

**Results:** Between September and October 2019, 434 participants completed the survey. Preliminary results show that most participants (78%) contacted one or more health care professional(s) for their knee OA complaints in the last year; most often an exercise and/or physical therapist (53.2%), the general practitioner (43.8%) and/or an orthopedist/orthopedic surgeon (41.5%). Furthermore, there were large variations in self-reported quality indicator achievements (checked "Yes") with the lowest rate for referral for weight reduction and, the highest rate for advice on managing/living with osteoarthritis (table 1). On average, a score of 6.5 was given by the participants for the quality of knee OA healthcare in the Netherlands. Participants' suggestions for OA care improvement comprised of, among others, more attention to pain and fatigue symptoms, expanding and researching treatment options, more information on OA, more attention to the personal situation and, improvement of multidisciplinary care.

**Table 1. Self-reported Quality Indicator achievement**

Self-reported Indicators	Eligible n*	Checked "Yes" n(%)
Received information about OA	417	310 (74.3)
Received Information about treatment	424	252 (59.4)
Advised on managing/living with OA	421	313 (74.4)
Was offered support on managing/living with OA	421	253 (60.1)
Received information about exercise	426	306 (71.8)
Was offered a referral for (muscle-strengthening) exercises and exercise activities	423	211 (49.9)
Advised to lose weight	303	111 (36.6)
Was offered a referral to services for losing weight	247	37 (15.0)
Assessment of problems in daily activities	301	89 (29.6)
Assessed for walking aid	273	65 (23.8)
Assessed for daily living appliances/aids	284	52 (18.3)
Assessment of pain	426	240 (56.3)
Advised paracetamol	424	312 (73.6)
Offered stronger painkillers	421	132 (31.4)
Offered anti-inflammatory medicine	422	229 (54.3)
Offered joint injection	429	239 (55.7)
Conversation about knee replacement surgery	362	223 (61.6)
Discussed follow-up appointment to monitor OA and evaluate treatment	427	144 (33.7)

\* Excluding "not applicable" and "do not remember"

**Conclusion:** There is room for improvement from the patients' perspective to increase the quality of knee OA care in the Netherlands.

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#### FRI0646-HPR MAPPING THE PATIENT JOURNEY OF NON-RADIOGRAPHIC AXIAL SPONDYLOARTHRITIS: PERSPECTIVE OF PROFESSIONALS AND PATIENTS

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**Background:** Non-radiographic axial spondyloarthritis (nr-ax-SpA) is a relatively new disease classification that has generated controversy among payers.

**Objectives:** To explore the perspective of patients and health care professionals (HCPs) on the journey from first symptoms to a diagnosis of non-radiographic axial spondyloarthritis (nr-ax-SpA), in order to identify gaps and unmet needs.

**Methods:** Qualitative study in two phases: (1) focus groups with HCPs and personal interviews with patients; (2) nominal group in which results were discussed with all stakeholders and possible solutions were proposed. Content analysis, patient journey mapping, and ideas generation techniques were used.

**Results:** Five focus groups were organised with rheumatologists, GP, orthopaedic surgeons, physiotherapists, and radiologists, and six patient interviews were held. HCPs recognised poor communication among specialists and contradictory or redundant approaches. Non-rheumatologists recognise poor training on spondyloarthritis, difficulty in identifying red-flags, and biases in differential diagnosis. Rheumatologists recognise that SpA nomenclature can be confusing, nevertheless nr-ax-SpA term is defining an early stage of ankylosing spondylitis, and it could lead to over-diagnosis.

Most of the patients agreed in the narrative of a very long journey with a multitude of diagnoses, mostly wrong, ineffective treatments and much frustration; acknowledging the need for psychological support during the process and the importance of receiving a diagnosis in order to cope with the disease.

The participants in the nominal group meeting recognised and discussed the problems derived from the diagnostic delay and care gaps that clearly affect people with nr-ax-SpA (Table 1).

**Table 1. Problems recognised by the different actors involved in the journey.**

Problem	Recognised by					
	Pt	PT	Or	GP	Rh	Ra
Non-recognition of symptoms	X	X				
Delay first visit to doctor	X					
Cancel appointments	X					
Self-medication	X					
Disease denial	X					
Invisibility	X					
Lack of adherence	X					
Ignorance of medication	X					
Unclear symptoms	X	X	X	X		
No clinical filter by back problems	X					
Treatments variability	X					
Ineffective protocols	X	X				
Lack of time	X	X	X	X	X	
Lack of resources (human and material)	X	X	X	X		
Lack of commitment	X	X	X	X	X	X
Not outcome measurement	X	X	X	X	X	
Inadequate knowledge/training	X	X	X	X		
Few explanations / patient education	X	X	X	X	X	
Focused on "our" diagnostic codes	X	X	X	X	X	X
No relation between specialties	X	X	X	X	X	X
Prioritization of tests over solutions	X			X		X
Labelling patients (prejudice)	X	X	X	X	X	
Inadequate referral circuits	X	X	X	X	X	X
Demotivating delays			X			
Limited medical history / little research			X			
Temporality of work contracts				X		
Limited access to tests		X		X		
Non-sustainability threat				X		
Lack of specialised support				X		
Diagnostic dispersion				X		
Too much weight of local issues				X		
Absence of protocols or outdated		X		X		
Poor information transmission in all directions	X	X	X	X	X	X
Focus on pharmacological treatments					X	
Ignorance of others' roles					X	
Gender bias					X	
Incomplete order forms						X

Abbreviations: Pt, patient; PT, physical therapist; Or, orthopaedic surgeon; GP, general practitioner; Rh, rheumatologist; Ra, radiologist.

The following were indicated as possible solutions: (1) Improving relations between specialties, (2) High resolution consultations, (3) Rethinking disability scales, (4) Better information, (5) Visibility, (6) Resource maps and (7) Citizen training.

**Conclusion:** The patient's journey with an nr-ax-SpA is long, complicated and frustrating for both the person who experiences it and the HCPs who care for them. It is necessary to improve the knowledge about nr-ax-SpA among non-rheumatology health HCPs along with low back pain in general, among doctors and the general population, as well as other feasible measures that affect multiple levels.

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#### Rehabilitation

#### FRI0647 COMPARATIVE EFFECTIVENESS OF LAND AND WATER-BASED EXERCISE PROGRAMS ON FATIGUE IN WOMEN WITH FIBROMYALGIA: PRELIMINARY FINDINGS FROM THE AL-ÁNDALUS RANDOMISED CONTROLLED TRIAL.

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**Background:** Land and water-based exercise intervention programs have demonstrated positive effects on fibromyalgia symptoms<sup>1</sup>. However, research comparing the efficacy of both protocols is limited.

**Objectives:** The aim of this study was to assess the effect of two exercise interventions (land-based and water-based training) and a subsequent detraining period on fatigue in women with fibromyalgia.

**Methods:** Among the 272 participants initially randomised, a total of 161 women (age: 50.7±7.7) completed all the assessments with an attendance of at least of 70% (land-based *n*=50, water-based *n*=44, control *n*=67). The intervention groups trained 3 non-consecutive days/week (60 min/ses) during 24 weeks. Each session involved exercises to improve cardiorespiratory fitness, muscle strength, and flexibility. Four dimensions of fatigue were assessed using the Multidimensional Fatigue Inventory. Participants were evaluated at baseline (pre-test), at the end of the intervention (post-test) and following a detraining period of 12 weeks (re-test). Land-based, water-based, and control groups were comparable in sociodemographic characteristics, disease duration, drugs intake, and body mass index. Age, tenderness, and baseline outcomes values were used as covariates in the comparisons (analysis of covariance) of the changes from baseline (post-test vs. pre-test and re-test vs. pre-test) between groups.

**Results:** The land-based exercise group reduced general fatigue (mean difference: -1.17; 95% confidence interval: -2.30 to -0.03; *P*=0.04) and physical fatigue (-2.48; -3.80 to -1.16; *P*<0.001) compared to the control group (-1.61; -3.04 to -0.19; *P*=0.02). No significant reductions were observed in other dimensions of fatigue in either group compared to the control group and no differences between intervention groups were observed (all comparisons, *P*>0.05). The reductions in fatigue were not sustained after the detraining period in any of the intervention groups (all comparisons, *P*>0.05).

**Conclusion:** Twenty-four weeks of land or water-based exercise were both effective in reducing physical fatigue of women with fibromyalgia. Furthermore, land-based exercise led to additional reductions in general fatigue. Reductions in fatigue were not sustained after a 12-week detraining period. Participation in regular exercise, specially land-based, might be an easily accessible treatment option to manage fatigue in this population.

#### References:

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## HPR Service developments, innovation and economics in healthcare

FRI0648-HPR

### OUTPATIENT FOLLOW-UP ON DEMAND IN RHEUMATOID ARTHRITIS HAS SAME CLINICAL AND RADIOGRAPHIC OUTCOMES BUT FEWER VISITS THAN SCHEDULED ROUTINE CARE

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**Background:** Medical treatment and care are often life-long in patients with rheumatoid arthritis (RA). During periods of stable disease, patients typically attend routine visits every 3–8 months at the rheumatology outpatient clinic. Between scheduled medical visits, it may be difficult to get acute appointments with the rheumatologist. Scheduled routine visits may be in a stable period without any symptoms and with no need for control and adjustment of treatment. Consequently, there is a demand for developing outpatient control procedures that cater to the needs of the individual patient and which support the patient's experience of active participation in the control and treatment of their own disease.

**Objectives:** To compare a patient self-controlled outpatient follow up system (Open Outpatient Clinic System (OOCs)) with traditional scheduled routine visits at a rheumatology outpatient clinic.

**Methods:** A two-year randomised controlled trial with RA patients aged 18 to 80 years with a disease duration of at least one year. Patients were recruited consecutively from the rheumatology outpatient clinic of a major university hospital in the Copenhagen region of Denmark from February 2015 to January 2017. Patients were randomised electronically. Joints were examined by a blinded rheumatologist. Patients in the OOCs group had no scheduled appointments but

were allowed to book acute appointments with their contact rheumatologist within 5 days and had access to nurse-led consultations without pre-booking, and a nurse-led telephone helpline. Appointments for the control group were scheduled according to routine procedures. Outcome measures were collected at baseline, year 1 and year 2. Clinical parameters: DAS28, CRP, VAS pain, 28-tender and swollen joint count (28-TJC and 28-SJC), HAQ score and radiographs of hands and feet. Psychological parameters: VAS patient satisfaction (Pt satisfact) and quality of life (EQ-5D).

**Results:** Of 282 patients, 266 completed the first year, 239 the second year. Patient characteristics (OOCs/controls): age 61.4±10.5/60.9±12.2 years, females 77/74%, ACPA positive 66/65%, treatment with synthetic DMARDs 67/65% and/or biologics 33/35%. Clinical and psychological parameters are shown in Table 1. OOCs at year one and two was comparable to traditional scheduled routine procedures regarding clinical and psychological outcome measures. Radiographic progression was detected in 2.9% (4/138) and 2.1% (3/140) of the OOCs and control group, respectively (*p*=0.69; Chi-squared test).

**Table 1. Outcome measures in patients with RA randomised to on demand Open Outpatient Clinic System (OOCs) or traditional follow-up (control group) in a rheumatology out-patient clinic. Results are shown as mean±SD.**

	OOCs	Controls	OOCs	Controls	OOCs	Controls
Time	Baseline	Baseline	Year 1	Year 1	Year 2	Year 2
Visits			3.2±1.9	3.8±1.6*	2.6±1.6	3.5±2.2**
Phone calls			1.8±3.3	0.4±0.8**	0.7±1.4	0.1±0.3**
DAS28	3.0±1.2	2.9±1.0	2.6±1.1	2.6±1.0	2.7±1.2	2.5±1.0
CRP	10.2±7.2	10.1±8.0	8.2±9.9	5.7±5.1*	9.6±8.8	5.5±8.9*
28-SJC	0.6±1.5	0.6±1.2	0.2±0.5	0.3±1.0	0.3±0.9	0.4±1.2
28-TJC	3.3±5.7	2.4±4.2	2.4±4.7	2.1±3.7	2.4±4.9	2.3±4.7
VAS pain	27±25	26±21	28±26	28±24	32±27	29±25
HAQ-score	0.6±0.6	0.6±0.6	0.7±0.6	0.6±0.6	0.8±0.7	0.6±0.7
EQ-5D	0.8±0.2	0.8±0.1	0.8±0.2	0.8±0.2	0.8±0.2	0.8±0.1
Pt satisfact	88±21	87±19	84±25	82±23	82±24	83±23

\**p*<0.05; \*\**p*<0.0005, OOCs vs. control group (Student's *t*-test).

**Conclusion:** The patient self-controlled outpatient follow up system OOCs was associated with fewer visits, but more phone calls to the nurse, and was comparable with traditional scheduled routine procedures regarding clinical, psychological and radiographic outcomes after two years. Thus, organisation of outpatient care according to OOCs may be applied to strengthen patient-centred care in patients with RA.

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FRI0649-HPR

### HYDROXYCHLOROQUINE PRESCRIBING AND OPHTHALMOLOGY SCREENING WITHIN RHEUMATOLOGY DEPARTMENTS IN THE NORTH-WEST OF THE UNITED KINGDOM: A PROSPECTIVE REGIONAL AUDIT

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**Background:** Hydroxychloroquine (HCQ) is widely used in the management of rheumatoid arthritis and connective tissue disease. The prevalence of retinopathy in patients taking long-term HCQ is approximately 7.5%, increasing to 20-50% after 20 years of therapy. Hydroxychloroquine prescribed at ≤5 mg/kg poses a toxicity risk of <1% up to five years and <2% up to ten years, but increases sharply to almost 20% after 20 years. Risk factors for retinopathy include doses >5mg/kg/day, concomitant tamoxifen or chloroquine use and renal impairment. The UK Royal College of Ophthalmologists (RCOphth) 2018 guidelines for HCQ screening recommend optimal treatment dosage and timing for both baseline and follow-up ophthalmology review for patients on HCQ, with the aim of preventing iatrogenic visual loss. This is similar to recommendations made by the American Academy of Ophthalmology (2016).