Method 12 GPs at 6 practices were able to refer to the nurse-led OA self-management programme by a simple referral slip) any patients they considered suitable, provided that he or she had consulted them that day for a problem related to OA hip or knee. The programmes of three 2-hour sessions were held locally. A leaflet about the programme was to be given to the patient. Patients could apply by completing the short attached questionnaire and returning it in the stamped addressed envelope provided.

Results Over 9 months only 44 patients have been referred, 37 of which were interested in attending. Of the 23 so far booked into completed programmes, 11 have attended all three sessions, 5 have attended 2, and 3 have attended 1. 4 did not attend at all. The response of those who have attended has been very positive but a follow up questionnaire is planned to elicit the opinions of all those referred including nonattenders.

Discussion The rate of referral from the GPs has been far lower than anticipated. Pressure on GP time might have been a factor but the GP referral method was deliberately kept as simple as possible – hardly more detailed than a blood test request form. A number of other possibilities need to be explored: 1. Did patients consult their GP about their OA as often as anticipated? 2. Did the GPs fail to refer many suitable patients and 3. If so does this suggest that the participating GPs placed only a low value on patient self-management education for OA?

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HP0012 THE DISCRIMINATORY VALIDITY OF THE NEW ZEALAND SCORE FOR HIP AND KNEE SURGERY IN A UK POPULATION

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Background There is currently no standardised method for prioritising patients joint replacement surgery in the UK. The New Zealand (NZ) score could be used to assist prioritisation.¹ This approach has not been tested in the UK.

Objectives To determine whether the NZ score is associated with measures of pain and function, in a sample of 176 people who were currently waiting for, or being considered for total knee replacement.

Methods Patients completed the WOMAC scores, a Likert scale for distress (0–4), and a 100 mm VAS for pain. Leg power was tested using a leg extensor power rig. The number of sit to stands in one minute was recorded. In NZ a cut off point of between 55–65 is used. Those scoring below 55 are not recommended for surgery. Patients were stratified into 2 groups. The first group included all those scoring below 55, and the second group all those who scored 55 or above. Spearman's correlation was performed to identify correlation between the NZ score and other measures. Mann-Whitney tests were performed in order to test differences between groups.

Results 44% were male, with a mean age of 69(SD9). Mean duration of symptoms was 10 years (SD12), and mean VAS score for pain was 57 (SD24). 68% were already listed for surgery. Significant correlations were found between the NZ score and all other measures $p < 0.01$ (2-tailed). A higher NZ score was associated with more pain, less functional ability and reduced strength. The Rho values are shown in the table. Median scores for all measurements were significantly different between the two groups $p < 0.01$ (2-tailed). 28% scored 55 or above, 85% of these were already listed for surgery, 67% were listed as “routine” cases and 33% were listed as “soon”. Those scoring above 55 were weaker, had reduced function, and more pain than those scoring below 55. These differences were statistically and clinically significant.

Conclusion The NZ score is associated with pain and function in a UK population of patients waiting for, or being considered for total knee replacement surgery. Further research is needed to identify whether a score of 55 is the optimal cut off point. This cut off point did not distinguish between patients who were already listed for surgery and those who were not. However, it did identify higher patient need.

Abstract HP0012 Table 1

	Spearman's Rho value NZ score versus other measures	Group 1 Median Score	Group 2 Median Score
WOMAC function	0.54	1.92	2.57
WOMAC pain	0.50	1.90	2.50
Sit to stands in 1 min	–0.52	9.00	0.00
Pain VAS score	0.52	52.00	76.00
Leg extensor power/ BMI	–0.54	1.18	0.29

Spearman's correlation showing association between NZ score and other measures, along with median scores of group 1 (scoring under 55) and group 2 (scoring 55 or over).

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HP0013 CHANGES IN MEASURES OF PAIN AND FUNCTION IN INTERVENTION STUDIES OF SEVERE KNEE OSTEOARTHRITIS: COMPARISON TO PATIENT PERCEPTIONS

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Background Questionnaires and physical performance tests are recommended for measuring changes in pain and function in knee osteoarthritis. The significance of changes in these measures is poorly understood.

Aim To compare associations between patients' perceptions of change in function and pain due to a chronic disease management program, with physical performance tests and questionnaire assessments.

Method The sample were 109 people being considered or waiting for knee replacement, who attended a six-week chronic disease management program. Interventions were goal setting, planning, symptom management, exercise, diet and lifestyle advice. Function and pain were assessed before and after the

program by a physiotherapist, using the WOMAC,¹ Arthritis self-efficacy scale,² visual analogue scales (VAS) of distress and pain, timed measures of walking and sit-to-stand, and leg extensor power (LEP, Watts/Kg).³ Patients gave a global assessment of change in pain and function as a result of the program as (1) much worse (2) somewhat worse (3) same (4) somewhat better (5) much better. Less than 5% of patients reported worsening symptoms, therefore categories 1–3 were combined. The mean change in outcome measures was calculated for the three levels of global patient assessments. A non-parametric ANOVA was used to test for statistically significant differences in outcomes across the three levels of global assessment, and included a test for linearity.

Results The mean age of participants was 69 (SD 8.5), 44% were male, median duration of symptoms was 6 yrs (range 57.5). Over 70% of patients reported being somewhat or much better in function or pain after the program. Global ratings of pain and function demonstrated strong, linear associations with changes in WOMAC function, LEP and self-efficacy (shown for pain in the Table 1). Improvements in pain were associated with the baseline WOMAC pain score. Age, sex, and severity of disease were not associated with patients' global assessments. Neither were changes in walking speed, sit-to-stand, VAS distress, VAS pain or WOMAC pain scores.

Conclusion The results suggest possible minimum clinically significant differences for use in clinical trials, and measures that reflect patient perceptions of the benefits of a chronic disease management program.

Abstract HP0013 Table 1

	Change WOMAC function/4	Change LEP W/ Kg	Change self-efficacy/ 45
Same or worse	-0.19 (0.46)	0.22 (0.71)	1 (12.6)
Somewhat better	-0.23 (0.56)	0.71 (0.65)	2.5 (9.3)
Much better	-0.49 (0.44)	1.01 (0.78)	10 (9.7)

Mean change (SD) in comparison to participants global rating of pain. ANOVA and linearity tests $p < 0.05$.

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Back pain

SP0131 CONSERVATIVE TREATMENT FOR IMPROVING WORKING ACTIVITY IN SUBACUTE AND CHRONIC LOW BACK PAIN-A META ANALYSIS

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Introduction The primary goal in the rehabilitation of patients with chronic aspecific low back pain is return to work. Return to work was not reported in Tulder's review (1997), who found strong evidence for the effectiveness of manipulation, back schools and exercise therapy for chronic low back pain especially

for short-term effects. Van der Weide's review (1997) investigated vocational outcome after treatment of patients with CLBP based on RCT until December 1996. No evidence was found for the effectiveness of behavioural treatment, exercise, manipulation or back school. Since then, several studies regarding RCT reporting vocational outcome were performed. It remains questionable whether return to work can be improved. Therefore a new review is performed.

Method Literature search: MEDLINE, Cochrane Clinical Trial Register, EMBASE, PSYCLIT, cross reference tracing. The search combined the key word 'low back pain' with one of the following terms: absenteeism, (re)employment, sick leave, return to work, sickness absence, occupational disability and employment status. Criteria for inclusion of studies were: randomised clinical trial, subacute or chronic aspecific low back pain (> 4 weeks), subjects at working age, outcome return to work or sick days, conservative intervention. Based on prior reviews passive treatment modalities were excluded. To assess methodological quality internal validity was rated on a 10 point scale (1 = concealment of treatment allocation, 2 = blinded assessment, 3 = blinding of patients, 4 = blinding of therapist, 5 = intention to treat analysis, 6 = timing of outcome assessment comparable, 7 = withdrawal/drop out rate, 8 = cointervention avoided or equal, 9 = compliance, 10 = outcome measurements relevant). Four levels of evidence were defined. Level 1, Strong evidence: multiple relevant high quality RCTs. Level 2, Moderate evidence: One relevant, high quality RCT and one or more relevant, low quality RCTs. Level 3, Limited evidence: one relevant, high quality RCT or multiple relevant, low quality RCTs. Level 4, No evidence: only one relevant, low quality RCT, no relevant RCTs or contradictory outcomes.

Results More than 900 publications were identified. 120 were further examined. So far 14 RCTs fulfilled the inclusion criteria. Results on methodological quality and treatment effectiveness will be presented at the EULAR Conference in Prague.

Osteoporosis

HP0015 BONE TURNOVER DURING PREGNANCY IN WOMEN WITH LOW DIETARY CALCIUM INTAKE: EFFECTS OF A CALCIUM CITRATE SUPPLEMENT

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Objective To determine parameters of calcium homeostasis in pregnant women with low dietary calcium intake and to observe the effects of a calcium supplement.

Method 44 pregnant women (calcium intake: 310 to 720 mg/day) were enrolled. Blood and urine samples were taken around the 20th. week (pre-treatment value). Afterwards 26 women received calcium 750 mg/day (as calcium citrate suspension) until delivery; 18 received a placebo. At 36th–38th week blood and urine samples were again taken (post-treatment value). Ca and P in serum and urine and serum bone -specific alkaline phosphatase (AP), intact PTH, 1,25–2OH-vit D, IGF-1 and degradation products of C terminal telopeptides of type I collagen (CT) were determined.

Results At enrollment serum Ca, P, AP and IGF-1 were normal although with a great individual variation for IGF-1 (50% of the women showed high values and 20% low values); PTH (103.8