

Hands On

Practical advice on management of rheumatic disease



MANAGEMENT OF BACK PAIN IN PRIMARY CARE

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Introduction

Most of us appreciate the difficulties of people who suffer back pain because 60–80% of us get it at some time in our life. Back pain is one of the commonest reasons for people consulting their GP and taking time off work. Misconceptions surrounding back pain and activity or exercise, often inadvertently reinforced by clinicians, are a major reason for this epidemic. This article aims to provide suggestions for clinicians on how they can dispel inappropriate health beliefs and provide practical advice on things people can do to help themselves. It is not a comprehensive review of the evidence of interventions for the non-drug management of back pain.

Different kinds of back pain

Back pain frequently starts for no apparent reason or after an everyday activity, and recovery (or lack of) is also frustratingly unpredictable. Only a small proportion (<5%) of people with back pain have a diagnosable condition (such as irritation of a nerve root); very few (<1%) have a serious medical problem. So the vast majority of people have no specific diagnosis or reason for their back pain. It is often said that most people's pain resolves within 6–8 weeks, and only 15–20% develop chronic, disabling back pain. However, the neat division into acute back pain that resolves quickly and completely and chronic back pain that does not is too simplistic and misleading. Many people have a long-term episodic problem, characterised by periods of relatively little or no pain interspersed with acute 'flares' of pain. Many people continue to experience considerable pain and disability but stop consulting their GP. The high rate of resolution of acute back pain is more perceived than actual.¹

Whether the problem is acute, chronic, or an acute flare-up of a chronic condition makes little fundamental difference to the advice and care people need and should receive. Management should depend on whether people are likely to be able to help themselves effectively by following simple, appropriate advice or are distressed, fearful, unable to cope and have, or are at risk of developing, a long-term disabling problem.

Investigations and diagnosis

Pain following an accident is understandable because it has an identifiable cause. Insidious back pain is more bewildering, distressing and worrying. People try to search for a cause they can make sense of and hope clinical investigations will identify it. Examination and investigations rarely find a clear-cut cause of the pain and this often results in multiple, inconsistent, false diagnoses and inappropriate advice, increasing people's anxiety, undermining their confidence in their management and reinforcing unhelpful health beliefs. It is best to be honest and realistic about the limitations of investigations and diagnosis and avoid confusing pseudo-diagnoses while at the same time reassuring people that this does not mean they cannot be helped effectively. Negative test results should be explained in ways that do not inadvertently encourage beliefs that activity is 'damaging' or that conservative treatments are likely to be fruitless. Terms such as arthritis of the spine, degeneration or wear and tear may be misinterpreted in this way.

Acute back pain

People with acute back pain without an identifiable medical problem need to receive clear, accurate and realistic information that promotes recovery. Additionally, those at

risk of developing a chronic problem must be identified and monitored closely. It is very easy for busy clinicians and therapists to be (or be perceived as) dismissive of people's problems. Recent-onset back pain must be acknowledged as being very painful, debilitating and worrying, but people need to be reassured their condition is very unlikely to indicate a serious underlying problem or lead to long-term disability. Advice and management that comes over as uninterested, dismissive and lacking conviction can be misinterpreted and counter-productive: 'They weren't interested in me. They gave me painkillers, and said it would get better. There must be something else wrong with me.'

Although it may seem counter-intuitive to someone who experiences pain when they move, encouraging people to stay active is the single most effective measure in preventing development of chronic, disabling back problems. Advice to rest completely or take more than a few days off work is almost always counter-productive and increases the chance of long-term disability.²

What to try for acute back pain

People might take things easier for a very short time (a day or two) to let the pain settle, but even during this time they must be advised and encouraged to move gently and be active. An over-cautious attitude to pain, activity and fear of re-injury can be transferred to patients and reinforce inappropriate health beliefs and behaviours.³

A simple way to relieve some pain includes application of heat (e.g. placing a hot-water bottle wrapped in a towel on their back for 5–10 minutes, or taking a hot bath). This can be applied before and/or after exercise or unavoidable activities known to increase pain, such as gardening, or after a shift of work.

For people with mild pain, disability and distress, a thorough assessment and advice from a physiotherapist is effective.⁴ For more anxious people, or those with greater problems, more intensive treatment speeds resolution, gets people back to work more quickly and may prevent the development of negative beliefs about back pain that predispose people to developing chronic disability.^{5,6}

Acute to chronic back pain

People stop consulting due to a complex mixture of health beliefs about the cause of their problem and their experience of its management. Many believe, and are told, back pain is something they must live with; they accept this, and cope with minor exacerbations of pain. But the way this message is delivered can be very unhelpful, and if they perceive they are not being helped adequately with conventional care, many turn to alternative or complementary therapy. Patients frequently try many different treatments, often at great cost to themselves and the health services, with little long-term benefit. For some, lack of good advice and health care mean acute episodes become more frequent and last longer, and the acute problem becomes a chronic problem. Reducing the likelihood of acute back pain becoming chronic and disabling is a key aim of management, because

while only a relatively small percentage of people have disabling, chronic back pain they are responsible for 80% of back pain health care use and expenditure.

The main reasons for someone with acute pain going on to develop chronic, disabling problems are psychological and social and have been termed 'yellow flags'⁷ (see box). Patients presenting with one or more strong indicators of risk or several less important factors should be closely monitored and referred appropriately (ideally to a multidisciplinary back assessment clinic) if their problems have not eased significantly within 6 weeks.

<p style="text-align: center;">YELLOW FLAGS</p> <p>Risks for developing and/or maintaining long-term pain and disability⁷</p> <p><i>(© Accident Compensation Corporation and the New Zealand Guidelines Group, Wellington, New Zealand)</i></p> <ul style="list-style-type: none">• Belief that pain and activity are harmful• 'Sickness behaviours' (like extended rest)• Low or negative moods, social withdrawal• Treatment that does not fit best practice*• Problems with claim and compensation• History of back pain, time-off, other claims• Problems at work, poor job satisfaction• Heavy work, unsociable hours• Overprotective family or lack of support

* e.g. extended bed rest, opiate use

Disabling chronic or recurrent back pain

For people with long-standing, disabling back pain, complete alleviation of their problems is unlikely. The aim is to enable them to self-manage their problems, minimise pain and maximise function. This is often *not* what people want to hear; helping patients accept this, cope with it and live a better life with *some* pain is a challenge. For this reason, because their problem is chronic and because they may have experienced several failed management attempts, people may have deeply held inappropriate health beliefs that need to be identified and addressed.

Acknowledge that back pain is not just a mechanical problem

Empathetic exploration of psychological and social factors (e.g. relationships, work problems) can be helpful in understanding what might contribute to people's problems, but risks being misconstrued as dismissing their problems as 'all in the mind'. However, a sensitive explanation of how anxiety, depression, attitudes and activity can act as a 'volume control', amplifying or moderating pain, is often extremely helpful and frequently something patients recognise in themselves.

Too little activity – or too much?

Many people avoid activities that cause pain in the belief that they cause harm (fear-avoidance). Such beliefs are

understandable, but this leads to them becoming less and less active and more and more disabled and dependent, and, ironically, results in muscle weakness that causes more joint damage and pain. Conversely, other people do too much at once (e.g. a prolonged bout of gardening) to get it over and done with, or spend long periods in a poor working environment and with bad posture. These behaviours are sometimes combined in a sequence of 'booms and busts'. Once identified, teaching 'rest-activity cycling' (interspersing bouts of exercise and activity with short rests) and suggesting ways people can protect their back in the work/home environment provides control and avoids exacerbating their pain.

Support return to activity and exercise

People with long-standing pain and failed management are often highly resistant to the notion that exercise and activity are beneficial. In fact exercise is very beneficial for people with chronic pain, even those who don't think it will help them.⁸ Exercise frequently involves some initial discomfort, and many people need support, reassurance and encouragement at this stage. Graded or 'paced' exercise, in which activity levels are initially low and progressively increased towards clearly identified functional goals, is more appropriate and effective than traditional advice to 'let pain be your guide'. Supervised exercise, tailored to the patient, is probably more effective than unsupervised general exercise,⁹ but any exercise/physical activity is far better than none.

Advice about changing lifestyle and behaviour to include participation in regular exercise and physical activity needs to be given clearly, convincingly, consistently and repeatedly if people are to accept it. This can seem a chore, but it works. If it is not given it will never be taken on board.

What exercises to do and how to do them

To be effective exercise must be performed long term; once they stop people are likely to regress. Patients are less likely to exercise if advice is inconsistent. Advice about the benefits of activity should be clearly and frequently reinforced by all health care professionals. It is important that people find something that is enjoyable, affordable and accessible in a friendly environment. Swimming, gentle aerobics and yoga are all suitable. Home regimens can also be very effective, although greater motivation is required to attain and sustain benefit.

Other treatments (e.g. manipulation, electrotherapy, injections, surgery) may help some people but can be difficult to access or costly and may encourage dependency on other people rather than self-reliance through self-management.

Back pain is very common and can be very disabling. We should be more empathetic, but fatalistic attitudes, our inability to control external influences and the sheer pervasiveness of the problem engender apathy and 'heart sink'. It need not be like this. Empathy and sympathy

will be appreciated, but giving people active coping strategies, thereby reducing acute and chronic back pain, will engender hope and control. Given with conviction, advice about activity in conjunction with simple methods of analgesia is the best way to treat acute and chronic back pain for the vast majority of sufferers of this condition.

THE KEY MESSAGES TO GIVE PATIENTS

Pathology and diagnosis

- Back pain rarely represents serious pathology
- Diagnosis is difficult but this does not prevent effective treatment
- Acute back problems usually improve, but incompletely and they are likely to recur
- Imaging is rarely helpful unless specific pathology is suspected or surgery contemplated
- Physical activity and exercise does not cause damage

Health beliefs

- Prolonged rest and time off work makes development of chronic, disabling back pain more likely
- A positive attitude helps recovery
- Complete abolition of pain is unlikely and maintaining a belief to the contrary can be a barrier to recovery

Management

- Find an enjoyable physical activity or formal exercise and do it regularly
- Discomfort following activity is not a sign of treatment failure
- Balance activity and rest

References

1. Croft PR, Macfarlane GJ, Papageorgiou AC, Thomas E, Silman AJ. Outcome of low back pain in general practice: a prospective study. *BMJ* 1998;316(7141):1356-9.
2. Hagen KB, Jamtvedt G, Hilde G, Winnem MF. The updated Cochrane Review of bed rest for low back pain and sciatica. *Spine* 2005; 30(5):542-6.
3. Vlaeyen JW, Linton SJ. Are we 'fear-avoidant'? *Pain* 2006;124(3):240-1.
4. Frost H, Lamb SE, Doll HA, Carver PT, Stewart-Brown S. Randomised controlled trial of physiotherapy compared with advice for low back pain. *BMJ* 2004;329(7468):708.
5. Wand BM, Bird C, McAuley JH, Dore CJ, MacDowell M, De Souza LH. Early intervention for the management of acute low back pain: a single-blind randomized controlled trial of biopsychosocial education, manual therapy, and exercise. *Spine* 2004;29(21):2350-6.
6. Wright AM, Lloyd-Davies AD, Williams SS, Ellis RF, Strike PM. Individual active treatment combined with group exercise for acute and subacute low back pain. *Spine* 2005;30(11):1235-41.
7. Accident Compensation Corporation and the New Zealand Guidelines Group. New Zealand acute low back pain guide (incorporating the 'Guide to assessing psychosocial yellow flags in acute low back pain'). Wellington NZ: ACC/NZGG; 2004 Oct.
8. Moffett JK, Torgerson D, Bell-Syer S et al. Randomised controlled trial of exercise for low back pain: clinical outcomes, costs, and preferences. *BMJ* 1999;319(7205):279-83.
9. Hayden JA, van Tulder MW, Tomlinson G. Systematic review: strategies for using exercise therapy to improve outcomes in chronic low back pain. *Ann Intern Med* 2005;142(9):776-85.

COMMENT

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Duncan Critchley and Mike Hurley are to be congratulated for an elegant and detailed exposition of the current understanding of the management of low back pain in primary care where, it must be emphasised, back pain should be handled. Throughout the world published guidelines demonstrate a genuine consensus over management along the lines advocated here.

*The next challenge is to ensure that these guidelines are implemented. This is not a simple matter; in general the take-up of guidelines in hard-pressed general practice surgeries is poor. Research indicates that nurse practitioners or extended-scope physiotherapists with specialist training implement low back pain guidelines in primary care in a highly consistent manner. This may represent one way forward. Simple aids are also available, such as the evidence-based 'Back Book'.**

Regarding investigations I would go further than Critchley and Hurley and suggest that, in the absence of indicators such as red flags, MRI for simple back pain is actually contraindicated. Inevitably, the report will be replete with frightening phrases such as dehydration,

disc-height loss, degeneration and so on. It is vital to avoid labelling a back pain sufferer. Such a specific 'diagnosis' has been demonstrated to be associated with a substantial deterioration in the prognosis.

Goal-orientated restoration of activity and exercise is the key to progress. The exercises demonstrated in the article are effective but it should be put to the sufferer that these exercises represent the nursery slopes and that progress to more active exercises is then necessary.

We are all familiar with the exponential growth over the last 50 years in certified back pain disability, occurring despite huge concurrent improvements in working environments. In the same period the number of treatments available and the number of treatment sessions delivered have also risen exponentially and are indicative of the failure of the attempt to fit the symptom of low back pain into the model of disease and pathology. It is time for us to abandon the disease model and concentrate on re-education, both of patients and, more importantly, of health care professionals. It is now clear that what is said is far more important than what is done.

* Royal College of General Practitioners/NHS Executive. The Back Book: the best way to deal with back pain; get back active. 2nd rev edn. London: The Stationery Office; 2002. ISBN 9780117029491.

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