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Low Back Pain Position Statement ©
August 2002

Adopted by APA Board of Directors August 2002
Due for Review 2005

The APA's Position Statement was produced by Musculoskeletal Physiotherapy Australia, a National Special Group of the APA. The position statement is a set of recommendations regarding the management of low back pain based on the most recent evidence. The full position statement comprises two papers.

1. APA Position Statement on the efficacy of physiotherapy interventions for the treatment of low back pain © Rebbeck T.

on behalf of Musculoskeletal Physiotherapy Australia

2. Technical Report: Review of trials investigating the efficacy of non-pharmacological interventions for low back pain © Rebbeck T.

on behalf of Musculoskeletal Physiotherapy Australia

This copy does not include the technical report. For a copy of the full position statement, please visit the shop on the APA website www.physiotherapy.asn.au

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Foreword

Evidence-based practice implies the systematic use of best evidence to solve clinical problems. The revised low back pain position statement will assist physiotherapists to apply evidence-based practice by providing ready access to a collation of the evidence from randomised trials and systematic reviews evaluating physiotherapy treatment of low back pain. Assembling the evidence is not an insignificant task and the author is to be congratulated for her efforts. The statement represents essential reading for any physiotherapist who cares for patients with low back pain.

The Low Back Pain Position Statement has been revised, and will eventually need revising again, because of the rapid expansion in the relevant “evidence”. In fact the number of randomised trials and systematic reviews in physiotherapy is increasing at an exponential rate¹. A search of the Physiotherapy Evidence Database (PEDro) for randomised trials and systematic reviews of treatment of low back pain revealed only one clinical trial published prior to 1960, but by 1990 there were 144 trials and reviews, and by 2000 there were 403 trials and reviews of physiotherapy treatment of low back pain². There is no sign of this growth abating. The physiotherapy profession can be proud of that.

Adopting an evidence-based approach to physiotherapy practice is naturally challenging and confronting. It involves searching for gaps in knowledge and acknowledging uncertainty. Such candor may not suit those who wish to market the services of the profession. For some it may be tempting to search only for evidence that supports current practices and to selectively cite this evidence in promotional activities. I am not sure what name to apply to this process but it is certainly not evidence-based practice. The profession must avoid the temptation to selectively use evidence because this is not in the best interests of patients or, in the long term, of the profession. It is also intellectually dishonest.

What then will readers find in the statement? Some will find that treatments that they currently apply have a sound evidence base. These readers are likely to feel comfortable with the position statement. Others may find that a treatment they use lacks any evidence or that the evidence shows that the treatment is ineffective or produces trivial benefits. In such a situation it is only natural to want to challenge the position statement. The appropriate way to do so is to conduct an independent search of the literature and an independent appraisal of the literature. There are now excellent guides for those who wish to conduct their own assessment of the evidence³.

How should physiotherapists deal with certainty and uncertainty in clinical practice? It is unethical

to offer a clearly ineffective or harmful treatment to a patient. Arguably it is also unethical to use a treatment of unknown efficacy when alternate treatments known to be effective are readily available (even if the readily available alternate treatment is offered by health care providers other than physiotherapists). The most problematic issue is what to do when the only treatments readily available for a condition are of unknown value. I will leave that one up to you.

References

- (1) Moseley A M, Herbert RD, Sherrington C, Maher CG (2002): Evidence for physiotherapy practice: a survey of the Physiotherapy Evidence Database (PEDro). *Australian Journal of Physiotherapy* 48: 43-49.
- (2) <http://ptwww.cchs.usyd.edu.au/pedro/> accessed 21/02/02
- (3) Sackett DI, Strauss SE, Richardson WS, Rosenberg W, Haynes RB (2000): Evidence-Based Medicine: How to Practice and Teach EBM (2nd Ed.). Edinburgh, Scotland: Churchill Livingstone.

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Low Back Pain Position Statement: Summary

Produced by Musculoskeletal Physiotherapy Australia

Introduction

Australian Musculoskeletal Physiotherapists specialise in musculoskeletal health care and research. In fact, many of the groundbreaking techniques employed by musculoskeletal physiotherapists worldwide were actually developed in Australia.

Low back pain is recognised as one of the most common conditions managed by physiotherapists and one of the most costly for society. The low back pain position statement has been developed by the Australian Physiotherapy Association to promote effective management of low back pain. The position statement is a resource for both providers and purchasers of physiotherapy services.

The position statement provides a collation of the evidence regarding the physiotherapy management of low back pain and the Association's recommendations for clinical practice based on this evidence. The evidence has been restricted to the two highest levels of evidence defined by the National Health Medical Research Council; systematic review and randomised controlled trials.

The APA's low back pain position statement was first produced by the MPA in 1998/9¹. Since then, there has been a proliferation of evidence on the management of LBP in the form of clinical practice guidelines, systematic reviews and randomised controlled trials. Accordingly it was felt appropriate to update the original statement.

Methods

The aim of the current review was to locate evidence published since the production of the original position statement in 1998. In recognition of the enormous volume of material available the literature search was first restricted to systematic reviews, if no systematic review was located on a physiotherapy treatment an additional search was undertaken for randomised controlled trials. Evidence was located by searching the Physiotherapy Evidence Database (PEDro), CINAHL, Medline and Cochrane Controlled Trials databases for the time period 1998-2001.

The methodological quality of trials was judged using the PEDro quality scale. If a review or trial was located, and not already on PEDro, it was forwarded to PEDro office for quality rating. Trials that received a rating of 3/10 and above were considered to be of sufficient quality to be included in the review. In addition, 11 known published international clinical guidelines on LBP were reviewed.

The conclusions of the clinical guidelines, systematic reviews and RCTs were extracted and added to the findings from the review² that was the evidence summary used by the authors of the original position statement. This consolidated list of evidence was the basis for conclusions on the evidence for efficacy and recommendations for practice were made based on this evidence.

This position statement has been reviewed by the MPA and its committees before being adopted by the APA Board of Directors in May 2002.

Results

Clinical guidelines from eleven countries, and a total of 35 systematic reviews were located.

¹ APA Low Back Pain Position Statement © APA 1999

² Maher C, Latimer J, Refshauge K (1998) Efficacy of conservative treatments for acute, subacute and chronic non-specific low back pain and for the prevention of non-specific low back pain. © APA 1999

Systematic review have been published on interventions used by physiotherapists such as acupuncture, back schools, massage, bed rest and exercise.

The available evidence suggests that reassurance, advice to stay active and spinal manipulative therapy are effective treatments for acute LBP. In contrast, bed rest and passive modalities are not effective treatments and so should not be recommended as treatment for acute LBP. Interventions found to be effective for chronic low back pain (i.e. duration greater than three months) include exercise, behavioural therapy, multi-disciplinary rehabilitation and spinal manipulative therapy.

A summary of the specific recommendations for each intervention is outlined below. A technical report has also been produced for which the evidence base for each intervention is explained in more detail. This is available with the full version of the position statement.

Recommended treatments

Recommended treatments are those for which there is level I or II evidence for their effect.

Advice to stay active/ encouraging normal activity

Summary of evidence: There is considerable evidence that advice to remain active and encouraging normal activity leads to faster recovery and less time off work for acute low back pain. Advice to remain active with prescribed light activity by a physiotherapist leads to less time off work than general practitioner care in patients with subacute low back pain.

***APA recommendation:* Advice to remain active and encouraging normal activity is recommended for acute low back pain.**

Level of evidence = I and II (2 systematic reviews and 2 RCTs) 11/11 guidelines support

Back Schools

Summary of evidence: There is insufficient evidence of improvement in clinical outcomes for back schools in acute low back pain (6/6 systematic reviews). There is moderate evidence that back schools in an occupational setting are more effective than waiting list controls (2/3 systematic reviews).

***APA recommendation:* Back schools are not recommended for acute low back pain. Back schools may be helpful in chronic low back pain.**

Level of evidence = I (6 systematic reviews)

Behavioural treatment

Summary of evidence: There is sufficient evidence to conclude that behavioural treatment is an effective treatment for patients with chronic LBP compared to waiting list controls.

***APA recommendation:* Behavioural treatment either on its own or in addition to an exercise program is recommended for patients with chronic low back pain. Clinicians should be aware that psychosocial risk factors play an important role in the development of chronic LBP and disability, so that early identification of these risk factors may become part of the management of patients with low back pain. It is still unknown what type of patients benefit from what type of behavioural treatment**

Level of evidence = I and II (2 systematic reviews, 3 RCTs)

Exercise therapy

Summary of evidence: There is strong evidence to suggest that structured exercise has not been shown to provide a benefit for patients with acute LBP (6/6 reviewed). One recent RCT has shown that specific exercise in acute LBP has led to a reduction in recurrence rates over 2 years. There is strong evidence that supervised exercise programs (mostly by physiotherapists) leads to less sick leave, faster return to work rates, less pain and disability than usual medical care, control and passive therapies in chronic LBP (4/5 reviewed, 16/16 RCTs).

APA/MPA recommendation: Structured exercise is not recommended in patients with acute LBP. However, specific exercise may lead to a reduction in recurrence rates in acute LBP. Supervised exercise programs are strongly recommended in the treatment of chronic LBP.

Level of evidence = I and II (7/8 systematic reviews, 19 RCTs) guideline support: 11/11

McKenzie Therapy

Summary of evidence: 2/3 systematic reviews and 3/5 RCTs support the use of McKenzie therapy in the management of LBP, with strongest evidence indicating reduction in recurrence rates. The other 2 RCTs: One whilst supporting McKenzie, found no difference between McKenzie therapy and chiropractic manipulation, the other found no difference in disability and pain, however less recurrence in the McKenzie group compared to usual GP care.

APA/MPA recommendation: McKenzie therapy is recommended in the management of acute LBP.

Level of evidence = I and II (2/3 systematic review, 4 RCTs)

Multi-disciplinary

Summary of evidence: There is moderate evidence that multi-disciplinary rehabilitation including a workplace visit reduces sick leave for workers with subacute or chronic LBP.

APA/MPA recommendation: Multi-disciplinary programs are recommended for subacute and chronic LBP. The higher cost of such programs needs to be considered and compared to other lower cost alternatives.

Level of evidence: I (3 systematic reviews, 4 RCTs)

Spinal Manipulative Therapy

Summary of evidence: The majority of guidelines and systematic reviews suggest there is sufficient evidence for spinal manipulative therapy (SMT) in improving clinical outcomes for acute low back pain, particularly in comparison to treatments such as heat, exercise, massage and placebo (7 systematic reviews, 13/19 RCTs). Spinal manipulative therapy is more effective than continued management by the general practitioner for sub-acute low back pain. One RCT found spinal manipulative therapy was better than NSAIDs and acupuncture for chronic LBP. However, the majority of guidelines do not recommend SMT after 6 weeks.

APA/MPA recommendation: SMT is recommended in the management of acute and sub-acute low back pain. In light of stronger evidence for exercise, SMT is not recommended as a first line treatment for chronic LBP. Note in many of the RCTs, manipulation was provided by a physiotherapist.

Level of evidence: I and II (6/7 systematic reviews, 13/19 RCTs and 8/11 clinical guidelines)

Prevention of LBP: supervised exercise

Summary of evidence: At present, the only workplace intervention with demonstrated efficacy in the prevention of LBP is supervised exercise. In most of the trials, exercise was supervised by physiotherapists.

APA/MPA recommendation: Supervised exercise programs are recommended to prevent low back pain. Note that in the majority of trials, exercise was supervised by a physiotherapist.

Level of evidence= I and II (3 systematic reviews and 5 RCTs)

Recommended treatments in certain circumstances

Recommended treatments in certain circumstances are those for which there is some question regarding their efficacy. In other words there may either be either

- 1) some trials supporting and some trials negating their effect or*
- 2) no randomised controlled trials yet found that have researched that intervention.*

Acupuncture

Summary of evidence: 5/7 systematic reviews conclude that there is no or insufficient evidence for acupuncture in the treatment of acute and chronic LBP. 2/6 systematic reviews conclude that acupuncture is more effective than control interventions (TENS and sham acupuncture). 1 RCT found acupuncture effective in reducing pain in pregnancy, another found acupuncture has a worse outcome than massage for chronic LBP.

***APA/MPA recommendation:* Acupuncture is not recommended as a regular or stand-alone treatment for patients with LBP. Should only be used with evidence of improvement in clinical and functional outcomes.**

Level of evidence = I and II (2/7 systematic reviews and 1/2 RCTs positive)

Lumbar corsets

Summary of evidence: There is moderate evidence that for primary prevention, lumbar supports are not more effective than other types of treatment or no intervention. No evidence was found on the effectiveness of lumbar supports for secondary prevention. Review of the therapeutic trials suggests that there is limited evidence that lumbar supports are more effective than no treatment, unclear if lumbar supports are more effective than other interventions for the treatment of LBP.

***APA/MPA Recommendation:* Lumbar corsets are not recommended as a stand-alone treatment for low back pain. They should only be used with evidence of improvement in clinical and functional outcomes.**

Level of evidence= I (4 systematic reviews)

Traction

Summary of evidence: There is inconclusive evidence to support the use of traction in the treatment of acute and chronic LBP. For acute low back pain, one systematic review supports traction, two do not support traction and one is inconclusive. Two randomised controlled trials found no difference between traction and TENS, and no difference between conventional and inverted traction.

***APA/MPA recommendation:* Traction is not recommended as a first choice of treatment for low back pain. Can be used with evidence of improvement in clinical and functional outcomes.**

Level of evidence: I and II (4 systematic reviews, differing conclusions, 2 RCTs)

Massage therapy

Summary of evidence: One systematic review concludes that massage is less effective than spinal manipulative therapy, exercise and TENS, another concludes there may be some potential, with massage being better than no treatment, but inconclusive with regards to SMT. RCTs conclude that massage is more effective than relaxation (1) and acupuncture (1) but less effective than exercise (2).

APA/MPA recommendation: Massage is not recommended as a stand-alone treatment for LBP. In light of some evidence for positive outcomes, massage is recommended as an adjunct to other more effective treatments.

Massage is not recommended as a treatment for LBP

Level of evidence = I and II (1/2 systematic reviews , 2/4 RCTs)

Not recommended

Treatments that are not recommended are those for which there is level I or level II evidence of either

- 1) evidence of potential harm if they are used or*
- 2) evidence that other treatments, placebo or no treatment is/are more efficacious in comparison*

Bed rest

Summary of evidence: Bed rest compared with advice to stay active at best has no effect and at worst may have slightly harmful effects on LBP.

***APA/MPA recommendation:* Bed rest longer than 2 days is not recommended for the treatment of acute low back pain.**

Level of evidence = I and II (5 systematic reviews and 5/6 RCTs) 11/11 guidelines support

Magnets

Summary of evidence: Magnets are no more effective than placebo.

***APA/MPA Recommendation:* Magnets are not recommended for patients with acute or chronic LBP as they are ineffective.**

Level of evidence= II (1 RCT)

TENS

Summary of evidence: There is no evidence to support the use of TENS in the treatment of acute or chronic LBP.

***APA/MPA recommendation:* TENS is not recommended as a treatment for acute or chronic low back pain because there are alternate effective treatment options.**

Level of evidence: I and II (4/4 acute 2/2 chronic systematic reviews, 1 RCT chronic)
