but among them only 344 are recruited in the study, showing a progression rate of about 35% instead of 20%, for a total cost of 1,229,280€.

Conclusion: This work demonstrates the interest for biomarker-based OA-progressors cohort enrichment in DMOAD RCTs. It simulates the gains it could represent for the conduct of these RCTs. The cohorts used in this work (for biomarker measurement and predictive modeling) have a high proportion of women with very large BMI, with K&L grade II-III. The results might thus be replicated on other cohorts. In order to achieve yet stronger cohort enrichment and cost reductions, additional markers and/or clinical factors could be considered for the models.

REFERENCES:

- [1] One-year follow-up of Coll2-1, Coll2-1NO2 and myeloperoxidase serum levels in osteoarthritis patients after hip or knee replacement. Deberg M, Dubuc JE, Labasse A, Sanchez C, Quettier E, Bosseloir A, Crielard JM, Henrotin Y. *Ann Rheum Dis*. 2008 Feb;67(2):168-74.
- [2] Ornetti, et al., 2009; OARSI-OMERACT

Disclosure of Interests: Thibault Helleputte Shareholder of: Founder of DNAlytics., Grant/research support from: The data analysis included in this work has been financially supported by Sanofi Genzyme., Anne-Christine Hick Employee of: Artialis SA, Yves Henrotin Shareholder of: Artialis SA

DOI: 10.1136/annrheumdis-2019-eular.7253

HPR Interventions (educational, physical, social and psychological)

THU0699-HPR IS A SMARTPHONE APPLICATION USEFUL FOR SELF-MANAGEMENT SUPPORT IN PATIENTS WITH A RHEUMATIC DISEASE?

margot Walter¹, Janet Been-Dahmen², Annemarie de Vroed¹, Hetty Wintjes¹, Erwin Ista³, Johanna Hazes¹. ¹Erasmus MC, Rheumatology, Rotterdam, Netherlands; ²Hogeschool Rotterdam, Rotterdam, Netherlands; ³Erasmus MC, Rotterdam, Netherlands

Background: For patients with a rheumatic disease (RD), self-management is the effort to find a balance between the demands of the disease and the activities of daily life. Self-management is an important aspect in the care for patients with a RD, in which they are expected to take an active role. Over the past decade, new technologies have been developed to support self-management, including smartphone apps. These apps perfectly fit the idea that patients prefer an active role in self-management. Therefore, a smartphone application (app) was developed.

Objectives: This study 1) investigates whether the use of an app improved patients' self-management, 2) explores patients' experiences with this RD-app, 3) investigates which factors are associated with the use of the RD-app.

Methods: We performed a prospective before-after study among patients with a RD. The primary outcome was patients' self-management behavior measured with the Partners in Health scale (PIH), a generic validated 12 item self-rated scale, which indicates higher scores for better self-management behavior (1). A paired t-test was used to evaluate changes in the PIH-scale score after three months. To measure the user-experience with the app, survey questions addressed whether the RD-app had contributed to get more grip (or not) on the disease and how (why not). Logistic regression analyses served to investigate variables that are important for using the RD-app.

Results: Of the 1511 eligible patients, 397 completed both the baseline and the follow-up surveys. Participants who completed both questionnaires were most frequently diagnosed with RA, 65% was female and the mean age was 52.0 (SD 15.6) years. Hundred-fourteen participants used the RD-app. Self-management behavior did not improve according to the PIH score in the app-users group after 3 months. However, 42% of the app-users perceived that use of the RD-App had contributed to get more grip on the disease. Receiving tips, information on exercises and gaining insight on self-reported disease activity contributed to get more grip on the disease. However, the other app-users whom did not get more grip on the disease indicated the following reasons: information was not useful, no need for information or additional help, technical issues and too little usage of the app itself. Almost all users would recommend the app to others. To investigate who did use the RD-app, univariate analysis revealed a role for female patients, positive expectations of the RD-app, help needed to get more grip on the disease and a higher VAS global as associated factors with actually using the RD-app. In the multivariate

analysis only positive expectations of the RD-app remained significantly associated with actually using the RD-app ($p < 0.001$).

Conclusion: Almost one third used the RD-app. Although the PIH-score did not change, 42 percent of the participants thought the app helped them to get more grip on the disease. Therefore, the RD-app may be useful for additional self-management support in a clinical practice. Participants seemed to be satisfied with the app, almost all participants would recommend this app to others. More research is needed for additions within the app that could improve the app as a self-management tool.

REFERENCES:

- [1] Battersby, M., Ask, A., Reece, M., and M. Markwick, Collins, J. The Partners in Health scale: The development and psychometric properties of a generic assessment scale for chronic condition self-management. 2003

Acknowledgement: na

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2019-eular.1346

THU0700 PHYSIOTHERAPISTS COULD REPLACE PHYSICIANS AS PRIMARY ASSESSORS FOR PATIENTS WITH KNEE OSTEOARTHRITIS IN PRIMARY CARE—A RANDOMISED CONTROLLED STUDY

Chan-Mei Ho^{1,2}, Carina A Thorstensson¹, Lena Nordeman^{1,3}. ¹Institute of Neuroscience and Physiology, Health and Rehabilitation, Gothenburg, Sweden; ²Närhälsan, Primary Health Care Region Västra Götaland, Närhälsan Lidingö Rehabmottagning, Lidingö, Sweden, ³Närhälsan, Research and Development Primary Health Care Region Västra Götaland, Research and Development Center Södra Älvsborg, Borås, Sweden

Background: It has been estimated that consultations to healthcare will increase with 30-50% among patients with osteoarthritis (OA) over the next 20 years [1]. Patients with knee OA (KOA) report among the lowest health-related quality of life (HrQoL) compared with other chronic diseases [2]. Most patients are assessed by a physician which claims unnecessary healthcare resources since physiotherapists also are primary assessors for patients with KOA and provide recommended treatments. However, it is unclear if physiotherapists could be the first option as primary assessor for this patient group. We hypothesise that all patients with suspected KOA in primary care could be assessed by a physiotherapist first and be referred to physician only when it is required, without having a negative impact on HrQoL.

Objectives: The aim of this study was to explore differences in HrQoL, pain and physical function in patients with suspected KOA after being assessed, diagnosed and treated by physiotherapist first compared with being assessed by a physician in primary care first.

Methods: Patients seeking primary care with suspected KOA were randomised to either a physiotherapist or a physician for assessment, diagnose and treatment. Inclusion criteria were knee pain and > 38 years old. Exclusion criteria: knee pain due to traumatic cause, other systemic, somatic, mental or rheumatic diseases, pregnancy, or already been diagnosed or assessed by another healthcare giver due to current knee pain. HrQoL (Euroqol - EQ5D-3L index, EQ5D-3L VAS), pain intensity (visual analogue scale) and physical function (30 seconds chair stand test) were measured before randomisation, and at 3-, 6- and 12 months. Mann-Whitney's U test and Chi2 test for independence were used with a significance level of $p < 0.05$.

Results: 69 patients with suspected KOA were randomised to either a physiotherapist ($n=35$) or a physician ($n=34$). Both groups improved their HrQoL, pain and physical function at all follow ups. Patients rated significantly better HrQoL (EQ5D-3L VAS) one year after physiotherapy assessment (84 (SD 11); vs 74 (SD 15), $p=0.018$). No other significant differences were found between the groups.

Conclusion: Physiotherapy assessment could replace physician assessment without having negative impact on patient reported outcomes after treatment for patients with suspected KOA. This may play a role in managing the expected increase in OA consultation in primary care. However, more research is needed to clarify if this management is more cost effective, and how patients with KOA experience other primary assessors than physicians.

REFERENCES

- [1] Turkiewicz A, Petersson IF, Björk J, Dahlberg LE, Englund M: The consultation prevalence of osteoarthritis 2030 may increase by 50%: prognosis for Sweden. *Osteoarthritis and Cartilage* 2013, 21(Supplement):S160-S161.
- [2] Picavet HS, Hoeymans N: Health related quality of life in multiple musculoskeletal diseases: SF-36 and EQ-5D in the DMC3 study. *Ann Rheum Dis* 2004, 63(6):723-729.

Disclosure of Interests: None declared
DOI: 10.1136/annrheumdis-2019-eular.813

HPR Patients' perspectives, functioning and health (descriptive: qualitative or quantitative)

THU0701-HPR "TO REGAIN ONE'S HEALTH" – PATIENTS' PREFERENCES OF TREATMENT OUTCOMES IN EARLY RHEUMATOID ARTHRITIS – A QUALITATIVE STUDY

Ellen Landgren^{1,2}, Ann Bremander^{1,2,3,4}, Elisabet Lindqvist¹, Kristien Van der Elst^{5,6}, Ingrid Larsson^{2,7}. ¹Lund University, Skåne University Hospital, Department of Clinical Sciences, Section of Rheumatology, Lund, Sweden, Lund, Sweden; ²RandD Spenshult, Halmstad, Sweden, Halmstad, Sweden; ³Department of Regional Health Research, University of Southern Denmark, Odense, Denmark, Odense, Denmark; ⁴Danish Hospital for Rheumatic Diseases, University Hospital of Southern Denmark, Sønderborg, Denmark, Sønderborg, Denmark; ⁵Department of Rheumatology, University Hospitals Leuven, Leuven, Belgium, Leuven, Belgium; ⁶Skeletal Biology and Engineering Research Center, Department of Development and Regeneration, KU Leuven–University of Leuven, Leuven, Belgium, Leuven, Belgium; ⁷School of Health and Welfare, Halmstad University, Halmstad, Sweden, Halmstad, Sweden

Background: Rheumatology care strives to identify and meet the needs of the patients, and to understand disease and treatment impact from the patients' perspective. A better understanding of patients' expectations from the treatment is needed to enable a patient centered approach in clinical practice and a shared-decision making as recommended in the EULAR treatment recommendations for rheumatoid arthritis (RA). Understanding of patients' expectations in the early stage of the RA disease may facilitate adherence to treatment, patient independence and prevent unmet needs in the future.

Objectives: To explore patients' preferred treatment outcomes in early rheumatoid arthritis (eRA).

Methods: A qualitative, explorative study. Individual interviews were conducted with 31 patients with eRA, defined as disease duration of ≤ 1 year and disease-modifying antirheumatic drugs (DMARDs) treatment for 3-6 months¹. Interviews were analyzed using a constant comparison method according to the Qualitative Analysis Guide of Leuven (QUAGOL) and lasted in a core category and four related concepts.

Results: The patient-preferred treatment outcomes in eRA were described in the core category "to regain one's health" and the four related concepts: to experience external control of the disease, to experience independence, to regain identity and to experience joy in everyday life. The patients expected to experience external control of the disease by the given treatment to regain one's health. It was perceived as controlling the symptoms and as absence of disease. Independence was perceived as regaining former activity levels, experiencing autonomy and using active coping strategies. Patients wanted to regain identity through participation, empowerment and their self-image. Joy in everyday life was perceived as vitality and believing in the future.

Conclusion: Patients' preferred treatment outcomes in eRA were to regain one's health including both external and internal control. External control as disease control and independence as well as internal control as identity and joy in everyday life. The results from this study can assist healthcare professionals to better understand patients' preferred treatment outcomes early in the disease process and to tailor the interventions accordingly to improve long term treatment outcome.

REFERENCES:

- [1] Van der Elst K, Bremander A, De Groef A, Larsson I, Mathijssen E, Vriekolk J, Westhovens R, van Eijk-Hustings Y. (2019). European Qualitative research project on Patient-preferred outcomes in Early Rheumatoid Arthritis (EQPERA): rationale, design and methods of a multinational, multicenter, multilingual, longitudinal qualitative study. *BMJ Open*, accepted 181220

Disclosure of Interests: None declared
DOI: 10.1136/annrheumdis-2019-eular.1408

THU0702-HPR PATIENT UNDERSTANDING OF RISKS OF METHOTREXATE AND ANTI-TNF THERAPY: A CROSS-SECTIONAL STUDY

Lauren Jackson¹, Natalie Murray¹, Zoe Plummer², Robert Marshall^{1,3}, Mwidi Ndos². ¹University of Bristol, School of Clinical Sciences, Bristol, United Kingdom; ²University of the West of England, Department of Nursing and Midwifery, Bristol, United Kingdom; ³University Hospitals Bristol NHS Foundation Trust, Department of Rheumatology, Bristol, United Kingdom

Background: Disease-modifying anti-rheumatic drugs (DMARDs) have revolutionised the management and long-term prognosis of rheumatoid arthritis (RA).¹ Side-effects of DMARDs include, but are not limited to: immunosuppression, gastro-intestinal upset, skin reactions and headaches. Despite the significant potential side-effects of DMARDs, there have been limited attempts to evaluate patient understanding of the side-effects of methotrexate (MTX)^{2,3} and to our knowledge no studies with regards to anti-tumour necrosis factor (anti-TNF) therapy.

Objectives: To evaluate the extent to which each of the known side-effects of MTX and anti-TNF therapy can be identified by patients receiving single or combination therapy for RA.

Methods: This was a cross-sectional study conducted in a rheumatology centre in the West of England. Patients with RA, seen in the outpatient clinic within the previous 18 months were invited to participate. Participants had to belong to one of the following treatment groups: (i) MTX only (ii) anti-TNF only or (iii) combined treatment with MTX and an anti-TNF. A postal questionnaire designed by the research team was used to obtain the data. Each participant was asked to (a) select side-effects they considered to be possible from their treatment, (b) tick if they had experienced this side-effect, and (c) select whether they believed this side-effect to be common or not. Descriptive analyses were used to determine the proportion (percentage) of patients who correctly identified the possible side-effects, correctly identified them as common, and had experienced them. Summary results are presented as ranges (minimum to maximum) and their corresponding percentages.

Results: Of the 300 patients invited, 119 returned a completed questionnaire; 48 (40%) on MTX only, 25 (21%) on anti-TNF only and 46 (39%) on combined MTX and anti-TNF. Their mean (SD) age was 62.5 (12.8) years, disease duration 13.5 (12.4) years, 111 (93%) had completed compulsory education and 94 (79%) were female. Most participants (115, 97%) spoke English as their first language.

Correct identification of each possible side-effect ranged from 29% to 63% of participants in the MTX only group, 15% to 41% of participants in the anti-TNF only group and 18% to 62% of participants in the combined MTX and anti-TNF group. Correctly recognising these as common ranged from 13% to 52% of participants in the MTX only group, 4% to 35% of participants in the anti-TNF only group and 8% to 64% of participants in the combined MTX and anti-TNF group. Of those correctly identifying possible side effects, 22% to 55% of participants in the MTX only group, 1% to 25% of participants in the anti-TNF only group and 8% to 56% of participants in the combined MTX and anti-TNF group reported experiencing them.

Conclusion: Our data suggests that a considerable number of patients are unable to correctly identify the most common side-effects of DMARDs used in RA management. Effective patient education and involvement in treatment decision-making will allow patients to be more aware of potentially serious side-effects of DMARDs.

REFERENCES:

- [1] Cicirello, S. et al. Improving treatment with methotrexate in rheumatoid arthritis - development of a multimedia patient education program and the MiRAK, a new instrument to evaluate methotrexate related knowledge. *Semin Arthritis Rheum*. 2014; 43:437-46.
- [2] Fayet, F, et al. The development of a questionnaire to evaluate rheumatoid arthritis patient's knowledge about methotrexate. *J Clin Nurs*. 2015; 25:682-689.
- [3] Barton, J, et al. Poor knowledge of methotrexate associated with older age and limited English language proficiency in a diverse rheumatoid arthritis cohort. *Arthritis Res Ther*. 2013; 15:157.

Disclosure of Interests: None declared
DOI: 10.1136/annrheumdis-2019-eular.7638