patients with mild to moderate knee OA, aged 18-65 years, receiving usual care for more than 6 months were included. Patients were randomized into a control group receiving usual care or into an intervention group receiving usual care with 3 additional intra articular injections with high MW HA. Data on pain during rest / activity, function and global assessment were collected during 12 months follow-up. The primary outcome was defined as response to therapy according to OMERACT-OARSI criteria (improvement of at least 20% in at least 2 of the 3 following domains: pain in rest / pain during activity, function and patients global assessment) after 12 months of follow-up. Adverse events were registered during follow-up.

Results: In total, 156 subjects were included of which 77 patients in the intervention group and 79 subjects in the control group. There were statistically significant more responders in the intervention group when pain during rest was included in responder criteria (51.9% versus 26.7%, p=0.001) after 12 months. With pain during activity as responder criteria, this difference was also statistically significant favouring the intervention group (51.9% versus 25.3%, p=0.001). Also on the individual outcomes of the responder criteria significant differences were found between both groups favouring the intervention group.

Conclusions: Intra articular HA added to usual care leads to significantly more responders according to OMERACT-OARSI criteria after 12 months.

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THE VISK STUDY: A COST UTILITY ANALYSIS OF INTRA ARTICULAR HYALURONIC ACID FOR KNEE OSTEOARTHRITIS

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Purpose: Intra articular hyaluronic acid (HA) is included in treatment guidelines of the Dutch Orthopaedic Society for the treatment of knee osteoarthritis (OA). However, it is not reimbursed by insurance companies in The Netherlands due to the fact that cost-utility of intra articular HA is unknown for the Dutch healthcare system. The primary goal of this study was to determine the cost-utility of intra articular high molecular weight (MW) HA added to usual care compared to usual care in patients with knee OA.

Methods: Cost utility and clinical effectiveness were investigated in this randomized clinical trial. Consecutive knee OA patients with mild to moderate knee OA, aged 18-65 year, receiving usual care for more than 6 months were included in 2 hospitals in The Netherlands. Patients were randomized into a control group receiving usual care or into an intervention group receiving usual care with additionally intra articular high MW HA. Data on medical costs, productivity costs and quality of life were collected through questionnaires during 12 months follow-up.

Results: In total, 156 subjects were included of which 77 patients in the intervention group and 79 subjects in the control group. The mean annual productivity costs were higher in the intervention group (€6.542 (SD €9.837) versus €5.425 (SD €7.118), p=0.796). The mean total medical costs were also higher in the intervention group (€1.656 (SD €2.331) versus €1.112 (SD €2.084), p=0.003). The total annual mean costs were higher in the intervention group (€8.198 (SD €1.1382) versus €6.537 (SD €7.915), p=0.383). Patients in the intervention group experienced a higher and statistically significant quality of life during the course of the follow-up period (p=<0.0001). The higher costs and higher quality of life in the intervention group resulted in a cost-effectiveness ratio of €79.268 per quality adjusted life year (QALY) using the societal perspective, and €25.948 per QALY using the healthcare perspective.

Conclusions: Adding Intra articular HA to usual care in knee OA is more effective, but only moderately cost-effective, regarding current standards for reimbursement in the Netherlands.

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PARQVE – PROJECT ARTHRITIS RECOVERING QUALITY OF LIFE BY MEANS OF EDUCATION – A PILOT STUDY IN BRAZIL

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Purpose: The primary objective was to evaluate the improvement of pain and function of patients with knee OA exposed to a multidisciplinary education program. Secondary Objectives were to evaluate patients' weight loss and increase in physical activity.

Methods: Two hundred and twenty-two patients (54 men and 168 women) with knee OA were randomly divided into four groups. Patients underwent pre-assessment and two days of workshops with a multidisciplinary team composed of psychologists; nutritionist; social workers; physiotherapists; occupational therapists and orthopedic surgeons. Patients answered evaluation questionnaires (VAS, WOMAC, LEQUESNE) at inclusion and one year after classes. Three groups participated in two workshops with varying time interval between each workshop (Group **1**, 3 months apart; Group **2**, 2 months apart; Group **3**, 1 month apart. Group **4**, control, only received handouts and video as all patients. Patients responded how many times a week they exercised during the year.To compare the means between the groups in the assessments of VAS, WOMAC, Lequesne and BMI, ANOVA was used with repeated measures. To compare the average weekly exercises between groups ANOVA was used. The Tukey test was used for multiple comparisons when significance was found. The data were processed in SPSS V. 18.0 and the significance level used for the tests was $\alpha = 0.05$. Data are presented as mean (standard deviation) at baseline and after 1 year.

Results: Baseline VAS was 53.33 (±27.45) in Group **1**, 64.58 (±25.96) in Group **2**; 57.81 (±24.91); Group **3**; and 55.70 (±26.71) in Group **4**. At one year the average VAS was according to groups: **1:** 55.81(±22.90); **2:** 52.42(±25.93); **3:** 52.87(±21.78); **4:** 57.27(±24.72). There was a difference between groups after one year (p=0.03) but the Tukey test was not able to verify which group was different. Baseline WOMAC was **1:**43.37(±19.15); **2:** 46.69(±18.65); **3:** 45.33(±18.33); **4:**42.33(±18.68) and at one year: **1:**43.29(±18.08); **2:** 42.33(±20.86); **3:** 42.65(±13.67); **4:**43.97(±19.43). There was no difference between groups (p=0.53).Baseline LEQUESNE: **1:**12.16(6.29); **2:** 13.46(9.57); **3:** 11.81(4.08); **4:** 11.89(4.40) and at one year **1:** 11.74(4.05); **2:** 11.41(4.63); **3:** 11.68(3.62); **4:** 11.86(4.30) also showed no difference (p=0.53). Patientes from group **4** exercised less average 1.34(±2.11) times a week than the others: **1:** 2.96 (±2.52) p=0.00; **2:** 2.75(±2.58); p=0.01; **3:** 2.76(±2.95); p=(0.015). BMI was measured at baseline and after a year. There were significant defference between groups: (1 and 4) average =-7.19; CI95%= [-9.94; -4.44]; p=0.00; (2 and 4) average = -4.60; CI95%= [-7.35; -1.849]; p=0.000; (3 and 4) average = -3.55; CI95%= [-6.27; -0.83]; p=0.00.

Conclusions: The educational program (handouts, video, and workshops) diminished BMI and increased physical activity of the subjects. Participating in the workshops did not improve functional measures but diminished pain more than just receiving handouts.

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PREOPERATIVE RESISTANCE TRAINING INCREASES MUSCLE FUNCTION IN PATIENTS DIAGNOSED WITH HIP OSTEOARTHRITIS SCHEDULED FOR TOTAL HIP ARTHROPLASTY – A RANDOMIZED EXPLORATIVE TRIAL

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Purpose: Osteoarthritis (OA) of the hip is associated with loss of muscle function. Resistance training (RT) increases muscle strength and function in healthy elderly and as postoperative intervention after total hip arthroplasty (THA) in patients with hip OA. The purpose of the study was to investigate effects of preoperative progressive (RT) on muscle power and muscle strength in patients with hip osteoarthritis (OA) scheduled for THA.

Methods: Eighty patients (50-88 years of age, BMI 27.9±4.6, 70% female) diagnosed with hip OA and scheduled for THA were randomized into two groups:The intervention group (IG) received supervised preoperative progressive RT twice a week for a period of 10 weeks. Four exercises focusing on hip and thigh muscles were performed in 3 series each with an intensity corresponding to 80% of 1 repetition maximum. The control group (CG) received 'care as usual', defined as surgery according to the regular waiting list and preoperative information which included a voluntary home based training program without any RT.

Leg extension muscle power (Nottingham Powerrig, Nottingham, UK) and maximum isometric force by isolated hip and knee extension (custom made dynamometer, National Instruments, Texas, USA), was measured at baseline (time of inclusion) (T0) and following intervention (1-3 days prior to surgery) (T1).