performance and outcomes in patients with JIA Besides, not only affected joint, but also all upper extremity joints should be assessed multidimensionally.
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## THU0727-HPR FOLLOW-UP CARE AND SELF-MANAGEMENT ACTIVITIES AFTER SPECIALIZED REHABILITATION FOR PATIENTS WITH RHEUMATIC AND MUSCULOSKELETAL DISEASES

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**Background:** Patients with rheumatic and musculoskeletal diseases (RMDs) benefit from rehabilitation in specialized care, but the effect seems to decline over time. Implementation of healthy self-management strategies and support over an extended period may prolong the effect. Rehabilitation trajectories with planned follow-up interventions and support in primary health care are therefore recommended. Still, evidence is not clear concerning what constitutes an optimal design of supportive follow-up interventions, and to which degree such follow-up care are planned and delivered.
**Objectives:** To describe current follow-up care practice and self-management after specialized rehabilitation for patients with RMDs.
**Methods:** This is a multicentre cohort study, including 523 participants with RMDs who received rehabilitation in specialized care in Norway. Participants completed a core set of outcome measures for rehabilitation in musculoskeletal diseases covering nine aspects of health and function in a web based data collection system [1]. At rehabilitation discharge, they additionally reported needed and planned follow-up care (FU-care) from listed professions and services in primary health care and plans for self-management activities (SMA). Received FU-care and adherence to SMA were reported at 4, 8 and 12 months follow-up. A multiple logistic regression analysis was performed to explore predictors for acceptable adherence to SMA.
**Results:** A total of 436 participants completed all assessments at discharge, of which 429 (98%) reported a need for FU-care. A need for FU-care by primary physician was most frequently registered, followed by physiotherapist and the Norwegian Labour and Welfare Service. However, only 239 (56%) reported that FU-care was planned at discharge. Of those reporting a need for FU-care, 201 (47%) participants reported receiving such care during the follow-up year, and these participants more often had a specific follow-up plan at discharge compared to those who did not receive the FU-care they reported needing (p=0.06).
Hundred and sixty-four (38%) participants were adhering to their SMA throughout the follow-up year. Higher age (OR=1.04, [CI 95% 1.02, 1.06], p<0.001), lower degree of depression and anxiety (OR=0.73, [CI 95% 0.58, 0.94], p=0.01), and performing physical activity on a regular basis (OR=3.35, [CI 95% 2.08, 5.39], p<0.001) at baseline were predictors for acceptable adherence. Participants with acceptable adherence reported more often a need for FU-care (p<0.001), and had more frequently received the FU-care they needed (p<0.001) than those without acceptable adherence.
**Conclusion:** Participants with plans were more likely to receive the FU-care they reported needing, indicating that discussing and planning follow-up should be an integral part of rehabilitation in specialized health care.
The results further indicate that having structure and routines in one's daily life enhance adherence to SMA, and that patients with anxiety and depression and a sedentary life style may need more support over a longer period to be able to implement behavioural changes for healthy self-management.

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**Acknowledgement:** The authors want to inform that members in the Rehabilitation Trajectories Research group are co-authors of this abstract. Their names are listed in the following link: http://diakonhjemmetsykehus.no/#!/diakon/forside/Helsepersonell/nasjonal-kompetansetjeneste-for-revmatologisk-rehabilitering-nkrr/nkrr/pagaende-prosjekter-nkrr/_5479|5495

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THU0728-HPR **"I AM GOOD ENOUGH AS I AM EVEN IF I AM NOT PERFECT" –A QUALITATIVE STUDY OF FIBROMYALGIA PATIENTS' EXPERIENCES FROM PARTICIPATION IN A MINDFULNESS-BASED GROUP-PROGRAMME**

Heidi A. Zangi[1], Gyda Singstad[2]Ingrid Ruud Knutsen[2], Improved management of patients with fibromyalgia: Evaluation of an integrated care model. *[1]Diakonhjemmet Hospital, National Advisory Unit on Rehabilitation in Rheumatology, Oslo, Norway*; *[2]Oslo Metropolitan University, Oslo, Norway*

**Background:** People with fibromyalgia (FM) suffer from widespread pain, non-refreshing sleep, fatigue and reduced mental wellbeing. No curative pharmacological treatment exists. Vitality Training (VTP) is a mindfulness- and acceptance-based group-programme that aims at enhancing participants' health promoting resources, strengthening their inner authority and ability to act according to own values. It combines mindfulness with creative methods and group counselling. Two RCTs have shown significant improvements in mental wellbeing, pain coping and fatigue in patients with chronic musculoskeletal pain and inflammatory arthritis. The VTP is currently being evaluated in an ongoing study for patients with newly diagnosed FM [1].
**Objectives:** The aim of this qualitative study was to explore FM patients' experiences from participating in the VTP, and if they perceived that it had any impact on their health and functioning.
**Methods:** Six qualitative in-depth interviews with participants from three VTP-courses were conducted following a semi-structured interview guide. Interviews were audio-recorded and transcribed. All three authors analysed the data by use of systematic text condensation.
**Results:** Three main themes were identified.

1. Understanding oneself in light of the group: Mutual understanding and acknowledgement had altered participants' self-understanding – from a feeling that "something was wrong with me" towards perceiving themselves as "a normal person with similar challenges as others".
2. Learning to accept oneself: Participants had obtained a greater understanding and acceptance for their emotions and reactions and had become kinder towards themselves. "I have realised how strict I have been towards myself… I am indeed good enough as I am even if I am not perfect".
3. Coping with everyday challenges: Becoming aware of what had provoked stress and learn how to face it had helped participants take more control. "I can do small changesthat really makes it better… the illness does not decide everything. Indeed I can decide something myself".

**Conclusion:** Participation in the VTP had contributed to new ways of relating to oneself and the illness. The support and acknowledgement participants experienced from the group had helped them alter their self-understanding from only being ill towards also being healthy and normal. They had learnt ways to better cope with stress and everyday challenges. Although this was a small study, the findings correspond with findings in previous studies.

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# HPR Professional education, training and competencies

THU0729-HPR **BENEFITS OF EMPOWERING THE PATIENTS TO SELF-ADMINISTER SUBCUTANEOUS LOW DOSE METHOTREXATE (LD-MTX) INJECTIONS IN PATIENTS WITH SYSTEMIC IMMUNO-INFLAMMATORY RHEUMATIC DISEASES (SIRDS): A STUDY BY RHEUMATOLOGY NURSES COUNSELLOR**

Sadhana Baghel, Ravita Thakran, Christy Messi, Vlinay Yadav, Vivekanand Kashyap, Qamar Zaheer. *Indian Spinal Injuries Centre, Rheumatology, New Delhi, India*

**Background:** In recent years, early aggressive targeted treatment for SIRDs is recommended. LD-MTX is the "anchor drug" for these diseases. The administration of LD-MTX using subcutaneous route increases its therapeutic efficacy that ensures the maximum bioavailability and reduces gastrointestinal adverse effects. Therefore, it is preferred over the oral route. Increased use of subcutaneous self injection of medication has benefits for the patients and healthcare system. Increased use of subcutaneous self injection could alleviate pressure on medical services by reducing hospital/clinic visits. Therefore, explaining the benefits of self administration of subcutaneous injection such as early disease control, increased drug adherence, positive attitudes towards life, decreased financial burden of administration cost, decreased dependency to the others, should be an imperative part of patient's education.
**Objectives:** Benefits of self-administered subcutaneous LD-MTX injection in patients with SIRDs.
**Methods:** This retrospective study included patients who were prescribed injectable LD-MTX for their treatment. Besides the demographic information (age, gender) and disease characteristics (diagnosis, duration, prior treatment), the patients were interviewed and counselled regarding the virtues to take subcutaneous LD-MTX self-injection. The technique for self-injection of LD-MTX subcutaneously was explained and demonstrated to the patients. All the information including the follow-up details, were recorded in a pre-designed form.
**Results:** Three hundred (n=300) consecutive patients who were advised weekly LD-MTX injections and taught the self-injection technique were enrolled in this study. On follow-up visit it was found that among them, 177 patients (59%) learned and started to administer their own subcutaneous injection of LD-MTX and they adhered to the injection schedule, in 50 (16.7%) patients the injections was being given by the attendant (who had learnt the injection technique because the patients had deformities), while the other 73 (24.3%) were not very compliant to injections due to psychological barriers towards self-injection, worried about pain and incorrect technique, adverse effects of the incorrect injections social stigma related to self-injections, and frustration or lack of acceptance of the illness.
**Conclusion:** By empowering the patients to self-administer LD-MTX injections subcutaneously, a majority (59%) of them successfully continued to take the medicine appropriately. Thus this study shows the important role the nurses' play in educating patients and helping them to overcome psychological barriers to self injection. Empowering the patients to take self-administer injections would result in better long term treatment adherence, improving treatment flexibility and overall quality of life.

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