



EJPRM systematic continuous update on Cochrane reviews in rehabilitation: news from the 4th Issue 2009

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Background. Since 2007 we focused our attention as EJPRM to the best available clinical evidence offered by the Cochrane Collaboration. Due to the absence of a specific Rehabilitation Group (only a field exists), reviews of PRM interest are in different groups and not easy to find. Consequently, the EJPRM lists and presents all these reviews systematically.

Aim. The aim of the present paper is to systematically review all the new rehabilitation papers published in the Cochrane Library 4th Issue 2009 in order to provide to physicians involved in the field a summary of the best evidence nowadays available.

Methods. The author systematically searched all the new papers of rehabilitative interest in the Cochrane Library 4th Issue 2009. The retrieved papers have been divided in subgroups on the base of the topic and the Cochrane Groups.

Results. The number of included papers was 19: 11 were new reviews. Three new reviews deal with neurological rehabilitation, 6 with musculoskeletal disorders, 3 with pain management. Moreover, 8 reviews have been updated: 4 related to musculoskeletal disorders, 2 to neurological disorders, and 1 to respiratory rehabilitation. All these are listed at the end of the paper.

Conclusion. The Cochrane Collaboration and its product, the Cochrane Library, are really relevant instruments to improve EBM in medical practice and thus also in the Rehabilitation Field. The present paper can help Rehabilitation Specialists to easily retrieve the conclusions of the most relevant and updated reviews in order to change their clinical practice in a more rapid and effective way.

KEY WORDS: Rehabilitation - Physician's practice patterns - Nervous system diseases.

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The number of papers about rehabilitation has been growing up quite quickly during the last years. Sometimes results are discordant, others are based on small population, thus limiting the strength of the findings. The best way to obviate to these problems and to synthesize results driving clinical indications is to perform systematic reviews on high interest topic. This is the main aim of the Cochrane Collaboration, so that today the Cochrane reviews are considered the most reliable instruments of synthesis. In order to present to our readers the best available evidence in the field of rehabilitation, we continuously perform systematic reviews of the articles regularly published in the Cochrane Library.

In the present article readers can find a list of papers of rehabilitative interest systematically researched and reviewed from the 4th Issue of 2009. At the end of the paper, a list of all the existing systematic reviews of rehabilitation interest is reported.

Materials and methods

The author systematically searched all the new reviews of rehabilitative interest published in the 4th Issue 2009 of the Cochrane Library. Papers have been divided in subgroups, according to their topic. We also continue the update of the list of reviews of inter-

est for PRM specialists in Appendix I that was first published in 2007.¹ All new papers have been added to the list of Cochrane reviews of PRM interest, while the withdrawn reviews have been cancelled.

Results

We included 19 papers: 11 of these were new reviews. Three new reviews deal with neurological rehabilitation, 6 with musculoskeletal disorders, 3 with pain management. Moreover, 8 reviews have been updated: 4 related to musculoskeletal disorders, 2 to neurological disorders, and 1 to respiratory rehabilitation. All these are listed at the end of the paper.

The author will find the main results of each single review in the following paragraphs, being the reviews divided into "New" and "Updated", and further according to the topic and the Cochrane Group.

New reviews

Musculoskeletal rehabilitation

COCHRANE BONE, JOINT AND MUSCLE TRAUMA GROUP

Multidisciplinary rehabilitation for older people with hip fractures.—The 13 included trials involved 2 498 elderly, usually female patients, who had undergone hip fracture surgery.² Though generally well conducted, some trials were at risk of bias due to imbalances in key baseline characteristics.

There was substantial clinical heterogeneity in the trial interventions and populations. Multidisciplinary rehabilitation was provided primarily in an inpatient setting in 11 trials. Pooled results showed no statistically significant difference between intervention and control groups for poor outcome (risk ratio 0.89; 95% confidence interval 0.78 to 1.01), mortality (risk ratio 0.90, 95% confidence interval 0.76 to 1.07) or hospital readmission. Individual trials found better results, often short-term only, in the intervention group for activities of daily living and mobility. There was considerable heterogeneity in length of stay and cost data. Three trials reporting carer burden showed no evidence of detrimental effect from the intervention. Overall, the evidence indicates that multidisciplinary rehabilitation is not harmful.

The trial comparing primarily home-based multi-

disciplinary rehabilitation with usual inpatient care found marginally improved function and a clinically significantly lower burden for carers in the intervention group. Participants of this group had shorter hospital stays, but longer periods of rehabilitation. One trial found no significant effect from doubling the number of weekly contacts at the patient's home from a multidisciplinary rehabilitation team.

While there was a tendency to a better overall result in patients receiving multidisciplinary inpatient rehabilitation, these results were not statistically significant. Future trials of multidisciplinary rehabilitation should aim to establish both effectiveness and cost effectiveness of multidisciplinary rehabilitation overall, rather than evaluate its components.

COCHRANE MUSCULOSKELETAL GROUP

Assistive technology for rheumatoid arthritis.—Only one randomised controlled trial with 29 participants was included.³ The study compared the use of an eye drop device to a standard bottle in people with rheumatoid arthritis suffering from persistent dry eyes. The study was considered to have low quality of evidence. The proportions with observed difficulties when using the device to squeeze out drops and getting the drops in the eyes were 10% and 14%, respectively. This compared to 52% and 52% when using the standard bottle ($P=0.001$; $P=0.003$, respectively). The proportions of participants reporting difficulties with squeezing the bottle, controlling the number of drops, and aiming the drops when using the device were 40%, 44%, and 46% respectively, while using the standard bottle the proportions with difficulties were 72%, 84%, and 76% ($P=0.001$; $P=0.003$; $P=0.031$, respectively).

Only one trial met the inclusion criteria for this review. Thus, there is very limited evidence for the effect of assistive technology for adults with rheumatoid arthritis and, therefore, an urgent need for high-quality research addressing the effectiveness of commonly used interventions.

Dynamic exercise programs (aerobic capacity and/or muscle strength training) in patients with rheumatoid arthritis.—A total of eight studies was included in this updated review (two additional studies).⁴ Four of the eight studies fulfilled at least 8/10 methodological criteria. In this updated review four different dynamic exercise programs were found: 1) short-term, land-based aerobic capacity training,

whose results show moderate evidence for a positive effect on aerobic capacity (pooled effect size 0.99 [95% CI 0.29 to 1.68]); 2) short-term, land-based aerobic capacity and muscle strength training, whose results show moderate evidence for a positive effect on aerobic capacity and muscle strength (pooled effect size 0.47 [95% CI 0.01 to 0.93]); 3) short-term, water-based aerobic capacity training, whose results show limited evidence for a positive effect on functional ability and aerobic capacity; 4) long-term, land-based aerobic capacity and muscle strength training, whose results show moderate evidence for a positive effect on aerobic capacity and muscle strength. With respect to safety, no deleterious effects were found in any of the included studies.

Based on the evidence, aerobic capacity training combined with muscle strength training is recommended as routine practice in patients with RA.

Doxycycline for osteoarthritis of the knee or hip.—We found one randomised controlled trial that compared doxycycline with placebo in 431 obese women.⁵ After 30 months of treatment, clinical outcomes were similar between the two treatment groups, with a mean difference of -0.20 cm (95% confidence interval [CI] -0.77 to 0.37 cm) on a visual analogue scale from 0 to 10 cm for pain and -1.10 units (95% CI -3.86 to 1.66) for function on the WOMAC disability subscale, which ranges from 17 to 85. These differences correspond to clinically irrelevant effect sizes of -0.08 and -0.09 standard deviation units for pain and function, respectively. The difference in changes in minimum joint space narrowing was in favour of doxycycline (-0.15 mm, 95% CI -0.28 to -0.02 mm), which corresponds to a small effect size of -0.23 standard deviation units. More patients withdrew from the doxycycline group compared with placebo due to adverse events (risk ratio 1.69, 95% CI 1.03 to 2.75).

The symptomatic benefit of doxycycline is minimal to non-existent. The small benefit in terms of joint space narrowing is of questionable clinical relevance and outweighed by safety problems. Doxycycline should not be recommended for the treatment of osteoarthritis of the knee or hip.

Oral or transdermal opioids for osteoarthritis of the knee or hip.—Ten trials with 2 268 participants were included.⁶ Oral codeine was studied in three trials, transdermal fentanyl and oral morphine in one trial each, oral oxycodone in four, and oral oxymorphone in two trials. Overall, opioids were more effective than

control interventions in terms of pain relief (SMD -0.36, 95% CI -0.47 to -0.26) and improvement of function (SMD -0.33, 95% CI -0.45 to -0.21). We did not find substantial differences in effects according to type of opioid, analgesic potency (strong or weak), daily dose, duration of treatment or follow-up, methodological quality of trials, and type of funding. Adverse events were more frequent in patients receiving opioids compared to control. The pooled risk ratio was 1.55 (95% CI 1.41 to 1.70) for any adverse event (4 trials), 4.05 (95% CI 3.06 to 5.38) for dropouts due to adverse events (10 trials), and 3.35 (95% CI 0.83 to 13.56) for serious adverse events (2 trials). Withdrawal symptoms were more severe after fentanyl treatment compared to placebo (SMD 0.60, 95% CI 0.42 to 0.79; 1 trial).

The small to moderate beneficial effects of non-tramadol opioids are outweighed by large increases in the risk of adverse events. Non-tramadol opioids should, therefore, not be routinely used, even if osteoarthritic pain is severe.

S-Adenosylmethionine for osteoarthritis of the knee or hip.—Four trials including 656 patients were included in the systematic review, all compared S-Adenosylmethionine (SAME) with placebo.⁷ The methodological quality and the quality of reporting were poor. For pain, the analysis indicated a small SMD of -0.17 (95% CI -0.34 to 0.01), corresponding to a difference in pain scores between SAME and placebo of 0.4 cm on a 10 cm VAS, with no between trial heterogeneity ($I^2=0$). For function, the analysis suggested a SMD of 0.02 (95% CI -0.68 to 0.71) with a moderate degree of between-trial heterogeneity ($I^2=54%$). The meta-analyses of the number of patients experiencing any adverse event, and withdrawals or drop-outs due to adverse events, resulted in relative risks of 1.27 (95% CI 0.94 to 1.71) and 0.94 (95% CI 0.48 to 1.86), respectively, but confidence intervals were wide and tests for overall effect were not significant. No trial provided information concerning the occurrence of serious adverse events.

The current systematic review is inconclusive, hampered by the inclusion of mainly small trials of questionable quality. The effects of SAME on both pain and function may be potentially clinically relevant and, although effects are expected to be small, deserve further clinical evaluation in adequately sized randomised, parallel-group trials in patients with knee or hip osteoarthritis. Meanwhile, routine use of SAME should not be advised.

COCHRANE INJURIES GROUP

Psychosocial interventions for the prevention of disability following traumatic physical injury.—Five studies were included, involving 756 participants.⁸ Three studies assessed the effect of brief psychological therapies, one assessed the impact of a self-help booklet, and one the effect of collaborative care. The disparate nature of the trials covering different patient populations, interventions and outcomes meant that it was not possible to pool data meaningfully across studies. There was no evidence of a protective effect of brief psychological therapy or educational booklets on preventing disability. There was evidence from one trial of a reduction in both post-traumatic stress disorder (PTSD) and depressive symptoms one month after injury in those who received a collaborative care intervention combined with a brief psycho-educational intervention, however this was not retained at follow up. Overall mental health status was the only disability outcome affected by any intervention. In three trials the psychosocial intervention had a detrimental effect on the mental health status of patients.

This review provides no convincing evidence of the effectiveness of psychosocial interventions for the prevention of disability following traumatic physical injury. Taken together, our findings cannot be considered as supporting the provision of psychosocial interventions to prevent aspects of disability arising from physical injury. However, these conclusions are based on a small number of disparate trials with small to moderate sample sizes and are therefore necessarily cautious. More research, using larger sample sizes, and similar interventions and patient populations to enable pooling of results, is needed before these findings can be confirmed.

Neurological rehabilitation

COCHRANE STROKE GROUP

Constraint-induced movement therapy for upper extremities in stroke patients.—The authors included 19 studies involving 619 participants.⁹ The trials included participants who had some residual motor power of the paretic arm, the potential for further motor recovery and with limited pain or spasticity, but tended to use the limb little if at all. Only five studies had adequate allocation concealment. The majority of studies were underpowered (median number of included patients was 15) and we cannot rule out

small-trial bias. Six trials (184 patients) assessed disability immediately after the intervention, indicating a significant standard mean difference (SMD) of 0.36, 95% confidence interval (CI) 0.06 to 0.65. For the most frequently reported outcome, arm motor function (11 studies involving 373 patients), the SMD was 0.72 (95% CI 0.32 to 1.12). There were only two studies that explored disability improvement after a few months of follow-up and found no significant difference, SMD -0.07 (95% CI -0.53 to 0.40).

Constraint-induced movement therapy is a multifaceted intervention: the restriction to the normal limb is accompanied by a certain amount of exercise of the appropriate quality. It is associated with a moderate reduction in disability assessed at the end of the treatment period. However, for disability measured some months after the end of treatment, there was no evidence of persisting benefit. Further randomised trials, with larger sample sizes and longer follow up, are justified.

Magnetic resonance imaging versus computed tomography for detection of acute vascular lesions in patients presenting with stroke symptoms.—Eight studies with a total of 308 participants met our inclusion criteria.¹⁰ Seven studies contributed to the assessment of ischemic stroke and two studies to the assessment of hemorrhagic stroke. The spectrum of patients was relatively narrow in all studies, sample sizes were small, there was substantial incorporation bias, and blinding procedures were often incomplete. Amongst the patients subsequently confirmed to have acute ischemic stroke (161/226), the summary estimates for diffusion-weighted MRI were: sensitivity 0.99 (95% CI 0.23 to 1.00), specificity 0.92 (95% CI 0.83 to 0.97). The summary estimates for CT were: sensitivity 0.39 (95% CI 0.16 to 0.69), specificity 1.00 (95% CI 0.94 to 1.00). The two studies on hemorrhagic stroke reported high estimates for diffusion-weighted and gradient-echo sequences but had inconsistent reference standards. We did not calculate overall estimates for these two studies. We were not able to assess practicality or cost-effectiveness issues.

Diffusion-weighted MRI appears to be more sensitive than CT for the early detection of ischemic stroke in highly selected patients. However, the variability in the quality of included studies and the presence of spectrum and incorporation biases render the reliability and generalization of observed results questionable. Furthermore, well-designed studies without method-

ological biases, in more representative patient samples, with practicality and cost estimates, are now needed to determine which patients should undergo MRI and which CT in suspected acute stroke.

COCHRANE NEUROMUSCULAR DISEASE GROUP

Duloxetine for treating painful neuropathy or chronic pain.—Six trials were identified, including 2 220 participants.¹¹ Three studies included participants with painful diabetic neuropathy and three treated participants with fibromyalgia. Duloxetine at 60 mg daily is effective in treating painful diabetic peripheral neuropathy in the short-term to 12 weeks with a risk ratio (RR) for 50% pain reduction at 12 weeks of 1.65 (95% confidence interval [CI] 1.34 to 2.03), number needed to treat (NNT) 6 (95% CI 5 to 10). Duloxetine at 60 mg daily is also effective in fibromyalgia over 12 weeks (RR 50% reduction in pain 1.57, 95% CI 1.20 to 2.06; NNT 8, 95% CI 5 to 17) and 28 weeks (RR 1.58, 95% CI 1.10 to 2.27). Adverse events were common in both treatment and placebo arms but more common in the treatment arm with a dose dependent effect. Most side effects were minor, but 16% of participants stopped the drug because of side effects. Serious adverse events were rare.

There is moderately strong evidence that duloxetine 60 mg and 120 mg daily are efficacious for treating pain in diabetic peripheral neuropathy and fibromyalgia, but 20 mg daily is not. Minor side effects are common at therapeutic doses but serious side effects are rare. Direct comparisons of duloxetine with other antidepressants and with other drugs already shown to be efficacious in neuropathic pain would be appropriate and should include unbiased economic analyses.

COCHRANE MOVEMENT DISORDERS GROUP

Speech therapy for children with dysarthria acquired before three years of age.—No randomised controlled trials or group studies were identified.¹² No firm evidence of the effectiveness of speech and language therapy to improve the speech of children with early acquired dysarthria was found. No change in practice is warranted at the present time. Rigorous research is needed to investigate if the positive changes in children's speech observed in small descriptive studies are shown in randomised controlled trials. Research should examine change in children's speech production and intelligibility. It should also investigate the secondary education, health and social care outcomes

of intervention, including children's interaction with family, friends and teachers, their participation in social and educational activities, and their quality of life. Cost and acceptability of interventions must also be investigated.

Updated reviews

Musculoskeletal disorders

COCHRANE BACK GROUP

Electrotherapy for neck pain.—Eighteen small trials (1 043 people with neck pain) with 23 comparisons were included.¹³ Analysis was limited by trials of varied quality, heterogeneous treatment subtypes and conflicting results. The main findings for reduction of neck pain by treatment with electrotherapeutic modalities are:

- very low quality evidence that pulsed electromagnetic field therapy (PEMF), repetitive magnetic stimulation (rMS) and transcutaneous electrical nerve stimulation (TENS) are more effective than placebo;
- low quality evidence that permanent magnets (necklace) are not more effective than placebo;
- very low quality evidence that modulated galvanic current, iontophoresis and electric muscle stimulation (EMS) are not more effective than placebo.

Only four trials reported on other outcomes such as function and global perceived effects, but none were of clinical importance.

It is not possible to make any definite statements on the efficacy and clinical usefulness of electrotherapy modalities for neck pain. Since the quality of evidence is low or very low, estimate of the effect remains uncertain. Further research is very likely to change both the estimate of effect and our confidence in the results. Current evidence for PEMF, rMS, and TENS shows that these modalities might be more effective than placebo but not other interventions. Funding bias should be considered, especially in PEMF studies. Galvanic current, iontophoresis, electric muscle stimulation (EMS), and static magnetic field did not reduce pain or disability. Future trials on these interventions should have larger patient samples and include more precise standardization and description of all treatment characteristics.

Neuroreflexotherapy for non-specific low-back pain.—Three RCTs were included, with a total of 125

subjects randomised to the control groups and 148 subjects receiving active neuroreflexotherapy.¹⁴ Neuroreflexotherapy was the same in all three trials, while the control groups received sham-NRT in two trials and standard care in one. Two trials studied patients with chronic LBP, the third studied patients with a mix of chronic and sub-acute Low-back Pain (LBP). Clinical outcomes were measured in the short-term (15 to 60 days) in all three trials; in one trial, resource utilization was measured after one year. Individuals who received active neuroreflexotherapy showed statistically significantly better outcomes than the control groups for measures of pain, degree of mobility, disability, medication use, consumption of resources and costs. No significant differences were observed for quality of life measures. Side effects were more frequently reported in the control groups during short-term follow-up, with no major side effects reported by those receiving active neuroreflexotherapy.

Neuroreflexotherapy appears to be a safe and effective intervention for the treatment of chronic non-specific LBP. The efficacy is less clear for sub-acute LBP. However, these results are limited to three trials conducted by a small number of specifically trained and experienced clinicians, in a limited geographical location. No data are available on the ease and time-frame needed to achieve that level of expertise. RCTs by other practitioners, in other locations, that replicate the effects reported in this review are needed before recommending a broader practice.

Prolotherapy injections for chronic low-back pain.— The authors identified five high quality studies with a total of 366 participants.¹⁵ All measured pain or disability levels at six months, and four measured the proportion of participants reporting a reduction greater than 50% in pain or disability scores. Three randomised controlled trials (206 participants) found that prolotherapy injections alone are no more effective than control injections for chronic low-back pain and disability. At six months, there was no difference between groups in mean pain or disability scores (2 RCTs; 184 participants) and no difference in data that reported over 50% improvement in pain or disability (3 RCTs; 206 participants). These trials could not be pooled due to clinical heterogeneity.

Two RCTs (160 participants) found that prolotherapy injections, together with spinal manipulation, exercise, and other therapies, are more effective than

control injections for chronic low-back pain and disability. At six months, one study reported a significant difference between groups in mean pain and disability scores, whereas the other study did not. Both studies reported a significant difference in the proportion of individuals who reported over 50% reduction in disability or pain. Co-interventions confounded interpretation of results and clinical heterogeneity in the trials prevented pooling.

There is conflicting evidence regarding the efficacy of prolotherapy injections for patients with chronic low-back pain. When used alone, prolotherapy is not an effective treatment for chronic low-back pain. When combined with spinal manipulation, exercise, and other co-interventions, prolotherapy may improve chronic low-back pain and disability. Conclusions are confounded by clinical heterogeneity amongst studies and by the presence of co-interventions.

COCHRANE MUSCULOSKELETAL GROUP

Glucosamine therapy for treating osteoarthritis.— This update includes 25 studies with 4 963 patients.¹⁶ Analysis restricted to studies with adequate allocation concealment failed to show any benefit of glucosamine for pain (based on a pooled measure of different pain scales) and WOMAC pain, function and stiffness subscales; however, it was found to be better than placebo using the Lequesne index (standardized mean difference (SMD) -0.54; 95% confidence interval (CI) -0.96 to -0.12). Collectively, the 25 RCTs favoured glucosamine with a 22% (change from baseline) improvement in pain (SMD -0.47; 95% CI -0.72 to -0.23) and a 11% (change from baseline) improvement in function using the Lequesne index (SMD -0.47; 95% CI -0.82 to -0.12). However, the results were not uniformly positive and the reasons for this remain unexplained. WOMAC pain, function and stiffness outcomes did not reach statistical significance.

RCTs in which the Rotta preparation of glucosamine was compared to placebo found glucosamine superior for pain (SMD -1.11; 95% CI -1.66 to -0.57) and function (Lequesne index SMD -0.47; 95% CI -0.82 to -0.12). Pooled results for pain (SMD -0.05; 95% CI -0.15 to 0.05) and function using the WOMAC index (SMD -0.01; 95% CI -0.13 to 0.10) in those RCTs using a non-Rotta preparation of glucosamine did not reach statistical significance. Two RCTs using the Rotta preparation showed that glucosamine was able to

slow radiological progression of OA of the knee over a three-year period (mean difference [MD] 0.32; 95% CI 0.05 to 0.58).

Glucosamine was as safe as placebo in terms of the number of participants reporting adverse reactions (relative risk ratio 0.99; 95% CI 0.91 to 1.07).

Pooled results from studies using a non-Rotta preparation or adequate allocation concealment failed to show benefit in pain and WOMAC function while those studies evaluating the Rotta preparation showed that glucosamine was superior to placebo in the treatment of pain and functional impairment resulting from symptomatic osteoarthritis.

Transcutaneous electrostimulation for osteoarthritis of the knee.—In this update the authors identified 14 additional trials resulting in the inclusion of 18 small trials in 813 patients.¹⁷ Eleven trials used TENS, four interferential current stimulation, one both TENS and interferential current stimulation, and two pulsed electrostimulation. The methodological quality and the quality of reporting was poor and a high degree of heterogeneity among the trials ($I^2=80\%$) was revealed. The funnel plot for pain was asymmetrical ($P<0.001$). The predicted standardised mean differences (SMD) of pain intensity in trials as large as the largest trial was -0.07 (95% CI -0.46 to 0.32), corresponding to a difference in pain scores between electrostimulation and control of 0.2 cm on a 10 cm visual analogue scale. There was little evidence that SMDs differed on the type of electrostimulation ($P=0.94$). The relative risk of being withdrawn or dropping out due to adverse events was 0.97 (95% CI 0.2 to 6.0).

In this update, the authors could not confirm that transcutaneous electrostimulation is effective for pain relief. The current systematic review is inconclusive, hampered by the inclusion of only small trials of questionable quality. Appropriately designed trials of adequate power are warranted.

Neurological rehabilitation

COCHRANE STROKE GROUP

Physical fitness training for stroke patients.—The authors included 24 trials, involving 1 147 participants, comprising cardiorespiratory (11 trials, 692 participants), strength (four trials, 158 participants) and mixed training interventions (nine trials, 360 participants).¹⁸ Death was infrequent at the end of the intervention (1/1 147) and follow-up (8/627). No depen-

dence data were reported. Diverse disability measures made meta-analysis difficult; the majority of effect sizes were not significant. Cardiorespiratory training involving walking, improved maximum walking speed (mean difference [MD] 6.47 metres per minute, 95% confidence interval [CI] 2.37 to 10.57), walking endurance (MD 38.9 metres per six minutes, 95% CI 14.3 to 63.5), and reduced dependence during walking (Functional Ambulation Categories MD 0.72, 95% CI 0.46 to 0.98). Current data include few strength training trials, and lack non-exercise attention controls, long-term training and follow up.

The effects of training on death, dependence and disability after stroke are unclear. There is sufficient evidence to incorporate cardiorespiratory training, involving walking, within post-stroke rehabilitation in order to improve speed, tolerance and independence during walking. Further trials are needed to determine the optimal exercise prescription after stroke and identify any long-term benefits.

COCHRANE INJURIES GROUP

Pharmacological interventions for spasticity following spinal cord injury.—Nine studies met the inclusion criteria.¹⁹ Study designs were: 8 cross-over and 1 parallel-group trial. Two studies (14 SCI patients), showed a significant effect of intrathecal baclofen in reducing spasticity (Ashworth Score and ADL performances), compared to placebo, without any adverse effects. The study comparing tizanidine to placebo (118 SCI patients) showed a significant effect of tizanidine in improving Ashworth Score but not in ADL performances. The tizanidine group reported significant rates of adverse effects (drowsiness, xerostomia). For the other drugs (gabapentin, clonidine, diazepam, amyral and oral baclofen) the results did not provide evidence for clinically significant effectiveness.

There is insufficient evidence to assist clinicians in a rational approach to antispastic treatment for SCI. Further research is urgently needed to improve the scientific basis of patient care.

Respiratory rehabilitation

COCHRANE AIRWAYS GROUP

Oxygen therapy during exercise training in chronic obstructive pulmonary disease.—Five RCTs met the inclusion criteria.²⁰ The maximum number of studies compared in the meta-analysis was three (31 on oxy-

gen *versus* 32 control participants), because all included studies did not measure the same outcomes. When two studies were pooled, statistically significant improvements of oxygen-supplemented exercise training were found in constant power exercise time, Weighted mean differences (WMD) 2.68 minutes (95% CI 0.07 to 5.28 minutes). Supplemental oxygen increased the average exercise time from 6 to 14 minutes; the control intervention increased average exercise time from 6 to 12 minutes. Constant power exercise end-of-test Borg score (on a scale from 1 to 10) also showed statistically significant improvements with oxygen-supplemented exercise training, WMD -1.22 units (95% CI -2.39 to -0.06). One study showed a significant improvement in the change of Borg score after the shuttle walk test, by -1.46 units (95% CI -2.72 to -0.19). There were no significant differences in maximal exercise outcomes, functional exercise outcomes (six-minute walk test), shuttle walk distance, health-related quality of life or oxygenation status. According to the GRADE system most outcomes were rated as low quality because they were limited by study quality.

This review provides little support for oxygen supplementation during exercise training for individuals with chronic obstructive pulmonary disease, but the evidence is very limited. Studies with larger number of participants and strong design are required to permit strong conclusions, especially for functional outcomes such as symptom alleviation, health-related quality of life and ambulation.

Discussion

The main topics covered by the 4th Issue 2009 of the Cochrane Database are represented by the knee and the hip rehabilitation. Both new reviews ^{2, 5-7} and updated reviews ¹⁷ dealt with this topic, so that the reader can have a wide range of information. Another relevant topic in the present issue was spinal pain (back pain and neck pain), with 3 reviews about electrotherapy,¹³ neuroreflexotherapy,¹⁴ and prolotherapy.¹⁵

Two reviews were about rheumatoid arthritis,^{3, 4} and this must remember to all rehabilitation professionals that this pathology needs the joined efforts both rheumatologists from one side and physiatrist and physiotherapist on the other, since drugs are only a part of the treatment, that should always be focus on restoring a better quality of life.

Finally its relevant to cite the review about the constraint-induced movement therapy for upper extremities,⁹ since about this topic relevant research efforts have been focused being the recovery of the upper limb frequently limited.

The other reviews cover other rehabilitative aspects, and all of them are interesting to improve the scientific base of rehabilitation, being the Cochrane Collaboration one of the main instruments to improve medical knowledge.

References

1. Negrini S, Minozzi S, Taricco M, Ziliani V, Zaina F. A systematic review of physical and rehabilitation medicine topics as developed by the Cochrane Collaboration. *Eura Medicophys* 2007;43:381-90.
2. Handoll HH, Cameron ID, Mak JC, Finnegan TP. Multidisciplinary rehabilitation for older people with hip fractures. *Cochrane Database Syst Rev* 2009;4:CD007125.
3. Tuntland H, Kjekken I, Nordheim LV, Falzon L, Jamtvedt G, Hagen KB. Assistive technology for rheumatoid arthritis. *Cochrane Database Syst Rev* 2009;4:CD006729.
4. Hurkmans E, van der Giesen FJ, Vliet Vlieland TP, Schoones J, Van den Ende EC. Dynamic exercise programs (aerobic capacity and/or muscle strength training) in patients with rheumatoid arthritis. *Cochrane Database Syst Rev* 2009;4:CD006853.
5. Nuesch E, Rutjes AW, Trelle S, Reichenbach S, Juni P. Doxycycline for osteoarthritis of the knee or hip. *Cochrane Database Syst Rev* 2009;4:CD007323.
6. Nuesch E, Rutjes AW, Husni E, Welch V, Juni P. Oral or transdermal opioids for osteoarthritis of the knee or hip. *Cochrane Database Syst Rev* 2009;4:CD003115.
7. Rutjes AW, Nuesch E, Reichenbach S, Juni P. S-Adenosylmethionine for osteoarthritis of the knee or hip. *Cochrane Database Syst Rev* 2009;4:CD007321.
8. De Silva M, Maclachlan M, Devane D, Desmond D, Gallagher P, Schnyder U *et al*. Psychosocial interventions for the prevention of disability following traumatic physical injury. *Cochrane Database Syst Rev* 2009;4:CD006422.
9. Sirtori V, Corbetta D, Moja L, Gatti R. Constraint-induced movement therapy for upper extremities in stroke patients. *Cochrane Database Syst Rev* 2009;4:CD004433.
10. Brazzelli M, Sandercock PA, Chappell FM, Celani MG, Righetti E, Arestia N *et al*. Magnetic resonance imaging versus computed tomography for detection of acute vascular lesions in patients presenting with stroke symptoms. *Cochrane Database Syst Rev* 2009;4:CD007424.
11. Lunn MP, Hughes RA, Wiffen PJ. Duloxetine for treating painful neuropathy or chronic pain. *Cochrane Database Syst Rev* 2009;4:CD007115.
12. Pennington L, Miller N, Robson S. Speech therapy for children with dysarthria acquired before three years of age. *Cochrane Database Syst Rev* 2009;4:CD006937.
13. Kroeling P, Gross A, Goldsmith CH, Burnie SJ, Haines T, Graham N *et al*. Electrotherapy for neck pain. *Cochrane Database Syst Rev* 2009;4:CD004251.
14. Urrutia G, Burton AK, Morral A, Bonfill X, Zanoli G. Neuroreflexotherapy for non-specific low-back pain. *Cochrane Database Syst Rev* 2004;2:CD003009.
15. Dagenais S, Yelland MJ, Del Mar C, Schoene ML. Prolotherapy injections for chronic low-back pain. *Cochrane Database Syst Rev* 2007;2:CD004059.

16. Towheed TE, Maxwell L, Anastassiades TP, Shea B, Houpt J, Robinson V *et al*. Glucosamine therapy for treating osteoarthritis. *Cochrane Database Syst Rev* 2005;2:CD002946.
17. Rutjes AW, Nuesch E, Sterchi R, Kalichman L, Hendriks E, Osiri M *et al*. Transcutaneous electrostimulation for osteoarthritis of the knee. *Cochrane Database Syst Rev* 2009;4:CD002823.
18. Saunders DH, Greig CA, Mead GE, Young A. Physical fitness training for stroke patients. *Cochrane Database Syst Rev* 2009;4:CD003316.
19. Taricco M, Adone R, Pagliacci C, Telaro E. Pharmacological interventions for spasticity following spinal cord injury. *Cochrane Database Syst Rev* 2000;2:CD001131.
20. Nonoyama ML, Brooks D, Lacasse Y, Guyatt GH, Goldstein RS. Oxygen therapy during exercise training in chronic obstructive pulmonary disease. *Cochrane Database Syst Rev* 2007;2:CD005372.
21. Wolf FM, Guevara JP, Grum CM, Clark NM, Cates CJ. Educational interventions for asthma in children. *Cochrane Database Syst Rev* 2003;1:CD000326.
22. Holloway E, Ram FS. Breathing exercises for asthma. *Cochrane Database Syst Rev* 2004;1:CD001277.
23. Hondras MA, Linde K, Jones AP. Manual therapy for asthma. *Cochrane Database Syst Rev* 2002;4:CD001002.
24. Ram FS, Robinson SM, Black PN, Picot J. Physical training for asthma. *Cochrane Database Syst Rev* 2005;4:CD001116.
25. Dennis J. Alexander technique for chronic asthma. *Cochrane Database Syst Rev* 2000;2:CD000995.
26. Monnikhof EM, van der Valk PD, van der Palen J, van Herwaarden CL, Partidge MR, Walters EH *et al*. Self-management education for chronic obstructive pulmonary disease. *Cochrane Database Syst Rev* 2003;1:CD002990.
27. Bradley J, Moran F, Greenstone M. Physical training for bronchiectasis. *Cochrane Database Syst Rev* 2002;3:CD002166.
28. Holland A, Hill C. Physical training for interstitial lung disease. *Cochrane Database Syst Rev* 2008;4:CD006322.
29. Jones AP, Rowe BH. Bronchopulmonary hygiene physical therapy for chronic obstructive pulmonary disease and bronchiectasis. *Cochrane Database Syst Rev* 2000;2:CD000045.
30. Lacasse Y, Goldstein R, Lasserson TJ, Martin S. Pulmonary rehabilitation for chronic obstructive pulmonary disease. *Cochrane Database Syst Rev* 2006;4:CD003793.
31. Urquhart DM, Hoving JL, Assendelft WW, Roland M, van Tulder MW. Antidepressants for non-specific low back pain. *Cochrane Database Syst Rev* 2008;1:CD001703.
32. Clarke JA, van Tulder MW, Blomberg SE, de Vet HC, van der Heijden GJ, Bronfort G *et al*. Traction for low-back pain with or without sciatica. *Cochrane Database Syst Rev* 2007;2:CD003010.
33. Hayden JA, van Tulder MW, Malmivaara A, Koes BW. Exercise therapy for treatment of non-specific low back pain. *Cochrane Database Syst Rev* 2005;3:CD000335.
34. Furlan AD, Brosseau L, Imamura M, Irvin E. Massage for low back pain. *Cochrane Database Syst Rev* 2002;2:CD001929.
35. van Tulder MW, Esmail R, Bombardier C, Koes BW. Back schools for non-specific low back pain. *Cochrane Database Syst Rev* 2000;2:CD000261.
36. van Tulder MW, Malmivaara A, Esmail R, Koes BW. Exercise therapy for low back pain. *Cochrane Database Syst Rev* 2000;2:CD000335.
37. Heymans MW, van Tulder MW, Esmail R, Bombardier C, Koes BW. Back schools for non-specific low-back pain. *Cochrane Database Syst Rev* 2004;4:CD000261.
38. Hagen KB, Hilde G, Jamtvedt G, Winnem M. Bed rest for acute low-back pain and sciatica. *Cochrane Database Syst Rev* 2004;4:CD001254.
39. Ostelo RW, van Tulder MW, Vlaeyen JW, Linton SJ, Morley SJ, Assendelft WJ. Behavioural treatment for chronic low-back pain. *Cochrane Database Syst Rev* 2005;1:CD002014.
40. Khadilkar A, Milne S, Brosseau L, Robinson V, Saginur M, Shea B *et al*. Transcutaneous electrical nerve stimulation (TENS) for chronic low-back pain. *Cochrane Database Syst Rev* 2005;3:CD003008.
41. Verhagen AP, Karelis C, Bierma-Zeinstra SM, Burdorf L, Feleus A, Dahaghin S *et al*. Ergonomic and physiotherapeutic interventions for treating work-related complaints of the arm, neck or shoulder in adults. *Cochrane Database Syst Rev* 2006;3:CD003471.
42. Haraldsson BG, Gross AR, Myers CD, Ezzo JM, Morien A, Goldsmith C *et al*. Massage for mechanical neck disorders. *Cochrane Database Syst Rev* 2006;3:CD004871.
43. Karjalainen K, Malmivaara A, van Tulder M, Roine R, Jauhiainen M, Hurri H *et al*. Multidisciplinary biopsychosocial rehabilitation for neck and shoulder pain among working age adults. *Cochrane Database Syst Rev* 2000;3:CD002194.
44. Schonstein E, Kenny DT, Keating J, Koes BW. Work conditioning, work hardening and functional restoration for workers with back and neck pain. *Cochrane Database Syst Rev* 2003;1:CD001822.
45. Kay TM, Gross A, Goldsmith C, Santaguida PL, Hoving J, Bronfort G. Exercises for mechanical neck disorders. *Cochrane Database Syst Rev* 2005;3:CD004250.
46. Engers A, Jellema P, Wensing M, van der Windt DA, Grol R, van Tulder MW. Individual patient education for low back pain. *Cochrane Database Syst Rev* 2008;1:CD004057.
47. Sahar T, Cohen MJ, Ne'eman V, Kandel L, Odebiyi DO, Lev I *et al*. Insoles for prevention and treatment of back pain. *Cochrane Database Syst Rev* 2007;4:CD005275.
48. Graham N, Gross A, Goldsmith CH, Klaber Moffett J, Haines T, Burnie SJ *et al*. Mechanical traction for neck pain with or without radiculopathy. *Cochrane Database Syst Rev* 2008;3:CD006408.
49. Karjalainen K, Malmivaara A, van Tulder M, Roine R, Jauhiainen M, Hurri H *et al*. Multidisciplinary biopsychosocial rehabilitation for subacute low back pain among working age adults. *Cochrane Database Syst Rev* 2003;2:CD002193.
50. van Tulder MW, Ostelo RW, Vlaeyen JW, Linton SJ, Morley SJ, Assendelft WJ. Behavioural treatment for chronic low back pain. *Cochrane Database Syst Rev* 2000;2:CD002014.
51. Ostelo RW, de Vet HC, Waddell G, Kerckhoffs MR, Leffers P, van Tulder MW. Rehabilitation after lumbar disc surgery. *Cochrane Database Syst Rev* 2002;2:CD003007.
52. Contorno IO, da Silva Filho CR. Antibiotics for treating chronic osteomyelitis in adults. *Cochrane Database Syst Rev* 2009;3:CD004439.
53. Karjalainen K, Malmivaara A, van Tulder M, Roine R, Jauhiainen M, Hurri H *et al*. Biopsychosocial rehabilitation for upper limb repetitive strain injuries in working age adults. *Cochrane Database Syst Rev* 2000;3:CD002269.
54. Lenza M, Bellotti JC, Andriolo RB, Gomes Dos Santos JB, Faloppa F. Conservative interventions for treating middle third clavicle fractures in adolescents and adults. *Cochrane Database Syst Rev* 2009;2:CD007121.
55. Trees AH, Howe TE, Dixon J, White L. Exercise for treating isolated anterior cruciate ligament injuries in adults. *Cochrane Database Syst Rev* 2005;4:CD005316.
56. Trees AH, Howe TE, Grant M, Gray HG. Exercise for treating anterior cruciate ligament injuries in combination with collateral ligament and meniscal damage of the knee in adults. *Cochrane Database Syst Rev* 2007;3:CD005961.
57. Howe TE, Rochester L, Jackson A, Banks PM, Blair VA. Exercise for improving balance in older people. *Cochrane Database Syst Rev* 2007;4:CD004963.
58. Gillespie LD, Robertson MC, Gillespie WJ, Lamb SE, Gates S, Cumming RG *et al*. Interventions for preventing falls in older people living in the community. *Cochrane Database Syst Rev* 2009;2:CD007146.
59. Khan F, Ng L, Gonzalez S, Hale T, Turner-Stokes L. Multidisciplinary rehabilitation programmes following joint replacement at the hip and knee in chronic arthropathy. *Cochrane Database Syst Rev* 2008;2:CD004957.
60. Hofstad C, Linde H, Limbeek J, Postema K. Prescription of prosthetic ankle-foot mechanisms after lower limb amputation. *Cochrane Database Syst Rev* 2004;1:CD003978.

61. Thien TB, Becker JH, Theis JC. Rehabilitation after surgery for flexor tendon injuries in the hand. *Cochrane Database Syst Rev* 2004;4:CD003979.
62. Lin CW, Moseley AM, Refshauge KM. Rehabilitation for ankle fractures in adults. *Cochrane Database Syst Rev* 2008;3:CD005595.
63. Handoll HH, Madhok R, Howe TE. Rehabilitation for distal radial fractures in adults. *Cochrane Database Syst Rev* 2006;3:CD003324.
64. Herbert RD, de Noronha M. Stretching to prevent or reduce muscle soreness after exercise. *Cochrane Database Syst Rev* 2007;4:CD004577.
65. Badger C, Preston N, Seers K, Mortimer P. Physical therapies for reducing and controlling lymphoedema of the limbs. *Cochrane Database Syst Rev* 2004;4:CD003141.
66. Markes M, Brockow T, Resch KL. Exercise for women receiving adjuvant therapy for breast cancer. *Cochrane Database Syst Rev* 2006;4:CD005001.
67. van der Schans C, Prasad A, Main E. Chest physiotherapy compared to no chest physiotherapy for cystic fibrosis. *Cochrane Database Syst Rev* 2000;2:CD001401.
68. Bradley J, Moran F. Physical training for cystic fibrosis. *Cochrane Database Syst Rev* 2002;2:CD002768.
69. Main E, Prasad A, Schans C. Conventional chest physiotherapy compared to other airway clearance techniques for cystic fibrosis. *Cochrane Database Syst Rev* 2005;1:CD002011.
70. Elkins MR, Jones A, van der Schans C. Positive expiratory pressure physiotherapy for airway clearance in people with cystic fibrosis. *Cochrane Database Syst Rev* 2006;2:CD003147.
71. McShane R, Areosa Sastre A, Minakaran N. Memantine for dementia. *Cochrane Database Syst Rev* 2006;2:CD003154.
72. Forbes D, Morgan DG, Bangma J, Peacock S, Pelletier N, Adamson J. Light therapy for managing sleep, behaviour, and mood disturbances in dementia. *Cochrane Database Syst Rev* 2004;2:CD003946.
73. Chung JC, Lai CK, Chung PM, French HP. Snoezelen for dementia. *Cochrane Database Syst Rev* 2002;4:CD003152.
74. Woods B, Spector A, Jones C, Orrell M, Davies S. Reminiscence therapy for dementia. *Cochrane Database Syst Rev* 2005;2:CD001120.
75. Vink AC, Birks JS, Bruinsma MS, Scholten RJ. Music therapy for people with dementia. *Cochrane Database Syst Rev* 2004;3:CD003477.
76. Viggo Hansen N, Jorgensen T, Ortenblad L. Massage and touch for dementia. *Cochrane Database Syst Rev* 2006;4:CD004989.
77. Cameron M, Lonergan E, Lee H. Transcutaneous electrical nerve stimulation (TENS) for dementia. *Cochrane Database Syst Rev* 2003;3:CD004032.
78. Neal M, Briggs M. Validation therapy for dementia. *Cochrane Database Syst Rev* 2003;3:CD001394.
79. Angevaren M, Aufdemkampe G, Verhaar H, Aleman A, Vanhees L. Physical activity and enhanced fitness to improve cognitive function in older people without known cognitive impairment. *Cochrane Database Syst Rev* 2008;2:CD005381.
80. Forbes D, Forbes S, Morgan DG, Markle-Reid M, Wood J, Culum I. Physical activity programs for persons with dementia. *Cochrane Database Syst Rev* 2008;3:CD006489.
81. Morgan AT, Vogel AP. Intervention for dysarthria associated with acquired brain injury in children and adolescents. *Cochrane Database Syst Rev* 2008;3:CD006279.
82. Mayo-Wilson E, Montgomery P, Dennis JA. Personal assistance for adults (19-64) with physical impairments. *Cochrane Database Syst Rev* 2008;3:CD006856.
83. Mayo-Wilson E, Montgomery P, Dennis J. Personal assistance for adults (19-64) with both physical and intellectual impairments. *Cochrane Database Syst Rev* 2008;2:CD006860.
84. Mayo-Wilson E, Montgomery P, Dennis JA. Personal assistance for children and adolescents (0-18) with both physical and intellectual impairments. *Cochrane Database Syst Rev* 2008;3:CD006859.
85. Mayo-Wilson E, Montgomery P, Dennis JA. Personal assistance for children and adolescents (0-18) with intellectual impairments. *Cochrane Database Syst Rev* 2008;3:CD006858.
86. Montgomery P, Mayo-Wilson E, Dennis JA. Personal assistance for children and adolescents (0-18) with physical impairments. *Cochrane Database Syst Rev* 2008;3:CD006277.
87. Hillier SL, Hollohan V. Vestibular rehabilitation for unilateral peripheral vestibular dysfunction. *Cochrane Database Syst Rev* 2007;4:CD005397.
88. Virgili G, Rubin G. Orientation and mobility training for adults with low vision. *Cochrane Database Syst Rev* 2006;3:CD003925.
89. Virgili G, Acosta R. Reading aids for adults with low vision. *Cochrane Database Syst Rev* 2006;4:CD003303.
90. Rees K, Taylor RS, Singh S, Coats AJ, Ebrahim S. Exercise based rehabilitation for heart failure. *Cochrane Database Syst Rev* 2004;3:CD003331.
91. O'Brien K, Nixon S, Glazier RH, Tynan AM. Progressive resistive exercise interventions for adults living with HIV/AIDS. *Cochrane Database Syst Rev* 2004;4:CD004248.
92. Nixon S, O'Brien K, Glazier RH, Tynan AM. Aerobic exercise interventions for adults living with HIV/AIDS. *Cochrane Database Syst Rev* 2005;2:CD001796.
93. Hay-Smith J, Morkved S, Fairbrother KA, Herbison GP. Pelvic floor muscle training for prevention and treatment of urinary and faecal incontinence in antenatal and postnatal women. *Cochrane Database Syst Rev* 2008;4:CD007471.
94. Duthie J, Wilson DI, Herbison GP, Wilson D. Botulinum toxin injections for adults with overactive bladder syndrome. *Cochrane Database Syst Rev* 2007;3:CD005493.
95. Lane-Brown A, Tate R. Interventions for apathy after traumatic brain injury. *Cochrane Database Syst Rev* 2009;2:CD006341.
96. Mehrholz J, Kugler J, Pohl M. Locomotor training for walking after spinal cord injury. *Cochrane Database Syst Rev* 2008;2:CD006676.
97. Lombardi F, Taricco M, De Tanti A, Telaro E, Liberati A. Sensory stimulation for brain injured individuals in coma or vegetative state. *Cochrane Database Syst Rev* 2002;2:CD001427.
98. Jones L, Bagnall A. Spinal injuries centres (SICs) for acute traumatic spinal cord injury. *Cochrane Database Syst Rev* 2004;4:CD004442.
99. Turner-Stokes L, Disler PB, Nair A, Wade DT. Multi-disciplinary rehabilitation for acquired brain injury in adults of working age. *Cochrane Database Syst Rev* 2005;3:CD004170.
100. Fleminger S, Greenwood RJ, Oliver DL. Pharmacological management for agitation and aggression in people with acquired brain injury. *Cochrane Database Syst Rev* 2006;4:CD003299.
101. van Oostrom SH, Driessen MT, de Vet HC, Franche RL, Schonstein E, Loisel P *et al*. Workplace interventions for preventing work disability. *Cochrane Database Syst Rev* 2009;2:CD006955.
102. Thomas DE, Elliott EJ, Naughton GA. Exercise for type 2 diabetes mellitus. *Cochrane Database Syst Rev* 2006;3:CD002968.
103. Deakin T, McShane CE, Cade JE, Williams RD. Group based training for self-management strategies in people with type 2 diabetes mellitus. *Cochrane Database Syst Rev* 2005;2:CD003417.
104. Shaw K, Gennat H, O'Rourke P, Del Mar C. Exercise for overweight or obesity. *Cochrane Database Syst Rev* 2006;4:CD003817.
105. Daley A, MacArthur C, Mutrie N, Stokes-Lampard H. Exercise for vasomotor menopausal symptoms. *Cochrane Database Syst Rev* 2007;4:CD006108.
106. Costa J, Borges A, Espirito-Santo C, Ferreira J, Coelho M, Moore P *et al*. Botulinum toxin type A versus botulinum toxin type B for cervical dystonia. *Cochrane Database Syst Rev* 2005;1:CD004314.
107. Costa J, Espirito-Santo C, Borges A, Ferreira JJ, Coelho M, Moore P *et al*. Botulinum toxin type B for cervical dystonia. *Cochrane Database Syst Rev* 2005;1:CD004315.
108. Costa J, Espirito-Santo C, Borges A, Ferreira JJ, Coelho M, Moore P *et al*. Botulinum toxin type A therapy for cervical dystonia. *Cochrane Database Syst Rev* 2005;1:CD003633.
109. Costa J, Espirito-Santo C, Borges A, Ferreira JJ, Coelho M, Sampaio C. Botulinum toxin type A versus anticholinergics for cervical dystonia. *Cochrane Database Syst Rev* 2005;1:CD004312.

110. Ade-Hall RA, Moore AP. Botulinum toxin type A in the treatment of lower limb spasticity in cerebral palsy. *Cochrane Database Syst Rev* 2000;2:CD001408.
111. Wasiak J, Hoare B, Wallen M. Botulinum toxin A as an adjunct to treatment in the management of the upper limb in children with spastic cerebral palsy. *Cochrane Database Syst Rev* 2004;4:CD003469.
112. van Hilten JJ, Ramaker CC, Stowe R, Ives NJ. Bromocriptine versus levodopa in early Parkinson's disease. *Cochrane Database Syst Rev* 2007;4:CD002258.
113. Dixon L, Duncan D, Johnson P, Kirkby L, O'Connell H, Taylor H *et al*. Occupational therapy for patients with Parkinson's disease. *Cochrane Database Syst Rev* 2007;3:CD002813.
114. Deane KH, Jones D, Playford ED, Ben-Shlomo Y, Clarke CE. Physiotherapy for patients with Parkinson's Disease: a comparison of techniques. *Cochrane Database Syst Rev* 2001;3:CD002817.
115. Deane KH, Jones D, Ellis-Hill C, Clarke CE, Playford ED, Ben-Shlomo Y. A comparison of physiotherapy techniques for patients with Parkinson's disease. *Cochrane Database Syst Rev* 2001;1:CD002815.
116. Deane KH, Whurr R, Playford ED, Ben-Shlomo Y, Clarke CE. A comparison of speech and language therapy techniques for dysarthria in Parkinson's disease. *Cochrane Database Syst Rev* 2001;2:CD002814.
117. Deane KH, Whurr R, Playford ED, Ben-Shlomo Y, Clarke CE. Speech and language therapy for dysarthria in Parkinson's disease. *Cochrane Database Syst Rev* 2001;2:CD002812.
118. Pennington L, Goldbart J, Marshall J. Speech and language therapy to improve the communication skills of children with cerebral palsy. *Cochrane Database Syst Rev* 2004;2:CD003466.
119. Deane KH, Whurr R, Clarke CE, Playford ED, Ben-Shlomo Y. Non-pharmacological therapies for dysphagia in Parkinson's disease. *Cochrane Database Syst Rev* 2001;1:CD002816.
120. Pringsheim T, Marras C. Pimozide for tics in Tourette's syndrome. *Cochrane Database Syst Rev* 2009;2:CD006996.
121. Mestre T, Ferreira J, Coelho MM, Rosa M, Sampaio C. Therapeutic interventions for disease progression in Huntington's disease. *Cochrane Database Syst Rev* 2009;3:CD006455.
122. Mestre T, Ferreira J, Coelho MM, Rosa M, Sampaio C. Therapeutic interventions for symptomatic treatment in Huntington's disease. *Cochrane Database Syst Rev* 2009;3:CD006456.
123. Shakespeare DT, Boggild M, Young C. Anti-spasticity agents for multiple sclerosis. *Cochrane Database Syst Rev* 2003;4:CD001332.
124. Rietberg MB, Brooks D, Uitdehaag BM, Kwakkel G. Exercise therapy for multiple sclerosis. *Cochrane Database Syst Rev* 2005;1:CD003980.
125. Steultjens EM, Dekker J, Bouter LM, Cardol M, Van de Nes JC, Van den Ende CH. Occupational therapy for multiple sclerosis. *Cochrane Database Syst Rev* 2003;3:CD003608.
126. Khan F, Turner-Stokes L, Ng L, Kilpatrick T. Multidisciplinary rehabilitation for adults with multiple sclerosis. *Cochrane Database Syst Rev* 2007;2:CD006036.
127. Burton JM, O'Connor PW, Hohol M, Beyene J. Oral versus intravenous steroids for treatment of relapses in multiple sclerosis. *Cochrane Database Syst Rev* 2009;3:CD006921.
128. Mills RJ, Yap L, Young CA. Treatment for ataxia in multiple sclerosis. *Cochrane Database Syst Rev* 2007;1:CD005029.
129. Wells GA, Cranney A, Peterson J, Boucher M, Shea B, Robinson V *et al*. Alendronate for the primary and secondary prevention of osteoporotic fractures in postmenopausal women. *Cochrane Database Syst Rev* 2008;1:CD001155.
130. Verhagen AP, Bierma-Zeinstra SM, Cardoso JR, de Bie RA, Boers M, de Vet HC. Balneotherapy for rheumatoid arthritis. *Cochrane Database Syst Rev* 2003;4:CD000518.
131. Egan M, Brosseau L, Farmer M, Ouimet MA, Rees S, Wells G *et al*. Splints/orthoses in the treatment of rheumatoid arthritis. *Cochrane Database Syst Rev* 2003;1:CD004018.
132. Steultjens EM, Dekker J, Bouter LM, van Schaardenburg D, van Kuyk MA, van den Ende CH. Occupational therapy for rheumatoid arthritis. *Cochrane Database Syst Rev* 2004;1:CD003114.
133. Verhagen AP, Bierma-Zeinstra SM, Boers M, Cardoso JR, Lambeck J, de Bie RA *et al*. Balneotherapy for osteoarthritis. *Cochrane Database Syst Rev* 2007;4:CD006864.
134. Ward L, Tricco AC, Phuong P, Cranney A, Barrowman N, Gaboury I *et al*. Bisphosphonate therapy for children and adolescents with secondary osteoporosis. *Cochrane Database Syst Rev* 2007;4:CD005324.
135. Brouwer RW, Jakma TS, Verhagen AP, Verhaar JA, Bierma-Zeinstra SM. Braces and orthoses for treating osteoarthritis of the knee. *Cochrane Database Syst Rev* 2005;1:CD004020.
136. Osiri M, Welch V, Brosseau L, Shea B, McGowan J, Tugwell P *et al*. Transcutaneous electrical nerve stimulation for knee osteoarthritis. *Cochrane Database Syst Rev* 2000;4:CD002823.
137. Welch V, Brosseau L, Peterson J, Shea B, Tugwell P, Wells G. Therapeutic ultrasound for osteoarthritis of the knee. *Cochrane Database Syst Rev* 2001;3:CD003132.
138. Milne S, Brosseau L, Robinson V, Noel MJ, Davis J, Drouin H *et al*. Continuous passive motion following total knee arthroplasty. *Cochrane Database Syst Rev* 2003;2:CD004260.
139. Peters-Veluthamaningal C, van der Windt DA, Winters JC, Meyboom-de Jong B. Corticosteroid injection for de Quervain's tenosynovitis. *Cochrane Database Syst Rev* 2009;3:CD005616.
140. Hawke F, Burns J, Radford JA, du Toit V. Custom-made foot orthoses for the treatment of foot pain. *Cochrane Database Syst Rev* 2008;3:CD006801.
141. Brosseau L, Casimiro L, Milne S, Robinson V, Shea B, Tugwell P *et al*. Deep transverse friction massage for treating tendinitis. *Cochrane Database Syst Rev* 2002;4:CD003528.
142. Brosseau L, Robinson V, Wells G, Debie R, Gam A, Harman K *et al*. Low level laser therapy (Classes I, II and III) for treating rheumatoid arthritis. *Cochrane Database Syst Rev* 2005;4:CD002049.
143. Brosseau LU, Pelland LU, Casimiro LY, Robinson VI, Tugwell PE, Wells GE. Electrical stimulation for the treatment of rheumatoid arthritis. *Cochrane Database Syst Rev* 2002;2:CD003687.
144. Robinson V, Brosseau L, Casimiro L, Judd M, Shea B, Wells G *et al*. Thermotherapy for treating rheumatoid arthritis. *Cochrane Database Syst Rev* 2002;2:CD002826.
145. Casimiro L, Brosseau L, Robinson V, Milne S, Judd M, Well G *et al*. Therapeutic ultrasound for the treatment of rheumatoid arthritis. *Cochrane Database Syst Rev* 2002;3:CD003787.
146. Hulme J, Robinson V, DeBie R, Wells G, Judd M, Tugwell P. Electromagnetic fields for the treatment of osteoarthritis. *Cochrane Database Syst Rev* 2002;1:CD003523.
147. Brosseau L, Yonge KA, Robinson V, Marchand S, Judd M, Wells G *et al*. Thermotherapy for treatment of osteoarthritis. *Cochrane Database Syst Rev* 2003;4:CD004522.
148. de Morton NA, Keating JL, Jeffs K. Exercise for acutely hospitalised older medical patients. *Cochrane Database Syst Rev* 2007;1:CD005955.
149. Fransen M, McConnell S, Bell M. Exercise for osteoarthritis of the hip or knee. *Cochrane Database Syst Rev* 2003;3:CD004286.
150. Bonaiuti D, Shea B, Iovine R, Negrini S, Robinson V, Kemper HC *et al*. Exercise for preventing and treating osteoporosis in postmenopausal women. *Cochrane Database Syst Rev* 2002;3:CD000333.
151. Fransen M, McConnell S, Hernandez-Molina G, Reichenbach S. Exercise for osteoarthritis of the hip. *Cochrane Database Syst Rev* 2009;3:CD007912.
152. Busch AJ, Barber KA, Overend TJ, Peloso PM, Schachter CL. Exercise for treating fibromyalgia syndrome. *Cochrane Database Syst Rev* 2007;4:CD003786.
153. Takken T, van Brussel M, Engelbert R, Van der Net J, Kuis W, Helder P. Exercise therapy in juvenile idiopathic arthritis. *Cochrane Database Syst Rev* 2008;2:CD005954.
154. Ashworth NL, Chad KE, Harrison EL, Reeder BA, Marshall SC. Home versus center based physical activity programs in older adults. *Cochrane Database Syst Rev* 2005;1:CD004017.
155. Brosseau L, MacLeay L, Robinson V, Wells G, Tugwell P. Intensity

- of exercise for the treatment of osteoarthritis. *Cochrane Database Syst Rev* 2003;2:CD004259.
156. Karjalainen K, Malmivaara A, van Tulder M, Roine R, Jauhiainen M, Hurri H *et al*. Multidisciplinary rehabilitation for fibromyalgia and musculoskeletal pain in working age adults. *Cochrane Database Syst Rev* 2000;2:CD001984.
 157. Struijs PA, Smidt N, Arola H, Dijk CN, Buchbinder R, Assendelft WJ. Orthotic devices for the treatment of tennis elbow. *Cochrane Database Syst Rev* 2002;1:CD001821.
 158. Buchbinder R, Green SE, Youd JM, Assendelft WJ, Barnsley L, Smidt N. Shock wave therapy for lateral elbow pain. *Cochrane Database Syst Rev* 2005;4:CD003524.
 159. Riemsma RP, Kirwan JR, Taal E, Rasker JJ. Patient education for adults with rheumatoid arthritis. *Cochrane Database Syst Rev* 2003;2:CD003688.
 160. Dagfinrud H, Kvien TK, Hagen KB. Physiotherapy interventions for ankylosing spondylitis. *Cochrane Database Syst Rev* 2004;4:CD002822.
 161. Green S, Buchbinder R, Hetrick S. Physiotherapy interventions for shoulder pain. *Cochrane Database Syst Rev* 2003;2:CD004258.
 162. Brosseau L, Casimiro L, Robinson V, Milne S, Shea B, Judd M *et al*. Therapeutic ultrasound for treating patellofemoral pain syndrome. *Cochrane Database Syst Rev* 2001;4:CD003375.
 163. Cumpston M, Johnston RV, Wengier L, Buchbinder R. Topical glyceryl trinitrate for rotator cuff disease. *Cochrane Database Syst Rev* 2009;3:CD006355.
 164. Brosseau L, Judd MG, Marchand S, Robinson VA, Tugwell P, Wells G *et al*. Transcutaneous electrical nerve stimulation (TENS) for the treatment of rheumatoid arthritis in the hand. *Cochrane Database Syst Rev* 2003;3:CD004377.
 165. Flenady VJ, Gray PH. Chest physiotherapy for preventing morbidity in babies being extubated from mechanical ventilation. *Cochrane Database Syst Rev* 2002;2:CD000283.
 166. Hough JL, Flenady V, Johnston L, Woodgate PG. Chest physiotherapy for reducing respiratory morbidity in infants requiring ventilatory support. *Cochrane Database Syst Rev* 2008;3:CD006445.
 167. He L, Zhou MK, Zhou D, Wu B, Li N, Kong SY *et al*. Acupuncture for Bell's palsy. *Cochrane Database Syst Rev* 2007;4:CD002914.
 168. White CM, Pritchard J, Turner-Stokes L. Exercise for people with peripheral neuropathy. *Cochrane Database Syst Rev* 2004;4:CD003904.
 169. Teixeira LJ, Soares BG, Vieira VP, Prado GF. Physical therapy for Bell's palsy (idiopathic facial paralysis). *Cochrane Database Syst Rev* 2008;3:CD006283.
 170. Sackley C, Disler PB, Turner-Stokes L, Wade DT. Rehabilitation interventions for foot drop in neuromuscular disease. *Cochrane Database Syst Rev* 2007;2:CD003908.
 171. van der Kooij EL, Lindeman E, Riphagen I. Strength training and aerobic exercise training for muscle disease. *Cochrane Database Syst Rev* 2005;1:CD003907.
 172. Dalbello-Haas V, Florence J, Krivickas L. Therapeutic exercise for people with amyotrophic lateral sclerosis or motor neuron disease. *Cochrane Database Syst Rev* 2008;2:CD005229.
 173. Young P, De Jonghe P, Stogbauer F, Butterfass-Bahloul T. Treatment for Charcot-Marie-Tooth disease. *Cochrane Database Syst Rev* 2008;1:CD006052.
 174. van Alfen N, van Engelen BG, Hughes RA. Treatment for idiopathic and hereditary neuralgic amyotrophy (brachial neuritis). *Cochrane Database Syst Rev* 2009;3:CD006976.
 175. Khalil N, Nicotra A, Rakowicz W. Treatment for meralgia paraesthetica. *Cochrane Database Syst Rev* 2008;3:CD004159.
 176. Ashworth NL, Satkunam LE, Deforge D. Treatment for spasticity in amyotrophic lateral sclerosis/motor neuron disease. *Cochrane Database Syst Rev* 2006;1:CD004156.
 177. Hill M, Hughes T, Milford C. Treatment for swallowing difficulties (dysphagia) in chronic muscle disease. *Cochrane Database Syst Rev* 2004;2:CD004303.
 178. Saarto T, Wiffen PJ. Antidepressants for neuropathic pain. *Cochrane Database Syst Rev* 2007;4:CD005454.
 179. Seidel S, Aigner M, Ossege M, Pernicka E, Wildner B, Sycha T. Antipsychotics for acute and chronic pain in adults. *Cochrane Database Syst Rev* 2008;4:CD004844.
 180. Leite FM, Atallah AN, El Dib R, Grossmann E, Januzzi E, Andriolo RB *et al*. Cyclobenzaprine for the treatment of myofascial pain in adults. *Cochrane Database Syst Rev* 2009;3:CD006830.
 181. Cramp F, Daniel J. Exercise for the management of cancer-related fatigue in adults. *Cochrane Database Syst Rev* 2008;2:CD006145.
 182. Cepeda MS, Carr DB, Lau J, Alvarez H. Music for pain relief. *Cochrane Database Syst Rev* 2006;2:CD004843.
 183. Bronfort G, Nilsson N, Haas M, Evans R, Goldsmith CH, Assendelft WJ *et al*. Non-invasive physical treatments for chronic/recurrent headache. *Cochrane Database Syst Rev* 2004;3:CD001878.
 184. Moore RA, Straube S, Wiffen PJ, Derry S, McQuay HJ. Pregabalin for acute and chronic pain in adults. *Cochrane Database Syst Rev* 2009;3:CD007076.
 185. Eccleston C, Williams AC, Morley S. Psychological therapies for the management of chronic pain (excluding headache) in adults. *Cochrane Database Syst Rev* 2009;2:CD007407.
 186. Matthews P, Derry S, Moore RA, McQuay HJ. Topical rubefacients for acute and chronic pain in adults. *Cochrane Database Syst Rev* 2009;3:CD007403.
 187. So PS, Jiang Y, Qin Y. Touch therapies for pain relief in adults. *Cochrane Database Syst Rev* 2008;4:CD006535.
 188. Walsh DM, Howe TE, Johnson MI, Sluka KA. Transcutaneous electrical nerve stimulation for acute pain. *Cochrane Database Syst Rev* 2009;2:CD006142.
 189. Carroll D, Moore RA, McQuay HJ, Fairman F, Tramer M, Leijon G. Transcutaneous electrical nerve stimulation (TENS) for chronic pain. *Cochrane Database Syst Rev* 2001;3:CD003222.
 190. Leng GC, Fowler B, Ernst E. Exercise for intermittent claudication. *Cochrane Database Syst Rev* 2000;2:CD000990.
 191. Testroote M, Stigter W, de Visser DC, Janzing H. Low molecular weight heparin for prevention of venous thromboembolism in patients with lower-leg immobilization. *Cochrane Database Syst Rev* 2008;4:CD006681.
 192. Dowswell T, Bedwell C, Lavender T, Neilson JP. Transcutaneous electrical nerve stimulation (TENS) for pain relief in labour. *Cochrane Database Syst Rev* 2009;2:CD007214.
 193. Li W, Liu M, Feng S, Wu B, Zhang S, Yang W *et al*. Acanthopanax for acute ischaemic stroke. *Cochrane Database Syst Rev* 2009;3:CD007032.
 194. Wu HM, Tang JL, Lin XP, Lau J, Leung PC, Woo J *et al*. Acupuncture for stroke rehabilitation. *Cochrane Database Syst Rev* 2006;3:CD004131.
 195. Xie Y, Wang L, He J, Wu T. Acupuncture for dysphagia in acute stroke. *Cochrane Database Syst Rev* 2008;3:CD006076.
 196. Lincoln NB, Majid MJ, Weyman N. Cognitive rehabilitation for attention deficits following stroke. *Cochrane Database Syst Rev* 2000;4:CD002842.
 197. Majid MJ, Lincoln NB, Weyman N. Cognitive rehabilitation for memory deficits following stroke. *Cochrane Database Syst Rev* 2000;3:CD002293.
 198. Bowen A, Lincoln NB. Cognitive rehabilitation for spatial neglect following stroke. *Cochrane Database Syst Rev* 2007;2:CD003586.
 199. Price CI, Pandyan AD. Electrical stimulation for preventing and treating post-stroke shoulder pain. *Cochrane Database Syst Rev* 2000;4:CD001698.
 200. Ada L, Foongchomcheay A, Canning C. Supportive devices for preventing and treating subluxation of the shoulder after stroke. *Cochrane Database Syst Rev* 2005;1:CD003863.
 201. Mehrholz J, Werner C, Kugler J, Pohl M. Electromechanical-assisted training for walking after stroke. *Cochrane Database Syst Rev* 2007;4:CD006185.
 202. Mehrholz J, Platz T, Kugler J, Pohl M. Electromechanical and robot-assisted arm training for improving arm function and activities of daily living after stroke. *Cochrane Database Syst Rev* 2008;4:CD006876.

203. Pomeroy VM, King L, Pollock A, Baily-Hallam A, Langhorne P. Electrostimulation for promoting recovery of movement or functional ability after stroke. *Cochrane Database Syst Rev* 2006;2:CD003241.
204. Woodford H, Price C. EMG biofeedback for the recovery of motor function after stroke. *Cochrane Database Syst Rev* 2007;2:CD004585.
205. Barclay-Goddard R, Stevenson T, Poluha W, Moffatt ME, Taback SP. Force platform feedback for standing balance training after stroke. *Cochrane Database Syst Rev* 2004;4:CD004129.
206. Forster A, Smith J, Young J, Knapp P, House A, Wright J. Information provision for stroke patients and their caregivers. *Cochrane Database Syst Rev* 2001;3:CD001919.
207. West C, Hesketh A, Vail A, Bowen A. Interventions for apraxia of speech following stroke. *Cochrane Database Syst Rev* 2005;4:CD004298.
208. Bath PM, Bath FJ, Smithard DG. Interventions for dysphagia in acute stroke. *Cochrane Database Syst Rev* 2000;2:CD000323.
209. West C, Bowen A, Hesketh A, Vail A. Interventions for motor apraxia following stroke. *Cochrane Database Syst Rev* 2008;1:CD004132.
210. McGeough E, Pollock A, Smith LN, Dennis M, Sharpe M, Lewis S *et al*. Interventions for post-stroke fatigue. *Cochrane Database Syst Rev* 2009;3:CD007030.
211. Yang W, Hao Z, Zhang S, Dong W, Wu T, Liu GJ *et al*. Mailuoning for acute ischaemic stroke. *Cochrane Database Syst Rev* 2009;2:CD007028.
212. Legg LA, Drummond AE, Langhorne P. Occupational therapy for patients with problems in activities of daily living after stroke. *Cochrane Database Syst Rev* 2006;4:CD003585.
213. Organised inpatient (stroke unit) care for stroke. *Cochrane Database Syst Rev* 2002;1:CD000197.
214. States RA, Pappas E, Salem Y. Overground physical therapy gait training for chronic stroke patients with mobility deficits. *Cochrane Database Syst Rev* 2009;3:CD006075.
215. Pollock A, Baer G, Pomeroy V, Langhorne P. Physiotherapy treatment approaches for the recovery of postural control and lower limb function following stroke. *Cochrane Database Syst Rev* 2007;1:CD001920.
216. Law J, Garrett Z, Nye C. Speech and language therapy interventions for children with primary speech and language delay or disorder. *Cochrane Database Syst Rev* 2003;3:CD004110.
217. Greener J, Enderby P, Whurr R. Speech and language therapy for aphasia following stroke. *Cochrane Database Syst Rev* 2000;2:CD000425.
218. Therapy-based rehabilitation services for stroke patients at home. *Cochrane Database Syst Rev* 2003;1:CD002925.
219. Aziz N, Leonardi-Bee J, Phillips M, Gladman J, Legg L, Walker M. Therapy-based rehabilitation services for patients living at home more than one year after stroke. *Cochrane Database Syst Rev* 2008;2:CD005952.
220. Moseley AM, Stark A, Cameron ID, Pollock A. Treadmill training and body weight support for walking after stroke. *Cochrane Database Syst Rev* 2005;4:CD002840.
221. Jull AB, Rodgers A, Walker N. Honey as a topical treatment for wounds. *Cochrane Database Syst Rev* 2008;4:CD005083.

APPENDIX I

Acute respiratory infections group

Chest physiotherapy for bronchiolitis in children aged 0-24 months.

AIRWAYS GROUP

Educational interventions for asthma in children²¹
Exercise and physical therapy for asthma (5 reviews).²²⁻²⁶

Oxygen therapy during exercise training in chronic obstructive pulmonary disease.²⁰

Physical training for bronchiectasis.²⁷

Physical training for interstitial lung disease.²⁸

Physical therapy and pulmonary rehabilitation for BPCO (2 reviews).^{29, 30}

Back group

Antidepressants for non-specific low back pain.³¹
Back school, traction, exercise, massage, neurore-flexotherapy, spinal manipulation and heat or cold therapy for non specific low back pain (7 reviews).^{14, 32-37}

Bed rest for acute low back pain (1 review).³⁸

Behavioural treatment and TENS for chronic low back pain (2 reviews).^{39, 40}

Electrotherapy for neck pain.¹³

Exercise, manipulation, massage, multidisciplinary rehabilitation and work conditioning for neck disorders (5 reviews).⁴¹⁻⁴⁵

Individual patient education for low back pain.⁴⁶

Insoles for prevention and treatment of back pain.⁴⁷

Mechanical traction for neck pain with or without radiculopathy.⁴⁸

Multidisciplinary rehabilitation for sub acute low back pain (1 review).⁴⁹

Neuroreflexotherapy for non-specific low-back pain.¹⁴

Patient education for low-back pain (1 review).⁵⁰

Prolotherapy injections for chronic low-back pain.¹⁵

Rehabilitation after lumbar disk surgery (1 review).⁵¹

Bone, joints and muscle trauma group

Antibiotics for treating chronic osteomyelitis in adults⁵²

Biospsychological rehabilitation for repetitive upper limb injuries (1 review)⁵³

Conservative interventions for treating middle third clavicle fractures in adolescents and adults.⁵⁴

Exercise for anterior cruciate ligament injuries (1 review).⁵⁵

Exercise for treating anterior cruciate ligament injuries in combination with collateral ligament and meniscal damage of the knee in adults.⁵⁶

Exercise for improving balance in older people.⁵⁷

Interventions for preventing falls in older people living in the community.⁵⁸

Multidisciplinary rehabilitation and mobilisation for hip fractures.²

Multidisciplinary rehabilitation programmes following joint replacement at the hip and knee in chronic arthropathy.⁵⁹

Prosthesis after limb amputation (1 review).⁶⁰

Rehabilitation after surgery for flexor tendon injuries in the hand (1 review).⁶¹

Rehabilitation for ankle fractures in adults.⁶²

Rehabilitation for distal radial fractures (1 review).⁶³

Stretching to prevent or reduce muscle soreness after exercise.⁶⁴

Breast cancer group

Physical therapy for limphoedema (1 review).⁶⁵
exercise for women receiving adjuvant therapy (1 review).⁶⁶

Cystic fibrosis and genetic disorders group

Chest physiotherapy and physical training for cystic fibrosis (4 reviews).⁶⁷⁻⁷⁰

DEMENTIA AND COGNITIVE IMPAIRMENT GROUP

Cognitive rehabilitation for Alzheimer disease (1 review).⁷¹

Light therapy, music therapy, reminiscence therapy, snoezelen, massage and touch, TENS, validation therapy for dementia (7 reviews).⁷²⁻⁷⁸

Physical activity and enhanced fitness to improve cognitive function in older people without known cognitive impairment.⁷⁹

Physical activity programs for persons with dementia.⁸⁰

DEVELOPMENTAL, PSYCHOSOCIAL AND LEARNING PROBLEMS GROUP

Intervention for childhood apraxia of speech.⁹

Intervention for dysarthria associated with acquired brain injury in children and adolescents.⁸¹

Personal assistance for adults (19-64) with physical impairments.⁸²

Personal assistance for adults (19-64) with both physical and intellectual impairments.⁸³

Personal assistance for children and adolescents (0-18) with both physical and intellectual impairments.⁸⁴

Personal assistance for children and adolescents (0-18) with intellectual impairments.⁸⁵

Personal assistance for children and adolescents (0-18) with physical impairments.⁸⁶

Personal assistance for adults (19-64) with both physical and intellectual impairments.⁸³

Ear, nose and throat disorders group

Vestibular rehabilitation for unilateral peripheral vestibular dysfunction.⁸⁷

Eyes and vision group

Orientation and mobility training and reading aids for people with low vision (2 reviews).^{88, 89}

Heart group

Exercise for coronary heart disease (1 review).⁹⁰

HIV/AIDS group

Aerobic exercise and progressive resistive interventions (2 reviews).^{91, 92}

Incontinence group

Pelvic floor muscle training for prevention and treatment of urinary and faecal incontinence in antenatal and postnatal women.⁹³

Botulinum toxin injections for adults with overactive bladder syndrome.⁹⁴

Injuries group

Interventions for apathy after traumatic brain injury.⁹⁵

Locomotor training for walking after spinal cord injury.⁹⁶

Pharmacological interventions for spasticity following spinal cord injury.¹⁹

Sensory stimulation for brain injured individuals in coma or vegetative state.⁹⁷

Spinal injuries centre for people with acute traumatic spinal cord injuries.⁹⁸

Multi-disciplinary rehabilitation for acquired brain injury in adults of working age.⁹⁹

Pharmacological treatment for agitation and aggression on people with acquired brain injuries.¹⁰⁰

Workplace interventions for preventing work disability.¹⁰¹

Metabolic and endocrin disorder group

Exercise and group based training for self-management strategies for type 2 diabetes mellitus (2 reviews).^{102, 103}

Exercise for overweight or obesity.¹⁰⁴

Menstrual disorders and subfertility group

Exercise for vasomotor menopausal symptoms.¹⁰⁵

Movement disorder group

Botulinum toxin type A and B for cervical dystonia (4 reviews).¹⁰⁶⁻¹⁰⁹

Botulinum toxin type A for lower and upper limb spasticity in cerebral palsy (2 reviews).^{110, 111}

Bromocriptine versus levodopa in early Parkinson's disease.¹¹²

Occupational therapy for Parkinson's disease.¹¹³

Physiotherapy for Parkinson's disease (2 reviews).^{114, 115}

Speech and language therapy for Parkinson's disease and cerebral palsy (3 reviews).¹¹⁶⁻¹¹⁸

Non-pharmacological therapies for dysphagia in Parkinson's disease.¹¹⁹

Pimozide for tics in Tourette's syndrome.¹²⁰

Therapeutic interventions for disease progression in Huntington's disease.¹²¹

Therapeutic interventions for symptomatic treatment in Huntington's disease.¹²²

Multiple sclerosis group

Anti-spasticity agents for multiple sclerosis.¹²³

Exercise therapy, occupational therapy for multiple sclerosis (2 reviews).^{124, 125}

Multidisciplinary rehabilitation for adults with multiple sclerosis.¹²⁶

Oral *versus* intravenous steroids for treatment of relapses in multiple sclerosis.¹²⁷

Treatment for ataxia in multiple sclerosis.¹²⁸

Musculoskeletal group

Alendronate for the primary and secondary prevention of osteoporotic fractures in postmenopausal women.¹²⁹

Balneotherapy, occupational therapy, splints and orthosis for rheumatoid arthritis (3 reviews).¹³⁰⁻¹³²

Balneotherapy for osteoarthritis.¹³³

Bisphosphonate therapy for children and adolescents with secondary osteoporosis.¹³⁴

Braces and orthoses, transcutaneous electrical nerve stimulation, therapeutic ultrasound for treating osteoarthritis of the knee (3 reviews).¹³⁵⁻¹³⁷

Continuous passive motion following total knee arthroplasty.¹³⁸

Corticosteroid injection for de Quervain's tenosynovitis.¹³⁹

Custom-made foot orthoses for the treatment of foot pain.¹⁴⁰

Deep transverse friction massage for treating tendinitis.¹⁴¹

Electrical stimulation, low level laser therapy (classes I, II and III), thermotherapy, therapeutic ultrasound for the treatment of rheumatoid arthritis (4 reviews).¹⁴²⁻¹⁴⁵

Electromagnetic fields, thermotherapy for the treatment of osteoarthritis (2 reviews).^{146, 147}

Exercise for acutely hospitalised older medical patients.¹⁴⁸

Exercise for osteoarthritis of the hip or knee.¹⁴⁹

Exercise for preventing and treating osteoporosis in postmenopausal women.¹⁵⁰

Exercise for osteoarthritis of the hip.¹⁵¹

Exercise for treating fibromyalgia syndrome.¹⁵²

Exercise therapy in juvenile idiopathic arthritis.¹⁵³

Glucosamine therapy for treating osteoarthritis.¹⁶

Home versus center based physical activity programs in older adults.¹⁵⁴

Intensity of exercise for the treatment of osteoarthritis.¹⁵⁵

Multidisciplinary rehabilitation for fibromyalgia and musculoskeletal pain in working age adults.¹⁵⁶

Orthotic devices, Shock wave therapy for lateral elbow pain (2 review).^{157, 158}

Patient education for adults with rheumatoid arthritis.¹⁵⁹

Physiotherapy interventions for ankylosing spondylitis.¹⁶⁰

Physiotherapy interventions for shoulder pain.¹⁶¹

Therapeutic ultrasound for treating patellofemoral pain syndrome.¹⁶²

Transcutaneous electrostimulation for osteoarthritis of the knee.¹⁷

Topical glyceryl trinitrate for rotator cuff disease.¹⁶³

Transcutaneous electrical nerve stimulation (TENS) for the treatment of rheumatoid arthritis in the hand.¹⁶⁴

Neonatal group

Chest physiotherapy for preventing morbidity in babies being extubated from mechanical ventilation.¹⁶⁵

Chest physiotherapy for reducing respiratory morbidity in infants requiring ventilatory support.¹⁶⁶

Neuromuscular disease group

Acupuncture for Bell's palsy.¹⁶⁷

Exercise for people with peripheral neuropathy.¹⁶⁸

Physical therapy for Bell's palsy (idiopathic facial paralysis).¹⁶⁹

Rehabilitation interventions for foot drop in neuromuscular disease.¹⁷⁰

Strength training and aerobic exercise training for muscle disease.¹⁷¹

Therapeutic exercise for people with amyotrophic lateral sclerosis or motor neuron disease.¹⁷²

Treatment for Charcot-Marie-Tooth disease.¹⁷³

Treatment for idiopathic and hereditary neuralgic amyotrophy (brachial neuritis).¹⁷⁴

Treatment for meralgia paraesthetica.¹⁷⁵

Treatment for spasticity in amyotrophic lateral sclerosis/motor neuron disease.¹⁷⁶

Treatment for swallowing difficulties (dysphagia) in chronic muscle disease.¹⁷⁷

Pain, palliative and supportive care group

Antidepressants for neuropathic pain.¹⁷⁸

Antipsychotics for acute and chronic pain in adults.¹⁷⁹

Cyclobenzaprine for the treatment of myofascial pain in adults.¹⁸⁰

Exercise for the management of cancer-related fatigue in adults.¹⁸¹

Music for pain relief.¹⁸²

Non-invasive physical treatments for chronic/recurrent headache.¹⁸³

Pregabalin for acute and chronic pain in adults.¹⁸⁴

Psychological therapies for the management of chronic pain (excluding headache) in adults.¹⁸⁵

Topical rubefacients for acute and chronic pain in adults.¹⁸⁶

Touch therapies for pain relief in adults.¹⁸⁷

Transcutaneous electrical nerve stimulation for acute pain.¹⁸⁸

Transcutaneous electrical nerve stimulation (TENS) for chronic pain.¹⁸⁹

Peripheral vascular diseases group

Exercise for intermittent claudication.¹⁹⁰

Low molecular weight heparin for prevention of venous thromboembolism in patients with lower-leg immobilization.¹⁹¹

Pregnancy and childbirth group

Transcutaneous electrical nerve stimulation (TENS) for pain relief in labour.¹⁹²

Stroke group

Acanthopanax for acute ischaemic stroke.¹⁹³

Acupuncture for stroke rehabilitation.¹⁹⁴

Acupuncture for dysphagia in acute stroke.¹⁹⁵

Cognitive rehabilitation for attention deficits, memory deficits, spatial neglect following stroke (3 reviews).¹⁹⁶⁻¹⁹⁸

Electrical stimulation and supportive devices for preventing and treating post-stroke shoulder pain and subluxation (2 reviews).^{199, 200}

Electromechanical-assisted training for walking after stroke.²⁰¹

Electromechanical and robot-assisted arm training for improving arm function and activities of daily living after stroke.²⁰²

Electrostimulation for promoting recovery of movement or functional ability after stroke.²⁰³

EMG biofeedback for the recovery of motor function after stroke.²⁰⁴

Force platform feedback for standing balance training after stroke.²⁰⁵

Information provision for stroke patients and their caregivers.²⁰⁶

Interventions for apraxia of speech following stroke.²⁰⁷

Interventions for dysphagia in acute stroke.²⁰⁸

Interventions for motor apraxia following stroke.²⁰⁹

- Interventions for post-stroke fatigue.²¹⁰
- Maulouning for acute ischaemic stroke.²¹¹
- Occupational therapy for patients with problems in activities of daily living after stroke.²¹²
- Organised inpatient (stroke unit) care for stroke.²¹³
- Overground physical therapy gait training for chronic stroke patients with mobility deficits.²¹⁴
- Physical fitness training for stroke patients.¹⁸
- Physiotherapy treatment approaches for the recovery of postural control and lower limb function following stroke.²¹⁵
- Speech and language therapy for aphasia and dysarthria due to non-progressive brain damage (2 reviews).^{216, 217}
- Therapy-based rehabilitation services for stroke patients at home.²¹⁸
- Therapy-based rehabilitation services for patients living at home more than one year after stroke.²¹⁹
- Treadmill training and body weight support for walking after stroke.²²⁰

Wounds group

- Honey as a topical treatment for wounds.²²¹