Acute pain management in general practice: steps to effective pain control

Koch K, MBChB, Private Practice General Practitioner, Freelance Medical Writer
Correspondence to: Karen Koch, e-mail: karenk@vodamail.co.za
Keywords: acute pain management, general practice, effective pain control

Abstract

Pain is one of the most common complaints that general practitioners encounter in everyday practice. The swift and effective management of pain is a medical mandate, not only to fulfil an ethical obligation to the patient, but also to prevent long-term complications, such as chronic pain. General practitioners are often required to manage mild-to-moderate pain, and have multiple pain management treatments available to them. The challenge is to tailor a treatment plan to suit the individual requirements of each patient. In this paper, we will explore how best to manage acute mild-to-moderate pain in general practice in a logical stepwise approach.

Ⓟ Peer reviewed. (Submitted: 2012-01-06. Accepted: 2012-05-02.)

Reprinted with permission from S Afr Fam Pract 2012;54(3):189-191

Introduction

Pain is defined as "an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage".[1] Patients with pain comprise a part of nearly every medical specialty practice, and pain is among the most frequent reasons for visits to a general practitioner.[2]

Among adults, 90% suffer pain at least once a month, 42% have daily pain, and 22% of all primary care patients have chronic pain.[3] The most frequent types of pain in patients who consult a general practitioner, as identified by the World Health Organization (WHO) include back pain, headaches, joint pain, pain in the extremities, chest pain, abdominal pain, and pain elsewhere.[4]

Step 1: Structure the treatment around the patient

Pain is a subjective experience that involves physical, psychological, and spiritual facets. At the initial visit, a key element in effective treatment is to involve the patient in building and implementing a care plan.

After a diagnosis is made, attention is often limited to surgical or pharmacological therapy. Although this may be appropriate for minor self-limiting injuries, the care plan should be more comprehensive if the patient's experience of the pain is more severe, or if his or her values and beliefs demand a more in-depth approach.

It's important to ensure patient understanding and educate patients about their condition. Education regarding the course of the illness and recovery process should be included at each visit. Beyond disease-specific therapy and pharmacological interventions, where appropriate, physical therapy, occupational therapy, and psychological or psychiatric assessment, as well as complementary therapies, should be included. The overarching objective is to empower the patient to enable him or her to play a major role in recovery and to set realistic therapy goals.[5]

Step 2: Assess and quantify the pain

Since pain is a subjective experience, in order to manage pain appropriately, it's important to understand what the patient is experiencing. It has been shown that patient self-reporting is the most reliable indicator of the existence and intensity of pain.[6]

Various standard tools are available, such as the verbal rating scale where pain is rated from 0-10, or more visual aids, such as the visual analogue scale (VAS), in which faces with expressions of pain are used to rate pain as "mild", "moderate" or "severe". These tools are useful to guide initial treatment and ongoing effectiveness of treatment for each patient.[7]

Step 3: Initiate treatment

When planning treatment, it's important to negotiate treatment goals with the patient.

Overall, treatment goals should include:

- Early pain control, with adjustments in treatment to reach an acceptable level of comfort.[8]
- Sufficient pain control to allow for required patient functionality.[5]
- The facilitation of recovery from underlying disease or injury.[8]

Figure 1: Acute pain treatment ladder[9]

Mild 1-3/10 VAS 1-5	Moderate 4-6/10 VAS 6-7	Severe 7-10/10 VAS 8-10
Paracetamol 1g 6 hourly NSAIDs (if no C/I) Codeine 30-60 mg 6 hourly or Tramadol 50-100 mg 6 hourly	Paracetamol 1 g 6 hourly and NSAIDs regularly (if no C/I) and Codeine regularly and/or Tramadol 50-100 mg hourly and/or Morphine 0.1-0.2 mg/kg 4 hourly	Morphine regularly or continuous and Paracetamol 1 g hourly and NSAIDs (if no C/I) and/or PCA/nerve block/neuraxial block

C/I = contraindication, NSAID = nonsteroidal anti-inflammatory drug, PCA = patient-controlled analgesia, VAS = visual analogue scale

In terms of initiating and managing pain control, the South African Acute Pain Guidelines have integrated both the VAS and the WHO's three-step approach to pain control, to provide a stepwise method to acute pain management.[9] Figure 1 illustrates the WHO's three-step approach to pain control.

Mild pain management

Mild pain ranges from 1-5 on the VAS, or as a numeric rating of 1-3 out of 10. Patients with mild pain require reassurance on the cause of their underlying condition. Normally, mild pain is self-limiting, and rarely lasts more than a few days. Fear is often a contributor to the patient's experience of pain. Support and education may be important for many patients with mild pain.[5]

Nonpharmacological therapy may be sufficient to resolve mild pain. This includes stress-reduction techniques, psycho-social counselling, while physical or occupational therapy may be appropriate. Complementary and alternative medicine (CAM) may also be indicated, especially if the patient prefers it.[5]

Medication for mild pain should start with acetaminophen, NSAIDs, or cyclo-oxygenase-2- (COX-2) specific inhibitors. If these agents are insufficient or contraindicated, a combination opioid or non-opioid drug regimen, or a low dose of a short-acting opioid may be started. In the short term, medications prescribed on an as-needed basis may be appropriate. However, if mild pain is continuous and bothersome, as-needed prescriptions are generally inappropriate. A fixed-dosing schedule should be used. [5]

Moderate pain management

Moderate pain may be defined as pain that is rated between 4-6 on a 0-10 scale, or is described as moderate by the patient. As in the case of mild pain, patients need reassurance, itself a powerful adjuvant for pain relief. Generally, pain is amplified by emotions such as fear, anger and guilt.

Pain relief should be adjusted according to the patient's needs. Some people are able to tolerate pain well, while for others, moderate pain is unacceptable. Used either alone or in combination, opioids are the cornerstone of most moderate pain management. A short-acting opioid and bowel regimen is strongly recommended.

Nonopioids, adjuvants, and CAM modalities may be used in combination with the opioid. Adjuvants are agents for which the primary indication is not for pain, but which are known to reduce pain in some circumstances. [5, 9]

Severe pain management

Severe pain is defined as pain that is rated as 7-10 on a 0-10 scale, or is described by the patient as severe. Severe pain always requires urgent investigation. Usually, patients with severe pain require urgent referral and admission to hospital, where the underlying cause can be managed and the patient can receive intravenous opioids.[5, 9]

Step 4: Reassess treatment

It's critical to follow-up patients and reassess treatment efficacy and side-effects.[6] Mild pain should be assessed every 7-14 days, until a suitable pain management regimen has been established. If pain is ongoing, it's important to substitute short-acting, for longer-acting, medications. Make a habit of asking patients about their pain at every consultation, and how they are coping. Interventions should be discontinued if they are ineffective after several weeks.

Moderate pain should be reassessed at shorter time intervals. Severe pain should be reassessed every few hours. Education, support, and stress management that focus on coping skills are crucial when a patient is experiencing severe pain.[5,9]

Consideration should always be given to whether pain is a possible underlying aetiology, in cases where patients fail to respond to increasing doses of acute analgesics. Neuropathical pain requires a different approach to pain management and should be tailored accordingly.

Step 5: Maximise function

Far too often, pain control focuses on the painful area, rather than the overall functionality of the person. Functional impairment is defined as a compromised ability to perform a level of activity in the manner or within the range that is considered to be normal. It is common in those with acute and chronic pain syndromes, and often results in decreased quality of life.

However, different patients experiencing similar amounts of pain may have vastly different functionality. One may carry on an active and productive life, whereas another may enter a downward spiral of distress, disability, and despair. Although decreasing the magnitude of the patient's pain is a key goal of any treatment plan, of equal importance is the need to ensure that the patient maximises his or her functionality. This requires careful attention to both physical and biopsychosocial arenas.[10]

Step 6: Identify warning signs early

It's important to be aware of and seek out warning signs that are suggestive of a potentially serious cause of a patient's symptoms. In the case of neck or back pain, examples include night sweats, fever and weight loss, which are suggestive of an infectious or malignant process; and bladder or bowel incontinence, which are suggestive of spinal cord compression. It's important to urgently refer patients with "red flags" for appropriate investigation.[5]

Certain warning signs indicate a difficult course of treatment and a potentially poor outcome. These warning signs may indicate the need for more complex management, intensive treatment, or earlier specialist referral. Such signs are not limited to, but include severity of symptoms, older age, lack of full-time employment, litigation, workman's compensation, and subjective initial complaints that raise concerns about long-term prognosis.[11]

Step 7: Minimise side-effects

There are multiple ways to minimise or reduce potential side-effects when prescribing for acute pain:

- Combine pharmacological treatment with non-pharmacological treatments, such as stress reduction and physiotherapy, to reduce the need to for analgesics and to aid recovery.[5]
- Avoid using NSAIDs in patients with a history of gastritis, peptic ulceration or renal dysfunction.[5]
- When prescribing ongoing NSAIDs, consider using routine gastric protection in the form of proton-pump inhibitors.[12]
- When using opioids, consider a combination medication, such as acetaminophen and oxycodone, which would allow lower doses of both the opioid and the other agent. Using lower doses may reduce the incidence of side-effects provided efficacy is not compromised.[5]
- Most patients become tolerant to opioid side-effects, such as nausea and vomiting, sedation and cognitive impairment, in two to three days, with the exception of constipation. It's important to recommend plenty of ***fluids and*** fibre when initiating opioids.[5]

Step 8: Counsel patients on complementary and alternative medicine therapies

There is limited evidence to support the use of CAMs. However, many patients choose to make use of such therapies. Unless these therapies are potentially harmful to patients, it's best to support their use.

If pain persists, despite the use of CAM and if the patient is not taking any medication, suggest some. If the patient is already taking medication, but the pain is not being adequately controlled, options include increasing the dose of the current medication, adding an opioid if one is not present, or adding an adjuvant medication or CAM modality, as well as exploring behavioural issues.[5]

Treat pain early and effectively

Treating pain effectively requires a patient-centric approach. Understanding the needs of patients with regard to the severity of their pain, their treatment preferences, the likelihood that they will develop complications or have a difficult recovery, and their response to therapies, should all factor in treatment choice and adjustment. Sessions should be used as an opportunity to consult with patients and monitor side-effects, warning signs and effectiveness of treatment.

References

1. Acute pain management: scientific evidence. Australian and New Zealand College of Anaesthetists and Faculty of Pain Medicine [homepage on the Internet]. 2010. Available from: http://www.anzca.edu.au/resources/college-publications/Acute%20Pain%20Management/books-and-publications/acutepain.pdf
2. Green LA, Phillips RL, Fryer GE. The nature of primary medical care. In: Jones R, Britten N, Culpepper L, et al, editors. Oxford textbook of primary medical care. London: Oxford University Press; 2003.
3. Pain factsheet. Pain in America: highlights from a Gallup survey. Arthritis Foundation [homepage on the Internet].1999. Available from: http://www.arthritis.org/conditions/speakingofpain/factsheet.asp
4. Gurege O, VanKoff M, Simon G, Gaten R. Persistent pain and well being: a World Health Organization study in primary care. JAMA. 1998;280(2):147-151.
5. Bope ET, Douglass AB, Gibovsky A, et al. Pain management by the family physician: The Family Practice Pain Education Project. J Am Board Fam Pract. 2004;17 Suppl:S1-S12.
6. Acute pain management: operative or medical procedures and trauma, Part 1. Agency for Health Care Policy and Research. Clin Pharm. 1992;11(4):309-331.
7. Jensen MP, Karoly P. Self-report scales and procedures for assessing pain in adults. In: Turk DC, Melzack R, editors. Handbook of pain assessment. New York: Guilford Press, 1992; p. 135-151.
8. Management of acute pain and chronic noncancer pain. National Pharmaceutical Council [homepage on the Internet]. c2011. Available from: http://www.ampainsoc.org/education/enduring/downloads/npc/section_4.pdf
9. South African acute pain guidelines. South African Society of Anaesthetists. S Afr J Anaesthesiol Analg. 2009;15(6):1-120.
10. Simmonds MJ, Peat JH. Rehabilitation therapies in pain and disability management: an activity driven biopsychosocial model of practice. In: Tollison CD, Satterthwaite JR, Tollison JW, editors. Practical pain management. 3rd ed. Philadelphia: Lippincott Williams & Wilkins, 2002; p. 120-134.
11. Guidelines for the management of whiplash-associated disorders. New South Wales Motor Accidents Authority [homepage on the Internet]. 2001. Available from: http://www.maa.nsw.gov.au/pdfs/whip_mgt_summary_guide.pdf
12. Low back pain: early management of persistent non-specific low back pain. National Institute for Health and Clinical Exellence; 2009.