are monitored for serum uric acid less than twice per year. But 79% of patients claim to be satisfied with their current treatment and do not expect better management of their disease.

Conclusion: The results of the survey demonstrate that gout patients in Europe are diagnosed late, their disease is not well controlled and not regularly monitored. It seems that their doctors are not aware of the pain and impact of gout on their patients' quality of life as patients are not telling them about it. Nevertheless, most of the patients feel their current treatment is the best they can get. There is a clear need to educate patients and their doctors about adequate management of gout.

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OP0158-HPR THE BARRIERS AND FACILITATORS TO REQUESTING AND RECEIVING PSYCHOLOGICAL SUPPORT FOR PEOPLE WITH RHEUMATOID ARTHRITIS AND ADULTS WITH JUVENILE IDIOPATHIC ARTHRITIS

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Background: UK guidelines¹⁻³ state that psychological interventions should be offered to people with rheumatoid arthritis (RA) to help them adjust. Although rheumatology units recognise that providing psychological support is part of their role, 3 in 4 rate their overall provision as inadequate.⁴ The reasons being a lack of time, a lack of trained clinicians and available training and the costs of delivering this type of service. However, little is known about the barriers to requesting psychological support from the patient perspective.

Objectives: To establish the full range of barriers and facilitators to requesting psychological support.

Methods: The 2018 National Rheumatoid Arthritis Society (NRAS) 'Emotional Health and Well-being Matters' survey was designed by patients and researchers. This included a questionnaire designed to capture the barriers to accessing psychological support, using an established theoretical framework.⁵ The questionnaire consisted of 41 items covering a range of barriers, with responses on a 5-point Likert scale. Participants were recruited by NRAS via their social media platforms, membership and non-membership lists through direct mail and in newsletters and the NRAS HealthUnlocked forum. The survey was open from May-July 2018. Recruitment was those diagnosed with RA and AJIA, aged 18 years and over and living in the UK.

Results: A final sample of 1650 participants took part in the survey, 97% of the sample had RA and 3% AJIA. 1 in 5 people with RA and 1 in 10 with AJIA were unlikely or extremely unlikely to seek psychological or emotional support in the future, even if they felt they needed it. The most frequently reported barriers to requesting psychological support from their healthcare team were (i) lack of optimism about their future with RA or AJIA (ii) not knowing what support they can access (iii) finding it difficult to talk about their emotions and asking for help (iv) believing healthcare professionals lack the time and ability to help them (v) believing that discussing emotions and providing psychological support is on not on their healthcare team's agenda, evidenced by a focus on physical rather than psychological health in consultations and (vi) never or rarely being asked about their emotions.

Conclusion: Exploring the potential barriers to requesting psychological support has given us unique insight into the complex journey of receiving psychological support. To overcome the most influential barriers steps need to be taken to encourage hope for the future, empower patients with RA and AJIA to talk about their emotions and instigate these discussions with their healthcare team, as well as providing more information and guidance about what support they can access and from where.

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OP0159 THE EFFECT OF HIGH-INTENSITY RESISTANCE TRAINING AND VITAMIN D SUPPLEMENTATION ON MUSCLE STRENGTH IN PATIENTS WITH KNEE OSTEOARTHRITIS: A RANDOMIZED CONTROLLED TRIAL

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Background: Exercise therapy is the cornerstone of knee osteoarthritis (OA) management. In particular muscle strengthening exercise, targeting the characteristic loss of muscle strength present in knee OA, is a key factor for the beneficial effects reported for exercise therapy. The optimal training intensity for resistance training in patients with knee OA, however, is not known to date. Besides resistance training, vitamin D supplementation in patients with vitamin deficiency may optimize muscle strength.

Objectives: To assess (i) whether high-intensity resistance training leads to greater improvements in muscle strength compared to moderate-intensity resistance training in patients with knee OA; and (ii) whether vitamin D supplementation in combination with strength training leads to greater improvements in muscle strength compared to placebo in combination with strength training in patients with knee OA and vitamin D deficiency (25 (OH)D level > 15 nmol/L and < 50 nmol/L (in winter) or < 70 nmol/L (in summer)).

Methods: In a randomized controlled trial, 177 patients with a clinical diagnosis of knee OA were included. All patients were randomly allocated to a high-intensity (70-80% of the Repetition Maximum (1RM)) or a moderate-intensity (40-50% of the 1RM) resistance training program of 12 weeks. Both groups were supervised by a physical therapist twice a week and performed home exercises once a week. In addition, 50 out of 177 patients had vitamin D deficiency and received supplementation of vitamin D (1200 IU vitamin D3 per day) or placebo in the 12 weeks prior to and during the resistance training program. The primary outcome measure was isokinetic (60 °/s) upper leg muscle strength (Nm/kg). In addition, the estimated 1 RM for leg press, leg curl and hip abduction were used as measures for muscle strength. Other outcome measures included severity of knee pain (NRS), self-reported and performance based activity limitations (WOMAC physical functioning (WOMAC), Get-up-and-go-test (GUG)). Measurements were performed by a blinded assessor prior to the exercise program (T0), directly after the program (T12) and at 6 months follow-up (T36). Additionally, for patients with vitamin D deficiency, measurements were also taken prior to vitamin supplementation or placebo (T-12).

Results: Both the high-intensity group and moderate-intensity group improved in upper leg muscle strength over time. No significant differences between groups were found for isokinetic upper leg muscle strength ($p = 0.646$) (see figure 1). However, when measured by the estimated 1 RM, significant differences were found between groups in favor of the high-intensity group ($p = 0.001$) (see figure 1). No between-group differences were found on pain ($p = 0.885$), or on self-reported and performance-based activity limitations (WOMAC $p = 0.968$; GUG $p = 0.800$), although both groups improved (see figure 1). An unexpected finding was that, in the (small sample of) patients with vitamin D deficiency, the placebo group showed significant greater isokinetic upper leg muscle strength over time compared to the vitamin D group ($p = 0.001$).

Conclusion: No differences between groups were found for isokinetic upper leg muscle strength. With the estimated 1 RM as a measure of muscle strength, high-

intensity resistance training led to greater improvements in muscle strength compared to moderate-intensity resistance training in patients with knee OA. This did not result in greater improvements in pain and physical functioning in the high-intensity resistance group; both groups showed similar clinically important improvements. The added value of vitamin D supplementation on muscle strength in knee OA patients with vitamin D deficiency need further study.

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OP0160-HPR

DOES OCCUPATIONAL THERAPY DELAY OR REDUCE THE PROPORTION OF PATIENTS WHO RECEIVES THUMB CARPOMETACARPAL SURGERY? A RANDOMIZED CONTROLLED TRIAL

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Background: The 2018 update of the EULAR recommendations for the management of hand osteoarthritis (OA) states that every patient with hand OA should be offered patient education, hand exercises and provision of assistive devices. Orthoses should be considered for symptom relief in patients with thumb carpometacarpal (CMC1) OA. Surgery should only be considered when other treatment modalities have not been sufficiently effective in relieving pain (1).

Objectives: The main aim was to evaluate whether occupational therapy in the waiting period prior to surgical consultation can reduce or delay the need for surgery in CMC1 OA. A secondary aim was to explore potential predictors for CMC1 surgery.

Methods: This is a multicentre parallel-group randomized controlled trial including patients referred by their general practitioner for surgical consultation due to CMC1 OA at three Norwegian departments of rheumatology. After baseline assessments, participants were randomized into an occupational therapy group or a control group and reassessed after 4, 18 and 24 months. Both groups received written and oral information on hand OA. In addition, the occupational therapy group received a hand exercise program, day and night orthoses, assistive devices and a treatment diary.

Intention-to-treat analyses were conducted fitting multivariate logistic regression analyses to compare the proportion of participants in the two groups who had received CMC1 surgery after two years. Time to surgery was examined in a Kaplan-Meier survival plot, whereas crude and adjusted logistic regression analyses were performed to investigate predictors for CMC1 surgery using a predefined set of covariates of demographic and clinical variables.

Results: Of 214 patients screened for eligibility, 180 (84%) were randomized. The mean age was 63 years (SD 7.6) and 79% were women. Eighty-four (93%) participants in the occupational therapy group and 82 (91%) in the control group completed 24 months follow-up assessments. Fifty-eight (64%) participants in the occupational therapy group were categorized as having high treatment adherence. Twenty-two (24%) participants in the occupational therapy group and 31 (34%) in

the control group received surgery before the two year follow-up. The odds for receiving surgery were 50 percent lower in the occupational therapy group ($p=0.10$). Median time to surgery was 349 days (IQR 210 to 540) in the occupational therapy group and 267 days (IQR 181 to 406) in the control group ($p=0.07$). Previous non-pharmacological treatment (OR 2.70, 95% CI 1.16 to 6.27) and higher motivation for surgery (OR 1.22, 95% CI 1.07 to 1.38) were significant predictors for CMC1 surgery.

Conclusion: In participants receiving occupational therapy there was a clear, but not statistically significant trend towards reduction and delay in CMC1 surgery as compared to the control group. Previously received non-pharmacological treatment and higher motivation for surgery significantly predicted surgery. The results support that patients with CMC1 OA should be referred to occupational therapy before surgery is considered.

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OP0161-HPR

SHORT-TERM EFFECT OF OCCUPATIONAL THERAPY INTERVENTION ON HAND FUNCTION AND PAIN IN PATIENTS WITH THUMB BASE OSTEOARTHRITIS – SECONDARY ANALYSES OF A RANDOMIZED CONTROLLED TRIAL

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Background: Carpometacarpal joint osteoarthritis (CMC1 OA) is a subset of hand osteoarthritis (HOA), presenting symptoms of pain and functional limitations. No cure for OA exists, and the EULAR recommendations highlight conservative treatment as first-line treatment for patients with HOA. Although several studies have assessed the effect of different treatments on pain and function in patients with HOA, there is a lack of high quality studies assessing these effects in patients with CMC1 OA. A recent systematic review showed that multimodal treatments (i. e. patient education, exercises, orthoses) improved pain but not function; however, the two studies included had short intervention periods and small samples. Thus, additional studies are warranted.

Objectives: To assess the short-term effect of a 3-month multimodal occupational therapy intervention on pain and function in patients referred to surgical consultation for CMC1 OA.

Methods: This study presents secondary analyses of a multicenter randomized controlled trial. Patients referred to surgical consultation due to CMC1 OA at three departments of rheumatology in Norway between 2013 and 2015 were considered eligible if they could speak Norwegian and did not have cognitive dysfunction. During the waiting period between referral and actual surgical consultation, the 180 included patients were randomized to either usual care (information about hand OA) or multimodal occupational therapy consisting of patient education, hand exercises, orthoses and assistive devices. Patients were instructed in conducting hand exercises three times per week for 12 weeks. They were given both day and night orthoses and were instructed to use them as much as possible. They were also given five commonly used assistive devices for use at home. The patients answered questionnaires and were assessed at baseline and in conjunction with the surgical consultation (follow-up). Pain at rest and during pinch- and grip strength was self-reported on a 10-point numeric rating scale. Function was self-reported in MAP-Hand (1-4, 1= no problems) and QuickDASH (0-100, 0=no disability) and measured as grip- and pinch strength (% of reference values) and range of motion (flexion deficit 2-5, finger, palmar abduction and abduction in the CMC1). Within-group difference from baseline to follow-up was analyzed with paired sample t-test, while between-group difference at follow-up was estimated with multiple linear regression, adjusting for baseline value and time to follow-up. Due to multiple analyses of secondary outcomes, the p-value was set to $p<0.01$.

Results: The 180 included patients' mean (SD) age was 63 (8) years and most were women (81%). At baseline, there were no significant differences between