

Pain management in older people

Pain in the elderly is under-reported, under-recognised and untreated. This has significant potential consequences such as reduced quality of life, depression, social isolation and loss of function. Effective pain management in the elderly is complex and should include pharmacologic and non-pharmacologic strategies. In this article, **Dr Dylan Harris** discusses assessment and management.

Pain management in older people is a challenging area. Whilst pain is highly prevalent in this group, it is often not recognised or appropriately managed. Assessment of pain can be difficult, particularly in those with cognitive or language difficulties, and management is compounded by a greater susceptibility to adverse effects and interactions between analgesics. This article explores these challenges and highlights practical ways in which they may be overcome.

Pain: definition and type

Pain is an unpleasant sensory and emotional experience derived from sensory stimuli and modified by individual memory, expectations and emotions¹. Pain can be classified pathophysiologically (*Table 1*), but no objective biological markers of pain exist¹.

Epidemiology of pain in the elderly

Whilst acute pain probably occurs at the same rate across all age groups, there is an increased prevalence of chronic pain in older people. It is estimated that 25 to 50 per cent of community dwelling elderly report chronic pain rising to between 50 and 80 per cent in nursing home residents^{1,2,3}. In the elderly the most common sites of pain are joints and common causes are listed in

Table 2^{4,5}. Age-related changes in nociceptive function are not clearly understood and the research is conflicting^{2,4}.

Assessment

Assessment of pain in older adults is challenging and barriers to adequate recognition and assessment of pain include^{2,3,4}:

- > Atypical presentation of symptoms (including pain) in older people
- > Under-reporting of pain by older people (stoicism and the misconception that pain is a 'natural' part of ageing)
- > Impaired communication (eg, following stroke) or cognition (eg, dementia) resulting in reduced ability to articulate pain.

A comprehensive pain assessment should include a careful history, particularly the characteristics of the pain (which can be remembered as the PQRST mnemonic: Precipitating/relieving factors, Quality, Radiation, Severity/site, Temporal), and the effect of pain on mood, sleep and daily activities etc^{3,5,6}.

The presence of pain should always be asked about when evaluating the older person and even considered a fifth vital sign that is best measured by the patient^{2,3,5}. Regular reassessment is important (particularly regarding medication compliance, side effects and efficacy of therapeutic interventions).

Table 1. Classification of pain^{1,4}

| Type | Description | Examples |
|------------------|---|--|
| Nociceptive pain | Stimulation of pain receptors from tissue inflammation, mechanical deformation, ongoing injury or destruction | Inflammatory arthritis |
| Neuropathic | Abnormal processes in the nervous system as a result of nerve damage | Trigeminal neuralgia, post-herpetic neuralgia, post stroke thalamic pain |
| Mixed | Mixed or unknown mechanisms | Recurrent headaches, some vasculitic pain syndromes |
| Psychogenic pain | Psychological factors are judged to have a major role in onset, severity, exacerbation or persistence | Conversion reactions, somatoform disorders. |

Simple assessment scales such as a Verbal Rating Scale (*Table 3*) or numeric rating scales may be useful to aid assessment and follow up^{3,7}. Other scales have been developed to specifically address the issues of pain assessment in people with cognitive impairment such as the Observational Pain Behaviour Tool and the Pain Assessment in Advanced Dementia Scale (PAINAD)^{8,9}.

Physical examination should include checking for changes in vital signs and autonomic functions (a patient with severe dementia may be unable to verbally express pain but may be tachycardic as a consequence) as well as examination of the musculoskeletal system and neurological system as appropriate⁵. In patients with dementia facial grimacing, frowning or repetitive eye blinking may all be ‘signs’ of pain^{2,5}.

Management of pain in the elderly

Whilst analgesic therapy is often the principle treatment of pain in the elderly, older people are often excluded from analgesic clinical trials^{2,5}. Effective pain management in the elderly should include pharmacologic and non-pharmacologic strategies.

Non-pharmacological approaches include cognitive-behaviour therapy, education, physiotherapy, exercise and transcutaneous electrical nerve stimulation (TENS)^{2,7}.

Specific considerations when considering pharmacological therapy in pain management

include^{2,3}:

- > High frequency of adverse drug reactions in the group
- > Increased sensitivity to analgesic agents eg, opiates
- > Polypharmacy and drug-drug interactions
- > Drug-disease interactions
- > Age-associated changes in drug metabolism eg, renal clearance.

The general ‘start low and go slow’ approach to drug prescribing in the elderly is particularly relevant with analgesics². Paracetamol should be considered the drug of first choice for mild to moderate musculoskeletal pain^{2,5}.

Nonsteroidal anti-inflammatory drugs

Nonsteroidal anti-inflammatory drugs (NSAIDs) should be avoided as long-term analgesics, particularly as the risk of gastrointestinal bleeding and renal dysfunction are significantly higher in older adults compared with the younger population^{2,5}. All NSAIDs are contra-indicated in older patients with severe heart failure. In addition, selective inhibitors of cyclo-oxygenase-2 are contra-indicated in ischaemic heart disease, cerebrovascular disease and peripheral arterial disease¹⁰.

Opioids

Opioids are effective in treating moderate to severe nociceptive pain in the elderly and concerns about drug addiction are probably over-emphasised (addiction is rare among patients taking opioids for medical reasons and seems to be less common among the elderly than younger patients)^{2,5,7}.

Table 2. Commonest causes of pain in older people³

Osteoarthritis
 Post-herpetic neuralgia
 Cancer
 Peripheral vascular disease
 Trigeminal neuralgia
 Leg ulcers
 Pressure sores.

Sustained release opioids should be used for continuous pain whereas short-acting preparations should be used for breakthrough pain². Prescribing should follow a step wise approach as defined by the World Health Organisation (WHO) analgesic ladder. Opioids can cause sedation, cognitive impairment and respiratory depression. Some tolerance to these side effects develops in most (if not all) patients taking opioids yet they shouldn't drive and should take precautions to prevent falls or other accidents⁵.

Adjuvant analgesics

Adjuvant analgesics are often also used to treat chronic pain in the elderly such as anticonvulsants (eg, gabapentin) or antidepressants (eg, amitriptyline) for neuropathic pain². Efficacy between drugs is similar (number needed to treat of three) but unfortunately none of these drugs come without side effects and their implications (eg, falls secondary to drowsiness and dizziness). Drug choice should be considered carefully depending on the patient. Where amitriptyline, is considered nortriptyline may be a suitable alternative with less side effects¹⁰.

Key points

- Chronic pain is prevalent in older people and joints are the commonest site of pain.
- Osteoarthritis, cancer and post-herpetic neuralgia are amongst the commonest causes.
- Pain can be characterised by PQRST (Precipitating/relieving factors, Quality, Radiation, Severity/site and Temporal factors).
- Whilst most analgesics can be used to manage pain in the elderly, some precautions are necessary (relating to polypharmacy, drug reactions and age-associated changes in drug metabolism).

Table 3. Verbal Rating Scale

Patient chooses a word that best describes the intensity of pain

| Word | Score |
|----------|-------|
| Severe | 3 |
| Moderate | 2 |
| Slight | 1 |
| None | 0 |

Conclusion

There should be a very low threshold for enquiring about pain in older people: pain is very common among the elderly so all elderly patients should be asked about pain. Tools such as the PQRST mnemonic and the Verbal Descriptor Scale can be useful to characterise pain. Whilst non-steroidals, opiates and adjuvant analgesics can all be used in the elderly, some specific cautions and a 'start low go slow' approach is required. Paracetamol should be considered as the drug of initial first choice and non-pharmacological treatment should be incorporated into management wherever possible.

Conflict of interest: none declared.

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