



Pain in older people

Often unrecognised and undertreated

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Pain is not a normal part of ageing and it is often unreported, unrecognised and undertreated in older patients. Appropriate treatment is required to ensure this population is managed effectively.

Key points

- Pain is not a normal part of ageing; its high prevalence in older people is secondary to the burden of pathology.
- Pain in older people is often unreported, unrecognised and undertreated.
- The absence of pain in the elderly does not exclude the possibility of serious illness – e.g. silent myocardial infarction.
- A multidisciplinary approach to treating pain in older people is often more effective than drug therapy alone.
- Treatment approaches and goals need to be modified to suit the needs of the older person.

Although pain is one of the most common presenting symptoms of older people attending their GPs, many studies have found that pain is often unreported by older individuals; it is also often unrecognised by health professionals and is, therefore, undertreated.¹ The most vulnerable individuals, such as those with cognitive impairment or in residential care facilities, are at greatest risk. The extent of this problem will increase as the population ages.

The prevalence of pain increases with advancing age. About one in three community dwelling older people report experiencing persistent pain of more than three months' duration,² and more than 50% report experiencing severe pain following surgery or trauma.³ Pain should not be considered a normal part of ageing; its high prevalence is a consequence of the increased burden of pathology. Major causes of pain include arthritis, particularly of

the lower limbs, spinal disease, trauma and surgery. There is also an increased prevalence of cancer-related pain and neuropathic pain – for example, postherpetic neuralgia and painful diabetic peripheral neuropathy.

PAIN IS OFTEN UNREPORTED, UNRECOGNISED AND UNDERTREATED

Older individuals may consider persistent pain a normal part of the ageing process and therefore not report it. Doctors often enquire about the presence of pain in specific sites such as the chest or back, without asking an open-ended question about whether the patient has any pain or discomfort and allowing adequate time for a response. Some individuals will deny the presence of pain yet report unpleasant discomforts such as aching joints or tingling in their feet. Cognitive impairment and communication difficulties increase the risk of pain going unrecognised.

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Age-related changes in pain perception need to be taken into consideration. Some types of pain become less prevalent with age, such as headache and chest pain. Pain may not be a feature of conditions usually associated with pain in younger individuals; for example, pain may not be a major symptom of myocardial infarction in older people. An older person presenting with failure to walk for no apparent reason should have a hip fracture excluded even in the absence of pain. Experimental studies reveal that an increase in stimulus intensity is required before older individuals report pain; however, once pain is experienced it is not tolerated as well as in younger people.^{4,5}

TRANSIENT, ACUTE AND PERSISTENT PAIN

Most pain is transient and mild, and perhaps an inevitable part of life. Acute pain serves a biological role, warning of tissue damage and protecting the individual from further injury – for example, by using a fractured limb. In patients with acute pain, treatment is focused on the cause of the pain, together with temporary symptomatic relief. Pain usually settles over a short period of time as healing takes place.

When pain lasts beyond the usual time for tissue healing it is referred to as chronic or persistent pain, often defined as pain lasting for more than three months. Careful evaluation is required to ascertain why the pain has persisted and to ensure that an important diagnosis has not been overlooked. Concurrent medical conditions and their treatments may limit the patient's treatment options leading to persistence of pain. Patient preference may preclude pain-relieving interventions, such as joint replacement surgery. Some painful conditions such as fibromyalgia and neuropathic pain may be refractory to conventional analgesia. Mood disorders should be considered when assessing an older person with persistent pain. Additionally, patient assessment should ascertain the impact that pain is having on daily activities,

mood, sleep, social function and quality of life.

FOCUSING ON THE PAIN

Once curative options have been excluded, the goal of management shifts to symptom control. The pain and its impact on the patient are considered as important as the underlying cause of the pain. Mood disturbance and functional limitation may be more amenable to therapy than the pain.

A frank discussion with the patient is required, covering the nature of the pain, treatment options and prognosis. Even if it is unrealistic to hope for a cure, the individual should not be left feeling hopeless. Patients often feel reassured being told that their pain is real and not imagined, that they do not have cancer and that support is available even if a cure is not. Avoid sending mixed messages, for instance by ordering further investigations, specialist opinions or trialling a new medication. A patient is unlikely to move forward if they are waiting for an elusive cure. Chronic pain should be considered as a condition in its own right, not simply a symptom of underlying pathology.

The focus should move from the cause and severity of the pain to the impact that the pain is having on the patient's mood and function. A successful pain management program may result in the person still reporting the same level of pain but being able to achieve more before being stopped by the pain. Treatment goals should be negotiated with the patient who must consider the potential benefit of any new therapeutic approach versus the burden of that intervention and potential side effects. Many patients who feel they can cope with ongoing pain decide not to pursue further treatments, whereas others will elect to continue with a pain management approach.

MANAGEMENT

Analgesic medications are usually first-line treatment for people with pain. This

may have been initiated by the individual or prescribed by a doctor. Most patients will have tried at least one analgesic before seeking professional help. Failure to respond to treatment may be the result of taking the wrong medication, taking the wrong dose or an inadequate duration of therapy.

Older individuals tend to experience more adverse effects from their medications. This may be avoided by starting at a lower dose, with gentle dose escalation according to patient response. Predictable side effects such as opioid-induced constipation should be treated pre-emptively.

If pain has not been adequately controlled with medications, then a combination of pharmacological and non-pharmacological approaches tends to be more effective than escalation of medication use.

A detailed discussion of the treatment options of pain is beyond the scope of this article; however, some points need to be made about the treatment of older individuals with pain. Most guidelines recommend the use of paracetamol as the first step in the management of pain in older people.⁶ This recommendation is based on its availability, cost, efficacy and side effect profile. Generally, no dose reduction is required for older people, apart from the very frail, poorly nourished, alcohol misusers or those with liver disease. Many patients find the large tablet size together with the need for frequent dosing to be inconvenient. Co-administration of paracetamol with other analgesics may enable dose reduction of the second analgesic.

NSAIDs and COX-2 inhibitors

Second-line analgesics include NSAIDs, selective cyclooxygenase (COX)-2 inhibitors, codeine and tramadol. NSAIDs and COX-2 inhibitors offer convenient dosing, but are associated with serious adverse reactions, particularly in older individuals. Special caution is required in patients with peptic ulcer disease, hypertension, cardiac failure or renal impairment.

The gastrointestinal advantage of using a COX-2 inhibitor is lost when it is co-prescribed with low-dose aspirin. Concomitant use of diuretics and ACE inhibitors with NSAIDs increases the risk of renal impairment. However, in selected individuals the benefit may still outweigh the risk. If used, NSAIDs should be taken at the lowest dose for the shortest period possible. A safer option for inflammatory arthritic conditions may be a low dose of prednisolone.

Paracetamol and codeine

There are multiple preparations available combining paracetamol with codeine. The analgesic effect of codeine is thought to be mediated through its transformation to morphine by cytochrome CYP2D6. About 8% of Caucasians and 2% of Asians are genetically deficient in CYP2D6 and obtain little pain relief from codeine.⁷ In addition, a number of commonly prescribed drugs, such as haloperidol, amitriptyline, fluvoxamine, fluoxetine and paroxetine, inhibit CYP2D6.

The side effect profile of paracetamol and codeine combinations is similar to that of other opioids and, in particular, constipation and cognitive effects can be problematic in the elderly. Although codeine remains widely used, there is an increasing trend to avoid codeine in favour of low-dose opioids such as oxycodone.

Tramadol

The efficacy of tramadol 100 mg and paracetamol 1000 mg/codeine 60 mg are equivalent. Tramadol has an affinity for the mu opioid receptor and inhibits the uptake of serotonin and noradrenaline, giving it a role in treating both nociceptive and neuropathic pain. Its usefulness for older people is limited by its high potential for adverse side effects and drug interactions, so dose reduction is required for the elderly.

The most common adverse effects of tramadol are nausea, vomiting, dizziness, constipation, sweating, tiredness and

PRINCIPLES OF OPIOID THERAPY FOR OLDER PEOPLE WITH CHRONIC NONCANCER PAIN^{6,8}

- Explore all other treatment options, including physical and psychological treatments, before starting opioid therapy
- Continue paracetamol use
- Explain and obtain agreement for the following:
 - expectation of pain reduction rather than elimination
 - adverse effects are common, but usually manageable
 - need for monitoring and adherence
 - withdrawal of drugs if there is nonadherence or no significant improvement over four weeks
- Avoid use of immediate-release and parenteral opioids
- Appropriate first-line opioid therapies are:
 - controlled-release morphine: starting dose, 15 mg/day; minimum interval between dose increase, three days; maximum recommended dose, 100 mg/day; seek specialist input if considering higher doses
 - controlled-release oxycodone: starting dose, 5 mg/day; minimum interval between dose increase, three days; maximum recommended dose, 80 mg/day; seek specialist input if considering higher doses
 - buprenorphine patches: starting dose, 5 µg/hour; minimum interval between dose increase, seven days; maximum recommended dose, 20 µg/hour; seek specialist input if considering higher doses
 - a test dose of immediate-release oral morphine or oxycodone may be appropriate in frail older people before initiating sustained-release preparations
- Opioids that are not appropriate for first-line therapy are:
 - hydromorphone
 - fentanyl patches
 - methadone

headaches. A serotonin syndrome may be precipitated by tramadol itself, but it is particularly likely when tramadol is used with other serotonergic drugs, such as selective serotonin reuptake inhibitors, tricyclic antidepressants and monoamine oxidase inhibitors. Features of a serotonin syndrome include confusion, agitation, fever, sweating, ataxia, hyper-reflexia, myoclonus and diarrhoea.

Opioid analgesics

There has been an increasing trend for the use of strong opioid analgesics such as morphine, oxycodone, buprenorphine and fentanyl for the management of persistent pain in older people. Often only small doses are required, and, in general, paracetamol should be continued to minimise

the dose of opioid needed (see the box on this page). There is evidence for the efficacy, of opioid analgesics for treating patients with chronic pain conditions, including those of neuropathic origin;⁸ however, these studies have tended to be of short duration with little evidence for their long-term efficacy, particularly in older people. The mean decrease in pain intensity in these studies is in the order of 30% with about 80% of patients experiencing at least one adverse event such as constipation, nausea and somnolence. The prescriber must ensure compliance with legal requirements and regularly review the patient to ensure ongoing treatment is of benefit.

A preparation containing oxycodone and naloxone is now available in Australia.

The naloxone component reduces, but does not eliminate, opioid-induced constipation. Not all patients will benefit, but it appears useful for patients experiencing opioid-induced constipation despite standard measures.⁹

Transdermal analgesic patches offer the convenience of infrequent dosing and reduced burden of tablets. Buprenorphine and fentanyl transdermal patches are not suitable for the management of acute pain or where rapid dose titration is required. Buprenorphine transdermal patches may be used to initiate opioid therapy for persistent pain as an alternative to codeine, tramadol and low-dose oxycodone and morphine. The buprenorphine patch 5 µg/hour is approximately equivalent to morphine 10 mg oral over 24 hours.¹⁰ In contrast, fentanyl transdermal patches are very potent. The fentanyl 12 µg/hour patch is approximately equivalent to morphine 50 mg orally over 24 hours. This is too high for a starting dose, so fentanyl patches should not be commenced in patients who are not already stabilised on strong opioid analgesia.

Adjuvant agents

A number of drugs that are not primarily analgesics have been found to have a beneficial role in pain management, particularly patients with neuropathic pain. These adjuvant agents, or co-analgesics, include tricyclic antidepressants such as amitriptyline (off-label use), serotonergic-noradrenergic reuptake inhibitors such as duloxetine (indicated for the treatment of diabetic peripheral neuropathic pain) and the antiepileptic agents gabapentin and pregabalin (both indicated for the treatment of neuropathic pain). Selective serotonin uptake inhibitors have not proven to be efficacious in this role.¹¹

The advantage of the newer agents, such as gabapentin, pregabalin and duloxetine is that they are better tolerated, but not necessarily more effective. Most studies define a positive response as a 50% reduction in pain from baseline, although

a lesser reduction in pain may be considered worthwhile by the patient. These drugs rarely eliminate pain and attempting to achieve total eradication of neuropathic pain is likely to result in intolerable side effects.

Nonpharmacological approaches

There is a wide range of nonpharmacological approaches for pain that may be used individually or as an adjunct to pharmacotherapy.¹² The use of a walking aid may ease the burden on a weight-bearing joint, and domiciliary services can perform domestic and gardening tasks that aggravate the pain. Simple measures such as massage and hot packs are very popular. Exercise training including strengthening and balance exercises have general health benefits in addition to any improvement in pain. Transcutaneous electrical nerve stimulation may prove helpful and can be used for many hours per day.

Psychological strategies such as cognitive behavioural therapy, relaxation, hypnosis and guided imagery are worth considering. Increasing social activity may shift the patient's focus away from the pain. Complementary and alternative therapies are increasingly being used in western societies. Most clinical trials support the safety of these therapies rather than offering evidence of their efficacy. Trials of chondroitin and glucosamine have yielded mixed results.¹³ The potential for adverse interactions of dietary supplements and herbal therapies with prescription medications needs to be considered. Patients may not inform their doctor about the use of these medications unless specifically asked.

Patients who continue to be troubled by pain despite standard treatments should be referred to a multidisciplinary pain clinic or pain specialist.

CONCLUSION

Effective management of persistent pain in older people poses special challenges

often best managed using a multidisciplinary approach. The goals should be modified to suit the needs of the older person. Although the goals may be different from those of a younger person, the benefit to the older individual may be as great. **MT**

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