(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.

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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:

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Disclosure of Interests: Juliana R Hoepfer: None declared, Georg Gauler Consultant of: Abbvie, Lilly, MSD, Speakers bureau: Abbvie, Celgene, Novartis, Sanofi, Dirk Meyer-Olson Grant/research support from: Novartis, Sandoz Hexal, Consultant of: Abbvie, Amgen, Bristol Myers Squibb, Chugai, Lilly, Mylan, Novartis, Sandoz Hexal, Sanofi, Speakers bureau: Abbvie, Bristol Myers Squibb, Chugai, Lilly, Novartis, Pfizer, Sandoz Hexal, Sanofi, Karin Rockwitz Consultant of: Janssen Cilag, Speakers bureau: Janssen Cilag, Patricia Steffens-Korbanka Consultant of: Abbvie, Chugai, Novartis, Sanofi, Mylan, Lilly, Speakers bureau: Abbvie, Chugai, Novartis, Sanofi, Lilly, Carsten Stille: None declared, Jochen Walter Consultant of: Pfizer, Speakers bureau: Abbvie, Frauenhofer Institut, Gilead, Janssen-Cilag, Medac, Novartis, Pfizer, Martin Welcker Grant/research support from: Abbvie, Novartis, UCB, Hexal, BMS, Lilly, Roche, Celgene, Sanofi, Consultant of: Abbvie, Actelion, Aescu, Amgen, Celgene, Hexal, Janssen, Medac, Novartis, Pfizer, Sanofi, UCB, Speakers bureau: Abbvie, Aescu, Amgen, Biogen, Berlin Chemie, Celgene, GSK, Hexal, Mylan, Novartis, Pfizer, UCB, Joerg Wendler Consultant of: Janssen, Abbvie, Sanofi, Speakers bureau: Roche, Chugai, Janssen, Abbvie, Novartis, Jan Zeidler: None declared, Kirsten Hoepfer Consultant of: Abbvie, Celgene, Speakers bureau: Abbvie, Chugai, Novartis, Lilly, Celgene, Sandoz Hexal

DOI: 10.1136/annrheumdis-2020-eular.1508

OP0155-HPR **EFFECT OF THE DR. BART APPLICATION ON HEALTHCARE USE AND CLINICAL OUTCOMES IN PEOPLE WITH OSTEOARTHRITIS OF THE KNEE AND / OR HIP IN THE NETHERLANDS; A RANDOMIZED CONTROLLED TRIAL**

T. Pelle^{1,2}, K. Bevers¹, J. Van der Palen³, F. Van den Hoogen^{1,2}, C. Van den Ende^{1,2}, ¹Sint Maartenskliniek, Nijmegen, Netherlands; ²Radboudumc, Rheumatology, Nijmegen, Netherlands; ³University of Twente, Research Methodology, Enschede, Netherlands

Background: Self-management is of paramount importance in non-surgical treatment of knee and/or hip osteoarthritis(OA). Modern technologies offer the possibility to support self-management 24/7. We developed an e-self-management application (dr. Bart app) for people with knee and/or hip OA. A central element of the dr. Bart app is that the app proposes a selection of 72 preformulated goals to induce health behaviors based on the 'tiny habits method'¹

Objectives: To evaluate the short-term effects of the use of the dr. Bart app, compared to usual care, on the number of secondary health care consultations and clinical outcomes in people with knee/hip OA in the Netherlands.

Methods: A randomized controlled design involving participants ≥50 years with self-reported knee and/or hip OA, randomly allocated to the dr. Bart app or usual care. Participants were recruited from the community through advertisements in local newspapers and social media campaigns. In Figure 1 the theoretical framework of the dr. Bart app is presented. Participants received online questionnaires at baseline and after 3 and 6 months of follow-up. The primary outcome was the number of consultations in secondary health care due to OA in the knee/hip in the past six months. Secondary outcome measures were self-management behavior, pain, symptoms, functional limitations, physical activity, quality of life, and illness perceptions. Data were analyzed using negative binomial regression or linear mixed models, as appropriate, corrected for baseline, main OA-location (knee or hip), and interaction between treatment group and time.

Figure 1. Theoretical framework of the dr. Bart app.

Results: In total 427 eligible participants were allocated to either the dr. Bart group (n=214) or usual care (n=213). Mean age of the participants was 62.1 (SD 7.3) years, with the majority being female (72%) and having symptoms

predominantly in their knee(s) (73%). Response rates for the follow-up questionnaires were 75.4% and 69.3% at 3 and 6 months, respectively. With respect to the number of consultations in secondary health care we found a non-significant incidence rate ratio (1.20 (95% CI: 0.67; 2.19)) between the dr. Bart app group and the usual care group. We found a positive overall treatment effect of the dr. Bart app on symptoms (2.6 (95% CI: 0.4; 4.9)), pain (3.5 (95% CI: 0.9; 6.0)) and activities of daily living (2.9 (95% CI: 0.2; 5.6)), see Table 1. We found non-significant differences between groups for self-management behavior, physical activity, health-related quality of life and illness perceptions.

Table 1. Overall treatment effect and treatment effects at 3 and 6 months of the dr. Bart app.

Measures	Treatment effects of dr. Bart app		
	Δ3 months [§] [™] (95 % CI)	Δ6 months [§] [™] (95 % CI)	Δ overall [§] (95 % CI)
Number of consultations in secondary health care † KOOS/HOOS	1.05 (0.55; 2.02)	1.32 (0.89; 2.87)	1.20 (0.67; 2.16)
- Symptoms	1.5 (-1.2; 4.1)	2.6 (-0.4; 5.6)	2.6 (0.4; 4.9)*
- Pain	3.1 (0.2; 5.9)*	0.9 (-2.0; 3.8)	3.5 (0.9; 6.0)*
- Activities of daily living	2.5 (-0.7; 5.7)	0.9(-2.6; 4.4)	2.9 (0.2; 5.6)*
- Functioning in sport and recreation	-1.7 (-6.4; 2.9)	7.7 (2.7; 12.7)*	1.9 (-2.0; 5.9)

* Indicates p-value < 0.05

† Reported as incidence rate ratio

§ Adjusted for baseline value, treatment group and main OA-location (knee/hip)

™ Adjusted for time, and interaction between treatment group and time

Abbreviations: KOOS: Knee Injury and Osteoarthritis Outcome Score; HOOS: Hip Disability and Osteoarthritis Outcome Score.

Conclusion: The dr. Bart app did not reduce the number of secondary health care consultations compared to usual care. However, we found positive effects attributable to the dr. Bart app on pain, symptoms, activities of daily living and functioning in sport and recreation in people with knee/hip OA, suggesting that the dr. Bart app has potential to positively influence health in people with knee/hip OA.

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Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.1720

OP0156-HPR **COST EFFECTIVENESS OF TELE-HEALTH FOLLOW-UP IN RHEUMATOID ARTHRITIS BASED ON A NON-INFERIORITY RANDOMIZED CONTROLLED TRIAL**

A. De Thurah^{1,2}, C. Skovsgaard³, T. Maribo^{4,5}, N. H. Hjøllund^{6,7}, M. Kruse³, ¹Aarhus University Hospital, Department of Rheumatology, Aarhus N, Denmark; ²Aarhus University, Department of Clinical Medicine, Aarhus N, Denmark; ³University of Southern Denmark, Danish Centre for Health Economics, Odense, Denmark; ⁴Aarhus University, Department of Public Health, Aarhus, Denmark; ⁵Central Denmark Region, DEFACTUM, Aarhus, Denmark; ⁶Aarhus University, AmbuFlex/WestChronic, Occupational Medicine, University Research Clinic, Herning, Denmark; ⁷Aarhus University, Department of Epidemiology, Aarhus N, Denmark

Background: The clinical effectiveness of a patient-reported outcome (PRO) based telehealth intervention offered to rheumatoid arthritis (RA) patients with low disease activity or remission has previously been reported¹. The TeRA study showed that PRO-based telehealth follow-up in RA achieved similar disease control as conventional outpatient follow-up among patients with low disease activity or remission. The degree of disease control did not differ between telehealth follow-up offered by rheumatologists or rheumatology nurses.

Objectives: To compare the cost-effectiveness of PRO-based telehealth follow-up to patients with RA performed by rheumatologists or rheumatology nurses with conventional outpatient follow-up.

Methods: A total of 294 patients were randomized (1:1:1) to either PRO-based telehealth follow-up carried out by a nurse (PRO-TN) or a rheumatologist (PRO-TR), or conventional outpatient follow-up by physicians. Quality of life (EQ-5D) was measured at baseline and at follow-up after one year. The primary outcome was a change in the Disease Activity Score, C-reactive Protein in 28 joints (DAS-28, CRP).

The focus in the health economic evaluation was on the relation between costs and EQ-5D in the period between one year prior to and one year after the intervention. All costs were measured at the individual level and consisted of: intervention costs, health and social care costs, and productivity costs. All cost