Methods: Eligible studies from 2000 - 2020 were identified in OVID Medline, PsycINFO, Embase, and CINAHL databases using a comprehensive search strategy. Quantitative and qualitative studies containing self-reported data on the work impacts of arthritis on younger people were included. Quality assessment was undertaken using validated quality appraisal tools (3).

Results: From a yield of 300 studies, 35 were included in the review. After quality assessment and exclusion of the lowest-ranked studies, 28 studies (17 quantitative, 11 qualitative) were analysed. Work outcomes data were organised into five themes (1-3 for quantitative outcomes, 4-5 for qualitative outcomes): (1) the impacts of arthritis on work productivity; (2) the impacts of arthritis on work participation; (3) other arthritis attributable workplace challenges; (4) barriers to work participation associated with arthritis, and (5) enablers to work participation associated with arthritis. For quantitative themes, arthritis was strongly associated with other workplace challenges: scores on the Workplace Activity Limitations Scale ranged from 5.9 (moderate workplace difficulty) to 9.8 (considerable workplace difficulty); and work disability relative to the healthy population (prevalence ranging from 6% - 80%). For qualitative themes, barriers to work participation included lack of workplace support; enablers included workplace support and intrinsic motivation to work.

Conclusion: Arthritis is associated with poorer work outcomes for younger people relative to healthy peers. The available evidence was heterogeneous across studies. Additional research focusing solely on the unique workplace needs of younger population groups is required. This would inform the development of tailored intervention or workplace support strategies to maximise productive working years.

References:

- [1] European League Against Rheumatism. Horizon 2020 Framework Programme: EULAR's positions and recommendations. EULAR 2011.
- [2] Jetha A. (2015). The impact of arthritis on the early employment experiences of young adults: A literature review. *Disabil Health J.* 8(3) 317-324.
- [3] Joanna Briggs Institute. Critical Appraisal Tools. The University of Adelaide 2019.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.1461

Innovative care

OP0152-HPR

A COST-UTILITY ANALYSIS OF MULTIMODAL OCCUPATIONAL THERAPY IN PATIENTS WITH THUMB BASE OSTEOARTHRITIS

A. T. Tveter¹, L. Kleven², N. Osteras¹, R. Nossun³, R. E. Mehl Eide⁴, Å. Klokkeide⁵, K. Hoegh Matre⁴, M. Olsen⁵, Ø. Andreassen¹, I. Kjekken¹.

¹Diakonhjemmet Hospital, Department of Rheumatology, National Advisory Unit on Rehabilitation in Rheumatology, Oslo, Norway; ²Oslo University Hospital, Department of Clinical Research Support, Oslo, Norway; ³Trondheim University Hospital, St. Olavs Hospital, Trondheim, Norway; ⁴Haukeland University Hospital, Bergen, Norway; ⁵Haugesund Rheumatism Hospital AS, Haugesund, Norway

Background: Patient education, hand exercises, and use of assistive devices and orthoses are regarded as first-line treatment for patients with hand osteoarthritis (OA) (1), however there is limited evidence for the cost-effectiveness of such treatment.

Objectives: The objective of this study is to assess the cost-utility of a multimodal occupational therapy treatment delivered in the waiting period before surgical consultation in patients with thumb base OA compared to usual care.

Methods: This study presents an economic evaluation assessing the difference in health care use and quality-of-life during a 24-month period in a Norwegian multicenter randomized controlled trial. All patients referred to surgical consultation due to thumb base OA at three departments of rheumatology between 2013 and 2015 were eligible for inclusion. In total, 180 patients were included and randomized to a control group or a multimodal occupational therapy group (90 patients in each group). During the waiting period between referral and actual surgical consultation, the control group continued with usual care which was staying on the waiting list and receiving information on hand OA. The intervention group got information on hand OA, ergonomic principles and use of assistive devices, and they were instructed in home-based hand exercises and received a day and a night orthosis. The intervention group was instructed to use the orthoses and assistive devices as much as possible and perform home exercises three times per week for 12 weeks. The patients were assessed at baseline and after 4, 18 and 24 months. The within-trial economic analysis reports the incremental cost-effectiveness ratio (ICER) reflecting the between-group difference in incremental cost per adjusted life years (QALY) over 24 months. A generic

health-related quality of life questionnaire, the EuroQol 5 Dimension, was used to calculate the QALYs at baseline, 4, 18 and 24 months. Costs were collected from different sources, taking a health care perspective; The occupation therapist reported the number of consultations related to the intervention; surgical procedure and post-operative follow-up were collected from patients' journals; and additional consumption of primary and specialist health care was self-reported by the patient. Sensitivity analyses were performed. The results are presented in a cost-effectiveness plane using bootstrapping. Willingness-to-pay threshold is set to be € 27 500 linked to the severity of this condition.

Results: The mean age of the included patients was 63 years (SD 7.6) and 79% were women. There was a total between-group difference in QALYs of 0.07 utilities after 24 months, in favour of the intervention group. Operations constituted the main costs with 22 operations in the intervention group compared to 33 in the control group. The between-group difference in costs due to health care consumption was estimated to € 500 in favour of the intervention group (Figure 1).

Conclusion: The results in this within-trial analysis indicate that multimodal occupational therapy in the waiting period before surgical consultation compared to usual care is a cost-effective alternative taking a health care perspective.

References:

- [1] Kloppenburg, M., et al. (2018). "2018 update of the EULAR recommendations for the management of hand osteoarthritis." *Ann Rheum Dis.*

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.3345

OP0153-HPR

HOW CAN WE HELP PEOPLE WITH FIBROMYALGIA? NO EFFECTS OF AN EVIDENCE-BASED MULTICOMPONENT REHABILITATION PROGRAMME

H. A. Zangi¹, T. Haugmark¹, S. A. Provan², G. Smedslund^{1,3}, K. B. Hagen^{1,3}.

¹Diakonhjemmet Hospital, National Advisory Unit on Rehabilitation in Rheumatology, Oslo, Norway; ²Diakonhjemmet Hospital, Dept. of Rheumatology, Oslo, Norway; ³Norwegian Institute of Public Health, Oslo, Norway

Background: Patients with fibromyalgia (FM) suffer from high symptom burden, lack of understanding and few available treatments. EULAR evidence-based recommendations for the management of FM state that optimal management should focus on prompt diagnosis, patient education and initially non-pharmacological treatments¹. Physical exercise is recommended for all patients and may be combined with tailored psychological therapies for those with unhelpful coping strategies. The evidence for these combined therapies is still weak and further studies are warranted. A Norwegian mindfulness- and acceptance-based intervention, the Vitality Training Programme (VTP), has shown beneficial effects in groups of patients with rheumatic and musculoskeletal diseases^{2,3}, but has previously not been tested in combination with physical exercise.

Objectives: To test the effects of a multicomponent rehabilitation programme comprising the VTP followed by supervised physical exercise for patients with recently diagnosed FM.

Methods: Patients with widespread pain ≥ 3 months; aged 20 to 50, who were working or had not been out of work >2 years, were referred to rheumatologists for diagnosis clarification according to ACR 2010 FM diagnosis criteria. All eligible patients participated in a 3-hour group-based patient education programme before inclusion and randomization. The intervention group received the VTP, a 10-session group programme followed by 12 weeks supervised physical exercise. The control group followed treatment as usual. Self-reported data were collected electronically. Primary outcome was Patient Global Impression of Change

(PGIC), scored as 1= much worse, through 4=no change, to 7=much better, measured at 12 months follow-up. Values 6 - 7 were considered clinically relevant improvement. Secondary outcomes were pain, fatigue, sleep quality, psychological distress, mindfulness, physical activity, motivation and barriers for physical activity and work impairment. Effects were analysed by Analysis of Covariance (ANCOVA).

Results: 170 patients were randomised, 85 to intervention and 85 to control. There were no statistically significant differences between groups in PGIC at 12 months; 13% in the intervention group and 8% in the control group reported clinically relevant improvement (Figure 1). No statistically significant between-group differences were found in pain ($p=0.05$), fatigue ($p=0.72$), sleep quality ($p=0.52$), psychological distress ($p=0.34$), physical activity ($p=0.78$) or work impairment (0.27). There were significant between-group differences in patients' tendency to be mindful ($p=0.02$) and 'perceived benefits of exercise' ($p=0.03$), in favour of the intervention group.

Conclusion: At 12 months follow-up, a multicomponent rehabilitation programme had no significant health effects compared to treatment as usual. The results differ from previous studies on the VTP in patients with inflammatory joint diseases. The question, how can we help people with FM, remains unresolved.

References:

- Macfarlane GJ et al. EULAR revised recommendations for the management of fibromyalgia. *Ann Rheum Dis* 2017;76:318-28
- Zangi HA et al. A mindfulness-based group intervention to reduce psychological distress and fatigue in patients with inflammatory rheumatic joint diseases: a randomised controlled trial. *Ann Rheum Dis* 2012;71:911-17
- Haugli L et al. Learning to have less pain - is it possible? A one-year follow-up study of the effects of a personal construct group learning programme on patients with chronic musculoskeletal pain. *Patient Educ Couns* 2001;45:111-18

Acknowledgments: The SALSA project group

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.1408

OP0154-HPR EFFECT OF NURSE-LED-CARE ON PATIENT OUTCOMES IN RHEUMATOID ARTHRITIS IN GERMANY: A MULTICENTRE RANDOMISED CONTROLLED TRIAL

J. R. Hoeper¹, G. Gauler², D. Meyer-Olson³, K. Rockwitz⁴, P. Steffens-Korbanka², C. Stille⁵, J. Walter⁶, M. Welcker⁷, J. Wendler⁸, J. Zeidler¹, K. Hoeper⁹. ¹Center for Health Economics Research Hannover, Hannover, Germany; ²Rheumapraxis an der Hase, Osnabrück, Germany; ³MVZ Weserbergland, Bad Pyrmont, Germany; ⁴Rheumatologie Praxis, Goslar, Germany; ⁵Rheumatologische Praxis Hannover-List, Hannover, Germany; ⁶Rheumatologische Schwerpunktpraxis, Rendsburg, Germany; ⁷MVZ für Rheumatologie, Planegg, Germany; ⁸Rheumatologische Schwerpunktpraxis, Erlangen, Germany; ⁹Hannover Medical School, Immunology & Rheumatology, Hannover, Germany

Background: Inflammatory rheumatic disorders are very complex and require high medical resources. However, there is a shortage of care for these patients, which results in suboptimal reach of therapy objectives. Nevertheless, these very objectives need to be pursued quickly to prevent permanent joint damage. In order to ensure adequate care, multidisciplinary teams which include clinical nurse specialists are required. These clinical nurse specialists play an important role in improving standard-of-care in addition to the rheumatologist. The current standard of care ensures that essential medical provision remains intact, however, psychological, social, rehabilitative and educational needs are often

skipped due to time constraints. While studies from e.g. the UK and Denmark have already supported the non-inferiority of nurse-led care (NLC)¹, no such studies have yet been published in Germany.

Objectives: To demonstrate the non-inferiority of NLC to the current standard-of-care, rheumatologist-led care (RLC), for patients with seropositive rheumatoid arthritis (RA) with induction, escalation or change of therapy regarding disease activity as well as different patient reported outcomes (PROs).

Methods: This trial was conducted as a prospective multi-centered RCT with a non-inferiority design over the course of 12 months. Based on power calculations, 236 adults with RA were included in the study and randomized to either NLC or RLC. The primary outcome measure is disease activity (DAS28), assessed at baseline (T0), 6 weeks (T1), 3, 6, 9, and 12 months (T3, T6, T9, T12). Secondary measures are health related quality of life (RAID), functionality (FFbH) and depression (PHQ9).

Results: There are no significant differences between intervention group (IG) ($n=117$) and control group (CG) ($n=119$) at baseline. The mean age of the IG is 58.80 years ($SD=12.09$) and of the CG 58.34 years ($SD=11.72$). 72.4% of the IG and 78.1% of the CG are female. The mean duration of symptoms was 147 months ($SD=144.63$) for the IG and 116 months (108.89) for the CG. The mean DAS28 for the IG is 4.36 ($SD=1.24$) and 4.51 ($SD=1.24$) for the CG.

A mixed one-way repeated measures ANOVA showed that the DAS28 improves significantly over time, Huyn-Feldt $F(4.42, 751.72) = 105.701$, $p < .001$, partial $\eta^2 = 0.383$, but the interaction of the DAS28 and the randomization is not significant, Huyn-Feldt $F(4.42, 751.72) = 1.464$, $p = 0.260$, partial $\eta^2 = 0.009$. No main effect for randomization was found, meaning that the IG and CG did not differ significantly, $F(1, 170) = 1.005$, $p = 0.317$, partial $\eta^2 = 0.006$.

The Mann-Whitney-Test showed that the change of the secondary outcomes does not depend on the randomization FFbH $U = 4978.50$, $Z = -.755$, $p = .450$. RAID $U = 5121.00$, $Z = -.539$, $p = .590$. PHQ9 $U = 4800.50$, $Z = -1.281$, $p = .200$. The secondary outcomes improve significantly over time, as shown by a Wilcoxon Signed Rank test for the FFbH $Z = -5.589$, $p < .001$, the RAID $Z = -9.884$, $p < .001$ and the PHQ9 $Z = -7.960$, $p < .001$.

Conclusion: The results support the non-inferiority of NLC in the management of RA regarding the primary and secondary outcome measures and provide first evidence that NLC could improve care and help carry the doctors' workflow.

Figure 1.

Figure 2.

References:

- de Thurah A, Esbensen BA, Roelsgaard IK, et al. Efficacy of embedded nurse-led versus conventional physician-led follow-up in rheumatoid arthritis: a systematic review and meta-analysis. *RMD Open* 2017;3:e000481.