

What a pain! Managing it through the continuum

Managing chronic pain is a challenge for all doctors. Patients need to be encouraged to take control of their pain with a self-management plan and not rely on medication alone.

Low back pain is discussed in the article as a model of pain.

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Pain is a complex concept to come to terms with – not only for patients but also for health care professionals. What may be very painful and distressing to one person may be only a mild ache to another. As medical practitioners, we are familiar with the different types of behaviour seen in patients as they present their history. The language of pain varies significantly, and patients may have difficulty describing their pain, often using words such as sore, hurt, ache, throb or ‘it’s just pain’. Our role is to try and tease out the multiple contributors to their pain and often quite severe distress.

Recent epidemiological data analysed from the Bettering the Evaluation and Care of Health (BEACH) program estimated that osteoarthritis (14.3%), depression (12.9%), anxiety (9.5%) and

chronic back pain (8.4%) are significant problems for patients attending general practice in Australia.¹ Further analysis has suggested that ‘multimorbidity’, where two or more of these conditions occur simultaneously, is present in 10.6% of the population attending general practice.²

These particular multimorbidities contain the hallmarks of patients with persisting pain. There is increasing evidence that chronic or persistent pain can be classified as a disease in its own right, something that most medical practitioners will readily recognise.³

How best then to manage these patients? Both acute and chronic low back pain are common presentations in general practice and can be used as models to discuss some of the issues associated with persistent pain.

IN SUMMARY

- Pain is a complex concept to come to terms with – what may be very painful and distressing to one person may be only a mild ache to another.
- There is increasing evidence that chronic or persistent pain can be classified as a disease in its own right.
- Patients should be helped to institute a holistic, active, self-management program, something akin to a lifestyle change.
- Part of the management plan will include addressing patient expectations.
- Drug therapy should never be used alone. Address also lifestyle issues such as ensuring a healthy diet, exercising regularly, sleeping well and managing stress appropriately.
- Escalating doses of opioids are more likely to increase the side effect profile than improve analgesia and will often reduce functional outcomes and quality of life.

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Acute nonspecific low back pain

Back pain can be initially classified as being due to specific or nonspecific causes. The use of 'red flags' to rapidly exclude serious (specific) pathology in patients with back pain is easy and quick (Table 1). If a red flag is identified, further investigation and referral is appropriate. Some other specific conditions, such as radicular leg or arm pain causing neurological compromise (especially weakness), will also warrant further investigation and referral.

If no specific condition or 'red flag' is present, then an approach embracing the principles of management of nonspecific low back pain is recommended.

The prognosis for patients with acute nonspecific low back pain is for resolution of symptoms over a one-month period. However, recent Australian data suggest that up to 25% of individuals will have a recurrence within the first year.⁴

Best practice guidelines

Current best practice guidelines for the management of acute nonspecific low back pain include:

- providing reassurance that there is no serious underlying pathology
- giving a simple but understandable explanation of the causes of low back pain and muscle guarding
- demonstrating simple stretching exercises
- advising against bed rest
- encouraging a return to normal activities.

Some patients will have strong beliefs about the cause of their back pain. These must be identified and discussed with the patient. A set of so-called 'yellow flags' has been developed in New Zealand to help identify abnormal beliefs (Table 2).⁵ Yellow flags indicate psychosocial barriers to recovery. The clinical assessment

Table 1. Red flags to help identify potentially serious pathological causes of low back pain

- Features of cauda equina syndrome (especially urinary retention, bilateral neurological symptoms and signs, saddle anaesthesia) – this requires very urgent referral to a specialist
- Significant trauma
- Weight loss
- History of cancer
- Fever
- Intravenous drug use
- Corticosteroid use
- Age over 50 years
- Severe, unremitting night-time pain
- Pain that gets worse when lying down

of yellow flags may identify the risk of long-term disability, distress and work loss.

Emphasis on the benign nature of the condition should be reinforced. In the absence of red flags or clinically specific causes of the pain, investigation with x-ray or CT scanning is not necessary.

Role of medications

In acute nonspecific low back pain, use of simple analgesics (such as paracetamol 500 mg two tablets every six hours or extended-release paracetamol 665 mg two tablets three times a day), can be recommended. Low-dose short-term anti-inflammatory medications (for example, ibuprofen 200 to 400 mg three or four times daily, naproxen 250 to 500 mg twice daily or celecoxib 200 mg daily) may be of value. Although there is some evidence for the use of benzodiazepines for the treatment of 'muscle spasm', the sedating and dependency risks associated with them means that they cannot be recommended.⁶ In general, the use of opioids for more

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Table 2. Yellow flags to help identify potentially serious psychosocial causes of low back pain

- The belief that pain and activity are harmful
- 'Sickness behaviours' (such as extended periods of rest)
- Low or negative moods and social withdrawal
- Treatment that does not fit with best practice guidelines
- Problems with a difficult compensation claim
- A history of back pain
- Problems at work, poor job satisfaction or excessive time off work
- Heavy work or unsociable working hours
- An overprotective family or a lack of support

than a short period of time should be avoided for the same reasons.

Recurrent, persistent or chronic low back pain Imaging

With recurrent or chronic nonspecific low back pain, investigations with imaging are rarely helpful in terms of management. However, it is recognised that because of patient pressure a request for an x-ray or CT scan will usually be made. If performed, imaging should be used to reassure the patient that 'serious' pathology has been further excluded from the differential diagnosis.

The interpretation of findings on diagnostic imaging and its correlation with the clinical picture is not always straightforward. A careful explanation of these findings is needed, because patients may interpret relatively benign reports in an alarmist way, further reinforcing abnormal beliefs about the cause of their pain. A useful resource on diagnostic imaging

is the WA government website (www.imagingpathways.health.wa.gov.au), which has diagnostic algorithms and doses of radiation from each imaging technique.

Rehabilitation

As with acute low back pain, once specific causes of chronic low back pain have been excluded, management should focus on rehabilitation. Patients should be helped to institute an holistic, active, self-management program, something akin to a lifestyle change (Table 3). Excessive reliance on passive coping strategies, such as medications and interventional procedures, should be discouraged. At best these passive treatments should be viewed as providing a 'window of opportunity' for the patient to institute their self-management program.

As the patient's condition is now considered to be chronic or persistent, a range of psychological and social features will require assessment and management. Patients will often present with low mood, fear avoidance behaviour usually linked to a decreased range of movement, catastrophising thoughts, anger, frustration and a poor level of physical fitness due to deconditioning. They may also have a high body mass index, be unemployed and/or on a disability pension, and have a poor social support network. The GP is ideally suited to be the team manager and to involve allied health professionals to design a management plan.

Patient expectations

Part of the management plan will include addressing patient expectations. These must be realistic and can be difficult for patients to articulate. Patients are all individuals and will present their problems in quite different ways. For example, some patients who have good, enjoyable and challenging jobs will often accept returning to work with some degree of ongoing pain. Others who dislike their jobs and/or supervisors may insist on complete resolution of their pain symptoms before

Table 3. Discussion points for patients with low back pain

- Address patient expectations to ensure they are realistic
- Encourage a regular 'paced' exercise program, which may include:
 - aerobic activity
 - movement instruction
 - muscle strengthening
 - postural control
 - stretching
- Discuss diet and ideal weight
- Encourage normal activity as far as possible
- Encourage the avoidance of bed rest
- Discuss general lifestyle issues, including:
 - smoking
 - sleep hygiene

engaging in return to work programs.

For many patients, whether they have nonspecific pain issues or specific but not otherwise treatable ('curable') conditions, resolution of all pain symptoms is often impossible and patients' expectations need to reflect this. However, despite pain, an improvement in function should be possible, along with an improvement in quality of life. Again the GP is the ideal person to start a care plan that will address function and quality of life.

Role of medications

The role of medications in the management of chronic low back pain is somewhat limited and drug therapy should never be used alone. Addressing lifestyle issues is important to ensure the patient is eating a balanced diet, exercising regularly, sleeping well and managing stress appropriately.

If low mood is identified, behavioural strategies, information about depression and goal setting to overcome the depression are also important. If depressive symptoms persist, contact with a clinical

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psychologist within the team care arrangement and the use of a selective serotonin reuptake inhibitor (SSRI; for example, citalopram 20 mg/day, fluoxetine 50 mg/day or sertraline 50 mg/day), should be considered.

Despite the best of efforts, some patients seem to rely solely on medications and fail to engage in an appropriate rehabilitation program. In the chronic pain setting, these patients have sometimes been referred to as 'chemical copers'.⁷ Frequently, benzodiazepines (for example, alprazolam, clonazepam or diazepam), opioids (for example, methadone, morphine or oxycodone) or other sedating medications are used excessively or inappropriately by these patients, often to treat their psychological distress.

Management of these patients who rely on medications should focus on harm minimisation and containment of this essentially iatrogenic problem. Clear boundaries should be set, especially with regard to requests for extra medication, with regular review to reinforce them. Care should be taken to avoid unnecessary investigations, referrals and treatments. Often the best strategy is a thorough clinical assessment and explanation of the appropriate use of medication for chronic pain. Significant support is required from the treating doctors, as well as allied health professionals, family and community services.

What about opioids?

The role of opioids in the management of chronic pain in general has waxed and waned over the past 20 years but still remains relatively controversial. Recent meta-analyses demonstrate a modest reduction (about 30%) in pain with dosages of up to 100 mg/day morphine equivalents but this is not always associated with improved function.^{8,9} As discussed previously, functional improvements should be the goal when managing patients with chronic pain, rather than unrealistic reductions in pain intensity.

If opioids are to be prescribed, current Australian recommendations^{10,11} are for a trial of treatment, with clear goals to improve lifestyle (for example, take a daily 20-minute walk, socialise with friends, return to part-time work) agreed between the prescriber and the patient. These recommendations are similar to those published recently in the USA.¹²

During the trial of opioid use, the dose should be adjusted with careful monitoring of adverse effects. The trial needs to be clearly time limited, with the agreement that the opioids will be tapered and ceased if the functional goals are not met. Often verbal consent is adequate; however, written consent may be more useful in more complex patients. Agreeing the terms of the opioid trial with the patient is the most difficult aspect to implement and is frequently neglected.

Information about the side effects of medium- to long-term use of opioids (nausea, constipation, sedation, dry mouth, urinary hesitancy and depression of sex hormones) and a clear explanation that opioids are not to be used as a single treatment strategy should be given to every patient. Constipation is a common and often distressing side effect of opioid use, particularly in the elderly, and should be treated pre-emptively. Although not an absolute contraindication, the use of opioids in patients with a history of drug or alcohol abuse requires extreme caution.

Increasing doses of opioids are more likely to increase the side effect profile than improve analgesia, and will often reduce functional outcomes and quality of life. There is increasing evidence that chronic opioid therapy induces a degree of hyperalgesia, which is partly responsible for the poor outcomes in these patients. Other significant side effects include:

- opioid-induced bowel dysfunction
- suppression of the hypothalamic/pituitary axis
- suppression of the immune system and cognitive impairment.

There is some agreement that in patients already receiving regular opioid medication for persistent pain, a 'ceiling' for the total daily dose should be considered. Some authorities have suggested a ceiling of 100 mg/day morphine equivalents.⁹ Functional outcomes, as agreed when the goals were set, should be the major assessment tool for these patients, because it is unlikely that there will be dramatic changes in pain scores, and tolerance is a problem for many patients.

For patients already on opioids for persistent pain, ongoing prescription can be facilitated by the introduction of a care plan including goal setting and functional outcomes. Regular review of goals and the care plan, together with assessment for side effects and overall function, should occur every time a prescription for opioids is written.

The concept of 'universal precautions'

has been popularised in Canada with the suggestion that at each review consultation there is value in using a check list of the four As. These are:

- analgesia
- activities
- adverse effects
- aberrant behaviours (such as illicit drug use, lost or stolen prescriptions, consistently using increased amounts of opioids etc).¹³

Patients with chronic pain who are difficult to manage should be referred to a pain or addiction medicine specialist. If opioid use is to be withdrawn, then this should occur gradually. Generally a dose reduction of 10% per week is recommended to avoid severe withdrawal symptoms. Remember that state or territory prescribing rules about notification of Schedule 8 drugs must be followed.

Finally, in patients with some specific

types of back pain, interventional procedures (such as nerve root sleeve and facet joint injections) may provide some temporary relief from pain and may have some value in encouraging engagement in rehabilitation and self-management programs. Similarly, surgery is no panacea. Surgical intervention must be combined with a comprehensive rehabilitation program if there are to be successful outcomes.

Neuropathic pain

Another often problematic but less common type of pain that is increasingly recognised is neuropathic pain, which can be defined as pain caused by damage to the peripheral or central nervous system. Words such as tingling, pins and needles, electric shock-like or burning may be used to describe the pain, and on clinical examination areas of hypersensitivity, increased pain and/or numbness can be identified.

Simple screening tools are now available.¹⁴

The causes of neuropathic pain include:

- diabetic neuropathy
- postherpetic neuralgia
- trigeminal neuralgia
- 'sciatica'
- rarer conditions such as complex regional pain syndrome and central post-stroke pain.

Management

Management of neuropathic pain should be similar to that for other forms of chronic pain, and if the pain persists should involve the design of a care plan. There has been good international consensus on medication options for neuropathic pain.¹⁵

First-line treatment recommendations include tricyclic antidepressants (used off label for neuropathic pain), such as amitriptyline and nortriptyline. Effective doses of tricyclic antidepressants vary widely. They should be started at a low dose of 10 mg at night and then, to optimise acceptability, increased slowly by 10 to 25 mg every seven nights to a maximum dose of 150 mg at night.¹⁵ Amitriptyline given at night may be helpful for sleep disturbance, while less-sedating tricyclic antidepressants such as nortriptyline can be given to patients during the day.

Adverse effects of tricyclic antidepressants include dry mouth, constipation, sweating, dizziness, sedation, drowsiness, palpitations, autonomic dysregulation with postural hypotension and urinary retention, especially when prescribed in elderly patients. Tricyclic antidepressants have a slow onset of effectiveness and should be trialled for at least two weeks.¹⁶

If tricyclic antidepressants are contraindicated, the anticonvulsants pregabalin or gabapentin can be used as first-line therapy.

Second-line treatment involves the use of anticonvulsants or serotonin-noradrenaline reuptake inhibitor (SNRI) antidepressants. Some of the newer drugs such as pregabalin and gabapentin have

the best evidence of efficacy. Pregabalin may be preferable to gabapentin because of its more predictable dose-response relation, twice daily dosing and the ability to titrate quickly. Starting dosages are 75 mg twice daily, up to a maximum dosage of 300 mg twice daily, and there is now a 25 mg capsule of pregabalin, which may be useful in elderly patients.¹⁵ They are used as second-line treatment if

tricyclic antidepressants are not tolerated or found to be ineffective.

The anticonvulsant carbamazepine has good efficacy for the treatment of patients with trigeminal neuralgia. The SNRI antidepressants venlafaxine (150 to 225 mg/day) and duloxetine (60 to 120 mg/day) have shown moderate efficacy in patients with neuropathic pain.

Third-line options include tramadol,

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sodium valproate and opioids.¹⁷ When third-line treatment options are reached, management is obviously more complex and a whole-person approach to the pain should be used. The previously discussed guidelines for using opioids are equally appropriate for neuropathic pain, and a telephone consultation with a pain medicine centre should be considered.

Conclusion

As the concept of describing ongoing pain as a disease in its own right gains momentum, so also is it being recognised as a true chronic condition. It is essential for patients and practitioners to understand the principals of self-management.

Pain is a complex phenomenon and can be challenging to manage, especially once it is persistent. It requires a comprehensive, co-ordinated approach that emphasises active self-management principles. GPs are ideally placed to manage chronic pain within a team environment, utilising the wide range of community services available. By employing these principles and obtaining successful outcomes managing patients with pain should no longer be 'heart sink' but may even become music to our ears.

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